Maryland Stadium Authority

Request for Proposals

Code Consulting Services

Razing and Replacement of the Department of Legislative Services Building

Issue Date: April 12, 2021

KEY INFORMATION SUMMARY SHEET

MARYLAND STADIUM AUTHORITY

Request for Proposals
Code Consulting Services
Razing and Replacement of the
Department of Legislative Services Building

RFP Issue Date:	April 12, 2021
Procurement Officer:	Yamillette C. Waite Maryland Stadium Authority 351 West Camden Street, Suite 300 Baltimore, Maryland 21201 Office Phone: (443) 602-0681 E-mail: ywaite@mdstad.com
Procurement Method:	Competitive Sealed Proposals
MBE Participation Goal:	10% overall, no subgoals
Pre-Proposal Conference:	**April 16, 2021 at 11:00 a.m. (Local Time)** Web Pre-proposal (See Section 1.6)
Closing Date and Time Technical Proposals:	**May 7, 2021 at 1 p.m. (Local Time)**

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SECTION 1

GENERAL INFORMATION

1.1 Summary Statement

The Department of Legislative Services (**"DLS"**) has engaged the Maryland Stadium Authority (**"MSA"**) to oversee and manage the razing and replacement of its headquarters building in Annapolis, Maryland (hereinafter the **"Project"**). MSA has engaged an Architectural/Engineering (**"A/E"**) firm to produce Programming and Conceptual Design documents. Links to these documents are included in **Attachment C.**

Through this solicitation, MSA is seeking a highly qualified Code Consulting Services firm ("**Consultant**") to provide third-party plan review and third-party inspection services (collectively referred to as the "**Services**") described in Sections 3 and 4 of this Request for Proposals (the "**RFP"**).

1.2 Abbreviations and Definitions

For purposes of this RFP, the following abbreviations and terms have the meanings indicated below:

a. **Agreement -** The Agreement is the contract entered into between MSA and the selected Offeror. For purposes of this RFP, the terms Agreement and Contract are used interchangeably. Please see the definition for Contract in Section 1.2.f.

b. **Architect/Engineer or A/E** – The team of architects, engineers, and other professional A/Es required and assembled to perform the feasibility studies and/or design and construction administration services associated with the Project. The selected A/E firm is Murphy & Dittenhafer, Inc.

c. **COMAR** – Code of Maryland Regulations (available at http://www.dsd.state.md.us).

d. **Consultant** – The Offeror selected to provide the Services pursuant to the requirements of this RFP.

e. **Construction Manager (hereinafter "CM")** – The construction management firm(s) selected to provide pre-construction and construction management services for the Project.

f. **Contract** - The Contract (may also be referred to as "Agreement") entered into between MSA and the selected Offeror. The Contract will include all general MSA terms and conditions, and will incorporate the

entire RFP, including any addenda to the RFP, and all or indicated portions of the selected Offeror's technical and financial proposals. A sample Contract is attached hereto as **Attachment G**.

g. **DLS** - Department of Legislative Services (http://dls.maryland.gov/).

h. **eMMA** - eMaryland Marketplace Advantage (https://emma.maryland.gov/).

i. **Local Time** – Time in the Eastern Time Zone as observed by the State.

j. **MBE** –Minority Business Enterprise certified by the Maryland Department of Transportation ("MDOT").

k. **MSA** – Maryland Stadium Authority (see website here: http://www.mdstad.com)

l. **MSA Business Hours** – 8:30 A.M. to 5:00 P.M., local time, Monday through Friday, excluding State holidays and official State closures.

m. **MSA Procurement Policies** – MSA procurement policies and procedures (available at http://www.mdstad.com).

n. **Notice to Proceed ("NTP")** – A formal notification issued by the Procurement Officer that directs the successful Offeror to perform work and establishes the date on which the work is to commence on the Project.

o. **Offeror** - An individual or entity, regardless of legal status, or organization that submits a Proposal in response to this RFP. The Offeror is the individual or entity that will be executing the Contract with MSA.

p. **Procurement Officer ("PO")** – The MSA representative responsible for this RFP. MSA may change the Procurement Officer at any time and will provide written notice to the Offerors if any such change occurs.

q. **Project** – The Razing and Replacement of the Department of Legislative Services Building.

r. **Project Manager ("PM")** – The MSA representative that is primarily responsible for monitoring the daily activities associated with, and providing technical guidance for the Project. The Project Manager is the point of contact post-award by whom work will be assigned and to whom invoices will be submitted. MSA may change the PM at any time by written notice to the Offerors or, if post award, the Consultant.

s. **Project Team** – Includes MSA, DLS, Murphy & Dittanhafer, and any firm, entity or government agency MSA may engage.

t. **Proposal** - The submission provided by Offerors in response to this RFP.

u. **Proposal Closing Date** – The date and time, as indicated in the Key Information Summary Sheet and Section 1.10.

v. **RFP** - This Request for Proposals.

w. **Selection Committee**- The persons responsible for evaluating the Proposals and oral presentations, and recommending to the Procurement Officer which Offeror to select as the Consultant.

x. **State** - The State of Maryland.

1.3 Contract Type

The Contract that results from this RFP will include a fixed fee for professional services, a not-to-exceed allowance for certain reimbursable expenses, and a contingency amount to be used by MSA in its sole discretion. After execution, the maximum Contract amount shall not be exceeded without the required Contract modification.

1.4 Contract Duration

The term of the Contract will be for a period necessary to complete the scope of work and as agreed upon by MSA and the Consultant.

1.5 Procurement Officer

The sole point-of-contact for purposes of this RFP is the Procurement Officer listed below:

Yamillette C. Waite
Maryland Stadium Authority
351 West Camden Street, Suite 300
Baltimore, Maryland 21201
Telephone: 443-602-0681
Email: ywaite@mdstad.com

MSA may change the Procurement Officer at any time and will provide written notice to the Offerors if any such change occurs.

1.6 Pre-Proposal Conference

A virtual pre-proposal conference ("Conference") will be held on **April 16, 2021 at 11:00a.m. (Local Time)**. Please use the link below to register:

https://us02web.zoom.us/meeting/register/tZ0qf-CvqzsiGdNQrAAvKv9pBCFQUdLUXjHc

1.7 Project Manager

The Project Manager is:

Matthew Bodt
Maryland Stadium Authority
351 West Camden Street, Suite 300
Baltimore, Maryland 21201

MSA may substitute the PM at any time. Prior to Contract award, written notice of any substitution will be provided to Offerors and, if post award, to the Consultant.

1.8 e-Maryland Marketplace Advantage ("eMMA")

In order to receive a Contract award, a vendor must be registered on eMMA. Registration is free. Go here to register: https://procurement.maryland.gov Click on "New Vendor? Register Now" to begin the process and follow the prompts.

1.9 Questions

Questions regarding this RFP shall be submitted electronically in Word or PDF format via the following upload link no later than **on April 22, 2021 at 1:00 p.m. (Local Time)**:

https://mdstad.sharefile.com/r-r8252845fbc994dd6a01b35590ab36de1

Please include information regarding the name of the firm, representative's name, and contact information. Based on the availability of time to research and communicate an answer, the Procurement Officer will decide whether an answer can be given before the proposal closing date. Answers to all substantive questions that have not previously been answered, and are not clearly specific to the requestor, will be provided via addendum.

1.10 Technical Proposals - Closing Date and Time

To be considered, Technical Proposals must be uploaded to the following link no later than **May 7, 2021 at 1:00 p.m. (Local Time)**:

https://mdstad.sharefile.com/r-r9d8c09e7906e4c94aa97e5aeb18533fd

Requests for extension of this date and/or time will not be granted. Offerors should allow sufficient electronic transmission time to ensure timely receipt of their proposals. Proposals received by MSA after the deadline will not be considered. Proposals will not be reviewed publicly.

1.11 Virtual Oral Presentations

MSA reserves the right to conduct virtual oral presentation. In the event that MSA exercises its right, short-listed Offerors will be required to make virtual oral presentations to the Selection Committee. Significant representations made by an Offeror during their oral presentation must be confirmed in writing. All such representations will become part of the Offeror's Proposal and are binding if a Contract is awarded as a result of this RFP. Oral Presentations are to be held on June 3 and 4, 2021. In your Technical Proposal, please state your availability for the dates provided. Typically, oral presentations will follow a specified format and generally be limited to 45 minutes [30 minutes for the presentation and 15 minutes for questions]. The Procurement Officer will notify the short-listed Offerors with details and instructions prior to the presentation.

The presentation must consist of, but not be limited to, a discussion of the Offeror's specific approach to the project, understanding of the scope of work, and how it intends to execute the work within schedule and budget.

1.12 Duration of Offer

Proposals submitted in response to this RFP are irrevocable for **180 days** following the closing date for proposals, the deadline for the submission of Best and Final Offers ("BAFO"), if requested, or the date any protest concerning this RFP is finally resolved. This period may be extended at the Procurement Officer's request only with the Offeror's written agreement.

1.13 Offeror's Affidavits

a. Bid/Proposal Affidavit. Each Offeror shall complete and submit the Bid/Proposal Affidavit attached hereto as **Attachment A** with the Offeror's Technical Proposal.

b. Contract Affidavit. A successful Offeror will be required to complete a Contract Affidavit in the form attached hereto as **Attachment B** and

provide to MSA within 5 business days after notification of proposed recommendation of award of the Agreement. An executed Contract Affidavit should not be submitted with an Offeror's Proposal.

1.14 Acceptance of Terms and Conditions

By submitting a Proposal, the Offeror if selected for award, shall be deemed to have accepted all of the terms and conditions set forth in this RFP including all attachments.

1.15 Procurement Method

This procurement is being conducted via the Competitive Sealed Proposals process pursuant to Section 3 (C) of MSA's Procurement Policies.

1.16 Arrearages

By submitting a response to this RFP, an Offeror represents that it is not in arrears in the payment of any obligations due and owing the State of Maryland, including, by way of example only, the payment of taxes and employee benefits, and that it will not become so in arrears during the term of the Contract if selected for Contract award.

1.17 Revisions to the RFP

a. If the RFP is revised before the Proposal Closing Date, MSA shall post any addenda to the RFP on eMMA and MSA's website and shall endeavor to provide such addenda to all prospective Offerors that were sent this RFP or are otherwise known by the Procurement Officer to have obtained this RFP. It remains the responsibility of all prospective Offerors to check eMMA and MSA's website for any addenda issued prior to the Proposal Submission Deadline.

b. Acknowledgment of the receipt of all addenda to this RFP issued before the Proposal Closing Date shall be included in the Transmittal Letter accompanying the Offeror's Technical Proposal.

c. Addenda made after the Proposal Closing Date will be sent only to those Offerors that remain under award consideration as of the issuance date of the addenda.

d. Acknowledgement of the receipt of addenda to the RFP issued after the Proposal Closing Date shall be in the manner specified in the addendum notice.

e. Failure to acknowledge receipt of an addendum does not relieve the Offeror from complying with the terms, additions, deletions, or corrections set forth in the addendum, and may cause the Proposal to be

deemed not reasonably susceptible of being selected for award.

1.18 Cancellations; Discussions

MSA reserves the right to cancel this RFP, to accept or reject any and all proposals, in whole or in part, received in response to this RFP, to waive or permit cure of minor irregularities, and to conduct discussions with any or all qualified or potentially qualified Offerors in any manner necessary to serve the best interests of MSA. This may be followed by submission of Offeror-revised Proposals and "BAFO" request. MSA also reserves the right, in its sole discretion, to award a Contract based upon written proposals received, without prior discussions or negotiations.

1.19 False Statements

MSA incorporates by reference the provisions of Section 11-205.1 of the State Finance and Procurement Article of the Annotated Code of Maryland regarding truthfulness in the information included in the Contract documents. Offeror shall comply with the obligations set forth therein, including, without limitation, the following:

a. In connection with a procurement Contract, a person may not willfully:

   1. Falsify, conceal, or suppress a material fact by any scheme or device;

   2. Make a false or fraudulent statement or representation of a material fact; or

   3. Use a false writing or document that contains a false or fraudulent statement or entry of a material fact.

b. A person may not aid or conspire with another person to commit an act under subsection of this section.

c. A person who violates any provision of this section is guilty of a felony and on conviction is subject to a fine not exceeding $20,000 or imprisonment not exceeding five years or both.

1.20 Minority Business Enterprise

Minority Business Enterprises are encouraged to respond to this solicitation.

a. An overall MBE subcontractor participation goal as identified in the Key Information Summary Sheet has been established for this procurement, representing a percentage of the total contract dollar value, including all renewal option terms, if any. MBE goals for the construction phase will be determined prior to the bidding phase. All subcontractors named by the Offeror as part of their MBE Schedule must be certified with the

Maryland Department of Transportation (MDOT).

b. Notwithstanding any subgoals established for this RFP, the Contractor is encouraged to use a diverse group of subcontractors and suppliers from any/all of the various MBE classifications to meet the remainder of the overall MBE participation goal.

c. By submitting a response to this solicitation, the Offeror acknowledges the overall MBE subcontractor participation goal and subgoals and commits to achieving the overall goal and subgoals by utilizing certified minority business enterprises, or requests a full or partial waiver of the overall goal and subgoals.

   An Offeror that does not commit to meeting the entire MBE participation goal must submit a request for waiver with its proposal submission that is supported by good faith efforts documentation to meet the MBE goal made prior to submission of its proposal as outlined in **Attachment D-1B**, Waiver Guidance. Failure of an Offeror to properly complete, sign, and submit **Attachment D-1A** at the time it submits its technical Proposal may result in the rejection of the Proposal and the Offeror being deemed not reasonably susceptible of being selected for award.

d. Attachments

   a. D-1 to D-5 – The following Minority Business Enterprise participation instructions, and forms are provided to assist Offerors:

      - Attachment D-1A MBE Utilization and Fair Solicitation Affidavit & MBE Participation Schedule (must be submitted with Proposal)
      - Attachment D-1B Waiver Guidance
      - Attachment D-1C Good Faith Efforts Documentation to Support Waiver Request
      - Attachment D-2 Outreach Efforts Compliance Statement
      - Attachment D-3A MBE Subcontractor Project Participation Certification
      - Attachment D-3B MBE Prime Project Participation Certification
      - Attachment D-4A Prime Contractor Paid/Unpaid MBE Invoice Report
      - Attachment D-4B MBE Prime Contractor Report
      - Attachment D-5 Subcontractor Paid/Unpaid MBE Invoice Report

   b. The Offeror shall include with its Proposal a completed MBE Utilization and Fair Solicitation Affidavit (**Attachment D-1A**) whereby:

1. The Offeror acknowledges the certified MBE participation goal and commits to make a good faith effort to achieve the goal and any applicable subgoals, or requests a waiver, and affirms that MBE subcontractors were treated fairly in the solicitation process; and
2. The Offeror responds to the expected degree of MBE participation, as stated in the solicitation, by identifying the specific commitment of certified MBEs at the time of Proposal submission. The Offeror shall specify the percentage of total contract value associated with each MBE subcontractor identified on the MBE participation schedule, including any work performed by the MBE prime (including a prime participating as a joint venture) to be counted towards meeting the MBE participation goals.
3. The Offeror requesting a waiver should review **Attachment D-1B** (Waiver Guidance) and **D-1C** (Good Faith Efforts Documentation to Support Waiver Request) prior to submitting its request.

c. If the Offeror fails to submit a complete Attachment D-1A with the technical proposal as required, the Procurement Officer may deem the Proposal not reasonably susceptible of being selected for award.

d. Offerors are responsible for verifying that each MBE (including any MBE prime and MBE prime participating in a joint venture) selected to meet the goal and any subgoals and subsequently identified in Attachment D-1A is appropriately certified by the Maryland Department of Transportation and has the correct NAICS codes allowing it to perform the committed work.

e. Within ten (10) business days from notification that it is the recommended awardee or from the date of the actual award, whichever is earlier, the Offeror must provide the following documentation to the Procurement Officer:

1. Outreach Efforts Compliance Statement (**Attachment D-2**);
2. MBE Subcontractor/Prime Project Participation Certification (**Attachment D-3A/3B**); and
3. Any other documentation required by the Procurement Officer to ascertain Offeror responsibility in connection with the certified MBE subcontractor participation goal or any applicable subgoals.
4. Further, if the recommended awardee believes a waiver (in whole or in part) of the overall MBE goal or of any applicable subgoal is necessary, the recommended awardee must submit a fully-documented waiver request that complies with COMAR 21.11.03.11. If the recommended awardee fails to return each completed document within the required time, the Procurement Officer may determine that the recommended awardee is not

responsible and, therefore, not eligible for Contract award. If the Agreement has already been awarded, the award is voidable.

f. A current directory of certified MBEs is available through the Maryland State Department of Transportation (MDOT), Office of Minority Business Enterprise, 7201 Corporate Center Drive, Hanover, Maryland 21076. The phone numbers are (410) 865-1269, 1-800-544-6056, or TTY (410) 865-1342. The directory is also available on the MDOT website at http://mbe.mdot.maryland.gov/directory/. The most current and up-to-date information on MBEs is available via this website. Only MDOT-certified MBEs may be used to meet the MBE subcontracting goals.

g. An Offeror that requests a waiver of the goal or any of the applicable subgoals will be responsible for submitting the Good Faith Efforts Documentation to Support Waiver Request (**Attachment D-1C**) and all documentation within ten (10) business days from notification that it is the recommended awardee or from the date of the actual award, whichever is earlier, as required in COMAR 21.11.03.11.

h. All documents, including the MBE Utilization and Fair Solicitation Affidavit & MBE Participation Schedule (**Attachment D-1A**), completed and submitted by the Offeror in connection with its certified MBE participation commitment shall be considered a part of the Agreement and are hereby expressly incorporated into the Agreement by reference thereto. All of the referenced documents will be considered a part of the Proposal for order of precedence purposes.

i. The Offeror is advised that liquidated damages will apply in the event the Contractor fails to comply in good faith with the requirements of the MBE program and pertinent Contract.

1.21 Incurred Expenses; Economy of Preparation

MSA will not be responsible for any costs incurred by an Offeror in preparing and submitting a proposal, making an oral presentation, providing a demonstration or performing any other activities related to this RFP. Proposals should be prepared simply and economically, providing a straightforward, concise description of how the Offeror proposes to meet the requirements of this RFP.

1.22 Protests/Disputes

Any protest or dispute related to this RFP or a resulting Agreement shall be subject to Section 10 of MSA's Procurement Policies and Procedures and the relevant provisions of the Agreement.

1.23 Public Information Act Notice

a. The Offeror should give specific attention to the clear identification of those portions of its Proposal that it considers confidential and/or proprietary commercial information or trade secrets, and provide justification why such materials, upon request, should not be disclosed by MSA under the Public Information Act, Md. Code Ann., General Provisions Article, Title 4 Offerors are advised to read carefully the requirements set forth in Section 4.e(b) herein regarding identification of confidential or proprietary information. (See also RFP Section 1.31 "Confidentiality").

b. This information should be identified by page and section number and placed after the Title Page and before the Table of Contents in the Technical Proposal and if applicable, separately in the Financial Proposal.

c. Offerors are advised that, upon request for this information from a third-party, the Procurement Officer is required to make an independent determination whether the information must be disclosed.

1.24 Offeror Responsibilities

a. The Offerors shall be able to provide all goods and services required by this RFP and the successful Offeror shall be responsible for Agreement performance including any subcontractor participation.

b. All subcontractors must be identified, and a complete description of their roles relative to the Proposal must be included in the Offeror's Proposal. If applicable, subcontractors utilized in meeting the established MBE participation goal(s) for this solicitation shall be identified as provided in the appropriate attachment(s) to this RFP (see Section 1.20 "Minority Participation Enterprise").

c. If an Offeror is the subsidiary of another entity, all information submitted by the Offeror including but not to, references and financial reports, or experience and documentation (e.g. insurance policies, bonds, letters of credit) used to meet the minimum qualifications, if any shall pertain exclusively to the Offeror, unless the parent organization will guarantee the performance of the subsidiary. If applicable, the Offeror's Proposal shall contain an explicit statement, signed by an authorized representative of the parent entity, stating that the parent entity will guarantee the performance of the subsidiary.

d. A performance guarantee by a parent entity of the Offeror under this section will not automatically result in crediting the Offeror with the experience or qualifications of the parent under any evaluation criteria pertaining to the actual Offeror's experience and qualifications. Instead, the Offeror will be evaluated on the extent to which MSA determines that

the experience and qualifications of the parent are applicable to and shared with the Offeror, any stated intent by the parent to be directly involved in the performance of the Agreement, and the value of the parent's participation as determined by MSA.

1.25 Patents, Copyrights, and Intellectual Property

a. If the Consultant furnishes any design, device, material, process or other item that is covered by a patent or copyright or that is proprietary to or a trade secret of another, it shall obtain the necessary permission or license to permit MSA to use such item.

b. The Consultant will defend or settle, at its own expense, any claim or suit against MSA alleging that any such item furnished by the Consultant infringes any patent, trademark, copyright, or trade secret. If a third party claims that a product infringes that party's patent, trademark, copyright or trade secret, the Consultant will defend MSA against that claim at the Consultant's expense and will pay all damages, costs, and attorney's fees that a court finally awards, provided MSA: (i) promptly notifies Consultant in writing of the claim; and (ii) allows the Consultant to control, and cooperates with the Consultant in, the defense and any related settlement negotiations. The obligations of this paragraph are in addition to those stated in the next paragraph.

c. If any product(s) furnished by the Consultant become, or in the Consultant's opinion is/are likely to become, the subject of a claim of infringement, the Consultant will, at its option and expense: (i) procure for MSA the right to continue using the applicable item; (ii) replace the product with a non- infringing product substantially complying with the item's specifications; or (iii) modify the item so that it becomes non-infringing and performs in a substantially similar manner to the original item.

1.26 Non-Availability of Funding

If the General Assembly fails to appropriate funds or if funds are not otherwise made available for continued performance for any fiscal period of a Contract succeeding the first fiscal period, the Contract shall be canceled automatically as of the beginning of the fiscal year for which funds were not appropriated or otherwise made available; provided, however, that this will not affect the rights of the Consultant and/or MSA under any termination clause in the Contract. The effect of termination of the Contract hereunder will be to discharge the Consultant, and MSA from future performance of the Contract, but not from their rights and obligations existing at the time of termination. The Consultant shall be reimbursed for the reasonable value of any nonrecurring costs incurred but not amortized in the price of the Contract. MSA shall notify the Consultant as soon as it has knowledge that funds may not be available for the continuation of the Contract for each

succeeding fiscal period beyond the first.

1.27 Financial Disclosure

The Consultant shall comply with Section 13-221 of the State Finance and Procurement Article of the Annotated Code of Maryland, which requires that every person that enters into Contracts, leases, or other agreements with the State or its agencies during a calendar year under which the business is to receive in the aggregate, $100,000 or more, shall, within 30 days after the aggregate value of these Contracts, leases or other agreements reaches $100,000, file with the Secretary of the State of Maryland certain specified information to include disclosure of beneficial ownership of the business.

1.28 Non-Exclusive Use

Neither this RFP nor any resulting Contract shall be construed to require MSA to use any Offeror or exclusively use the Consultant for the services described in this RFP. MSA reserve the right to obtain services of any nature from other sources when it is in the best interest of MSA to do so and without notice to any party. MSA makes no guarantees that it will purchase any products or services from the Consultant resulting from this RFP.

1.29 Sustainability Policies

MSA is committed to procuring all supplies, services, maintenance, construction, and architect-engineer services in a manner consistent with the promotion of sound environmental practices.

1.30 Payments by Electronic Fund Transfer

By submitting a response to this RFP, the Offeror agrees to accept payments by electronic funds transfer (EFT) unless the State Comptroller's Office grants an exemption from this method of payment. The awarded CM shall register using the COT/GAD X-10 Vendor Electronic Funds Transfer (ETF) Registration Request form. MSA will provide the required EFT forms to the awarded Offeror. Requests for exemption are strictly the responsibility of the awarded CM.

1.31 Confidentiality

Subject to the Maryland Public Information Act and any other applicable laws, all confidential or proprietary information and documentation relating to either party to a Contract resulting from this RFP (including without limitation any information or data stored within the Consultant's computer systems) shall be held in absolute confidence by the other party. Each party shall, however, be permitted to disclose relevant confidential information to its officers, agents, and employees to the extent that such disclosure is necessary for the performance of their duties under the Contract, provided

that the data may be collected, used, disclosed, stored, and disseminated only as provided by and consistent with the law. The provisions of this section shall not apply to information that (a) is lawfully in the public domain; (b) has been independently developed by the other party without violation of the Contract; (c) was already in the possession of such party; (d) was supplied to such party by a third-party lawfully in possession thereof and legally permitted to further disclose the information; or (e) such party is required to disclose by law.

1.32 Loss of Data

In the event of loss of any MSA data or records where such loss is due to the intentional act or omission or negligence of the Consultant or any of its subconsultants or agents, the Consultant shall be responsible for recreating such lost data in the manner and on the schedule set by the Procurement Officer. The Consultant shall ensure that all data is backed up and recoverable by the Consultant.

1.33 Non-Hiring of Employees

No official or employee of the State, as defined in State Government Article, § 15-102, Annotated Code of Maryland, whose duties as such official or employee include matters relating to or affecting the subject matter of this procurement, shall, during the pendency and term of a resulting Contract, and while serving as an official or employee of the State, become or be an employee of the Consultant or any entity that is a subconsultant on said Contract.

1.34 Nondiscrimination in Employment

The Consultant agrees: (a) not to discriminate in any manner against an employee or applicant for employment because of race, color, religion, creed, age, sex, marital status, sexual orientation, national origin, ancestry, or disability of a qualified individual with a disability; (b) to include a provision similar to that contained in subsection (a) above in any subcontract except a subcontract for standard commercial supplies or raw materials; and (c) to post, and to cause subconsultants to post, in conspicuous places available to employees and applicants for employment, notices setting forth the substance of this clause.

1.35 Contingent Fee Prohibition

The Consultant warrants that it has not employed or retained any person, partnership, corporation, or other entity, other than a bona fide employee, bona fide agent, bona fide salesperson or commercial selling agency working for the Consultant, to solicit or secure a Contract, and that it has not paid or agreed to pay any person, partnership, corporation, or other entity, other than a bona fide employee, bona fide agent, bona fide salesperson or

commercial selling agency, any fee or other consideration contingent on the making of a Contract.

1.36 Political Contribution Disclosure

The Consultant shall comply with Election Law Article, §§14-101 to 14-108, Annotated Code of Maryland, which requires that every person that enters into Contracts, leases, or other agreements with the State, a county, an incorporated municipality, or its agencies, during a calendar year in which the person receives in the aggregate $100,000 or more, shall file with the State Board of Elections a statement disclosing contributions in excess of $500 made during the reporting period to a candidate for elective office in any primary or general election. The statement shall be filed with the State Board of Elections (1) before a purchase or execution of a lease or Contract by the State, a county, an incorporated municipality, or their agencies, and shall cover the preceding two calendar years; and (2) if the contribution is made after the execution of a lease or Contract, then twice a year, throughout the Contract term, on: (a) February 5, to cover the 6-month period ending January 31; and (b) August 5, to cover the 6-month period ending July 31.

1.37 Verification of Registration and Tax Payment

Before a corporation can do business in the State, it must be registered with the Department of Assessments and Taxation, State Office Building, Room 803, 301 West Preston Street, Baltimore, Maryland 21201. It is strongly recommended that any potential Offeror complete registration prior to the closing date for receipt of Proposals. An Offeror's failure to complete registration with the Department of Assessments and Taxation may disqualify an otherwise successful Offeror from final consideration and recommendation for Contract award.

1.38 MBE and Prevailing Wage Compliance System

As part of MSA's commitment to assist firms in complying with legal and Contractual requirements, MSA maintains a web-based MBE and prevailing wage compliance system. The system was designed to provide various work-flow automation features that improve the project reporting process. This system will monitor Contract compliance for all Program Contracts. The prime firm, its first-tier consultants, and all MBE participation subconsultants awarded Contracts will be required to use the web-based system to submit project information including, but not limited to, certification of payments made and received and certified payroll records (if the Contract includes prevailing wage and/or workforce development requirements). MSA may require additional information related to the Contract to be provided electronically through the system at any time before, during, or after Contract award.

1.39 Maryland Law

This RFP shall be construed, interpreted, and enforced according to the laws of the State of Maryland.

1.40 Insurance Requirements

During the Initial Term, any Renewal Term, and any other renewal or extension of the term of this Agreement, Consultant shall obtain, maintain, and provide satisfactory evidence of insurance coverage satisfying at least the minimum requirements set forth in Exhibit 8 of **Attachment F**.

SECTION 2

OFFEROR'S MINIMUM QUALIFICATIONS

2.1 Qualifications

At a minimum, the Offeror shall meet the following qualifications to be considered for award:

a. The Offeror shall be a firm specializing in providing code consulting services and have experience applying federal, state, and local codes applicable to the Project when reviewing, interpreting, inspecting and approving Project related items to ensure compliance with said codes;

b. Have significant experience participating in all phases of a project, including design review, submittal review, construction inspection and final report sign-off;

c. Have significant experience in providing code consulting services for renovation and replacement projects of large scale public gathering venues;

d. Have the ability to manage multiple projects in various stages of design and construction simultaneously; and

e. Demonstrate a minimum of five (5) years of experience in providing code consulting services and code inspection services.

SECTION 3

PURPOSE AND SCOPE OF WORK

3.1 Purpose

MSA is issuing this RFP to contract with a highly qualified code consulting services firm to provide third-party plan review and third-party inspection services necessary to complete the Project.

For purposes of this solicitation, "Third-Party Plan Review" and "Third-Party Inspection" have the following meanings:

a. Third-Party Plan Review is defined as the review of Construction Documents (plans and specifications) in order to ensure that the Construction Documents are in compliance with the applicable structural, civil, architectural, plumbing, mechanical/HVAC, elevator, and electrical building codes and standards. Plan Review services include all coordination (including phone calls, emails, written documentation, and meetings) and collaboration with the Project Team and Authorities having jurisdiction as required to certify the Code Compliance of the Construction Documents.

b. Third-Party Inspection is defined as field inspection of new construction, renovations, additions, alterations, and repairs in order to certify to the MSA that such work has been constructed in compliance with the applicable building codes and Construction Documents. Inspection services include all coordination (including phone calls, emails, written documentation, and meetings) and collaboration with the Project Team and Authorities having jurisdiction as required to certify the Code Compliance of the installation of building materials.

MSA is the final arbiter of code modification/variance issues related to both third-party plan review and third-party inspection services, but will rely heavily on the Consultant to ensure full code compliance. Prior to building occupancy, the Consultant will be required to submit a Final Inspection Report to MSA affirming that the completed facility is in compliance with all applicable local codes and that the facility is safe to occupy.

3.2 Scope of Services

a. Third-Party Plan Review

The scope of work for third-party plan review shall include reviewing and analyzing Construction Documents at the intervals identified in the "Milestone Schedule" section below to confirm compliance with applicable federal, state and local codes including, but not limited to the following:

1. Applicable Codes***:***

    i. Maryland Building Performance Standards/March 2019
    ii. International Building Code/2018
    iii. National Electrical Code/2017
    iv. International Fuel Gas Code/2018
    v. International Mechanical Code/2018
    vi. International Plumbing Code/2018
    vii. International Property Maintenance Code/2018
    viii. International Energy Conservation Code/2018
    ix. Maryland Accessibility Code/2019

2. Americans with Disabilities Act*:* Plan Reviews include full compliance with the *Americans with Disabilities Act (ADA)* as it applies to the Projects. Reference the *ADA Accessibility Guidelines for Buildings and Facilities*, the *Maryland Accessibility Code*, and the *International Building Code* for specific project requirements. Accessibility for project site and facilities will be developed in accordance with these guidelines for new construction projects, additions, alterations, renovations, and historic preservation work.

3. Milestone Schedule and Scope of Work: Specific dates will be established by the Project Team. Third-Party Plan Review schedule requirements include the following:

    i. 100% Design Development Submission – Conduct a preliminary code review of the 100% Design Development submission to ensure compliance with the applicable building codes, discuss any code issues, discuss submission requirements, and to coordinate delivery of any Early Release Packages. The project schedule will account for a two-week review and comment period.
    ii. 50% Construction Document Submission – Review and analyze the 50% Construction Document submission to ensure incorporation of corrections and comments made as part of the Design Development review and ensure code compliance for any new elements incorporated into the design since the previous review. Two weeks are allocated for the Consultant's review of the 50% Construction Document submission and the A/E Team's response for incorporation into the 75% CD submission. Any remaining Code Compliance comments will be incorporated into the 100% CD's.
    iii. 100% Construction Document Submission – Review and verify that all comments from previous document reviews have been incorporated into the 100% Construction Documents. Certify that the design is in conformance with all applicable ADA requirements. Upon verification, the Consultant shall provide

written certification of compliance along with three (3) full sets of 100% Construction Documents (drawings furnished by the A/E Team) with each drawing page signed and sealed.

Early Packages - The Projects may require early release packages in order to maintain the project schedule. Review of early packages are considered to be part of the base scope of work and are therefore not eligible for reimbursement of additional costs.

4. Plan Review Disciplines: Plan Review Services shall include plans and specifications for the following disciplines:

   i. Architectural (inclusive of ADA compliance evaluation)
   ii. Structural (includes review of the Geotechnical Report)
   iii. Civil (excludes erosion & sediment control) Plumbing
   iv. Mechanical/HVAC
   v. Electrical
   vi. Elevator

5. Other Agency Reviews: Agency reviews, scheduled by MSA, outside of the Third-Party Plan Reviews include, but not limited to, the following:

   i. Maryland State Fire Marshal
   ii. Maryland State Department of the Environment

b. Third-Party Inspections

1. Third-party inspection is required during the construction phase.

2. Consultant shall assume performing 275 inspection hours across the various disciplines. On-site inspections will be performed on an as-needed basis during construction operations to confirm compliance with the 100% Construction Documents. Additional inspections may be requested by MSA if deemed necessary. The Third-Party Inspector will provide a response time of 48 hours (2 business days) or less upon MSA's request for additional inspection. The Inspector shall provide a written report certifying conformance with the Contract Documents within 2 business days of the visit. The Consultant shall notify MSA of any observed non-conformance items within 24 hours of the site visit.

3. Schedule: Third-Party Inspections will be scheduled by the Construction Manager in conjunction with MSA. The Consultant will perform inspections during the designated construction periods for each location. A Detailed CPM construction schedule will be provided by the Construction Manager. Once notification for a field inspection

is provided by the Construction Manager, the Third-Party Inspector shall provide a response time of 48 hours (2 business days) or less.

4. Inspection Disciplines: Third-Party Inspection Services will include inspections of the following building systems:

    i. Architectural (inclusive of ADA compliance)
    ii. Civil Construction
    iii. Plumbing
    iv. Mechanical/HVAC (including any Boiler and Pressure Vessel Safety Inspection as required by the State of Maryland Division of Labor and Industry Boiler and Pressure Vessel Safety)
    v. Electrical (including any Baltimore Gas and Electric required inspections)
    vi. Building Construction
    vii. Elevators
    viii. Fire-stopping

SECTION 4

PROPOSAL SUBMISSION AND REQUIREMENTS

4.1 Solicitation Process

The solicitation will follow a multi-step process to select the successful Offeror.

1. Step 1– Submission of Technical Proposal

   Offerors will submit a technical Proposal in accordance with Section 4.3 to demonstrate their experience (including meeting the minimum requirements and ability to execute the Project successfully). Upon receipt of the technical Proposals, proposals will be reviewed and those deemed responsible and reasonably susceptible of being selected for award will be reviewed by the Selection Committee. Offerors must respond to all requirements of the RFP. Offerors that fail to do so shall be deemed not reasonably susceptible of being selected for award.

2. Step 2 – Review of Technical Proposals

   The Selection Committee will review technical Proposals and rank the Proposals according to technical merit. Based on their achieved technical rankings, selected Offerors will be "short-listed" to participate in the oral presentation phase of the procurement.

3. Step 3 –Short-list and Oral Presentation

   Short-listed Offerors will be asked to attend a virtual oral presentation. Offerors that are not short-listed will be notified that they are not reasonably susceptible of being selected for award.

4. Step 4 – Selection for the Financial Proposal Phase

   After oral presentations and based on achieved rankings, the Selection Committee will select which short-listed firms will be requested to submit a financial Proposal. Offerors that are not short-listed will be notified that they are not reasonably susceptible of being selected for award.

5. Step 5 – Recommendation for Award

   The Offeror deemed to provide the best value (Technical and Financial) to the Project by the Selection Committee will be recommended for award.

4.2 Instruction for Submission of Proposals– General Requirements

Offerors shall submit proposals labeled "**Request for Proposals - Code**

Consulting Services – Razing and Replacement of the Department of Legislative Services Building – Volume I – Technical Proposal". All pages of each proposal volume must be consecutively numbered from beginning (Page 1) to end (Page "x"). The final page shall state "Final Page".

Technical proposals shall be uploaded electronically to the link provided in Section 1.9 of the RFP, as revised by any addendum. **The electronic submissions (formatted as .pdf file) shall include the firm's name in the file name and shall be formatted so each page can be legibly printed in 8 ½" x 11" format.**

4.3 Volume I - Technical Proposal

This section provides specific instructions for submission of the Offeror's Technical Proposal. The Technical Proposal shall follow the format provided below.

a. Transmittal Letter

A transmittal letter must accompany the Technical Proposal. The purpose of this letter is to transmit the proposal to the Procurement Officer. The transmittal letter should be brief, and signed by an individual who is authorized to commit the Offeror to the services and requirements as stated in the RFP.

b. Title and Table of Contents

The Technical Proposal shall begin with a title page bearing the name and address of the Offeror, point of contact information (including e- mail address), and the name of this RFP. A table of contents for the Proposal should follow the title page. **Information that is claimed to be confidential shall be clearly identified.** Unless there is a compelling case, an entire proposal should not be labeled confidential; only those portions that can reasonably be shown to be proprietary or confidential should be so labeled.

c. Executive Summary

The Offeror shall condense and highlight the contents of the technical Proposal in a separate section titled "Executive Summary." The summary shall acknowledge the receipt of any amendments or addenda associated with this RFP and identify its tax identification number. The Executive Summary shall not exceed two (2) pages. Offerors shall also identify any joint ventures at the time of submission, if any, and the roles these relationships will have in the performance of a Contract. Upon MSA's request, Offerors shall make available within 24 hours the joint venture scope of work documents and/or agreement.

d. Work Plan and Experience

The Offeror shall provide the following information:

1. Documentation and/or narrative confirming ability to meet minimum qualifications

2. Narrative stating how it intends to complete the scope(s) outlined in this RFP, including:

   - Offeror's process for reviewing plans.

   - Offeror's anticipated process for performing field inspections and associated reporting efforts.

3. Consultant Qualifications – SF330 (**Attachment E**) for the prime firm and any subconsultants.

4. The names, titles, and resumes of the key management and other personnel (staffing plan) directly involved with managing the work that will be required under the Contract. This should include any firms identified as part of the Offeror's subconsultant team. Resumes shall include all relevant certifications including:

   - education/degrees;
   - registration numbers for architects and engineers registered in the State of Maryland;
   - documented years of plan review experience;
   - documented years of code compliance inspections;
   - documented years of Municipal Fire inspector experience;
   - State of Maryland Fire Marshal approved Electrical Inspector certification;
   - National Association of Elevator Safety Authorities (NAESA) certification;
   - Third-Party Elevator Inspector authorized by the State of Maryland Commissioner of Labor and Industry Elevator and Escalator Safety; and
   - Plumber & Gas Fitter Inspector authorized by the State of Maryland Department of Labor, Licensing, and Regulation
   - Boiler inspector certified through the National Board of Boilers and Pressure Vessels and by the Maryland Commissioner of Labor and Industry
   - Fire-stopping Inspector as certified through Intertek and/or International Firestop Council
   - International Code Council and Continuing Education Units obtained.

5. Relevant experience of the prime firm, including specific examples of projects managed within the last five (5) years related to both third-party plan review and third-party inspections, and the relevant services provided. Experience should be identified by project type, project size, and project value. If using subconsultants, include a description of the prior work experience with each other for the listed subconsultant firms.

6. Organizational chart that clearly identifies roles and responsibilities for the proposed members of the team, including the lead firm, any sub-consultants, and firm's point of contact. For the third-party plan review, provide staff assignments for the following disciplines: structural, non-structural, plumbing, mechanical/HVAC, electrical, elevator, and fire/life safety. For the third-party inspection services, provide staff assignments for the following disciplines: professional in-charge, plumbing, mechanical/HVAC, electrical, building construction, elevator, and fire/life safety.

7. Provide sample Inspection Report Forms for the following: (1) Site Inspection Report including an example from a previous project: (2) example format of Monthly Inspection Report by Project including an example from a previous project; and (3) Final Inspection Report including an example from a previous project

e. Other Required Submissions

1. A completed Bid/Proposal Affidavit (**Attachment A**).

2. A completed Conflict of Interest Information/Affidavit and Disclosure (**Attachment B**).

3. Proof of insurance certifying the Offeror's ability to comply with the insurance requirements as set forth in the form Contract attached hereto in **Attachment G**.

4. Identification of any known joint ventures at the time of submission, if any, and the roles these relationships will have in the performance of the Contract. Upon MSA's request, Offerors shall make available within 24 hours all scope of work documents and proposals.

5. Capacity summary sheet for all individuals identified in the staffing plan (**Attachment J**).

6. A completed corporate profile for the Offeror (**Attachment K**).

7. A completed MBE **Attachment D-1A**.

4.4 Financial Proposal

Information about the due date and submission instructions will be included in the notification to the selected short-listed Offerors as set forth in Section 4.1. A sample copy of the Request for Financial Proposal is attached hereto as **Attachment H**.

Note: MSA reserves the right to require, during proposal evaluation, that the Offeror provide a copy of its most current Annual Report or audited Statement of Financial Condition to include a Balance Sheet, Income Statement and Cash Flow Statement or other acceptable financial information. These documents may be relied upon in any selection determination.

SECTION 5

EVALUATION CRITERIA AND SELECTION PROCEDURE

5.1 Evaluation Criteria

Evaluation of the Proposals will be performed by the Selection Committee and will be based on the criteria set forth below. The Technical Proposal will have more weight than the Financial Criteria.

5.2 Technical Criteria

Criteria used to rate the Technical Proposal includes, without limitation, the following:

a. Adequacy of the Work Plan presented to provide the proposed services; adequacy of the Offeror's proposed work approach, and sample Inspection forms.

b. Experience and qualifications of the Offeror and its key management personnel (Staffing Plan), with specific emphasis on similar projects.

c. Oral Presentation.

d. Past Performance and Offeror References

e. Work Capacity.

f. Overall Quality of Submission.

5.3 Financial Criteria

Short-listed Offerors that participate in the Financial Proposal phase and are deemed as meeting all of the requirements will be ranked from the lowest (most advantageous) to the highest (least advantageous) price based on the submission.

5.4 Reciprocal Preference

Although Maryland law does not authorize procuring agencies to favor resident Offeror in awarding procurement Contracts, many other states do grant their resident businesses preferences over Maryland Contractors. Therefore, as described in COMAR 21.05.01.04, a resident business preference may be given if: a responsible Offeror whose headquarters, principal base of operations, or principal site that will primarily provide the services required by this RFP is in another state submits the most advantageous offer; the other state gives a preference to its residents through law, policy, or practice; and the preference does not conflict with a federal law or grant affecting the Contract. The

preference given will be identical to the preference that the other state, through law, policy, or practice gives to its residents.

5.5 General Selection Process

a. The Contract will be awarded in accordance with the competitive sealed proposals process under Section 3(C) of MSA's Procurement Policies.

b. Prior to award of a Contract pursuant to this RFP, MSA may require any and all Offerors to submit such additional information bearing upon the Offeror's ability to perform the Contract as MSA may deem appropriate. MSA may also consider any information otherwise available concerning the financial, technical and other qualifications or abilities of the Offeror.

c. MSA may hold discussions with any or all Offerors judged reasonably susceptible of being selected for award, or potentially so. MSA also reserves the right to develop a short-list of Offerors deemed most qualified based upon their Technical Proposals and conduct discussions with only the short-listed Offerors. However, MSA also reserves the right to make an award without holding discussions. Whether or not discussions are held, MSA may determine an Offeror to be not responsible or not reasonably susceptible of being selected for award, in its sole and absolute discretion, at any time after the initial closing date for receipt of proposals and the review of those proposals.

5.6 Award Determination

Upon completion of all evaluations, discussions and negotiations, and reference checks, the Procurement Officer will recommend award of the Contract to the responsible Offeror(s) whose proposal is determined to be the most advantageous, considering technical evaluation factors and price factors as set forth in this RFP. The award is subject to approval by the MSA Board of Directors.

ATTACHMENTS

Attachments can be downloaded via the following link:
https://mdstad.sharefile.com/d-s4b5bda92d9cf4108be682eb66432639d

A. .....BID/PROPOSAL AFFIDAVIT

B. .....CONFLICT OF INTEREST AFFIDAVIT

C. .....PROGRAM AND CONCEPTUAL DESIGN DOCUMENTS

D. .....MBE INSTRUCTIONS AND FORMS

E. .....CONSULTANT QUALIFICATIONS (SF330)

F. .....STAFFING PLAN

G. .....SAMPLE CONTRACT (to be issued via addendum)

H. .....SAMPLE REQUEST FOR FINANCIAL PROPOSAL

I. .....CONTRACT AFFIDAVIT

J. .....CAPACITY SUMMARY SHEET

K. .....CORPORATE PROFILE

Attachment A

Bid/Proposal Affidavit

Attachment A. Bid/Proposal Affidavit

A. AUTHORITY

I hereby affirm that I, _____ (name of affiant) am the _____ (title) and duly authorized representative of _____ (name of business entity) and that I possess the legal authority to make this affidavit on behalf of the business for which I am acting.

B. CERTIFICATION REGARDING COMMERCIAL NONDISCRIMINATION

The undersigned Bidder/Offeror hereby certifies and agrees that the following information is correct: In preparing its Bid/proposal on this project, the Bidder/Offeror has considered all Bid/proposals submitted from qualified, potential subcontractors and suppliers, and has not engaged in "discrimination" as defined in § 19-103 of the State Finance and Procurement Article of the Annotated Code of Maryland. "Discrimination" means any disadvantage, difference, distinction, or preference in the solicitation, selection, hiring, or commercial treatment of a vendor, subcontractor, or commercial customer on the basis of race, color, religion, ancestry, or national origin, sex, age, marital status, sexual orientation, sexual identity, genetic information or an individual's refusal to submit to a genetic test or make available the results of a genetic test, disability, or any otherwise unlawful use of characteristics regarding the vendor's, supplier's, or commercial customer's employees or owners. "Discrimination" also includes retaliating against any person or other entity for reporting any incident of "discrimination". Without limiting any other provision of the solicitation on this project, it is understood that, if the certification is false, such false certification constitutes grounds for the State to reject the Bid/proposal submitted by the Bidder/Offeror on this project, and terminate any contract awarded based on the Bid/proposal. As part of its Bid/proposal, the Bidder/Offeror herewith submits a list of all instances within the past four (4) years where there has been a final adjudicated determination in a legal or administrative proceeding in the State of Maryland that the Bidder/Offeror discriminated against subcontractors, vendors, suppliers, or commercial customers, and a description of the status or resolution of that determination, including any remedial action taken. Bidder/Offeror agrees to comply in all respects with the State's Commercial Nondiscrimination Policy as described under Title 19 of the State Finance and Procurement Article of the Annotated Code of Maryland.

B-1. CERTIFICATION REGARDING MINORITY BUSINESS ENTERPRISES.

The undersigned Bidder/Offeror hereby certifies and agrees that it has fully complied with the State Minority Business Enterprise Law, State Finance and Procurement Article, § 14-308(a)(2), Annotated Code of Maryland, which provides that, except as otherwise provided by law, a contractor may not identify a certified minority business enterprise in a Bid/proposal and:

(1) Fail to request, receive, or otherwise obtain authorization from the certified minority business enterprise to identify the certified minority bid/proposal;

(2) Fail to notify the certified minority business enterprise before execution of the contract of its inclusion in the Bid/proposal;

(3) Fail to use the certified minority business enterprise in the performance of the contract; or

(4) Pay the certified minority business enterprise solely for the use of its name in the Bid/proposal.

Without limiting any other provision of the solicitation on this project, it is understood that if the certification is false, such false certification constitutes grounds for the State to reject the

Bid/proposal submitted by the Bidder/Offeror on this project, and terminate any contract awarded based on the Bid/proposal.

B-2. CERTIFICATION REGARDING VETERAN-OWNED SMALL BUSINESS ENTERPRISES.

The undersigned Bidder/Offeror hereby certifies and agrees that it has fully complied with the State veteran-owned small business enterprise law, State Finance and Procurement Article, § 14-605, Annotated Code of Maryland, which provides that a person may not:

(1) Knowingly and with intent to defraud, fraudulently obtain, attempt to obtain, or aid another person in fraudulently obtaining or attempting to obtain public money, procurement contracts, or funds expended under a procurement contract to which the person is not entitled under this title;

(2) Knowingly and with intent to defraud, fraudulently represent participation of a veteran-owned small business enterprise in order to obtain or retain a Bid/proposal preference or a procurement contract;

(3) Willfully and knowingly make or subscribe to any statement, declaration, or other document that is fraudulent or false as to any material matter, whether or not that falsity or fraud is committed with the knowledge or consent of the person authorized or required to present the declaration, statement, or document;

(4) Willfully and knowingly aid, assist in, procure, counsel, or advise the preparation or presentation of a declaration, statement, or other document that is fraudulent or false as to any material matter, regardless of whether that falsity or fraud is committed with the knowledge or consent of the person authorized or required to present the declaration, statement, or document;

(5) Willfully and knowingly fail to file any declaration or notice with the unit that is required by COMAR 21.11.13; or

(6) Establish, knowingly aid in the establishment of, or exercise control over a business found to have violated a provision of § B-2(1) -(5) of this regulation.

C. AFFIRMATION REGARDING BRIBERY CONVICTIONS

I FURTHER AFFIRM THAT:

Neither I, nor to the best of my knowledge, information, and belief, the above business (as is defined in Section 16-101(b) of the State Finance and Procurement Article of the Annotated Code of Maryland), or any of its officers, directors, partners, controlling stockholders, or any of its employees directly involved in the business's contracting activities including obtaining or performing contracts with public bodies has been convicted of, or has had probation before judgment imposed pursuant to Criminal Procedure Article, § 6-220, Annotated Code of Maryland, or has pleaded nolo contendere to a charge of, bribery, attempted bribery, or conspiracy to bribe in violation of Maryland law, or of the law of any other state or federal law, except as follows (indicate the reasons why the affirmation cannot be given and list any conviction, plea, or imposition of probation before judgment with the date, court, official or administrative body, the sentence or disposition, the name(s) of person(s) involved, and their current positions and responsibilities with the business):

_____

_____

D. AFFIRMATION REGARDING OTHER CONVICTIONS

I FURTHER AFFIRM THAT:

Neither I, nor to the best of my knowledge, information, and belief, the above business, or any of its officers, directors, partners, controlling stockholders, or any of its employees directly involved in the business's contracting activities including obtaining or performing contracts with public bodies, has:

(1) Been convicted under state or federal statute of:

(a) A criminal offense incident to obtaining, attempting to obtain, or performing a public or private contract; or

(b) Fraud, embezzlement, theft, forgery, falsification or destruction of records or receiving stolen property;

(2) Been convicted of any criminal violation of a state or federal antitrust statute;

(3) Been convicted under the provisions of Title 18 of the United States Code for violation of the Racketeer Influenced and Corrupt Organization Act, 18 U.S.C. § 1961 et seq., or the Mail Fraud Act, 18 U.S.C. § 1341 et seq., for acts in connection with the submission of Bids/Proposals for a public or private contract;

(4) Been convicted of a violation of the State Minority Business Enterprise Law, § 14-308 of the State Finance and Procurement Article of the Annotated Code of Maryland;

(5) Been convicted of a violation of § 11-205.1 of the State Finance and Procurement Article of the Annotated Code of Maryland;

(6) Been convicted of conspiracy to commit any act or omission that would constitute grounds for conviction or liability under any law or statute described in subsections (1)— (5) above;

(7) Been found civilly liable under a state or federal antitrust statute for acts or omissions in connection with the submission of Bids/Proposals for a public or private contract;

(8) Been found in a final adjudicated decision to have violated the Commercial Nondiscrimination Policy under Title 19 of the State Finance and Procurement Article of the Annotated Code of Maryland with regard to a public or private contract;

(9) Been convicted of a violation of one or more of the following provisions of the Internal Revenue Code:

(a) §7201, Attempt to Evade or Defeat Tax;

(b) §7203, Willful Failure to File Return, Supply Information, or Pay Tax,

(c) §7205, Fraudulent Withholding Exemption Certificate or Failure to Supply Information;

(d) §7206, Fraud and False Statements, or

(e) §7207 Fraudulent Returns, Statements, or Other Documents;

(10) Been convicted of a violation of 18 U.S.C. §286 Conspiracy to Defraud the Government with Respect to Claims, 18 U.S.C. §287, False, Fictitious, or Fraudulent Claims, or 18 U.S.C. §371, Conspiracy to Defraud the United States;

(11) Been convicted of a violation of the Tax-General Article, Title 13, Subtitle 7 or Subtitle 10, Annotated Code of Maryland;

(12) Been found to have willfully or knowingly violated State Prevailing Wage Laws as provided in the State Finance and Procurement Article, Title 17, Subtitle 2, Annotated Code of Maryland, if:

(a) A court:

(i) Made the finding; and

(ii) Decision became final; or

(b) The finding was:

(i) Made in a contested case under the Maryland Administrative Procedure act; and

(ii) Not overturned on judicial review;

(13) Been found to have willfully or knowingly violated State Living Wage Laws as provided in the State Finance and Procurement Article, Title 18, Annotated Code of Maryland, if:

(a) A court:

(i) Made the finding; and

(ii) Decision became final; or

(b) The finding was:

(i) Made in a contested case under the Maryland Administrative Procedure act; and

(ii) Not overturned on judicial review;

(14) Been found to have willfully or knowingly violated the Labor and Employment Article, Title 3, Subtitles 3, 4, or 5, or Title 5, Annotated Code of Maryland, if:

(a) A court:

(i) Made the finding; and

(ii) Decision became final; or

(b) The finding was:

(i) Made in a contested case under the Maryland Administrative Procedure act; and

(ii) Not overturned on judicial review; or

(15) Admitted in writing or under oath, during the course of an official investigation or other proceedings, acts or omissions that would constitute grounds for conviction or liability under any law or statute described in §§ B and C and subsections D(1)—(14) above, except as follows (indicate reasons why the affirmations cannot be given, and list any conviction, plea, or imposition of probation before judgment with the date, court, official or administrative body, the sentence or disposition, the name(s) of the person(s) involved and their current positions and responsibilities with the business, and the status of any debarment):

_____

_____

E. AFFIRMATION REGARDING DEBARMENT

I FURTHER AFFIRM THAT:

Neither I, nor to the best of my knowledge, information, and belief, the above business, or any of its officers, directors, partners, controlling stockholders, or any of its employees directly involved in the business's contracting activities, including obtaining or performing contracts with public bodies, has ever been suspended or debarred (including being issued a limited denial of participation) by any public entity, except as follows (list each debarment or suspension providing the dates of the suspension or debarment, the name of the public entity and the status of the proceedings, the

name(s) of the person(s) involved and their current positions and responsibilities with the business, the grounds of the debarment or suspension, and the details of each person's involvement in any activity that formed the grounds of the debarment or suspension).

_____

_____

F. AFFIRMATION REGARDING DEBARMENT OF RELATED ENTITIES

I FURTHER AFFIRM THAT:

(1) The business was not established and does not operate in a manner designed to evade the application of or defeat the purpose of debarment pursuant to Sections 16-101, et seq., of the State Finance and Procurement Article of the Annotated Code of Maryland; and

(2) The business is not a successor, assignee, subsidiary, or affiliate of a suspended or debarred business, except as follows (you must indicate the reasons why the affirmations cannot be given without qualification):

_____

_____

G. SUBCONTRACT AFFIRMATION

I FURTHER AFFIRM THAT:

Neither I, nor to the best of my knowledge, information, and belief, the above business, has knowingly entered into a contract with a public body under which a person debarred or suspended under Title 16 of the State Finance and Procurement Article of the Annotated Code of Maryland will provide, directly or indirectly, supplies, services, architectural services, construction related services, leases of real property, or construction.

H. AFFIRMATION REGARDING COLLUSION

I FURTHER AFFIRM THAT:

Neither I, nor to the best of my knowledge, information, and belief, the above business has:

(1) Agreed, conspired, connived, or colluded to produce a deceptive show of competition in the compilation of the accompanying Bid/proposal that is being submitted; or

(2) In any manner, directly or indirectly, entered into any agreement of any kind to fix the Bid/proposal price of the Bidder/Offeror or of any competitor, or otherwise taken any action in restraint of free competitive bidding in connection with the contract for which the accompanying Bid/proposal is submitted.

I. CERTIFICATION OF TAX PAYMENT

I FURTHER AFFIRM THAT:

Except as validly contested, the business has paid, or has arranged for payment of, all taxes due the State of Maryland and has filed all required returns and reports with the Comptroller of the Treasury, State Department of Assessments and Taxation, and Department of Labor, Licensing, and Regulation, as applicable, and will have paid all withholding taxes due the State of Maryland prior to final settlement.

J. CONTINGENT FEES

I FURTHER AFFIRM THAT:

The business has not employed or retained any person, partnership, corporation, or other entity, other than a bona fide employee, bona fide agent, bona fide salesperson, or commercial selling agency working for the business, to solicit or secure the Contract, and that the business has not paid or agreed to pay any person, partnership, corporation, or other entity, other than a bona fide employee, bona fide agent, bona fide salesperson, or commercial selling agency, any fee or any other consideration contingent on the making of the Contract.

K. CERTIFICATION REGARDING INVESTMENTS IN IRAN

(1) The undersigned certifies that, in accordance with State Finance and Procurement Article, §17-705, Annotated Code of Maryland:

(a) It is not identified on the list created by the Board of Public Works as a person engaging in investment activities in Iran as described in State Finance and Procurement Article, §17-702, Annotated Code of Maryland; and

(b) It is not engaging in investment activities in Iran as described in State Finance and Procurement Article, §17-702, Annotated Code of Maryland.

(2) The undersigned is unable to make the above certification regarding its investment activities in Iran due to the following activities:

_____

_____

L. CONFLICT MINERALS ORIGINATED IN THE DEMOCRATIC REPUBLIC OF CONGO (FOR SUPPLIES AND SERVICES CONTRACTS)

I FURTHER AFFIRM THAT:

The business has complied with the provisions of State Finance and Procurement Article, §14-413, Annotated Code of Maryland governing proper disclosure of certain information regarding conflict minerals originating in the Democratic Republic of Congo or its neighboring countries as required by federal law.

M. PROHIBITING DISCRIMINATORY BOYCOTTS OF ISRAEL

I FURTHER AFFIRM THAT:

In preparing its bid/proposal on this project, the Bidder/Offeror has considered all bid/proposals submitted from qualified, potential subcontractors and suppliers, and has not, in the solicitation, selection, or commercial treatment of any subcontractor, vendor, or supplier, refused to transact or terminated business activities, or taken other actions intended to limit commercial relations, with a person or entity on the basis of Israeli national origin, or residence or incorporation in Israel and its territories. The Bidder/Offeror also has not retaliated against any person or other entity for reporting such refusal, termination, or commercially limiting actions. Without limiting any other provision of the solicitation for bid/proposals for this project, it is understood and agreed that, if this certification is false, such false certification will constitute grounds for the State to reject the bid/proposal submitted by the Bidder/Offeror on this project, and terminate any contract awarded based on the bid/proposal.

N. I FURTHER AFFIRM THAT:

Any claims of environmental attributes made relating to a product or service included in the bid or bid/proposal are consistent with the Federal Trade Commission's Guides for the Use of Environmental Marketing Claims as provided in 16 C.F.R. §260, that apply to claims about the environmental attributes of a product, package or service in connection with the marketing, offering for sale, or sale of such item or service.

O. ACKNOWLEDGEMENT

I ACKNOWLEDGE THAT this Affidavit is to be furnished to the Procurement Officer and may be distributed to units of: (1) the State of Maryland; (2) counties or other subdivisions of the State of Maryland; (3) other states; and (4) the federal government. I further acknowledge that this Affidavit is subject to applicable laws of the United States and the State of Maryland, both criminal and civil, and that nothing in this Affidavit or any contract resulting from the submission of this Bid/proposal shall be construed to supersede, amend, modify or waive, on behalf of the State of Maryland, or any unit of the State of Maryland having jurisdiction, the exercise of any statutory right or remedy conferred by the Constitution and the laws of Maryland with respect to any misrepresentation made or any violation of the obligations, terms and covenants undertaken by the above business with respect to (1) this Affidavit, (2) the contract, and (3) other Affidavits comprising part of the contract.

I DO SOLEMNLY DECLARE AND AFFIRM UNDER THE PENALTIES OF PERJURY THAT THE CONTENTS OF THIS AFFIDAVIT ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE, INFORMATION, AND BELIEF.

By: _____

Signature of Authorized Representative and Affiant

Printed Name: _____

Printed Name of Authorized Representative and Affiant

Title: _____

Title

Date: _____

Date

Attachment B

Conflict of Interest Disclosure/Affidavit

Attachment B. Conflict of Interest Affidavit and Disclosure

Reference COMAR 21.05.08.08

A. "Conflict of interest" means that because of other activities or relationships with other persons, a person is unable or potentially unable to render impartial assistance or advice to the State, or the person's objectivity in performing the contract work is or might be otherwise impaired, or a person has an unfair competitive advantage.

B. "Person" has the meaning stated in COMAR 21.01.02.01B (64) and includes a Offeror, Contractor, consultant, or subcontractor or sub-consultant at any tier, and also includes an employee or agent of any of them if the employee or agent has or will have the authority to control or supervise all or a portion of the work for which a Proposal is made.

C. The Offeror warrants that, except as disclosed in §D, below, there are no relevant facts or circumstances now giving rise or which could, in the future, give rise to a conflict of interest.

D. The following facts or circumstances give rise or could in the future give rise to a conflict of interest (explain in detail — attach additional sheets if necessary):

E. The Offeror agrees that if an actual or potential conflict of interest arises after the date of this affidavit, the Offeror shall immediately make a full disclosure in writing to the procurement officer of all relevant facts and circumstances. This disclosure shall include a description of actions which the Offeror has taken and proposes to take to avoid, mitigate, or neutralize the actual or potential conflict of interest. If the contract has been awarded and performance of the contract has begun, the Contractor shall continue performance until notified by the procurement officer of any contrary action to be taken.

I DO SOLEMNLY DECLARE AND AFFIRM UNDER THE PENALTIES OF PERJURY THAT THE CONTENTS OF THIS AFFIDAVIT ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE, INFORMATION, AND BELIEF.

Date: _____ By: _____

(Authorized Representative and Affiant)

SUBMIT THIS AFFIDAVIT WITH BID/PROPOSAL

Attachment C

Program and Conceptual Design Documents

DEPARTMENT OF
LEGISLATIVE SERVICES

New Building Part I and II Facility Program

Department of Legislative Services

June 3, 2020

WRA

Murphy & Dittenhafer ARCHITECTS

Acknowledgements

The following is a list of individuals that have contributed to and supported the development of this Part I and II Facility Program report for a new Department of Legislative Services building.

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PART I: FACILITY PROGRAM

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Section 1 Project Overview

1.01 Information About Maryland Department of Legislative Services

A. Name

Maryland Department of Legislative Services

B. Address

90 State Circle,
Annapolis, MD 21401

C. Purpose

The purpose of the Maryland Department of Legislative Services (DLS) is to function as a nonpartisan, all-purpose legislative service agency dedicated to serving the members and staff of the Maryland General Assembly. The Maryland General Assembly passes laws necessary for the welfare of the State. The Legislature may establish executive departments as needed for the efficient operation of State government and may create special taxing districts or areas within the State to administer a special function or functions. In accordance with the Constitutions of Maryland and of the United States, the General Assembly may levy taxes. It may propose State Constitutional amendments, which must be passed by three-fifths of the total membership of each house and submitted to the voters for ratification at the next general election after passage. Legislative authority is limited only by the State Constitution, the U.S. Constitution, and judicial decisions.

D. Institutional Identity and History

Identity

The Maryland Department of Legislative Services operates under the policies and directives of the President of the Senate, the Speaker of the House of Delegates, the Legislative Policy Committee, and the Joint Audit Committee. Historically, the DLS has conducted research and drafted legislation for members of the General Assembly. DLS has also provided legislative bills, enactments, journals, documents, records, and the codifications of State and local laws.

With professional fiscal, legal and research staff, the DLS supports legislative committees, subcommittees, task forces, and commissions. For the General Assembly, the DLS provides statutory revision services; conducts legal and legislative research; provides fiscal analyses; and offers specialized information services. Moreover, the DLS reviews and analyzes regulations proposed by Executive Branch agencies; provides legislative and general library resource materials and information services to the General Assembly and the public; and provides computerized services for legislative purposes, including the preparation of bills, laws, journals, and other documents, as well as automated searches of the law.

The DLS also provides accounting, printing, bill distribution, information technology and telecommunication, and supply services to the General Assembly. In addition, DLS administers

programs for interns, pages, and public affairs. Publications available from the DLS include the Legislative Handbook series (9 vols.), and Your Voice in Annapolis.

History

In 1997, the DLS was created (Chapters 635 & 636, Acts of 1997). Its origins, however, trace to the formation of the Department of Legislative Reference in 1906 and the Department of Fiscal Services in 1947.

The State's portion of the Department of Legislative Reference transferred in 1965 to the Legislative Branch (Chapter 453, Acts of 1965). In 1966, the Department severed its affiliation with the City of Baltimore and established its offices in Annapolis (Chapter 571, Acts of 1966). The Department of Legislative Reference was abolished in 1997 and its functions assigned to the Department of Legislative Services, an agency of the General Assembly (Chapters 635 & 636, Acts of 1997).

As the Fiscal Research Bureau, the Department of Fiscal Services (the other predecessor to Department of Legislative Services) originated in 1947 just before the General Assembly transitioned from biennial sessions to annual sessions in 1949 (Chapter 605, Acts of 1947). By 1965, the Bureau was placed under the General Assembly. The Bureau reorganized in 1968 as the Department of Fiscal Services (Chapter 456, Acts of 1968). In 1997, the Department of Fiscal Services was abolished and its functions moved to the Department of Legislative Services (Chapters 635 & 636, Acts of 1997).

E. Summary of Organizational Units and Programs

The following list is a summary of the organizational units, programs and functions that comprise DLS and other support units and functions that will be located in the building.

DLS

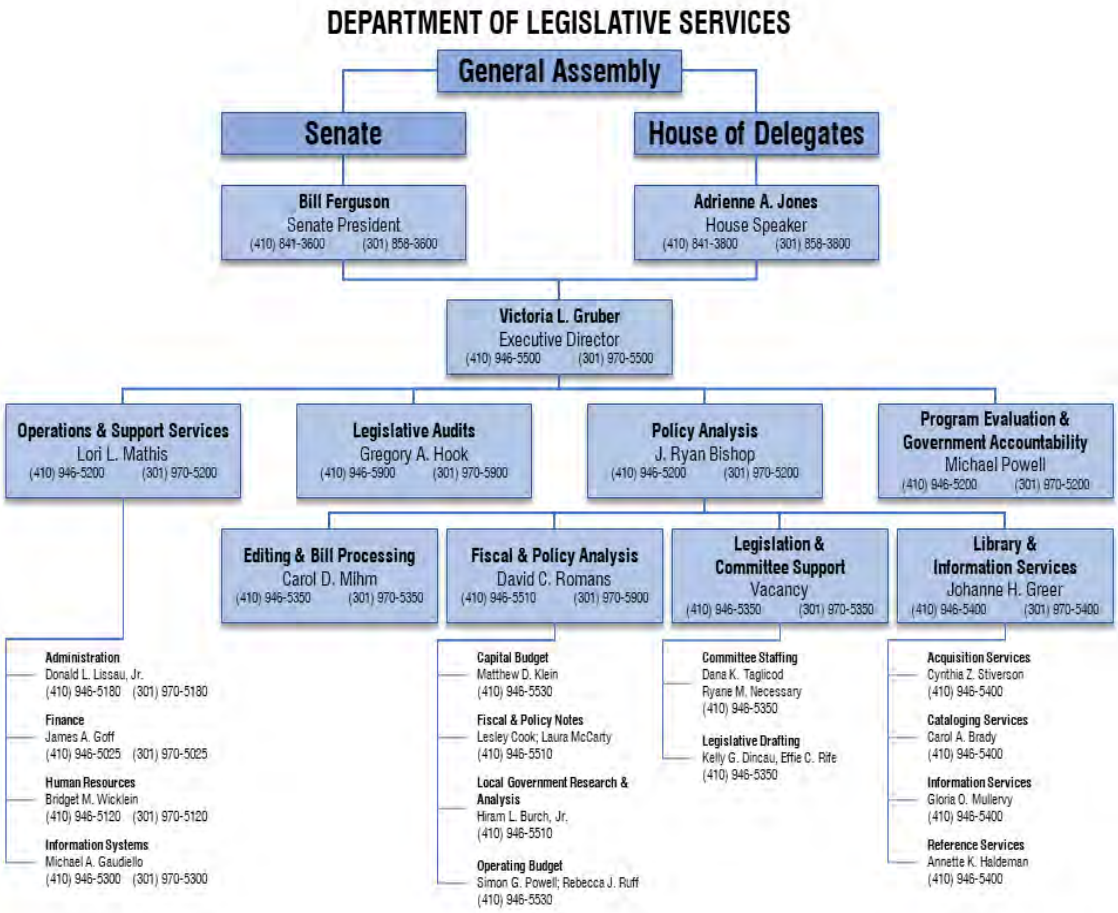
- Executive Director's Office
- Ethics Counsel
- Office of Legislative Audits
- Office of Operations and Support Services (OOSS) Administration
- Finance
- Human Resources
- Office of Information Services
- Office of Policy Analysis (OPA)
- Editing and Bill Processing
- Fiscal & Policy Analysis
- Legislation & Committee Support
- Library and Information Services
- Office of Program Evaluation & Government Accountability
- Division of Equity

Other Support Units and Functions

- Maryland Attorney General
- Department of General Services (DGS) Building Manager
- Maryland State Police

An organization chart of the units and programs of DLS are illustrated in Figure 1.1.

Figure 1.1: Organizational Chart



Source: Maryland Department of Legislative Services

1.02 Project Information

A. Proposed Size and Location

The project as proposed is for the design and construction of a new 88,437 Net Assignable Square Foot (NASF)/141,500 Gross Square Foot (GSF) building on the existing site of the DLS Building. The project will include the demolition of the existing 94,000 GSF facility at 90 State Circle in Annapolis, MD and redevelopment of the site with the new building.

Figure 1.2 illustrates the location of the proposed building project.

Figure 1.2: Building Project Location Plan

B. Purpose

The primary purpose of the Part I Facility Program is to document current and future DLS programmatic, facility and space needs, justify the need for a capital improvement to address these needs and assess alternative capital improvement solutions to determine a recommended solution and scope of work that best address the identified facility and space needs.

C. Major Functions

The proposed facility will house the following organizational units and functions:

Executive Director's Office

Ethics Counsel

Office of Legislative Audits

Office of Operations and Support Services (OOSS)

Administration

- Distribution Services
- Facilities
- Graphics and Printing Services

Finance

- Budget and Financial Analysis
- Fiscal Operations
- Procurement and Supply

Human Resources

Office of Information Services

- Administrative (SAP) Technical Services
- Infrastructure and Member Services
- Legislative System Development
- Maryland Legislative Information System (MLIS)

- Technical Support Services

Office of Policy Analysis (OPA)

Editing and Bill Processing

- Bill Processing
- Editing

Fiscal & Policy Analysis

- Capital Budget
- Fiscal and Policy Notes
- Local Government Research and Analysis
- Operating Budget

Legislation and Committee Support

- Committee Staffing
- Legislative Drafting

Library and Information Services

- Acquisition and Services
- Information Services
- Library Cataloging and Reference Services

Office of Program Evaluation & Government Accountability
Division of Equity
Office of Counsel to the General Assembly – Attorney General
State Police Office and Security Check Points
DGS Building Manager

D. Site Plan

Figure 1.3 provides an existing site plan that illustrates the DLS Building footprint, underground utilities, topography and natural features and generally delineates the project boundaries.

E. Facilities Master Plan (FMP)

There is no facilities master plan for the DLS facility or State Capitol complex.

Figure 1.3: Existing Site Plan

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Section 2 Project Justification

2.01 Current Facilities Problems

The primary facility problems impacting the operation of these programs, functions and services are:

- Insufficient space to meet current space needs and projected growth of DLS programs and staff
- Deficiencies caused by facility age, condition, and deferred maintenance backlogs

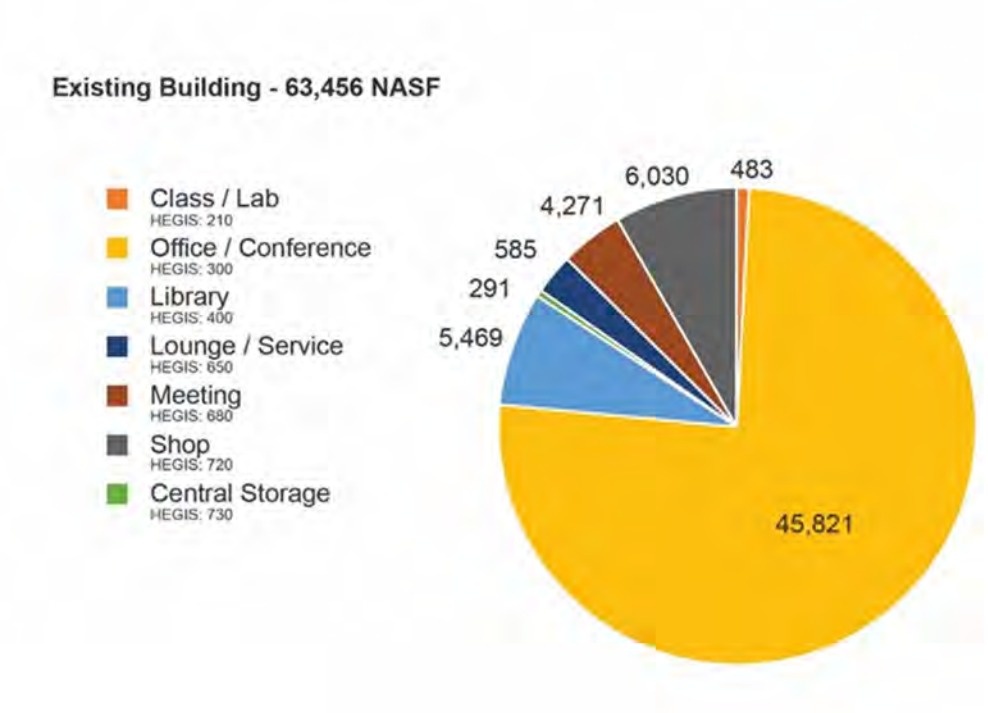
A. Summary of Existing Facility Conditions

Overview

The interior space of the building is comprised primarily of private and open workstation offices, conference and meeting rooms, a library including substantial open stack collections, a print shop, a large assembly hearing room and other support spaces. Existing DLS Building floor plans are included as Appendix A.

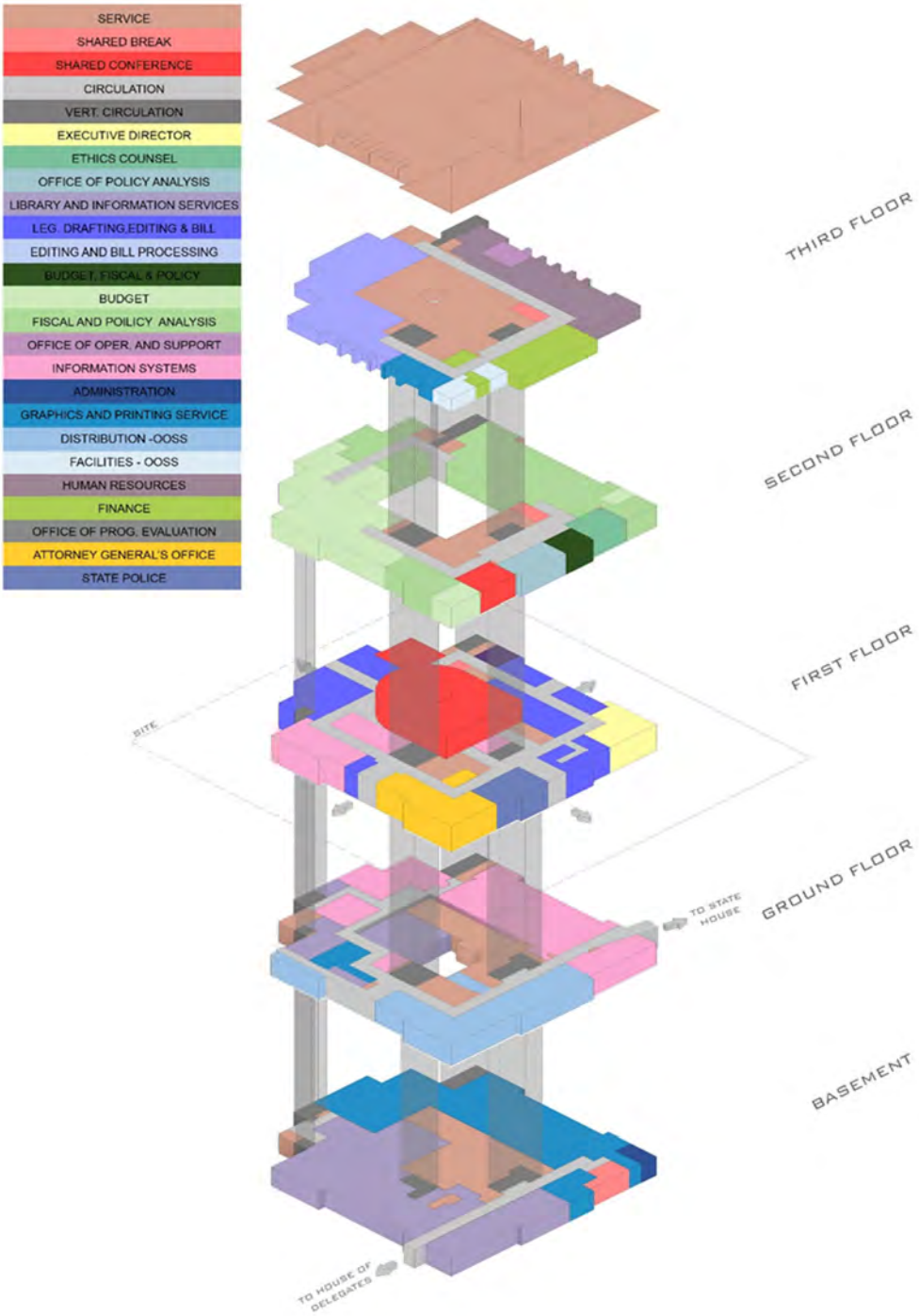
Figure 2.1 provides a summary of the existing NASF by Higher Education General Information Survey (HEGIS) Code space type in the building as developed from the existing floor plans. Figure 2.2 provides a space allocation by floor for each of the DLS organizational units and functions.

Figure 2.1: Existing DLS Building NASF by HEGIS Code



Source: MD Department of Legislative Services

Figure 2.2: Existing DLS Space Allocation by Floor



The following summary was completed by the consultant team as part of the due diligence for documenting the condition of the existing DLS Building. This summary is a supplement and update to the detailed Building Conditions Assessment Report prepared for the Maryland Department of General Services for the DLS Building by Wheeler Goodman and Masek and dated October 30, 2018, which is included as Appendix B.

Architectural

The DLS Building, completed in 1976, was designed by Henry Powell Hopkins & Associates and Wrenn, Lewis and Jencks in the Georgian Revival Style. The building is five stories, two of which are below grade. The top floor is tucked within the sloping slate hipped roof. The first floor is raised above grade and is accessed from the outside by marble stairs. There is a formal entryway at all four facades, the primary being on the south elevation.

Influenced by Classical architecture, the red brick façades are symmetrical with minimal white painted wood ornamentation. The single pane divided lite wood windows are original. The main entry is at the south elevation facing Lawyers Mall where the central bay of the brick façade extends three stories tall. A white painted wood cupola sits above the main entry. The entrance doors are highlighted with white painted wood pediments.

The interior features are in the Georgian Revival style, with blue painted pediments marking the entryways and blue painted wood baseboards, crown molding, and chair rail molding in the main corridors.

A pair of elevators are located toward the south side of the building linking the five floors. A service elevator at the loading dock on the northwest side of the building connects the basement, ground, and first floors.

The Joint Hearing Room is the prominent feature of the first floor and is located at the core of the building occupying a double-height space. The walls of the hearing room are finished in traditional walnut paneling with fluted pilasters. The sloped floor has fixed seating while the seats for the members at the lower floor are loose furniture. The floors are carpeted. There is a plaster dome ceiling above the hearing room.

The remainder of the first through third floors are occupied by private offices and other support spaces. The office spaces are carpeted while the public spaces of the building have vinyl flooring. The walls are typically painted gypsum board and the ceilings are acoustical ceiling tile.

The basement level is occupied by a large print shop and library with some additional private offices. The ground floor is occupied by shared office spaces and a large mechanical room.

There are four main stairs used for vertical circulation, the primary open staircase is marble and is located on the west side of the building.

The team agrees with the general assessment in the Wheeler Goodman and Masek Conditions Assessment Report dated October 30, 2018 that states that the basement level in particular is in critical condition with badly deteriorated finishes due to water infiltration. The ground floor,

which has recently renovated offices is in good condition, while the remainder of the building is in fair condition, clearly showing signs of age and deterioration.

Building Enclosure

As part of the consultant team work, Simpson Gumpertz and Heger, Inc. completed a comprehensive assessment of the DLS Building enclosure dated April 07, 2020 as an update to the Wheeler Goodman and Masek Conditions Assessment Report dated October 30, 2018. Conclusions from this assessment included:

- The foundation walls lack positive-side below-grade waterproofing and negative-side waterproofing is ineffective
- The waterproofing surrounding the tunnel to the House of Delegates is ineffective
- The brick cladding is in serviceable condition. The wall assembly lacks a dedicated air barrier and most likely a water barrier
- The exterior doors and windows have reached the end of their service life and have poor air and thermal performance compared to contemporary performance standards
- The steep-slope roof slate appear to be in serviceable condition. The roof's perimeter details include defective detailing that leave it susceptible to leakage
- The steep-slope roof attic lacks thermal insulation
- The low-slope built-up roofing system has reached the end of its service life and likely experiences leakage

The enclosure assessment report also included repair recommendations for identified deficiencies including for water infiltration issues at the basement and ground floors and tunnels. A full copy of this report is included as Appendix C.

Mechanical

The HVAC systems have been maintained as well as possible; however, the original base building systems are well beyond their normal life expectancy. Most systems are over 45 years old. Life expectancy for major equipment is 20-25 years. Good maintenance practices have kept these systems in operation well beyond their life expectancy. Primary systems (not included in this assessment) include chilled water and steam which are fed from an adjacent plant via below grade tunnels in the southwest corner of the building.

The HVAC consists of primary and secondary systems. Secondary chilled water pumps interconnect with the primary system to provide chilled water to the building. The building hot water system is fed through steam to hot water heat exchangers.

Air handling units are located in the mechanical rooms located in the basement and third floors. Air distribution systems provide heating and cooling throughout the building. Radiant heating is also provided along the perimeter.

The air distribution system is old but in serviceable condition. If any or all ductwork and air devices are slated for continued use, both should be cleaned and re-balanced. Repair/add any torn or missing insulation respectively should be completed. All dampers should be tested and fixed as required.

Basement Level
Existing air handling units are old and past their life expectancy and are inefficient in comparison to modern standards. The filtration does not meet current ASHRAE standards. The controls do not provide optimum comfort throughout the various zones Also, due to age, excessive maintenance is required to keep operational, replacement should be considered for these systems.

The steam to hot water conversion is old; there is possible internal corrosion of the piping thereby reducing efficiency. Minimally, a Certified Testing Agency should evaluate the piping condition. Insulation on most of the piping requires replacement or repair. There appears to be areas of extensive rewrapping of insulation to maintain the systems efficiency.

Primary expansion tanks for the hot water are also old and are believed to be corroding due to internal components used at the time of construction. The pressure reducing stations for the steam to hot water conversion are old; valves are showing wear and likely corrosion. Eventual failure is highly likely. Insulation is in poor condition.

The steam condensate recovery tank is also old. While some components have been replaced, the overall condition is poor. Insulation is in poor condition.

The chilled water system (similar to the steam to heat) is also old and assumed that the system efficiency does not meet current standards. Insulation on most of the piping requires replacement or repair. There appears to be a lot of rewrapping of insulation to maintain the systems efficiency. Also, the system is a constant flow type and pumps the same volume of chilled water regardless to building demand.

There have been some AHU replacements that appear to remain functional, but none the less are approaching their life expectancy.

The controls for the building are comprised of the original pneumatic controls with some electronic upgrades. The system does not allow for optimum control and requires a lot of maintenance. It is recommended to replace with a new modern type of system to optimize performance, energy modeling and metering.

Ground Level
There is water damage on the ceiling tiles from concealed mechanical equipment and/or pipes.

There is abandoned mechanical equipment in the old kitchen possibly allowing infiltration and exfiltration of air.

First Floor
There is water damage on the ceiling tiles from concealed mechanical equipment and/or pipes.

Terminal reheat boxes are not zoned properly, serving interior and exterior zones. The units are old and very inefficient.

Piping serving the reheat coils in constant flow and does not take advantage of variable water flow requirements of the space.

Perimeter heating is provided by finned tube radiation located under windows. While very effective, they are not easily accessible for maintenance and their low level returns can be blocked by furniture.

Second Floor
There is water damage on the ceiling tiles from concealed mechanical equipment and/or pipes.

Terminal reheat boxes are not zoned properly, serving interior and exterior zones. The units are old and very inefficient.

Piping serving the reheat coils in constant flow and does not take advantage of variable water flow requirements of the space.

Perimeter heating is provided by finned tube radiation located under windows. While very effective, they are not easily accessible for maintenance and their low level returns can be blocked by furniture.

Air devices are dirty and airflow needs to be redirected to meet occupant comfort.

Third Floor
There is water damage on the ceiling tiles from concealed mechanical equipment and/or pipes.

Existing air handling units in attic space are old and in poor condition. They are constant volume and do not meet modern standards. The controls are out of date and do not provide optimum performance.

Terminal reheat boxes are not zoned properly, serving interior and exterior zone. The units are old and very inefficient.

Piping serving the reheat coils in constant flow and does not take advantage of variable water flow requirements of the space.

Perimeter heating is provided by finned tube radiation located under windows. While very effective, they are not easily accessible for maintenance and their low level returns can be blocked by furniture.

Attic space is provided by hot water unit heaters, still working, but exceed life expectancy.

Air devices are dirty and airflow and needs to be redirected to meet occupant comfort.

Plumbing
A 6” un-metered domestic water/fire service enters the building in the southwest corner. A backflow preventer and water meter in a ground floor office, serve the buildings domestic water. A 6” gravity fed sanitary system exits the building in the north-western corner requiring sewage

ejectors. Gas services are available surround the building; however large propane tanks are located in the loading area.

Pumping systems are old and require a lot of maintenance. The basement often receives water infiltration and pumps are not adequate. The tunnels to the State House and House of Delegates often flood.

Elevator shaft sump pump does not work and pit has been flooded in the past.

Most of the plumbing fixtures are old and should be replaced. Flow rates need to be verified for water conservation practices. Several bathrooms are not ADA compliant and will require redesigning. Also, there are several water fountains that do not work.

Basement Level
There is a lot of water damage on walls and ceilings indicating poor storm water drainage and leaking pipes.

Some bathrooms have ADA compliance issues and require remodeling. Break Room sinks have ADA compliance issues and require remodeling.

Mop sinks are in poor condition.

The tunnel to the House of Delegates floods during heavy rain.

In general, most, if not all plumbing fixtures, need to be replaced either due to ADA compliance, water conservation, appearance and functionality.

Elevator shaft sump pump does not work and pit has been flooded in the past.

Ground Level
There is a lot of water damage on walls and ceilings indicating poor storm water drainage and leaking pipes.

Some bathrooms have ADA compliance issues and require remodeling. Break Room sinks have ADA compliance issues and require remodeling.

Mop sinks are in poor condition.

The tunnel to the State House floods during heavy rain.

The duplex sewage ejector appears to be original, no maintenance logs, but seems to work well. It still exceeds its life expectancy. Piping appears to be in good condition.

In general, most, if not all plumbing fixtures, need to be replaced either due to ADA compliance, water conservation, appearance and functionality. Water heaters are newer, installed in 2006, and however are still reaching their life expectancy.

First Floor
Break Room sinks have ADA compliance issues and require remodeling.

Mop sinks are in poor condition.

In general, most plumbing fixtures appear to be in good condition.

Second Floor
Break Room sinks have ADA compliance issues and require remodeling.

Mop sinks are in poor condition

In general, most plumbing fixtures appear to be in good condition.

Third Floor
Break Room sinks have ADA compliance issues and require remodeling.

Mop sinks are in poor condition

In general, most plumbing fixtures appear to be in good condition.

Fire Alarm
The existing Fire alarm system appears to be in good condition and it is less than a year old. Fire alarm system (FACP) is manufactured by Edwards fire safety systems with combination of strobes and audio voice evacuation notification devices, and manual pull station, and smoke detectors as initiating devices. Notification devices are provided throughout building as per the latest NFPA-72 code requirement. The Fire alarm graphic annunciator panel is LCD alphanumeric type located in the main south entry hallway. Typical fire alarm booster panels are located on each level in electrical closets to accommodate the fire alarm devices system loads and is adequate to support the new devices as required under renovation. The building is provided with smoke detectors throughout as the building in a not sprinklered. However, in coordination with fire protection engineer the existing smoke detectors systems will be evaluated (Existing to remain or demolish) during design phase.

Electrical
With the exception of the fire alarm head end panel located in Room G-04 being replaced in 2018, the rest of the electrical system appears to be consistent with the Building Conditions Assessment Report dated October 30, 2018.

The team agrees with the evaluation and recommendations of the Conditions Assessment Report regarding the need for major upgrading of the existing electrical systems in order to increase maintainability, reliability, and to render the entire electrical system to follow current building codes. This system wide upgrading will be necessary in order to support any major reprogramming options for the building.

Telecommunications
The DLS Building was erected in the mid-70's and since that time there has been a great deal of evolution in the Telecommunications industry. In modern buildings Information Transport Systems are referred to as the fourth utility and as such the support infrastructure should be constructed with this in mind.

The current infrastructure represents what is generally seen in buildings where computer networking was not part of the buildings original design intent. What was installed in the 1970's was phone cabling, as either part of the base building or installed shortly after construction. Phone systems were designed such that the head end or main switch gear could be installed in another building or remote location. Generally, only the wiring and cross connect blocks were installed in the building. These spaces were not air conditioned, had no grounding or bonding and did not have the space or required clearances for network racks, network cabling and terminations, and the network electronics. Consequently, network infrastructure was placed in the best manner possible. The "Building Conditions Assessment" report dated October 30, 2018 clearly shows this to be the case.

Based on what was documented in the Building Conditions Assessment our recommendation is to rebuild the telecommunications infrastructure with a standards-based information transport system (ITS) that meet the design standards outlined by industry organizations such as the BICSI – (Building Industry Consulting Service International). Using the design standards of BICSI the new design should be performed by a Registered Communications Distribution Designer (RCDD). RCDDs demonstrate knowledge in the design, integration and implementation of ITS and related infrastructure components.

Structural
The building is framed predominantly with cast-in-place concrete. Bay sizes vary but are generally rectangular with typical spans in the range of 20' to 25'. Most elevated floors consist of one-way pan joists spanning to beams and columns. The joist system is typically 13¼" deep, with a 3¼" slab over 10" deep joists. Typical beams are 21¼" deep. A small portion of the floor plate is framed with a 9" thick 2-way concrete plate system. The lowest level of the building has conventional slab on grade construction. Foundations are willow spread footings.

The long span that occurs at the third floor over the main hearing room below is framed with custom built steel plate girders, which support conventional steel beam framing with concrete fill on metal decking for the floor construction.

The roof mostly consists of sloped surfaces which are framed with plywood sheathing that spans between sloping steel beams. The plywood has apparently replaced gypsum board roof panels which were indicated on the original structural drawings.

Original structural drawings by Van Rensselear P. Saxe indicate that all floors were originally designed for a live load of 100 psf, and roofs 30 psf. These loads should be adequate for the intended uses of this building in most cases. There are no visible indications (structural cracking, settlement, spalling, etc.) that this load capacity has been reduced over time (although some structural deterioration has occurred as will be discussed below). In fact, changes to the building

and material codes since the building was designed in the 1970's would likely result in calculated load carrying capacities being slightly higher today as compared to the original design.

The main concern for the continued structural integrity of this building is attributable to infiltration of water through the exterior walls, particularly the concrete foundation walls, including the below grade tunnel walls. Active water leaks and deterioration of interior finishes are evident in many locations around the building perimeter, indicating water is passing through the foundation walls. Cracks in the concrete slab at the top of the foundation walls appear to be normal shrinkage and restraints cracks. These cracks do not substantially degrade the structural capacity but they do allow for the passage of water through the concrete. Attempts at previous concrete repairs to mitigate water infiltration are evident in several locations. These conditions are also documented in the Building Conditions Assessment prepared by Wheeler Goodman Masek, dated October 30, 2018. Current conditions are consistent with those described in the Assessment.

The presence of water on the inside of the building and tunnels confirms there are numerous pathways allowing water to pass through the concrete. Over time, water will attack the embedded reinforcing in the concrete, causing corrosion which leads to cracking and spalling of the concrete surfaces, and ultimately section loss and reduction of load carrying capacity.

Experience with similar structures of this age suggest this mechanism is ongoing on the outside surfaces of the foundation walls, and potentially to some depth within the foundation walls themselves. Since these surfaces are currently buried and hidden from view, the true extent of deterioration is unknown. If this building is to be retained, concrete restoration should be expected along the building and tunnel perimeter at the foundation level. The extent of such work can only be known after the area is excavated and the existing failed waterproofing systems removed.

Civil/Site

Findings are based on our surface visual observations in February 2020 and review of the recent survey and City utility drawings.

General

The site is located on a single parcel of approximately 1.2 acres with an address on College Avenue. The lot is owned by the State of Maryland.

The structure, as it exists, is largely built in the center of the site with some little room for additions on the perimeter. The sidewalks at the perimeter of the site are the property of the City of Annapolis. Replacement of the surrounding sidewalks (within the site boundaries) will likely be needed if the existing building is fully demolished.

Flood Plain and Critical Area

In accordance with the State Department of Assessment and Taxation (SDAT) mapping, this site is neither in a flood plain nor in the Chesapeake Bay Critical Area.

Zoning Analysis
As a State project, this site is not subject to local zoning. The current land use of the adjoining parcels consists of various State, City and privately owned government, commercial and residential buildings.

Site Perimeter Traffic Analysis
The property is bound by North Street to the North, State Circle to the East, the open space known as Lawyer's Mall to the South, and College Avenue to the West. Existing public access is located on Lawyer's Mall and College Avenue with service access on the west side. The roads and traffic patterns surrounding the building are a combination of one-way and two-way roads with College Ave and State Circle being major arteries and North Street being a minor roadway.

Traffic along the site perimeter roads consists primarily of vehicles accessing the offices, tourist attractions, and commercial businesses surrounding the site.

All of the surrounding streets along with Lawyer's Mall are also pedestrian routes around the site and include sidewalks.

Emergency vehicle access is available to three of the four sides of the building. Currently there is no vehicular access from Lawyer's Mall. The Maryland Department of General Services (DGS) has an on-going project to renovate that area and as that design progresses, a further determination can be made as to the adequacy of that renovation for fire department access.

Landscaping
There is minimal landscaping on the site at this time. Some mature trees currently exist along with some low shrubs. While the preservation of some of the trees is desirable, replacement of the other landscaping is recommended throughout the site.

At the south end of the site, renovation work to Lawyer's Mall is underway. This area will constitute most of the hardscape and open space for the DLS building; this work shall be preserved/ protected during the building construction.

Utilities
Of note is that Maryland DGS has recently undertaken a project to replace the steam lines under the Lawyer's Mall. As part of that project is replacement of hot and chilled water, domestic water and some electric service. Those services to the subject building have been replaced as part of that work.

The following is a summary of the available site utilities:

Water – Service enters the building from Lawyer's Mall. This is a new 6-inch service from a new 12-inch main.

Sanitary Sewer – Record drawings appear to show a 6-inch sanitary sewer connection along the east side of the existing building discharging to a main in College Ave. This service is most likely the same age as the building and as such, replacement is recommended.

Chilled & Hot Water & Steam - Service enters the building from Lawyer's Mall. These are new services.

Gas & Electric – Baltimore Gas and Electric (BGE) lines are shown to exist in College Ave. Some replacement of these services was included with the Lawyer's Mall project.

Communications – Communications are shown to exist in College Ave.

Site Grading
The existing site is relatively flat but slopes slightly downward from east to west. This grading will not significantly change as the site is bounded by existing City rights-of-way. Care will need to be taken in the location of any proposed new entrance to provide compliance with the Americans with Disabilities Act (ADA).

Erosion and Sediment Control and Stormwater Management
Currently there is no Stormwater Management (SWM) on the site as construction occurred long before modern SWM regulations. Site drainage is composed of surface runoff to the perimeters where it is collected in the municipal storm drain system. The site appears to drain well at present.

With regard to the proposed DLS building plans, SWM and Erosion & Sediment Control (ESC) will be required in the event of a land disturbance above the MDE thresholds. Regardless of the path forward for the DLS building, the A/E team believes they will both be required.

The first step in the three (3) step approval process is the development of the Concept Stormwater Management Study. The design team will coordinate for the development of this study during the Design Development of the site designs once the horizontal geometry of the proposed improvements has been finalized.

Due to the nature of the site, it would be advantageous to consider the recently approved underground micro-bioretention devices that are now being used on other State projects. Use of these devices allows the project to meet current requirements while preserving the lot area for the primary use. Green strategies such as porous or pervious paving can be explored as our experience has shown that the soil types in this area are largely sandy. Green efforts on the surface, such as tree planting and other landscaping are also cost effective. A green roof on any new structure can maximize the use of surface area at grade.

ESC will likely consist primarily of silt fence with inlet protection.

Hazardous Materials
The following presents our understanding of the available scope of information and our observations based on a site visit and review of the Environmental Building Assessment for the Maryland Legislative Services Building prepared by Green Street Environmental on April 2, 2018.

Asbestos
A total of 60 bulk samples were collected for laboratory analysis for asbestos. Several samples were split into distinct layers by the laboratory yielding 89 results. The report documented four asbestos-containing materials including duct seam sealant on foil backed fiberglass duct insulation (30 linear feet (LF)); 12”x12” white/gray floor tile and mastic (118,800 square feet (SF)); black mastic under 12”x12” white floor tile (120 SF); and joint compound (230,000 SF). The survey data appears to be complete and sufficient to demonstrate the presence or absence of asbestos in building materials.

However, the laboratory analysis was performed using a positive stop determination in which case newer identical materials installed as a renovation or modification of the building may be considered asbestos-containing materials when they are not. Roofing felts or roofing materials were not tested as part of this report. The roof is predominantly slate which may have a felt underlayment and roof tar applications.

Lead-based Paint
A total of 145 lead paint tests were performed by x-ray fluorescence analyzer (XRF). The author of the Green Street Environmental report concluded that the lead-paint survey was not comprehensive and not suitable to conclude that no lead-based paint was present. However, measurements were made on each floor of the building and on the exterior. There were no testing combinations found to contain lead above the regulatory definition and the number of testing combinations appears to be suitable to conclude that no-further action is required concerning lead inspection and testing. Please note that lead in any concentration must be managed under the OSHA Lead in Construction rule.

Mold
Water damaged and/or moldy building materials were observed by Green Street Environmental in November 2017 in 20 locations and is suspected in several rooms and offices that were not assessed as part of the investigation. The amount of moldy materials present in the building will vary with time and will depend on whether remediation and repairs have been made. Budgeting for removal of moldy materials is recommended.

Fluorescent Lamps, Ballasts and Thermostats
Approximately 2,075 fluorescent lamps were reported in the building by Green Street Environmental. According to DJ Lissau, fluorescent lamps are being converted to more energy efficient LED lamps. Therefore, the number of fluorescent lamps requiring Universal Hazardous Waste disposal may be significantly reduced. Green Street report indicated that 950 lamp ballasts were present in the building and that 95 were checked and found to have the “No PCB” label present. Therefore, PCBs are not suspected to be present in lamp ballasts. Lastly, approximately 155 mercury containing thermostats were counted.

Ozone Depleting Substances
Water coolers and refrigerators were reported in the building. No HVAC related equipment was reported to contain ozone depleting substances.

Compressed Gas Cylinders
Fire extinguishers, a large Halon gas fire extinguishing system and a propane cylinder were reported to be present. According to DJ Lissau, the Halon system was recently removed and properly discarded.

Non-utility-owned Transformers
The Green Street Environmental report noted four non-PCB dry-type transformers in the third-floor mechanical room.

Other
Green Street Environmental prepared an inventory of small containers of paints, inks, cleaners, strippers, motor oil, compressor oil, disinfectants, cement mix, etc., that are not building related hazardous materials.

Observations
Aria Environmental observed hydraulic oil-filled tanks associated with the freight elevator, batteries associated with exit signs and emergency lighting, and low-level radioactive materials associated with smoke detectors that are building related hazardous or regulated material that will require special handling and disposal.

Conclusions and Recommendations
In general, the report appeared to be representative of the building materials observed on March 06, 2020 but has a few data gaps that need to be determined in terms of the asbestos inspection, oil filled devices, batteries, and low-level radioactive materials. Furthermore, the Green Street Environmental report states in several sections of the report that not all rooms were inspected so there may be additional materials that were not previously identified. It is not possible to determine which rooms were inspected as there was no sample location plan, field drawings or room inventory of hazardous and regulated materials.

Detailed plans and specifications cannot be generated without completing an inventory of hazardous and regulated materials in the building by room. To complete an inventory, the A/E team proposes the visual inspection of each room of the building and exterior, confirming quantities of asbestos and regulated materials, collecting samples as needed to complete the survey and develop a room level inventory. Once complete, the data can be applied to construction drawings to inform the contractor of the presence of hazardous materials requiring abatement.

Archaeological
A Phase IA intensive background investigation was conducted of the 90 State Circle Property (Study Area) in downtown Annapolis, Maryland to determine the likelihood of the presence of archaeological resources within the property. The property currently houses the DLS Building, as well as a pedestrian walkway connecting Bladen Street with the Maryland State House known as Lawyers Mall. A copy of the full report is included as Appendix D.

The property is located in the heart of the Colonial Annapolis Historic District (MIHP AA-137), which is listed on the National Register of Historic Places and lies directly across the street from

both the Maryland State House and the Governor's Mansion. Dozens of historic residences and commercial structures are in the Study Area's direct vicinity, as well as some more recent government buildings such as the James Senate Office Building and the House of Delegates Office Building. The site of the demolished Maryland Court of Appeals Building (MIHP AA-695) lies within the southwestern portion of the Study Area.

The property is in a lowland terrace surrounded by three navigable waterways with easy access to water in three directions and a prime position for exploiting terrestrial, estuarine, and marine food resources. A structure was located there by 1695, and additional houses were constructed as the lot was subdivided throughout the eighteenth and nineteenth centuries. A Methodist congregation purchased part of the property in 1817 and built a brick building there in 1859. The property underwent major reconfigurations around 1903 when several residences were demolished to construct the Court of Appeals Library and Office, and later around 1973 when the current Department of Legislative Services building was built. Nearby archaeological investigations show that levels of disturbance around State Circle vary widely. This property has a naturally high probability for both precontact and historic archaeological resources, although it is likely these resources have been in part or whole impacted by modern construction episodes.

Historic maps and records document extensive disturbance within the Study Area beginning in the early twentieth century and continuing to the ca. 1973 construction of the existing Department of Legislative Services building. Precontact sites tend to contain perishable materials that do not survive the kind of extensive disturbance created by large construction episodes. Historic features, on the other hand, tend to be more durable and may have survived the twentieth-century construction episodes. While the 1970s construction could have disturbed archaeological resources within the footprint of the existing building, there is a moderate to high probability that intact archaeological resources exist in the northeast section of the property. Traditional archaeological survey methods are unlikely to be effective in this environment and, as such, archaeological monitoring of ground disturbing activity is recommended to document possible in situ cultural features and contexts.

B. Insufficient Space

In total, the DLS Building does not have sufficient space to meet the current or projected needs for office, conference/meeting and storage space and to support planned growth in staff to support operations and service demand.

Office/Meeting Space

The largest space type required by DLS is for office use to house full time staff and contractual employees which currently totals a headcount of 321 employees. This total is planned to increase by 12% to a total of 353 employees in 2030. Planned increase in staff is in response to anticipated growth in legislative bills, initiatives and service demand from the Maryland General Assembly and the citizens of Maryland.

Current office and meeting space insufficiencies include:

- **"Pass Through" Issues** – Currently there are space layouts in the building where one staff member needs to walk through another's private office to get into their office. Many of these offices are used by analysts who need quiet and privacy for phone calls and meetings which is primary to their daily functioning. This creates operational disruption

for both staff occupants as they try to conduct phone calls and host meetings, whether it be virtual or in-person.

- **Acoustical Deficiencies –** Editing staff members read bills to other staff as part of the editing process and work effort. This requires quiet to both focus and hear the reader. Currently the editing staff reside in open offices in a "bullpen" arrangement. These open offices do not provide the acoustical performance needed to support the editing/reading work task.
- **Future Capacity –** The planned growth in full time staff over the next decade will require additional office space. Both private and open offices will be needed. See Tables 3.1 and 3.2 for a summary and detailed accounting of the office space needed to support the planned growth.
- **Organizational Consolidation –** Currently the Procurement offices of Finance unit are located in the House Office Building. Consolidating them with the remainder of the Finance unit in the DLS Building will result in improved operational efficiency and greater ease of coordination with other Finance unit staff on a daily basis.
- **Meeting Spaces –** The DLS Building is used by all constituents of the Maryland General Assembly State Capitol campus and occupants of the building to host meetings, hearings and other public forums in support of their work efforts and in service to the citizens of Maryland. The peak demand for meeting space occurs during the legislative session. Currently, during the session the demand for meeting space frequently exceeds the existing inventory capacity in the building in terms.

Typical "Pass Through" office photo taken from the outer office doorway. Compromises privacy needed by analysts to conduct business via telephone, virtual and in-person meetings.

Library and Information Services Space

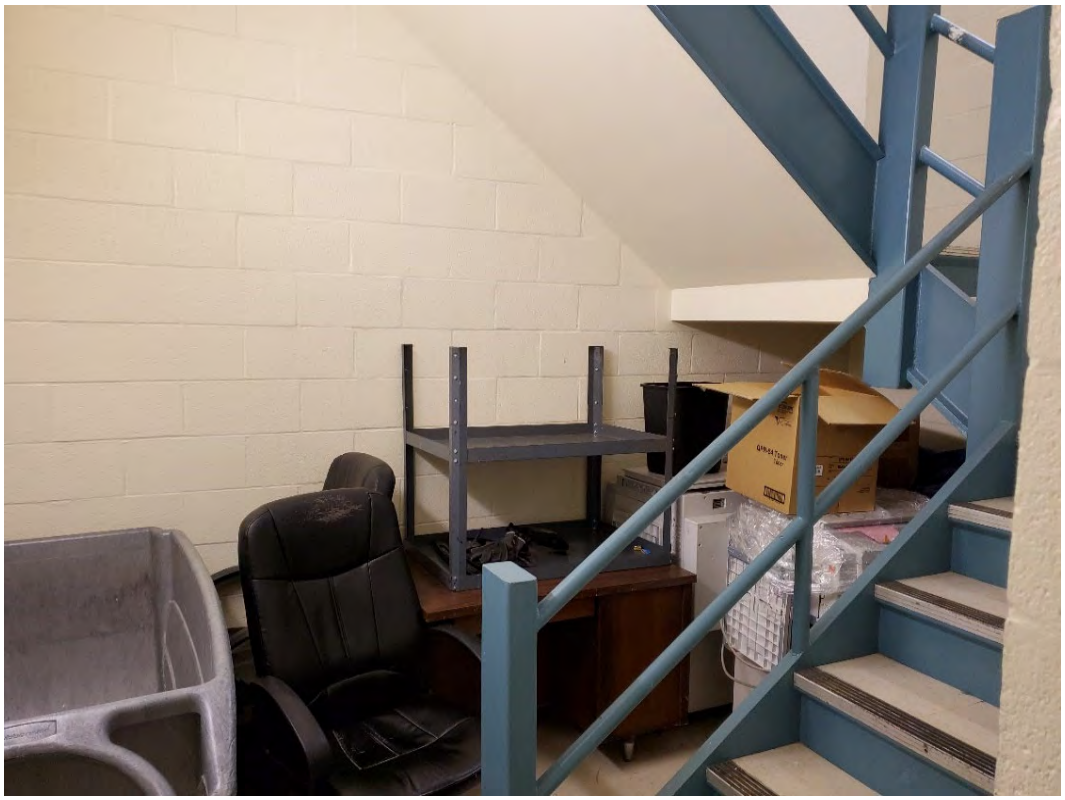
The Library supports the entire State Capitol campus and serves as the repository for resources that are accessed daily and provides legislative information to the public; and reference and research services to General Assembly committees, members, and staff. The current collection of over 125,000 volumes consists of Maryland laws and related legislative and legal materials; laws and publications of other states; federal documents; and general reference materials. The Library serves as an official depository and records manager for the publications of Maryland State agencies and for all local codes published by county and municipal governments.

Although the Library continues to employ methods to reduce the physical collections it stores on campus through digitizing, remote storage and other means, the demand for storage on site continues to grow. This trend is projected to continue over the next decade. The current facility does not have adequate space to accommodate collections growth and the current structural capacity and associated structural column grid would be constraints to feasibly implementing the amount of compact density shelving needed in existing space.

Storage Space

DLS units and operations support the entirety of the Maryland General Assembly and those working on the State Capitol campus. Their operations require substantial storage space to support the office, library, print shop and central service operations as well as specific legal requirements for storage of certain documents for specified periods of time. Although conversion of many paper documents to electronic files has been on-going the need for paper and supply storage still exists. To meet current needs many of the DLS units have become creative and used every possible space for storage, including hallways, which is inappropriate and may create code/egress issues. Examples of inadequate building storage follow.

Typical storage in a hallway due to insufficient space throughout the building.



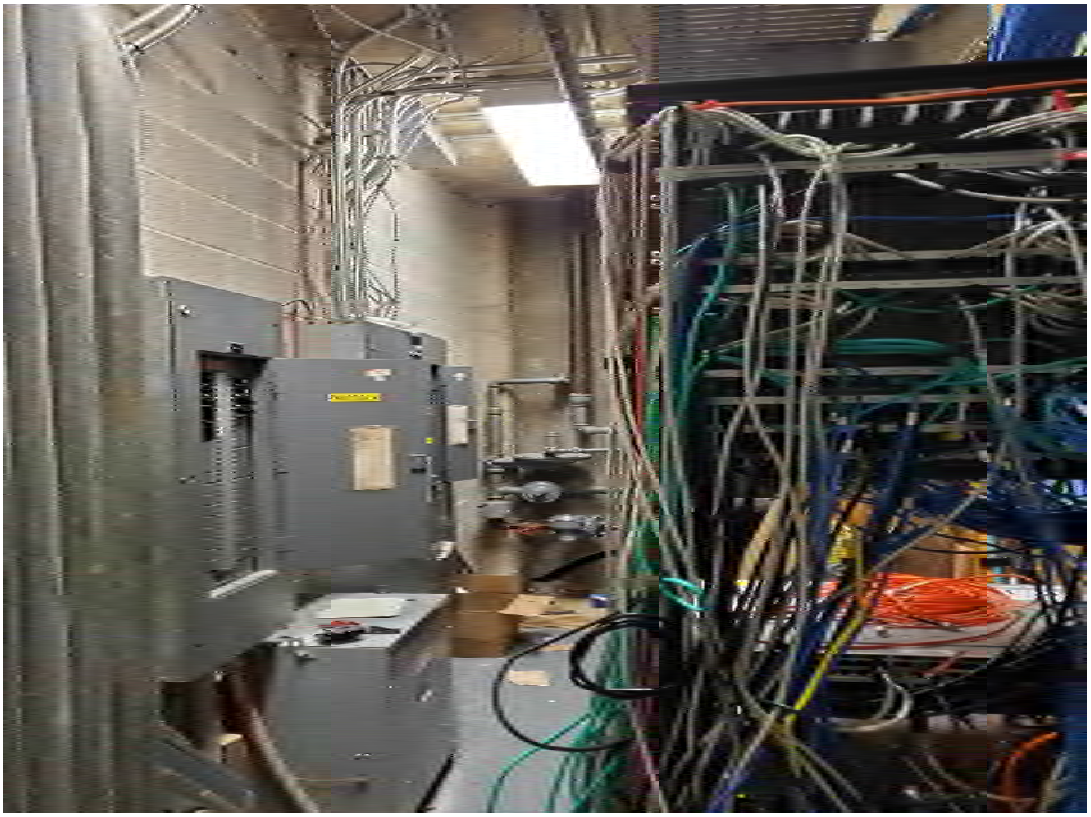
Unsecured storage in a stairwell due to insufficient space throughout the building.

Typical storage in a hallway due to insufficient space throughout the building.

C. Age, Condition and Deferred Maintenance of Facilities

The age, poor condition and substantial deferred maintenance backlog of the DLS Building are primary factors that drive many of the existing facility problems. As detailed in Section 2.01A the following are highlights of the current facility problems caused by these factors.

- Most building systems, spaces, finishes and equipment are over 40 years old and in need of replacement or modernization. Life expectancy for primary building systems and equipment, including mechanical, electrical, plumbing and telecommunications, is typically 20-25 years
- Interior finishes, some of which are over 40 years old, are worn, beyond life expectancy and in need off replacement and upgrade
- Numerous hazardous materials are located in the building including asbestos, mold, lead paint, etc. and in need of abatement or removal
- Restrooms and other parts of the building are not ADA compliant
- Chronic elevator operation and maintenance issues are on-going, create disruption to service operations
- Pervasive water infiltration issues in the lower levels and elevator pit have created maintenance issues and periodic environmental hazards in the building



Insufficient utility space with makeshift accommodations creating unmanaged and constrained operating conditions.

Antiquated plumbing & fixtures that are difficult to maintain and in need of replacement.

2.02 Factors that Influence the Facilities Problems

A. Planned Growth

Planned growth in staff will drive the need for an expanded facility and space to create increased operational and service capacity to support additional legislative initiatives and service demand from the Maryland General Assembly and the citizens of Maryland.

B. Deficiencies Caused by Age, Poor Condition and Deferred Maintenance Backlogs

The age, poor condition and deferred maintenance backlog of the DLS Building are primary factors that drive many of the existing facility problems. These factors create functional, flexibility and comfort issues that place limits on and negatively impact the ability of the DLS to operate and provide service to Maryland General Assembly and the citizens of Maryland.

2.03 Historical and Projected Changes in Factors and Facilities Problems

Table 2.1 presents the historic and planned changes in employees department-wide. Existing space insufficiency will worsen with the projected growth in employees to support new legislative initiatives and maintain desired levels of service.

Table 2.1: Actual and Projected DLS Headcount Planning Data

	2016	2017	2018	2019	2020	5 Year % Change	2030	10 Year % Change
Full Time Staff	263	254	256	260	264	0%	296	12%
Contractual	72	72	59	55	57	-21%	57	0%

Source: MD Department of Legislative Services, Human Resources, 2020

Over the past decade the number of bills being introduced through legislative initiatives by members of the General Assembly continues to increase at a steady pace. From 2015 through the shortened 2020 legislative session the number of bills introduced has increased from 2,234 to 2,745 representing an annual increase of 3.8% and a five year increase of 22.8% during that period. It is anticipated that bill production will continue to increase over the ten year planning period. The number of bills introduced is a prime driver impacting the workload of all DLS units.

Deficiencies caused by age, poor condition and deferred maintenance backlogs have been developing since the building was constructed in 1976. Many of the building systems are at or past their useful life and need to be modernized or replaced. These conditions will continue to negatively impact end user operations and the resulting service delivery and will continue to require a disproportionate amount of maintenance resources to keep the building operational. These problems and negative impacts will grow in intensity with greater use and program demands that will occur with a growing employee base needed to meet the anticipated increase in workload for DLS units and to maintain desired levels of operational service.

2.04 Consequences of Facility Problems

Continued insufficiency of space to support DLS programs and employees will result in overcrowded conditions and the inability to adequately support current operations, programs and services and planned growth. In addition, existing facilities, including building systems, will continue to deteriorate if not modernized or replaced and result in building system inconsistency and eventually failure. These conditions if unaddressed will continue to negatively impact DLS operations and efficacy, employee working conditions and require a disproportionate amount of maintenance resources to keep the building operational. These problems and negative impacts will grow in intensity with increased use that will occur with planned growth of DLS staff.

2.05 Impact of Facilities Problems on Program and Service Delivery

Insufficient space will result in continued overcrowding which will grow worse with planned growth. The impact of growth and obsolete building systems and equipment will continue to constrain the overall effectiveness of the staff in supporting and serving the Maryland General Assembly and the citizens of Maryland. In addition, these facility problems will constrain the ability of the State of Maryland to compete for, recruit and retain the best available talent for the DLS.

2.06 Impact on DLS Purpose and Mission

Sufficient and adequate facilities are at the heart of and critical to the success of DLS fulfilling its purpose and mission of serving the Maryland General Assembly and the citizens of Maryland. Without adequate quantities and types of spaces to support operations and service delivery and the recruitment and retention of new talent it is difficult to see how DLS can effectively fulfill its purpose and mission.

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Section 3 Project Scope

3.01 Project Description

In order to fully address planned employee growth over the next decade, the current facility problems caused by obsolete building systems, and to maximize the buildable area of the existing site, the best solution and project proposal is to demolish the existing 94,000 Gross Square Foot (GSF) DLS structure and build a new 141,500 GSF facility on the same site. The new building will be six stories, with two below grade that connect into the existing tunnel system and the other four at and above grade. The new DLS Building will be designed to fit within the context of the Annapolis Historic District, respect the gravitas of the Maryland General Assembly that it serves, and also provide for an innovative and contemporary office environment to support the recruitment and retention of the best talent and to optimize the production of personnel resources.

The project will deliver all new interior spaces as detailed in this section to meet the spatial and performance requirements of all programs, functions, and units of the DLS. The building will be energy efficient and achieve a minimum of LEED Silver certification. The existing building will be vacated to facilitate demolition and the construction of a new building.

3.02 Descriptions of Proposed Programs

Programs proposed to be located and housed in the DLS Building are described below.

A. Executive Director's Office

Appointed by the House Speaker and Senate President in consultation with the House and Senate Minority Leaders, the Executive Director has overall responsibility and supervision over the offices, functions, personnel, and activities of the Department of Legislative Services.

The Executive Director supervises and provides direction for the Department's four main Offices: the Office of Policy Analysis (OPA), the Office of Operations and Support Systems (OOSS), Office of Program Evaluation and Government Accountability (OPE) and the Office of Legislative Audits (OLA). The position of Counsel to the Joint Committee on Legislative Ethics, which functions as Ethics Advisor to the General Assembly also falls under the supervision of the Executive Director.

B. Executive Director's Office - Ethics Counsel

Provides confidential ethics advice to legislators. Assists the Ethics Committee in its activities, including confidential matters. Meets with each legislator at least once each year and provides additional assistance to members as needed.

The Ethics Committee holds confidential meetings dealing with very sensitive matters. To ensure confidentiality, for especially sensitive matters, State troopers assist the office by ensuring that no one is eavesdropping on the meeting. The largest existing challenge is in finding a meeting room that provides appropriate confidentiality for meetings. The committee chairs have requested a soundproof conference room. The room would need to hold 12 committee

members, 4 staff members, a court reporter, a respondent with counsel, and a witness with counsel. Hearings are closed to the public so there is no need for public seating. Ideally, the room will be wired to record meetings but will not have streaming capability. It would also be helpful to have multiple entrances to the room so that a witness can enter and leave the room in a manner that protects the witness's identity.

C. Office of Legislative Audits

At least once every three to four years, the Office of Legislative Audits conducts fiscal and compliance audits of each unit of State government unless the Legislative Auditor determines, on a case-by-case basis, that more frequent audits are required (Chapter 49, Acts of 2016). These audits include the offices of clerks of court and registers of wills, but do not cover units of the Legislative Branch. Upon direction by the General Assembly or the Joint Audit Committee, the Legislative Auditor may undertake performance or financial audits, reviews, and investigations of a State agency or program, or of a private organization that receives State funds.

At least once every six years, the Office conducts financial management audits of local school systems and reviews the audit reports of all county and municipal governments and community colleges (Code State Government Article, secs. 2-1217 through 2-1222). Work of the Office is organized into three units: Compliance and Performance Audits, Information System Audits, and Quality Assurance and Professional Development.

D. Office of Policy Analysis

In the Office of Policy Analysis (OPA), staff works in one of three functional areas: Fiscal and Policy Analysis, Legislation and Committee Support, or Library and Information Services. Fiscal and Policy Analysis staff work in the areas of budget and fiscal review and analysis. Staff also prepare an estimate of the cost of every bill introduced during the legislative session. The area of Legislation includes legislative and amendment drafting, statutory revision, and legal review and analysis. Committee Support comprises staff that provide professional services to all legislative committees, subcommittees, commissions, and task forces. Library and Information Services serves the legislature, staff, and the public through the operation of the legislative library and the provision of public information services about legislative activities.

In addition to their functional responsibilities, OPA staff works in policy-related groups that operate during the legislative interim to review and analyze issues in subject areas such as business, technology, and economic development; courts and civil matters; criminal justice and public safety; education; taxes and fiscal planning; health and human services; intergovernmental matters; legal matters; natural resources, environment, and transportation; as well as program review and special projects; public administration; and taxes and revenues. The primary purpose of the workgroups is to foster the development of subject-area expertise in order to support the multidisciplinary research needs of the committees during the interim and to answer legislative inquiries.

Additionally, the office maintains an active publication program to fulfill its statutory charge to conduct general research studies, develop options, make recommendations, and report to the General Assembly on various fiscal and policy matters.

E. Office of Policy Analysis - Library and Information Services

The Library and Information Services unit provides reference and information services to all members of the Maryland General Assembly (MGA), their staff, departmental staff, and State agencies. The Library and Information Services unit is the only area in the DLS that interacts directly with the public on a regular basis. This unit is frequently the entree to the Legislature and the legislative process for many constituents. Legislative librarians, consisting of researchers, indexers, catalogers, and acquisitions are a team of experts who provide intellectual and physical access to legislative information and records. The Publications Editor, Mandated Report Specialist, and Visitor's Coordinator are also all a part of this office.

The Information Services Desk receives all DLS publications for distribution and stores them for a year if not more. They produce the Maryland Clipper that is produced daily during session and weekly during the interim. During the legislative session they listen to all the committee hearings and mark all bills for posting to the MGA website. They also receive and post committee votes to the MGA website.

The five Reference Librarians work on research projects for Legislators and staff year-round as well as work on special library-related projects as time permits during session and the interim. The Visitor's Coordinator schedules and arranges educational programs and tours throughout the year with an increased workload during session. Often members or their staff come to this office to pick up MGA lapel pins that are given to members for one term in office.

The Indexing and Cataloging Librarians index all proposed, and later amended legislation for the MGA website. During the interim, they index the Laws of Maryland, the Senate and House Journals, the Maryland Public Local Laws, and the Governor's Executive Orders. They also catalog all library materials providing electronic links to items within the catalog record.

The Acquisitions Librarian orders and receives library books, including the Annotated Code for staff and legislators. The Mandated Reports specialist receives publications from State agencies and prepares them for cataloging. Technical Services prepares materials for shipping to offsite storage. They also receive legislative history files and prepare them for archival purposes. They prepare Legislative records, books, periodicals, etc. for binding. There is an ongoing microfilm and scanning project for scanning legislative history files done by the technical services staff. This division also does all the video streaming in the Joint Hearing room.

The Publications Editor produces the Daily Synopsis during session and the Committee Meetings and Hearing Schedule, the Roster and List of Committees, DLS Newsletter, Your Voice in Annapolis, and various other brochures and flyers. The Administrative Assistant produces the Notice of Legislative Unit Invitations to Meals and Receptions and during session, the Brief Roster and List of Committees.

Under Library and Information Services, since October 1, 2017, the Department of Legislative Services has had a records management program for the continual, economical and efficient management of its records. The Department's Records Officer develops and oversees the program and serves as liaison to the Records Management Division of the Department of General Services, and to the State Archives.

F. Office of Policy Analysis - Legislative Drafting, Editing and Bill Processing, Committee Staffing

The Legislation function along with Editing and Bill Processing is primarily responsible for drafting, reviewing, proofreading, and printing bills and amendments at the request of legislators. During the session, this office staffs both the bill drafting office and the amendment office.

Bill Drafting Office

For the first 30 days of session three drafters plus the drafting manager relocate to desks in the bill drafting office (Room 110) to be available to help with the intake of bill requests. Drafters need space to work, but they also need space to be able to meet with legislators, aides, and lobbyists who stop by the office to leave bill requests. The purpose of bringing drafters into the bill drafting office is both to train the newest drafters in an environment that allows them to learn from each other and issues as they arise and to offer a convenient place for members and staff to come to quickly talk to someone about requested legislation.

Amendment Office

During the entire 90 days of the legislative session the amendment office is staffed with eight drafters, five support staff, and four editors. The drafters are in the central office both for the ease of the members and aides in requesting amendments and because of the quick turnaround often required for requested amendments

Editing and Bill Processing

Editing is responsible for proofreading legislation at every stage, from LR through enrolled bill. Bill Processing is responsible for the typing, correction, and initiation of printing bills at every stage in the process.

Support Staff

Support staff are responsible for logging bill requests both in the interim and the session. This involves intake of email requests, phone requests and in person requests. Support staff also facilitate the workflow of bills by making sure that pink sheets and paperwork are delivered to where they need to be at each stage in the process.

Support staff work with the Administration to make sure that administrative and departmental bills are properly processed and with delegations to make sure that their bills are properly processed. In the amendment office, support staff are responsible for logging and tracking amendments as well as typing corrections into draft amendments.

G. Office of Policy Analysis - Budget, Fiscal and Policy Analysis

This office prepares written analyses of the Governor's proposed operating and capital budgets, makes numerous presentations to committees, supports consideration and action on the budget by the budget committees and the full House of Delegates and Senate of Maryland. Support staff format all budget-related documents from the budget function and support the Health and Human Services and Taxes & Fiscal Planning workgroups when the legislature is not in session.

Budget Function (Operating & Capital)

Budget review is a year-round process. During the legislative session, analysts prepare and present written analyses of State agency budgets. The analyses include an overview of the proposed spending, summary of agency performance, issues on agency finances and policies, and recommendations for action by the General Assembly. Analysts also support the General Assembly's decision process and prepare materials summarizing and explaining the actions of the General Assembly. When the General Assembly is not in session, staff review proposed amendments to the budget, prepare revenue and expenditure forecasts, monitor State spending, and immerse themselves in the operations of State agencies.

Fiscal and Policy Analysis (Notes)

This office prepares legal, programmatic, policy, and economic and fiscal impact information for legislation introduced in each legislative session can be found in the fiscal and policy notes developed by analysts in the Office of Policy Analysis.

Generally, a fiscal and policy note prepared on a bill contains (1) a summary of the bill; (2) an estimate of the fiscal impact of the bill on the revenues and expenditures of State and local governments during the year in which the bill is to become effective and for the next four years following that year; (3) an overview of relevant existing law; and (4) an assessment of the bill's economic impact on small businesses. A fiscal and policy note also identifies when a bill mandates an appropriation to a program as well as when it establishes a mandate on a unit of local government. When available, a fiscal and policy note may also incorporate background information about the bill's introduction or associated programs and policies.

Prior to the hearing on a bill, copies of the fiscal and policy note are furnished to the sponsor of the bill and to the members of the standing committee assigned the bill. Subsequently, if an amendment included in a Third Reader or Enrolled version of a bill affects the original fiscal and policy note, staff develops and issues a revised fiscal and policy note. The most recent version of fiscal and policy notes is available on the Maryland General Assembly website. To access the note on a particular bill, you will need to know the bill number and the year in which the bill was introduced.

H. Office of Operations and Support Services (OOSS) - Administration

Administration consists of Graphics and Printing, Facilities, and Distribution. This unit as a whole is responsible for mail pickup and delivery, the distribution of legislative bills, hearing schedules,

and other legislative documents, as well as a subscription mailing service, a customer "bin" pickup service, and a centralized FAX service. This unit also provides graphics, printing, and recycling services for the entire State Capitol complex. Facilities management is responsible for the maintenance and operation of the complex and related building service systems. The DLS Building project proposed in this program document will also fall under this unit.

Graphics and Printing Services
Produces a diverse variety of printed and digital materials, such as letterheads, business cards, standard stationery items, and citations and memorials, and also designs artwork for special projects such as posters, signage, tent cards, brochures, and invitations. This unit prints all bills, books, and various other jobs for the DLS and public. The unit also provides copywriting, proofreading, and editing for all the materials produced and makes available quality digital input of materials via scanning. In addition, the unit offers photography support to the members of the MGA as well as the other offices in DLS.

Distribution
This unit provides mail pickup and delivery and distribution of legislative bills, hearing schedules, and other legislative documents, as well as a subscription mailing service, a customer "bin" pickup service, and a centralized FAX service. Distribution Services includes the MGA Mailroom, Bin Room, and Bill Room.

Facilities
This unit performs daily activities related to the maintenance and operation of the State Capitol complex facilities and related building services. In addition, this unit:

- Provides direction and guidance to ensure the proper maintenance of the building structures and related building service systems (e.g., HVAC, electrical, plumbing, elevators, proximity card readers, pest control, etc.)
- Is responsible for the moving and relocation of furniture such as office relocations, rearrangements, and renovations
- Performs "set-ups" throughout the Legislative Complex in preparation for meetings, presentations, or special events as needed
- Prepares work order from members and staff related to building maintenance need
- Arranges contractor access to secure locations and for carpet and tile cleaning for the complex
- Receives and processes all nameplate and key requests

I. Office of Operations and Support Services (OOSS) – Human Resources
The Office of Human Resources (HR) provides personnel services for the employees of the DLS and for members and staff of the MGA. The MGA's Page and Intern program is also coordinated in HR. The functions of this office also include:

- Orientation and processing of paperwork; that paperwork is routed through Finance and Payroll (located in HR)

- Benefits coordination of all staff, including members; mostly handled in the HR office deferred compensation specialists meet with staff once a month in the office
- Payroll processing; the staff works closely with finance and also receive customers daily in-person and via telephone
- Counseling and answering policy questions
- Exit interview and processing of final paperwork
- The Page and Intern programs for the Maryland General Assembly are centralized within Human Resources. The student programs usually support 100 interns and 125 pages each session. Each student visits HR for stipend, timesheets, etc. Member's staff review applications in the HR office

The HR Office currently maintains records dating from the 1970's. A mass project would be turning those records into electronic files but at the moment there are numerous files stored in cabinets located in the hall leading to the office.

J. Office of Operations and Support Services (OOSS) – Finance

The Finance unit manages all financial services in the DLS and the MGA, including accounts payable and receivable, budget preparation and administration, member district office allowance accounting, fiscal/ departmental resource usage planning and reporting, inventory recordkeeping, and procurement. In this regard, the Finance unit is responsible for maintaining the Legislature's statewide accounting records (R* STARS) and its internal accounting records (SAP). The Finance unit receives spending or purchase records from authorized requesters throughout the State Capitol complex, reviews the related documents for completeness, accuracy and proper authorization and then processes the resulting payment, procurement, or other applicable documentation.

K. Office of Policy Analysis – Office of Program Evaluation & Government Accountability

At the direction of the Joint Audit and Evaluation Committee, the Office of Program Evaluation and Government Accountability (OPE) conducts evaluations of governmental activities and/or units. OPE evaluates the efficiency, effectiveness, and economy with which resources are used; determines whether desired program results are achieved; determines whether a program aligns with the unit's mission; evaluates whether a program duplicates another program or activity within another unit; evaluates whether the governmental activity or unit operates in an open, accountable, fair, and non-discriminatory manner; and determines the reliability of specified performance measures.

L. Office of Counsel to the General Assembly - Attorney General's Office

The primary function of this office is to provide impartial, nonpartisan legal advice to the individual members of the MGA, its committees, leadership, and staff on the constitutionality and interpretation of legislation. Much of this work takes place during the 90-day session (or any Special Session), as hundreds of advice letters are generated (along with loads of oral advice), often at break-neck speed. Advice requests continue to be received throughout the year, particularly from the leadership, committee chairs, the DLS, and the Legislative Auditor. In

addition, this unit receives requests for advice about the State budget year-round. During the interim, requests from individual legislators tend to be of the constituent-service variety. There are four attorneys in the office, with one full-time office manager and a part-time administrative assistant during session. Also, during session the Attorney General's director of legislative affairs is housed in this office, usually with another attorney from the Consumer Protection Division. They monitor and occasionally provide testimony on pending legislation on the AG's behalf or at the request of the legislature. The busiest time of the year is the legislative session, although we do not have a slow period. From January to Sine Die, we are responding to requests for advice about pending legislation. This office receives requests by email or phone, and in-person. Legislators and staff frequently walk-in to the office for consultation.

From April through May, this unit conducts bill review, during which it assesses the constitutionality of every bill that has passed during session, typically 600 to 900 bills. During this bill review, the office receives hard copies of passed bills (one for each attorney) and use an online system to allow agency counsel to co-review about 35 percent of the bills. The bill review letters are sent to the Governor's office for their review before the Governor decides whether to sign or veto the bills. During the interim, this unit continues responding to requests for advice and assists in reviewing and drafting formal opinions of the Attorney General, and with litigation involving the constitutionality of State laws. In terms of workload, this unit averages an output of 45 letters of advice per month.

3.03 Proposed Facility Program

The proposed facility program is for a project to deliver 88,437 NASF of useable space to address existing space insufficiencies and accommodate planned growth. A summary of the total space by Higher Education General Information Survey (HEGIS) category proposed in the new facility is documented in Table 3.1 and a listing of the proposed program spaces are inventoried in Table 3.2.

Table 3.1: Proposed DLS Program Space Summary by HEGIS Code

HEGIS Code	Room Use	Existing Space (NASF)	Proposed Space (NASF)	Difference (NASF)
Class Laboratory	210	483	525	42
Office	300	45,821	65,962	20,141
Library	400	5,975	4,600	(1,375)
Lounge	650	585	865	280
Recreation	670	0	2,250	2,250
Meeting	680	4,271	6,985	2,714
Shop	720	400	400	0
Storage	730	291	1,250	959
Central Service	750	5,630	5,600	(30)
Total NASF		**63,456**	**88,437**	**24,981**

Table 3.2: Proposed DLS Program Space List

Room Type/Classification	Room Use	Room Total	Room Capacity	Room NASF	Total NASF
					88,437
Executive Director					914
Executive Director - Private Office	310	1	9	300	300
Reception/Waiting	315	1	4	80	80
Supervisory - Private Office	310	1	3	126	126
Non -Supervisory Private Office	310	1	3	108	108
Conference Room	350	1	12	300	300
Ethics Counsel					383
Branch Head, Ethics - Private Office	310	1	5	175	175
Reception/Waiting	315	1	5	100	100
Non-Supervisory - Private Office	310	1	3	108	108
Office of Policy Analysis					1,674
Director - Private Office	310	1	7	200	200
Reception/Waiting	315	1	3	60	60
Supervisory - Private Office	310	1	3	126	126
Non-Supervisory - Private Office	310	6	3	108	648
Intern - Open Office Workstation	310	10	2	64	640
Library and Information Services					9,025
Branch Head (Library Manager) - Private Office	310	1	5	175	175
Non-Supervisory - Private Office (Librarians)	310	1	3	108	108
Supervisory - Open Office (Information Desk)	310	1	3	120	120
Non-Supervisory - Open Office (Information Desk)	310	5	3	90	450
Information Desk	315	1	4	150	150
Non-Supervisory - Open Office (Visitors Program)	310	3	3	90	270
Visitors Program: Storage	315	1	N/A	100	100
Non-Supervisory - Private Office	310	1	3	108	108
Supervisory - Open Office (Indexing and	310	1	3	120	120
Non-Supervisory - Open Office (Indexing and	310	2	2	90	180
Supervisory - Private Office (Reference Librarians)	310	1	3	126	126
Non-Supervisory - Private Office (Reference Librarians)	310	5	3	108	540
Reference Desk/Display/Lobby	315	1	N/A	200	200
Supervisory - Private Office (Acquisition Services)	310	3	3	126	378
Non-Supervisory -Open Office (Acquisition Services)	310	4	2	90	360
Contractual Staff - Open Office	310	6	1	90	540
Copy Room	315	1	N/A	150	150
Conference Room	350	1	8	200	200
Work carrolls and tables	410	8	1 to 2	25	200
Open Shelving Collections	420	1	N/A	900	900
Compact Shelving Collections	420	1	N/A	3,200	3,200
Library Storage (Acquisition Services)	425	1	N/A	300	300
General Storage	315	1	N/A	150	150

Legislative Drafting, Editing and Bill Processing, Committee Staffing					**4,188**
Non-Supervisory - Private Office	310	6	3	108	648
Supervisory - Open Office	310	1	3	120	120
Non-Supervisory - Open Office	310	8	2	90	720
Bill Drafting Reception/Waiting	315	1	5	100	100
Bill Drafting Storage	315	1	N/A	150	150
Non-Supervisory - Private Office	310	15	3	108	1,620
Field Office Supervisor - Private Office	310	4	4	150	600
Reception/Waiting	315	1	4	80	80
Workroom/Library	315	1	4	150	150
Editing and Bill Processing					**4,072**
Supervisory - Open Office	310	1	3	120	120
Non-Supervisory - Open Office (Editing Staff including Session Employees)	310	27	2	90	2,430
Supervisory - Private Office	310	4	3	126	504
Non-Supervisory - Private Office	310	1	3	108	108
Non-Supervisory - Open Office	310	7	2	90	630
Reception/Waiting	315	1	4	80	80
Workroom	315	1	N/A	200	200
Budget, Fiscal and Policy Analysis					**175**
Branch Head - Private Office	310	1	5	175	175
Budget					**3,748**
Field Office Supervisor - Private Office	310	4	4	150	600
Non-Supervisory - Private Office	310	16	3	108	1,728
Supervisory - Open Office	310	1	3	120	120
Non-Supervisory - Open Office	310	8	2	90	720
Reception/Waiting	315	1	4	80	80
Workroom	315	1	N/A	200	200
Conference Room	350	1	12	300	300
Fiscal and Policy Analysis					**4,926**
Non-Supervisory - Private Office	310	27	3	108	2,916
Field Office Supervisor - Private Office	310	4	4	150	600
Supervisory - Open Office	310	1	3	120	120
Non-Supervisory - Open Office	310	9	2	90	810
Reception/Waiting	315	1	4	80	80
Workroom	315	1	N/A	200	200
Storage	315	1	N/A	200	200
Office of Operations and Support Services					**200**
Director - Private Office	310	1	7	200	200
Information Systems					**7,573**
Director - Private Office	310	1	7	200	200
Assistant Director - Private Office	310	1	5	175	175
Receptionist - Open Office	310	1	1	81	81
Reception/Waiting	315	1	10	150	150
Supervisory - Private Office	310	2	3	126	252
Non-Supervisory - Private Office	310	35	3	108	3,780
Non-Supervisory - Open Office (SAP)	310	4	2	90	360
Upgrade Room	750	2	N/A	800	1,600
Training Room	210	1	15	525	525
Conference Room	350	1	12	300	300
Storage	315	1	N/A	150	150

Attorney General's Office					**1,507**
Branch Head - Private Office	310	1	5	175	175
Attorney -Private Office	310	4	4	150	600
Reception/Waiting	315	1	8	120	120
Reception Staff - Open Office	310	2	1	81	162
Conference Room	350	1	12	300	300
Workroom/Storage	315	1	N/A	150	150
State Police					**1,017**
Supervisory - Open Office	310	4	3	120	480
Non - Supervisory - Open Office	310	2	1	81	162
Conference Room	350	1	15	375	375
DLS Auditors					**270**
Non-Supervisory - Open Office	310	3	1	90	270
DLS Service and Supply					**530**
Non-Supervisory - Open Office	310	3	1	90	270
Service Window	315	1	1	60	60
Storage	315	1	N/A	200	200
DGS Building Manager					**258**
Non-Supervisory Private Office	310	1	3	108	108
Storage	315	1	N/A	150	150
Division of Equity					**126**
Supervisory Private Office	310	1	3	126	126
Future Growth Space					**17,715**
Office/Support	310	3	N/A	5,905	17,715
Building Common Spaces					**14,250**
Joint Hearing Room	680	1	299	3,825	3,825
A/V Room - Joint Hearing Room	685	1	N/A	160	160
Joint Hearing Room Break Out Meeting Space	680	1	30	750	750
Deschenaux Conference Room	680	1	30	750	750
General Purpose Meeting Room (Medium)	680	2	20	500	1,000
General Purpose Meeting/Interview Rooms (Small)	680	2	10	250	500
Break Room/Kitchennette	650	5	N/A	125	625
Copy Room	315	5	N/A	200	1,000
Locker/Changing/Shower/Toilet Rooms (Men's and Women's)	670	2	25	750	1,500
Multi-Purpose Wellness Room	670	1	25	750	750
Strength Training/Equipment Room	670	1	N/A	1,500	1,500
Lactation Room	650	3	1	80	240
Electronic's Shop	720	1	N/A	150	150
Loading Dock Entry	725	1	N/A	250	250
Loading Dock Storage	730	1	N/A	500	500
Building Storage	730	5	N/A	150	750

3.04 Quantitative Guidelines and Space Standards for Proposed Program

Programming of space has been completed using the Appendix A, Office Space Standards in the Maryland Facility Program Manual, July 2017. The following documents the guidelines and standards applied as a basis for developing the proposed space program inventoried in Tables 3.1 and 3.2.

Class Laboratory (HEGIS 210)

This project includes one small computer laboratory with a capacity of 15 for use by Information Systems for technical and information literacy training. This space currently exists in the DLS Building at the same capacity.

Office/Conference Space (HEGIS 300)

Determination of office space is based primarily on organizational structure, staffing, and positions of individuals. The quantity of offices and/or workstations was developed from the staff/employee projections in Section 2.03. Maryland planning guidelines were followed in allocating office space as documented below.

	NASF Allocation
Cabinet Secretary or Agency Executive Director	300
Assistant Secretaries, Division Chiefs or Directors	200
Branch Heads or Assistant Directors	175
Attorneys or Field Office Supervisors	150
Supervisory – Private Office	126
Supervisory – Open Office	120
Non-Supervisory – Private Office	108
Non-Supervisory – Open Office	90
Secretaries or Drafting Stations – Open Office	81
Conference Rooms (Per Person)	25
Reception/Waiting Rooms (1 – 10)	20
Reception/Waiting Rooms (> 10)	15

Many of the DLS units require a suite arrangement to best support function. All suites include a reception/waiting area to support the offices. Depending on size and function workrooms and storage have been provided to support the unit operations. The workroom includes counter work space and storage. Conference rooms were provided to specific units that identified the need for dedicated meeting space to support daily operations that include frequent meetings. Various sized meeting rooms (HEGIS 680) have been provided throughout the building to support all other DLS units and staff and will be scheduled centrally to optimize utilization.

The total amount of office and conference space proposed is 65,962 NASF. The Maryland guideline is 166 NASF per FT staff. The projected number of staff (both full time and contractual) needing office space is 353. The guideline allowance is estimated at 58,598 NASF. The additional space proposed will be reserved as long-term future growth space to accommodate unforeseen initiatives that may require office and conference space on the State Capitol campus. Further studies may be addressed in future for consideration of Covid-19 and its impact on the office environment.

Library Stack and Study (HEGIS 400)
The Library needs were developed primarily on the number of offices needed by employment classification as outlined above, along with the space needed to accommodate the quantity of collection stacks today, plus an increase of 10% to support growth. The decision has been made to move towards compact shelving systems to replace 80% of the open stacks to address the collections storage needs of the Library over the next decade. In addition, other support spaces such as a small conference room, reference desk and reception area, display areas and individual carols and small group works tables have been included to support functional needs. Based on the use of compact high density shelving, the total space allocation for Library stack and study space has decreased from an existing amount of 5,975 NASF to 4,600 NASF.

Lounge (HEGIS 650)
The Maryland guideline for lounge space is based on the Planning Headcount (PHC) for the facility or campus and 3.0 NASF per PHC. Using the guideline formula, the calculated allowance for the facility is projected in 2030 at 888 NASF of lounge space. The program proposes 865 NASF which is within the guideline limits.

Meeting (HEGIS 680)
The Maryland guideline for less than 3,000 FTDE-C is 6,000 NASF. The program proposes 6,985 NASF to address program needs for this project.

Shop/Storage (HEGIS 720/730)
The Maryland guideline for storage and related spaces is based on 4% of space in the DLS facility, excluding storage. The program proposes 1,650 NASF which is within the total guideline allowance by 2,536 NASF ((63,456 NASF – 291 NASF) x .04).

Central Services (HEGIS 750)
The Maryland guideline is 4,000 NASF. The program proposes 5,600 NASF which has been developed to specifically support the Printing Shop and IT Hardware Upgrade spaces which support all the functions, staff and buildings of the Maryland General Assembly and the State Capitol complex.

3.05 Unique Program Features Involving Unusual Expense

A unique program feature that will involve some expense will be the waterproofing of the existing underground pedestrian tunnels that connect the existing project site to the adjacent House and Senate buildings. The existing tunnels have been in use for many decades and have extensive water infiltration issues that need to be addressed and repaired to extend the life of these improvements. The tunnels are used heavily during the legislative session and to a lesser degree throughout the year and are programmatically integral to the new DLS Building project.

3.06 Site Improvements

The entire site will be redeveloped as part of the proposal to demolish the existing building and construct a new, larger building to meet the DLS program needs identified in this program. Description of the site improvements to be designed in this project are documented in Section

8.03. It should be noted that all project site improvements will be coordinated with those currently under construction as part of the Lawyer's Mall project.

3.07 Presence and Condition of Site Utilities

There are numerous utilities that traverse and run adjacent to the proposed project site. These utilities are graphically illustrated in Section 1.02D, Figure 1.3 and include: natural gas, steam/condensate, chilled water, electric, domestic water, sanitary sewer, stormwater and telecommunications. Relocation, extension and upgrade of some or all of these utilities is anticipated in the proposed project scope of work. These utilities vary in age, condition and capacity and will be evaluated more fully in design to determine the extent of relocation, extension and upgrade needed. More documentation about these improvements are included in Section 8.03. It should be noted that all project utility improvements will be coordinated with those currently under construction as part of the Lawyer's Mall project.

3.08 Proposed Use of Vacated Facilities

The DLS Finance Office (Supply and Services Group) occupies three offices and a storage space in the parking structure of the Miller Senate Building. Upon completion of the new DLS Building these spaces will be vacated and relocated to the new DLS Building. Vacated spaces will be reused for storage by the occupants of the Miller Senate Building.

Section 4 Miscellaneous Requirements

4.01 Indications

A. 100 Year Flood Plain

The proposed site for the project is not located within a 100-year flood plain identified by the Federal Emergency Management Agency.

B. Wetland Area

The proposed site for the project does not infringe on or impact any areas classified as wetlands U.S Army Corps of Engineers.

C. Forested Land

The proposed building footprint will not require or involve the clearing of forested areas as defined by the State of Maryland.

D. Chesapeake Bay Critical Area

The proposed project site is not located within the Chesapeake Bay Critical Area as defined by the State of Maryland.

E. Historical and/or Cultural Resources

The proposed building footprint is not anticipated to impact any historical or cultural resources as defined by the State of Maryland.

F. Smart Growth

The proposed project is consistent with and advances the “Smart Growth” initiatives and policies of the State of Maryland.

4.02 Rationale for Project Not Included in Facilities Master Plan

The rationale for this project is to fully address existing and projected facility deficiencies and space insufficiencies constraining DLS in optimizing operations and service in support of the Maryland General Assembly. The project will include reinvesting in an already developed site and replacing an existing antiquated facility with building systems and equipment that are at or beyond their useful life and energy inefficient. Reinvesting in the existing site supports and advances “Smart Growth” principles.

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Section 5 Project Alternatives and Recommendations

5.01 Project Alternatives

Subsequent to development of the Facility Program for the Department of Legislative Services (DLS) Building, five alternative solutions have been identified for evaluation regarding which approach to renovations and/or new construction best accommodates the building users' current and projected needs and supports the DLS mission of serving the Maryland General Assembly (MGA) and citizens of Maryland. These options include:

A. Alternative 1 – Do-Nothing Approach

Alternative 1 is a baseline approach that makes no physical changes to the existing 94,000-square foot DLS Building. This option does not address any of the underlying issues with an aged, nearly fifty-year-old building and associated infrastructure as outlined in Section 2 above. These facility condition issues are significant and have a direct impact on the health and safety of the building users. Problems include water infiltration and mold growth at the subgrade levels, aged and deteriorated windows, mechanical, electrical, and plumbing systems that are approaching the end of their useful lives, antiquated technology, and aged elevators (two passenger and one freight).

The "Do-Nothing" approach does not address the building capacity needs for current building users nor the projected growth over the next ten years. Pass-through offices, limited storage space, and non-ADA compliant restrooms are clear indications of insufficient space to meet the existing needs and operations of the DLS users.

Alternative 1 would continue to defer health, safety and welfare improvements that are attendant to a renovation or new building project, wherein the design is required to meet applicable building code criteria and the construction is subject to inspection in order to secure regulatory approval for occupancy. While accessibility compliance criteria attendant to building code would not have enforcement means in this instance, the State could nevertheless be exposed to claims of insufficient access under Federal ADA Guidelines.

Accumulated physical and operational deficiencies will continue to compromise the health, safety, and welfare of the occupants.

Other qualitative problems, such as limited access to natural light and air, which contribute to the comfort and well-being of the building users and likely impact productivity, would continue in a compromised status quo; the do-nothing approach fails to address these problems. Changing internal policies and practices to mitigate the problems associated with the existing building is an unrealistic consideration. The various departments within DLS, as outlined in Section 1.01 E., work together in a holistic way to provide essential services for the MGA; the building provides a home and central hub for these services. Although relocating staff, or potentially entire departments, from within the existing building and moving them elsewhere

could help resolve some of the overcrowding issues, the physical environmental deficiencies associated with the age and condition of the existing building remain.

B. Alternative 2 – Renovate Existing Building

Alternative 2 considers a comprehensive "gut renovation" to the existing DLS Building and infilling floor plates in the central plan areas where there are currently double-height spaces – with the objective of maximizing the available floor area within the building envelope. This approach would result in approximately 98,000 GSF of space, still an inadequate quantity for accommodating the confirmed programmatic requirements of DLS.

The proposed floor infill at the existing location of the double-height Joint Hearing Room will likely add enough mass to the existing building to trigger an International Building Code requirement to assess the entire building's lateral load system for compliance with current seismic structural load conditions. These seismic loads were not considered by the BOCA Basic National Building Code in force at the time of original design in 1976.

The "gut renovation" would include the replacement of all the existing building infrastructure, such as the aged/original mechanical and electrical systems and telecom and data wiring. Although in good condition, at some locations the existing concrete structure may require reinforcing to accommodate new programmatic needs. The comprehensive interior demolition within the existing building allows for a new arrangement of program spaces, but the configuration is limited by the existing inconsistent/irregular structural grid and building envelope components, which contribute to an inefficient layout.

This solution ensures that certain health, safety, and welfare improvements attendant to compliance with current building codes are implemented, tempered by the specific breadth and scope a renovation. A comprehensive renovation will effectively bring the building up to current codes by implementing various compensatory measures tailored to the physical characteristics of the existing structure. Accessibility compliance criteria attendant to building code would have applicable enforcement in this approach.

Physical deficiencies related to the health, safety and welfare of the occupants would be corrected under Alternative 2, but operational requirements relative to meeting program needs and adjacencies could not be fully met.

Exterior building modifications will be limited with this approach. While there may be opportunities to slightly improve on the amount of natural daylight that penetrates the building interior with a new layout configuration, it will prove challenging to accomplish due to the limited number and size of existing windows as well as the number of private offices required by the program.

The building will receive all new finishes throughout as part of a comprehensive renovation; therefore, it will be critical to address the subgrade water infiltration and other building envelope issues as part of Alternative 2. If the water infiltration is not mitigated, it will persist,

and the new finishes will start to develop mold growth. Mitigating the subgrade water infiltration will be challenging work, especially since the occupied basement spaces extend two levels below grade. Further investigation is necessary to determine the best course of action for this mitigation, but work will likely include some excavation around the exterior perimeter of the building.

A preliminary project budget for Alternative 2 has been considered. As indicated in Appendix K, the overall project budget for this comprehensive renovation approach, inclusive of construction costs and associated soft costs, is estimated between $74,283,500 and $77,818,500. The construction duration is estimated to last approximately 18-21 months.

It should be noted that the demolition work associated with Alternatives 2, 3, 4, and 5 will be "higher than average" due to the location of the building in downtown Annapolis and the general conditions of accommodating additional new construction within the dense urban site of the State Capitol complex. Structural upgrades/reinforcing of the existing building will come at a premium cost as well. It is assumed that the building will be vacated during construction of Alternative 2, as the demolition work will be extensive and invasive.

C. Alternative 3 – Renovate Existing Building and Construct New Addition

Alternative 3 includes a full "gut renovation" of the existing DLS Building, infilling floor plates in the central plan areas where there are currently double-height spaces, and construction of a new five-level addition with an approximately 19,000 square feet floorplate. Combined, the existing building and new addition can achieve as much as 117,000 total gross square feet to adequately accommodate the required DLS program space requirements. The challenge of reconfiguring and infilling space around the existing building structure remains, and there will still be inefficiencies within the renovated building footprint, thus resulting in a lower net to gross area ratio than would be accomplished within a newly constructed building. The new addition can be designed with greater efficiency than the renovated areas.

The existing dense urban site leaves limited space for the building addition. The most plausible/only location for an addition is at the north corner of the site, which is wedge-shaped. Although the combined square footage of renovated space and new addition is adequate to accommodate the program requirements and needs, there is no flex space for anticipated long term future growth.

Constructing the modest sized 5 level addition on the available north corner of the existing DLS Building parcel is the only feasible approach to utilizing the existing building (renovation) and expanding the square foot area. The challenges associated with constructing a potential additional floor level on top of the existing DLS Building are considerable and costly from a construction scope perspective. Adding an additional floor would require testing and investigations of the existing building footings/foundations as well as the overall structure. As is noted in Alternative 2 above for the floor infill, similarly, the added mass of an additional floor to the existing building will trigger International Building Code requirements to assess the entire building's lateral load system for compliance with current seismic load conditions and most

likely reinforcement or replacement of the entire existing building structural systems. Lastly, vertical circulation components, including stairs and elevators, would have to be extended up an additional level to accommodate another floor – or replaced. Therefore, it is not feasible to consider adding an additional floor level to the existing building to provide additional square foot area to accommodate program needs.

Similar to the program space accommodation challenges within Alternative 2, it is not possible to achieve all desired adjacencies within Alternative 3 either. The facility program necessitates a larger Joint Hearing Room than currently exists to accommodate up to three committees simultaneously. In order to expand the footprint within a double-height column-free space, it becomes necessary to locate the new larger Joint Hearing Room within the building addition in Alternative 3 rather than renovating within its existing location. The existing concrete structure of the building would be very challenging to modify in order to expand the Joint Hearing Room footprint within the heart of the building because such an approach would require modifications to the floor structure as well as the vertical structure to increase the column free spans.

Additionally, DLS prefers that the Joint Hearing Room be ideally located close to the main entrance on the south side of their building at Lawyer's Mall as it is open to frequent public tours and visitors. As noted above, the only feasible location for an addition is at the opposite end of the building on the north side of the site. Furthermore, the Joint Hearing Room is a large space that does not require windows. Located in the building addition, it will occupy a considerable amount of "prime real estate" within the overall DLS floorplate that could benefit from potential new windows and daylighting. Alternatively, the new addition could be designed for office environments benefitting from larger areas of glazing than the existing building envelope thereby improving staff access to natural light.

Like Alternative 2, this solution would include the replacement of all the existing building infrastructure and have all new infrastructure in the addition. The existing concrete structure may require reinforcing to accommodate new programmatic needs; the structure will be new in the addition with floorplates that align with each of the five floors of the existing building.

The Alternative 3 renovations with an addition solution would technically put the building code compliance review in the International Existing Building Code (IEBC) under Chapter 11 Additions, presuming the addition is not separated from the existing building by a fire wall. The addition would fully comply with applicable new building construction codes without necessarily requiring that the existing building comply. However, because the addition effectively changes the physical characteristics of the existing building (floor area, stories or height, egress paths, etc.), the existing building effectively becomes subject to requirements equivalent to the new building codes with few exceptions. Generally, an addition shall not create or extend any nonconformity in the existing building regarding accessibility, structural strength, fire safety, means of egress, or the capacity of mechanical, plumbing, or electrical systems.
Alternative 3 would also address water infiltration/building envelope issues and would include all new finishes throughout. Like Alternative 2, addressing and mitigating the water infiltration problems at the subgrade levels will be challenging.

The probable construction costs for the Alternative 3 renovation plus addition option are more significant than the previous renovation only approach. A preliminary project budget for Alternative 3 has been considered. As indicated in Appendix K, the overall project budget for this comprehensive renovation plus addition approach, inclusive of construction costs and associated soft costs, is estimated between $90,577,000 and $94,891,000. The construction duration for Alternative 3 is estimated to last approximately 21-24 months.

It should be noted that the demolition work associated with Alternatives 2, 3, 4, and 5 will be higher than average due to the location of the building in downtown Annapolis and the conditions of the dense urban site within the State Capitol campus. Structural upgrades/reinforcing of the existing building will come at a premium cost as well.

Like Alternative 2, it is assumed that the building will be completely vacated during construction, as the interior demolition work will be extensive and invasive. Additional costs and disruption of work would be associated with providing any temporary facilities for the building users during construction.

D. Alternative 4 – Raze and Rebuild with Five Floor Levels

This approach to accommodating all DLS program requirements recommends demolishing the existing DLS Building in its entirety and constructing a new five-story building (with two floors below grade and three floors above grade). This solution to space needs and adjacency requirements would achieve approximately 117,000 GSF, the same building area as Alternative 3. However, a new building will be more efficient within floorplate layouts than the Alternative 3 renovation plus addition approach.

An entirely new building construction and new interior configuration will allow for greater efficiency and incorporate daylighting opportunities for all floor levels above grade. The new building design could accommodate potential interior light wells, innovative and energy efficient envelope design, and/or an interior atrium if appropriate. A new building approach will have the greatest overall tangible impact for the users and the greatest potential for an innovative, functional, and engaging office environment.

A new building would include new structure, new infrastructure, and new technology that is tailored to suit the contemporary needs of DLS. All existing issues with water infiltration, particularly below grade, will be remedied with the demolition of the existing structure and the detailing and design of the new subgrade levels to ensure proper waterproofing is provided. The new building would retain access to the two subgrade tunnels connecting to the adjacent State House and House of Delegates buildings.

The new building approach ensures that health, safety, and welfare improvements attendant to compliance with new building codes are implemented. The building codes set maximum limits on building height and area, based on construction type and occupancy, and minimum criteria

for interior environment, fire and life safety, system performance and other criteria. Accessibility issues will be fully addressed with a new building design.

A preliminary project budget for Alternative 4 has been considered. As indicated in Appendix K, the overall project budget for this comprehensive new building approach, inclusive of construction costs and associated soft costs, is estimated between $94,121,000 and $98,602,000. The construction duration for Alternative 4 is estimated to last approximately 24-27 months.

The Alternative 4 Raze and Rebuild – construction of a five-level new building can accommodate all of the required program requirements. However, the five-level approach will not accommodate all required program adjacencies, future DLS expansion needs, nor would it achieve the maximum potential building build-out and growth on the dense urban State Capitol campus site. There would be an economy of scale and other benefits in considering an additional sixth floor level for any new building to be constructed on the existing DLS site. It is for these reasons a six-level new building alternative was investigated.

E. Alternative 5 – Raze and Rebuild with Six Floor Levels

In order to maximize the existing building site "build-out" and allow for future expansion of DLS departments or potential new State departments, a six-story new building solution was considered. This solution includes full demolition of the existing DLS Building and construction of a new six-level building (two floors below grade and four floors above grade). Like the five-level new building described above in Alternative 4, this solution would include efficient new building floorplate designs, and one additional floor level. The new six- level building will achieve approximately 141,500 GSF. The flexibility and location of department layouts that is possible within the new six levels of such a building would ensure that all programmatic space needs and spatial adjacencies are met.

While the site is compact and already densely populated, a new building provides the most flexibility and efficiency within the floor plates. While downtown Annapolis imposes restrictive zoning and building height limitations, based on the neighboring building heights, a new four story (above grade) DLS Building would be designed to be consistent with the height and massing of many neighboring structures with four stories above grade. The top floor of such a new building could be designed within the sloped structure of the roof.

Like Alternative 4, a new building would include new structure, new infrastructure, and new technology that is tailored to suit the contemporary needs of DLS. All existing issues with water infiltration, particularly below grade, will be remedied with the demolition of the existing structure and the detailing and design of the new subgrade levels to ensure proper waterproofing is provided. The new building would retain access to the two subgrade tunnels connecting to the adjacent State House and House of Delegates buildings.

The extensive demolition of the existing DLS building and construction of six new levels in lieu of five levels will result in the most total building area and the highest capital cost of all Alternatives investigated. As indicated in Appendix K, the overall project budget for this comprehensive new building approach, inclusive of construction costs and associated soft costs, is estimated between $108,373,000 and $113,534,000. The construction duration for Alternative 5 is estimated to last approximately 27-30 months.

It should be noted that the demolition work associated with Alternatives 2, 3, 4, and 5 will be higher than average due to the location of the building in downtown Annapolis and the conditions of the dense urban site. Alternative 5 requires the greatest amount of demolition work. Like Alternatives 2 and 3, any temporary offsite facilities for accommodating the existing building users will be required during demolition and duration of the new construction.

5.02 Project Alternative Analysis

A. Alternative 1 Analysis – Do-Nothing Approach

Making impactful change to internal policies and practices of DLS to mitigate the problems associated with the existing building without the supporting physical improvements is impractical at best.

Although this alternative has the lowest cost (none), it is not recommended. The limited capacity of the existing building is a hindrance to DLS fulfilling its mission and prohibits future growth. The aged existing facilities will continue to deteriorate, adding to operation and maintenance costs over time, system failure, and disruption to building occupants.
The do-nothing approach fails to address the shortcomings of the existing building, which compromise the health, safety and welfare of the building occupants.

B. Alternative 2 Analysis – Renovate Existing Building

Although this solution has the lowest capital cost, it is a significant financial and time investment that will ultimately fail to achieve the desired program space requirements; it is not a recommended approach. As noted in Section 5.01 above, a preliminary cost estimate was developed for this Alternative. The total project cost to renovate the existing building is estimated to be between $74.3 and $77.8 million. Much like Alternative 1, the limited capacity of the existing building footprint is a hindrance to DLS fulfilling its mission and prohibits future growth.

C. Alternative 3 Analysis – Renovate Existing Building and Construct New Addition

Alternative 3 has more limited demolition than Alternative 4 and a shorter construction time, but the ultimate outcome of retaining the existing building structure limits the flexibility of the design to fully achieve the mission of DLS. Cost estimates show that the dollar per square foot cost of this solution is actually more expensive than demolishing the existing structure and building a new six-story building. As is noted in Section 5.01 above, a preliminary cost estimate

was developed for Alternative 3. The total project cost to renovate the existing building and build an addition is estimated to be between $90.6 and $94.9 million.

While this approach will expand the existing building footprint on the site, it will not maximize the buildable area to its full potential, as the existing building structure is limited to five floors. As is described in Section 5.01 C above, it is unreasonable to consider adding an additional floor level to the existing building. The achievable area, approximately 117,000 GSF, is not enough to fully accommodate the future needs of DLS and it does not take full advantage of a prominent site within the heart of downtown Annapolis.

With this solution, not all departmental adjacencies can be fully achieved to meet the desires of DLS. The Joint Hearing Room, arguably the most prominent and important space within the building, would be relocated to the north end of the site at the new addition. Removing it from the heart of the building adds challenges to circulating the public through the building from the south entrance at Lawyer's Mall.

Additionally, Alternative 3 is limiting in qualitative aspects. The existing building enclosure has limited window openings and restricts access to daylight. The existing window locations also restrict the layout of interior spaces. The original building design had large private offices around the perimeter of the building, with one window allocated per office. The program for the current and future needs of DLS requires more private offices of different sizes as well as some flexible space.

The work required to accomplish Alternative 3 is substantial and expensive. It is not the recommended approach because the results do not achieve adequate building area nor the most desirable spatial adjacencies.

D. Alternative 4 Analysis – Raze and Rebuild with Five Floor Levels

This Alternative offers a good solution to support and advance the mission of DLS to serve the members and staff of the Maryland General Assembly; however, it is not the best solution. Razing the existing building will fully address the problems associated with the aged and deteriorated conditions. The new building would be designed with two stories below grade and three stories above grade with a total of 117,000 GSF. While this is adequate area to accommodate all the programmatic requirements, it does not accommodate all required program adjacencies or future DLS expansion needs. This approach fails to achieve the maximum potential building build-out and growth on the dense urban State Capitol campus site.

A preliminary cost estimate was developed for Alternative 4. The total project cost to demolish the existing building and build five stories new is estimated to be between $94.1 and $98.6 million. However, the economy of scale that is achieved with building an additional sixth floor level should be considered (Alternative 5).

E. Alternative 5 Analysis – Raze and Rebuild with Six Floor Levels

This Alternative offers the best solution to support and advance the mission of DLS to serve the members and staff of the Maryland General Assembly. Razing and rebuilding with six levels will fully address the problems associated with the aged and deteriorated existing building and will maximize the potential of the prominent existing site. The new building will be designed with two stories below grade and four stories above grade with a total of 141,500 GSF; this building area will adequately support the anticipated future growth as well as allow for potential new departments.

A preliminary cost estimate was developed for Alternative 5. The total project cost to demolish the existing building and build six stories new is estimated to be between $108.4 and $113.5 million. While this solution has the highest total cost, the dollar per gross square foot construction cost is actually less than that of Alternative 3 or building a new five-level structure with three levels above grade and two levels below grade.

A new building will fully address the quantitative and qualitative needs of DLS in the most impactful way. The new building solution will improve the health, safety, and welfare of the building users and subsequently, their productivity. Light wells, innovative energy efficient skin/cladding, functional floorplates and an atrium are all potential ways to enhance the office environment.

The existing DLS Building has significant deficiencies, as described in Section 2 above; although it is feasible to address and remedy all of those associated with an aged building, the space needs are ultimately the greatest challenge to overcome. A new Department of Legislative Services building is the best solution to comprehensively address all of the identified programmatic needs.

5.03 Recommended Approach

Based on the condition of the existing 1976 DLS Building, it is evident that drastic changes are required to improve the functionality of the space for the building users. The “raze and rebuild” approach outlined in Alternative 5 above fully meets the requirements of the short-term and long-term programmatic needs. A new structure will maximize the building on the existing site with two floor levels below grade and four floor levels above grade, achieving more than 141,000 GSF.

The existing building site is situated in the heart of downtown Annapolis adjacent to the prominent historic State House. The density of the city makes future expansion a challenge as there is limited buildable space. The raze and rebuild solution provides a once-in-a-lifetime opportunity for growth where land is at a premium.

The best solution to the documented problem is to demolish the existing DLS Building and construct a new six-level building that maximizes the existing site. Although it has the greatest capital cost, this solution is the best investment and long-term Alternative that will improve the functionality of DLS and aid it in fulfilling its mission.

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PART II: DETAILED PROJECT DESCRIPTION

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Section 6 Project Overview

6.01 Summary of Justification & Scope

As described in Section 2, the existing DLS building is lacking in both size and physical condition to meet the programmatic needs of its users. Constructed in 1976, the existing five-story building provides approximately 94,000 GSF, which is inadequate to accommodate the current 321 employees, much less the projected 353 occupants in ten years. The retrofitted pass-through offices, acoustical deficiencies, and scarcity of meeting and storage spaces cause disruption and disorganization leading to decreased worker productivity.

The age and deteriorated condition of the existing building further impacts operations and services provided by DLS. Most of the building systems and infrastructure are original and well past their life expectancy; age and deferred maintenance of these systems has made for uncomfortable and often distracting working conditions with temperatures fluctuating well above and below the standard comfort range. Interior finishes are worn, windows are in poor condition, hazardous materials have been identified, and water infiltration at the subgrade levels is persistent. These conditions not only add to the discomfort of building users, but also put their health, safety, and welfare at risk.

In order to fully address the challenges of the aged building and systems and to maximize the buildable area of the existing site, the best project solution is to demolish the existing DLS structure and build a new facility on the same site. The proposed new building will be six stories and 141,500 GSF. The new DLS Building must be designed to fit within the context of the Annapolis Historic District, respect the gravitas of the Maryland General Assembly that it serves, and also provide for an innovative and contemporary office environment.

Located in the heart of downtown Annapolis, the existing site poses both challenges and opportunities for a new building design. The prominent site is connected to the adjacent buildings to the east and west via underground tunnels that must be maintained in the new design. While the existing site is already densely built, there is an opportunity to add an additional story that would not be feasible with a renovation option.

Numerous massing and adjacency concepts for the new DLS Building have been studied at a diagrammatic level to determine the best course of action; however, a comprehensive study will be conducted during the next phase of work. While this programming document includes a cost estimate worksheet and establishes some baseline parameters for cost, an overall project budget will be established during the subsequent Study Design phase.

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Section 7 Requirements for Design Phases of Work

7.01 A/E Team, Services & Design Documentation

Study Design Phase

The Architectural and Engineering (A/E) team, comprised of professional architects, engineers, and other specialists, will proceed with a Study Design phase of work to develop the conceptual design of the new building up to a level of early Schematic Design.

The A/E team will develop several design options to illustrate varied solutions to the established programmatic requirements, and these carefully considered options will be presented to key stakeholders to find consensus for a preferred approach.

The Study Design work will be an iterative process with thoughtful evaluation of design options, consistent discussion among all team members, and careful refinement of design decisions. The preliminary cost estimate included in this document will be further developed during Study Design. Consideration will be given to value engineering options to ensure that the project is executed within budget. Study Design deliverables will include:

1. PDF files of all drawings and specifications
2. Hard copy of full-size Drawings
3. Cost Estimate

Schematic Design and Design Development

Throughout Schematic Design (SD) and Design Development (DD) the A/E tea will further develop the design with consideration to functionality, maintainability, performance, and aesthetics. Spatial configurations and material selections will be further defined, and outline specifications will be produced. A more detailed estimate of construction cost will be provided along with reconciliation with the Construction Manager (CM) cost estimate. SD & DD deliverables will include:

1. PDF files of all drawings and specifications
2. Hard copy of full-size Drawings and 8 ½ x 11 Specifications Manuals
3. Cost Estimate

Construction Documents

The Construction Documents (CD) will translate the Design Development Documents into meticulously detailed drawings and a full specification with all project materials and installation requirements. The A/E team will thoroughly coordinate across all disciplines for a smooth transition to construction. Design details will be reviewed with DLS and MSA personnel and procurement directions incorporated in the project manual/specifications. The cost estimate will be further refined and again reconciled with the CM cost estimate. Construction Documents deliverables will include:

1. PDF files of all drawings and specifications
2. Hard copy of full-size Drawings and 8 ½ x 11 Specifications Manuals

3. Electronic Drawing Files – AutoCAD files from all disciplines (Architectural, Mechanical, Electrical, Plumbing, Structural, Site Civil, Landscape Architecture and Specialty Consultants) to MSA AutoCAD Standards
4. Cost Estimate
5. MEP Equipment Schedules (with equipment numbering)

Bidding and Negotiations
The A/E team will work with DLS and MSA representatives as well as the CM throughout this phase to assist in bidding and final negotiations. The A/E team will quickly address all inquiries and issue appropriate clarifications to verify that the scope of work is clearly relayed.

Construction Administration
The A/E team will ensure that the project is built in accordance with the design in the contract documents and is completed within the construction budget. The A/E team will manage and address all documents during construction, including RFI and submittal logs, Change Order Request logs, and Pay Application records. The A/E team will work with the CM, attend bi-weekly construction progress meetings, answer RFIs quickly, and administer additional site visits as required. Substantial completion, close-out, final inspection, and warranty follow-ups will be executed.

As-Built Record Drawings
Deliverables will include:

1. PDF files of compiled set of "Final" Drawings and Specifications outlining all changes that were made in the field, per CM redlines
2. Electronic Drawing Files – AutoCAD files from all disciplines (Architectural, Mechanical, Electrical, Plumbing, Structural, Site Civil, Landscape Architecture and Specialty Consultants) to MSA AutoCAD Standards
3. CM to provide detailed and comprehensive Operations and Maintenance Manuals

Geotechnical Testing
The A/E team will coordinate all test borings on the site to confirm soil conditions.

Site Survey
The A/E team will coordinate the preparation of land survey(s) that document all existing conditions of the site. The site survey will include existing topography, utilities, hazmat, roads and improvements, significant vegetation and natural features, existing utilities, boundaries, easements, and any legal restrictions that are applicable. The survey will establish the benchmarks to be used for the project. The final survey will be provided to the Owner at the completion of the project.

Permit Coordination
The A/E will identify all necessary permits and licenses for construction of the project and assist the Owner and CM in obtaining said documents.

7.02 Deliverables

Building Information Modeling
Building Information Modeling (BIM) will be utilized on this project as a means of preparing construction documents. The lead design team and all subconsultants will collaborate on the same BIM model to produce drawings and details that are fully coordinated. Clash detection will be used to further identify and coordinate all cross-discipline design items before construction.

Visual Graphics, Digital Models and Renderings
Visual Graphics and Digital Models will be utilized in the design process to demonstrate the design ideas and concepts. Once the design is far enough along, final Architectural Renderings will be completed to give the users realistic imagery of what the final proposed building appearance and aesthetic.

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Section 8 Building, Site, and Utility Design Criteria and Requirements

8.01 Architectural

A. Codes & Standards

A new DLS Building will include Business and Assembly occupancies under the International Building Code (IBC) and NFPA 101 Life Safety Code, and referenced codes, with local amendments as enforced by the State of Maryland (and the City of Annapolis as applicable). Local zoning regulations pertaining to building geometry (height, area, setback, etc.) and Annapolis Historic District guidelines for new construction within the District boundary will be necessary considerations.

General Codes and Regulations

Project design will comply with:

- The codes, regulations and permits identified in and required by The *State of Maryland Facility Program Manual.*
- The building code of the State of Maryland which references specific editions of the International Building Code (IBC) for Basic Building, Mechanical, and Energy Conservation Codes, the National Electrical Code, and ASHRAE standards, the International Existing Building Code (IEBC) and the International (Green) Conservation Code (IgCC) along with the NFPA 101 Life Safety Code. The A/E team will be responsible for developing the specifications and drawings in strict adherence to meeting or exceeding the requirements and regulations impacting on the project, whether they are so defined or listed in the final construction documents, or not. The A/E team will coordinate approval of all plans with the State of Maryland Fire Marshal. Early submissions of design documents or early review meeting(s) may be required.
- Persons with Disabilities: In the preparation of all plans and specifications, the A/E team will be responsive to federal and State requirements for barrier-free design according to all applicable laws, rules, regulations and codes.
- Energy Consumption: In the preparation of all energy analysis and calculations as well as plans and specifications, the A/E team will follow design criteria and performance standards in accordance with the International Energy Conservation Code and ASHRAE Standard 90.1. Where applicable codes/standards conflict in their requirements, the most stringent criteria must be followed.
- LEED™ Silver Certification. The A/E team will develop the design of the project and prepare and submit all documentation as necessary to achieve Silver Certification for the project through the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) program or meet all requirements of the IgCC per the State Finance and Procurement Article 3-602.1.
- Crime prevention through environmental design concepts and principles.
- Homeland Security design concepts and principles.

Fire and Life Safety

The A/E team will identify and provide solutions for all potential fire and life safety problem areas, including those that may be generated by the program requirements. Below is a partial list of requirements:

- All fire equipment is to be clearly visible and graphically designated
- Emergency access and egress routes are to be clearly identified and physically apparent to the building occupants
- Ventilation systems are to comply with all applicable codes and standards and best practices
- Where emergency egress routes do not exist to grade, provide for Areas of Refuge Assistance
- All fire and life safety alarm systems design must be approved by the Fire Marshal prior to installation
- Coordinate, and integrate as appropriate, all fire and life safety systems with the campus mass notification system, tornado and shelter in place spaces and any special life safety equipment in laboratories

The A/E team will coordinate all fire and life safety equipment with emergency notification system (ENS). The A/E team will design all fire and life safety alarm systems to be digitally addressable and ASHRAE 135 BACNet compliant and compatible. The A/E team will provide all required areas of refuge assistance with 2-way communication devices.

Accessibility

The design will provide for the convenient usage of the facility by individuals with disabilities. Design pertaining to use of the facilities by individuals with disabilities will conform to the ADA regulations. It is important that the A/E team have a clear understanding of each programmed use of the space and the design impact on people with disabilities. The A/E team will consider both the physical and programmatic concerns during design. Elevators, restrooms, entrances, doorways, connecting corridors, and all other aspects of the building, including furniture and equipment for lounging/eating, meeting and gathering spaces, and offices, must provide for convenient use by persons with disabilities. Special consideration should be given to travel both horizontally and vertically to allow multiple accessible means of travel between levels. Note especially the requirements to accommodate the visually and aurally disabled. The A/E team will comply with the State of Maryland requirements for elevator design.

Applicable Codes and Regulations

All capital improvements for the State of Maryland must conform to the most current editions of the building, health and safety codes and standards which include:

- SMART GROWTH AND NEIGHBORHOOD CONSERVATION – SMART GROWTH AREAS: All facility programs will comply with the principles and practices outlined in Smart Growth legislation identified as Acts of 1997, Chapter 759, Article – State Finance and Procurement, Section 5 – 7B – 01 through Section 5 – 7B – 10, subtitled Priority Funding Areas
- MARYLAND BUILDING REHABILITATION CODE: All facility programs will comply with Title 05, Subtitle 16, Maryland Building Rehabilitation Code, under COMAR Regulations 05.16.01 through 05.16.08
- GREEN BUILDING PROGRAM: All facility programs will comply with State Finance and Procurement Article 3-602.1 and all of the regulations and guidelines identified in the Maryland Green Building Council's High Performance Green Building Program
- MARYLAND PUBLIC ART INITIATIVE: All facility programs will comply with State Finance and Procurement Article, § 3-602.2 which requires the State to incorporate public art

into original construction and major renovation projects that meet certain criteria as described in Article § 3-602.2

- BUILDING CODE: The Building Code of the State of Maryland is the latest adopted edition of the International Building Code (IBC), National Plumbing Code (NPC), International Mechanical Code (IMC), NFPA 101 Life Safety Code, International Energy Conservation Code (IECC), National Electrical Code and current ASHRAE standards, with all appendices, references and additions incorporated. Building plumbing systems also must comply with the requirements of COMAR Title 09, Department of Licensing and Regulation, Subtitle 20, Board of Commissioners of Practical Plumbing (the State Plumbing Code). Building heating systems utilizing boiler supplied hot water must comply with the requirements of COMAR Title 09, Subtitle 12 Division of Labor and Industry, Chapter 01 Board of Boiler Rules (the State Boiler Code), and Boiler & Pressure Vessel Safety Act & Regulations (Article 48, Section 167-180A, Annotated Code of MD). Compliance with all regulations and requirements of local and service district utility companies (electric, water, sewerage) where work is to be located is required
- COAST SMART CONSTRUCTION PROGRAM: All facility programs will comply with the Coast Smart Construction Program under the Coast Smart Council in the Department of Natural Resources, created by House Bill 615-Section 3-1001-3-1004 (2014) to establish Coast Smart Infrastructure siting and design criteria to address sea level rise and coastal flood impacts on capital projects
- ELEVATOR CODE: Regulations Governing Elevators, Dumbwaiters, Escalators and Moving Walks ANSI A17.1 or the latest edition, and other requirements of the State Department of Licensing and Regulation, Division of Labor and Industry. (COMAR 09.12.81 through 09.12.83) (See Note 2)
- FIRE CODE: The State Fire Prevention Code (COMAR 29.06.01 and 29.06.02) which references the NFPA National Fire Codes, latest edition, including Standards, Recommended Practices Manuals, etc. (See Note 3)
- HANDICAPPED ACCESSIBILITY: Regulations Governing Construction of Facilities for the Handicapped by the State of Maryland (COMAR 05.02.02), the Fair Housing Amendments Act (1988) and the Americans with Disabilities Act (1990 and 2010) or other Federal regulations, where applicable, will supersede COMAR requirements.
- HAZARDOUS WASTE: Maryland Department of the Environment for disposal of controlled hazardous substances. These regulations establish standards for generators of hazardous waste. (COMAR 26.13.03)
- HIGHWAYS: Regulations of the Maryland Department of Transportation, State Highway Administration, for any construction affecting a State highway route or right-of-way
- LEAD EXPOSURE: Maryland Occupational Safety and Health Standards for occupational exposure to lead in construction work. These regulations apply to occupational exposure to lead in every employee in construction work. (COMAR 09.12.32)
- MECHANICAL & GAS, ELECTRICAL, AND ENERGY: (See Building Code) (See Note 1)
- PLUMBING CODE: (See Building Code)
- SEDIMENT AND EROSION CONTROL AND STORM WATER MANAGEMENT: Regulations of the Maryland Department of the Environment (MDE), Sediment & Storm Water Administration, 1800 Washington Boulevard, Baltimore, Maryland 21230 (MDE Article Sections 4-101 through 4-116 Annotated Code of MD. and COMAR 26.17.01 and 26.17.02). (See Note 5)
  a. Chesapeake Bay Critical Area Criteria (COMAR 27)

b. Nontidal Wetlands (COMAR 26.23)
c. Wetlands (COMAR 26.24)

- SAFETY GLAZING: Applies to fixed glass panels immediately adjacent to exit/entrance doors and specific hazardous locations. (COMAR 05.02.06)
- WATER APPROPRIATION: When the project requires the withdrawal of either ground water or surface water, the A/E team will be responsible for complying with all permitting requirements and will comply with COMAR 26.17.06, "Water Appropriation or Use"
- WATER DISTRIBUTION, WASTE COLLECTION, ON-SITE WATER SUPPLY, AND ON-SITE WASTEWATER, DISPOSAL: Health Department of Local Jurisdiction
- WATER RESOURCES: Other water resources, rules and regulations of procedure as issued by the Department of the Environment. (COMAR 26.08)
- HISTORIC LANDS AND STRUCTURES: In accordance with Article 83B paragraphs 5-617 and 5-618 of the Annotated Code of Maryland, the Maryland Historical Trust must review capital projects affecting historic properties

B. Architectural Massing

The architectural massing of the new DLS building will visually respond to the historic buildings in the immediate neighborhood of the State Capitol campus; the design of the new building will preserve and enhance that streetscape. Building height is a key consideration, as is noted in the Annapolis Historic District Design Manual which states, "limiting the bulk and height of new construction is essential to protect the human scale of Annapolis streetscapes". The new DLS building design will respond to the prominent historic Maryland State House, its neighbor to the southeast, in a thoughtful and respectful manner.

Other key considerations for massing of the new building include scale, proportion, and rhythm. The large mass of the proposed building must have a carefully articulated footprint in order to break up the long facades and address the human scale. The building openings and detailing will further subdivide the large mass into a rhythm that closely mirrors that of the adjacent buildings.

Massing studies were conducted to confirm the proposed new building will not overshadow any neighboring buildings. After careful consideration, it is recommended that the proposed new building will be six stories with two floors below grade and four floors above. The top floor will fit within the footprint of the roof structure.

The proposed new building massing will maximize the footprint on the existing site without impeding on the existing historic streetscape. Careful consideration shall be paid to the property setbacks, generally matching those of the neighboring buildings. The new North Street elevation will be offset thirty feet from the curb, roughly the same distance that the current DLS Building façade is setback at College Avenue.

Figure 8.1: Conceptual Massing Study – Existing (Street View)

Street view at the intersection of Bladen Street and College Avenue with the State House in the background to the right and the House of Delegates Office Building in the foreground to the left

Figure 8.2: Conceptual Massing Study – Proposed (Street View)

Street view at the intersection of Bladen Street and College Avenue with the State House in the background to the right and the House of Delegates Office Building in the foreground to the left

Figure 8.3: Conceptual Massing Study – Existing (Aerial View)

Aerial views of existing DLS Building with three-levels above grade

Figure 8.4: Conceptual Massing Study – Proposed (Aerial View)

Aerial views of potential new DLS Building with four-levels above grade

C. Exterior Architectural Elements & Relationship to Exterior Spaces

Historical Context

Annapolis Maryland is known for its Georgian Architecture and the proposed site is in the heart of the Annapolis Historic District. The surrounding buildings are prime examples of classic Georgian Style with their distinct brick, strong sense of symmetry, slate hip roofs with dormers, and decorative woodwork. The iconic 1779 Maryland State House is the neighbor to the southeast.

The new building design will complement the surrounding buildings, but not imitate the historic architecture. The building must take design cues from the adjacent buildings but be a modern interpretation. The building design must be addressed with great care and sensitivity.

Materials

The exterior material of the new building must fit within the context of the neighborhood and also be high performance and durable. The materials will have long life expectancies and require little maintenance. The team expects to use brick, high performance wood windows, slate roofs (slanted portions that can be seen from street level), and limestone focal points. These building materials are found throughout the State Capitol campus and will be familiar to the maintenance staff thus simplifying the exterior cleaning and maintenance programs.

Supporting MEP Equipment

Most equipment will be concealed within the building. Any exterior equipment will be thoughtfully located to minimize visual access from the street level. Screening elements may be used to further conceal any equipment.

Loading Dock

The proposed new building will require a loading dock area to facilitate deliveries of large items to the building. The loading dock area will also house large trash and recycling compactors. The A/E team will investigate ways to screen this area, as it is not typically visually appealing. The loading dock area will likely be located at the northern end of the site, in a similar location to where it currently resides. The current street access is just south of the intersection of College Avenue and North Street.

Green Roof

The A/E team will investigate the use of a green roof in the new building design and study how it will impact stormwater management. Massing studies have determined that a green roof will not be visible from street level and will therefore not impact the surrounding historic context.

Skylights

The A/E team will explore the use of skylights to promote natural light penetration further into the interior spaces of the building. Skylights will not impede on the architectural design of the building and will not be visible from street level.

Waterproofing
The new proposed building approach will include all new foundation systems and below-grade walls for the two basement levels. The A/E team will carefully detail all waterproofing at the subgrade levels to assure the new building is free of water infiltration.

The water infiltration at the existing subgrade tunnels will need to be addressed as well during the raze and rebuild project. A "Building Enclosure Assessment Report" is attached as Appendix C and presents two options to remedy the water infiltration at the existing tunnels. One option is a long-term solution and the other is a short-term solution. The A/E team will further investigate this matter in the Study Design phase of work.

D. Interior Spaces

Building Organization
The new DLS Building will have three major programmatic zones; in hierarchy of importance they are public, private, and service. The public zone includes heavily trafficked spaces that are open to outside visitors, guests, and State Capitol campus employees. The public zone will have the highest level of finish to reflect its level of importance.

The secondary zone is the private zone, restricted to the employees of the building. This private zone must be separated from the public zone for security and confidentiality reasons. The private zone, which for the most part is made up of office spaces, will have a secondary level of finishes. This zone, however, has potential to be more innovative and modern in its detailing. The service zone is reserved for all "back of house" spaces that support the other building functions. These spaces are functional spaces and include mechanical rooms, storage rooms, and rooms associated with the freight elevators. They will have the lowest level of finish.

Basement & Ground Floors
All three of the major programmatic zones can be found on the Basement and Ground floors. These floors have a public function as they can be access by the public via the tunnels that connect to the State House and House and Senate Buildings. The print shop and library have small public components. The print shop assists with the printing of various documents and the library provides research resources to the public.

Print shop and library staff will reside on these floors and will require secure workspaces that are separate from the public zone. Two large storage rooms that support the print shop and library are "back of house" service areas at Basement Level.

First Floor
The Joint Hearing Room is the predominant public space of the First Floor. The design team studied various locations for the Joint Hearing Room, and it was determined the best location for this function is adjacent to the main entrance lobby on the First Floor, accessible from Lawyer's Mall. There is a high volume of building visitors that tour this space and it must be

easily accessible to the public. Other public functions that will be included on this level include portions of the Finance and Human Resources departments.

Upper Floors

The upper floors (Second, Third, and Fourth Floors) will be private zones that are fitted out as office suites. These floors must be secured to prevent the public from entering the agencies without being escorted by an employee. The program of the proposed building requires a great number of hard-walled offices due to confidentiality. The ideal location for the offices is along the perimeter of the exterior walls. However, there are more offices than available exterior wall space forcing some offices to be inboard. The Daylight section further discusses techniques that will be used to maximize natural daylighting.

Back of House / Service

Each agency of DLS has its own unique storage needs; many of these needs require the use of the freight elevators. The most feasible location for the loading dock and freight elevator is at the northern end of the plan, away from the most public face of the building at Lawyer's Mall. Storage rooms will be adjacent to the freight elevator to limit the travel of large freight items. Mechanical and Electrical Rooms will be arranged around the building logically to supply and support the building as needed.

Circulation

The main entrance of the proposed new building will have a prominent and inviting presence that is easily identifiable as the main entry from the outside. This will help first time visitors with wayfinding. A spacious pre-function space is needed to accommodate large groups and security upon entry to the building.

Programmatic spaces that have a public component will be grouped together on the First Floor to limit public access throughout the building. These spaces include the library, the Finance and Human Resources departments, the print shop, and the Joint Hearing Room.
The size of circulation elements will be examined extensively in the Study Design phase to ensure each element (corridors, doors, stairs, and elevators) are sized properly to promote safe and efficient circulation and meet all code requirements.

The A/E team will consider the use of intercommunicating stairs within agencies to help limit the amount of overall horizontal circulation. The existing site footprint limits the area of each floor plate and if large agencies are divided between floor levels intercommunicating stairs will help keep stay functionally connected.

Vertical Circulation

The proposed new building will receive two cutting-edge passenger elevators. The A/E team will work with major elevator companies to find the best fit for the proposed building needs. This will be contingent on peak use times and the projected number of tenants and guest the building will receive daily. These factors will help in selecting the best fit for the proposed building, whether it be machine-room-less elevators, gear, or gearless traction elevators.

A freight elevator is required for the proposed new building, which will be used by multiple agencies of DLS.

Restroom Facilities
Restrooms will be centrally located on each level of the new proposed building. In addition to the typical multi-fixture restrooms, each floor will also be outfitted with a Unisex Restroom to accommodate users that may have special needs or require an extra level of privacy. Stacking the facilities vertically will simplify and consolidate the plumbing lines and ease any maintenance that is required.

The A/E team will ensure the new restroom facilities are adequately sized in terms of space and fixtures counts to meet all building code requirements. During the Study Design phase, the team will study peak times to prevent overcrowding, particularly for the restrooms that support the Joint Hearing Room.

Natural Light
As discussed earlier, natural light is an important feature for the proposed new building. The A/E team will study the window placement extensively in the Study Design phase of work in order for the new design to have a rhythm and scale appropriate to the surrounding context. It is desirable to promote as much natural light as possible.

Natural daylighting will be incorporated into the offices that will line the perimeter of the building. Glass storefronts will be used on the interior side of the offices to allow the natural light to filtrate further into the building core. Due the number of hard-walled offices dictated by the programmatic needs some offices must be located inboard. These offices will also utilize storefront systems on the door side of the room to allow some natural light to penetrate through the corridor. Some programmatic spaces, like the Joint Hearing Room and storage rooms, do not require natural light. These spaces will be located internally/ inboard to allow more spaces that would benefit from natural light to access it.

Flexibility
Where possible, the design will provide flexibility. One example is the conferences rooms. Multiple size conference rooms will be designed throughout the new building to accommodate various sizes and types of meetings. The furniture selections will be easily moveable to accommodate different types of meetings/ gatherings such as training style lectures or a large table meeting. These conference rooms will be spread throughout the building and can be scheduled by any agency at any time.

E. Interior Materials, Finishes
The A/E team will select finish materials that fit the programmatic needs according to the spatial hierarchy. The finishes will be carefully studied and detailed with consideration to how they will be maintained by the end user. Extra care will be given high traffic areas as well as areas that have direct access to the exterior and its elements. These items could include specialty walk off

mats to ensure dirt and salts are knocked off the users' shoes as early as possible and that they do not track messes further into the building.

The new building must achieve a minimum LEED Silver certification. The A/E team will incorporate materials and implement procedures to achieve LEED credit points. This can be achieved by specifying materials that are locally produced and materials with a high recycled content.

Some public spaces require a high level of finish including the Joint Hearing Room, the Deschenaux Conference Room, and other typical conference/ meeting rooms. The Joint Hearing Room will have wood panel wall systems with elaborate detailing in keeping with the gravitas of the existing space. The floor for this space will be a combination of carpet and resilient floor (around seating for the ease of maintenance) and the ceiling system will be selected for acoustic properties.

The conference rooms will receive wood base, gypsum walls, and an acoustical ceiling. The other spaces of the building will receive typical finishes to meet their functional needs. These spaces include offices, wellness rooms and supporting spaces (storage, mechanical rooms etc.).

F. Acoustics

Acoustically absorptive treatments will be used throughout the office areas to reduce the amount of reflective noise, and to limit sound transmission. Examples of these materials include acoustically absorptive ceiling finishes (such as acoustic ceiling tile), carpeted floors and absorptive workstation panels.

Sound Masking

Increasing the background sound level to 45-50 dBA helps to increase speech privacy and limit annoyance caused by miscellaneous sounds such as keyboards/ mouse clicks. Sound masking utilizes specially tuned speakers, uniformly and specifically placed throughout an open office area, to generate a non-intrusive, continuous layer of background sound. This artificial background sound, which is comparable to HVAC noise, helps to cover-up or mask miscellaneous office sounds and conversations.

Wall Assembles for Enclosed Spaces

Rooms that require special confidentiality will require the walls to extend from the slab to the deck above and achieve a minimum STC rating of 54. It is critical to properly seal all gypsum board partitions so that sound leaks are minimized. Other techniques to minimize sound transmission include staggering electrical boxes and utilizing slotted top tracks of partitions to provide a slip joint connection to allow movement for reverberation sounds.

Mechanical System Noise and Vibration Control

General recommendations will be provided once the design of the mechanical system is developed. It is likely that the acoustic scope will include the review and analysis of major

mechanical equipment and equipment serving each individual floor, providing noise and vibration control recommendations where required.

Rooms to require Special Acoustic Consideration
Rooms that require special acoustic consideration include:

Conference Rooms
Based on their intended usage, i.e. teleconferencing vs. small internal meetings, etc. these spaces will require acoustic finishes to maintain speech intelligibility, reduce sound building-up and provide functional acoustic environments.

Private Offices
Private offices require acoustic finishes to limit undesirable reflections and provide a comfortable and quiet acoustic environment.

Lobbies, Lounges, Public Gathering Spaces
Some acoustic finishes will be required to maintain speech intelligibility, reduce the build-up of sound, and provide comfortable entrance to each individual office floor.

Joint Hearing Room
This space will require specialized acoustic consideration. Most of the proposed materials for this space are hard materials making sound absorption more challenging. This space will require acoustic finishes to be tastefully incorporated into the design to maintain speech intelligibility, reduce sound building-up and provide a functional acoustic environment.

G. FFE Requirements & Criteria
The A/E team will provide interior design services required for the selection of furnishings and related equipment. The A/E team will select and coordinate interior paint colors, finishes, and materials and design the wall, floor, and window treatments. The A/E team will also provide for the inclusion of all furniture, fixtures, and equipment shown in plan and elevation as necessary to demonstrate that all programmed functions can be accommodated. The A/E team will provide design coordination services for any equipment requiring special environmental conditions and/ or building system conditions and connections as well as public space furniture. Identification of methods of installation and connection with building utility services, and provision of necessary clearances for convenient, safe use, and maintenance of equipment will be included in the interior design documents. These documents will be fully coordinated with mechanical, electrical, structural, and plumbing.

The Owner will provide a final list of equipment and furniture requirements during the Design Development phase of work. These requirements will be presented in two categories; a) Fixed Equipment – equipment that will be included in the construction contract; and b) Movable Equipment – new equipment that will be purchased and installed via separate contracts, or existing equipment will be reused. The offices and departments of DLS require a high level of confidentiality making acoustics an important consideration. Below are techniques that will be

utilized as well as rooms that will require a great deal of attention to assure the spaces are acoustically separated.

H. Signage & Graphics

The A/E team will incorporate typical signage and graphics into the project with the overall goal of creating a unified system to convey contemporary information within the historic context of the building and its site. This package will include building identification, exterior and interior wayfinding, department/ agency tags, room identifications tags, and excavation maps.
All signage will be in accordance with ADA requirements and follow Department of Legislative Services standards. Wayfinding signage will be an important aspect of this package to aid the high number of guests and visitors that will not be familiar with the building. The signage will be organized and concise to easily move the guests to their desired destinations.

I. Maintenance

The A/E team will make design decisions in order to simplify building maintenance. Considerations to accommodate this include:

- Accessibility for Maintenance
- All MEP systems will be accessed with ease allowing direct access from public spaces (via main doors and access panels). Proper clearances to carry out any service or maintenance work are required. Maintenance areas will be designed with future growth to ensure these spaces can evolve as needed over time

Material/ Equipment Selection

The A/E team will work with maintenance staff at the DLS to specify materials and equipment that the facilities manager feels comfortable maintaining and servicing. If there are any unfamiliar materials and equipment the design team will coordinate any training to confirm the team feels comfortable maintaining the building materials and equipment. The A/E team will ensure adequate attic stock of materials is provided.

As-Builts/ Final Documentation

The A/E team will provide final As-Built record drawings, specifications, and a comprehensive set of operations and maintenance manuals. These documents will be concisely laid out and labeled with the industry standard symbols and numbering systems.

8.02 Building Structure

The existing structure will be demolished and replaced with a new DLS Building consisting of two basement levels and four stories above grade. The height of the new structure is intended to roughly align with surrounding buildings. For this reason, concrete framing may be necessary to limit overall vertical height. Both concrete and steel framing solutions could be further studied as the project advances to compare height impacts and overall structural economy.

The Joint Hearing Room will be located near the center of the building with access on the first-floor level. The space will be a double height volume and framed to be column free. Some type of structural transfer condition will be necessary to support the levels above, which are expected to be shorter, more conventional span lengths.

The fourth-floor spaces will be located under a mansard type roof arrangement, similar to what exists on the current building and adjacent buildings. Sloped steel framed purlins supporting a metal decking can be used to create the desired shape. The purlins will be supported by steel posts supported from the concrete level below.

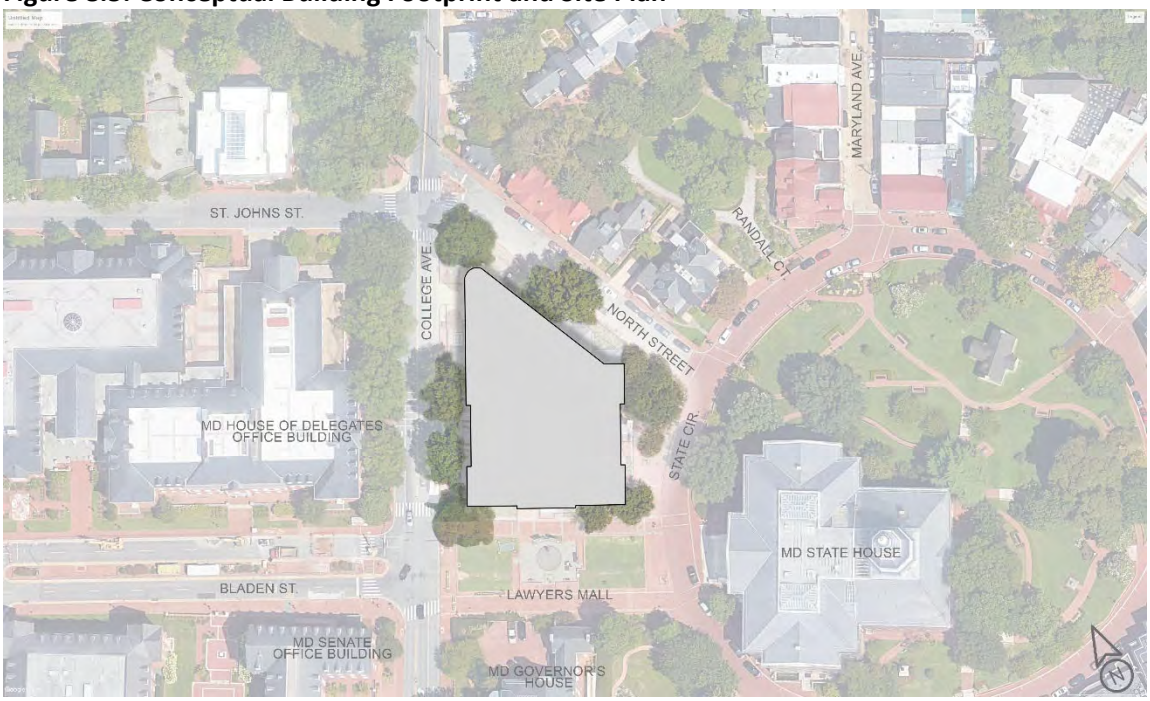
The proposed new building has the same depth below grade as the existing building to be demolished, so new foundations will bear at roughly the same elevation. A spread footing system proportioned for a bearing capacity of 4,000 psf to match current conditions is anticipated. It will be beneficial to completely remove existing buried foundations during the building demolition process so that new foundations can be located and placed in a structurally efficient and economical way.

8.03 Site Design

A. Site Plan

A conceptual building footprint and site plan is included as Figure 8.1. The conceptual building footprint is not intended to represent design but has been developed to determine approximately how much building area could be accommodated with the project boundaries and in consideration of regulatory constraints.

Figure 8.5: Conceptual Building Footprint and Site Plan



B. Pedestrian & Bicycle Circulation

The project will, at minimum, meet LEED Silver requirements and is located in a dense urban area. Parking is located in nearby garages and surrounding streets. On the south side of the building is Lawyer's Mall an outdoor pedestrian plaza. The entire area is highly conducive to

pedestrian traffic. And while the roads do not have bicycle lanes, there are already evidence of bicycle commuters in the area.

There will be pedestrian access on all sides of the proposed building as both occupants and visitors will often be travelling between this building, the State House, and the other governmental buildings in the area. The proposed work will include widening and leveling of brick walkways, ADA access to/from the new building at all major entrances, and removal of one of the duplicate crosswalks near Bladen Street. Lawyer's Mall forms the basic pedestrian spine as it fronts on the major buildings. It is in the process of a significant renovation and when completed, will provide not only walking areas, but gathering spaces as well for both large and small groups.

There is an existing pedestrian tunnel which crosses under College Avenue and enters the DLS Building on the southeast corner, on the wall parallel to College Ave approximately 15-20 feet from the building corner. This allows communication between the State Government buildings in inclement weather and will be maintained under any renovation or new construction plan.

It is likely that some public sidewalks within the building site will be impacted during construction. The City is very aware of the sensitive nature of this area and the amount of foot traffic that it sees. In addition, they are very sensitive to special events when there are a particularly large number of tourists in the area (e.g. Naval Academy Graduation, Annapolis Boat Show, inaugurations, etc.) that must be accommodated. Any work during construction that has the possibility of affecting the public sidewalks or traffic patterns thereon must be vetted through the City of Annapolis early in the design and/or construction process.

Bicycle storage and racks will be provided as needed to encourage bicycle commuters as well as visitors to this historic area.

C. ADA Compliance

The existing site is relatively flat with gentle slopes for site drainage, generally less than 5%. The finished floor elevation of the existing building, however, is several feet above the exterior grades on all sides, as will likely be the case for the new building. Therefore, creating ADA compliant access to the building will require some creativity. Ramps that are integrated into the architecture of the building are likely to be the best permanent option.

D. Vehicular Circulation

At present, and in the proposed condition, the site is bounded on three (3) sides by public roads. College Ave to the northwest, is a two-way, main thoroughfare through the City. To the southeast is State Circle which is a one-way road running in a complete circle around the Maryland State House. It is a central traffic hub and gives access to seven (7) streets that radiate out into the downtown and waterfront areas. Connecting those two is North Street to the northeast. A two-way minor street runs behind the DLS Building.

Access to the Department of Legislative Services Building (DLS) site is by (personal or for-hire) vehicle drop-off of pedestrians on State Circle or by shuttle/trolley bus at the College Avenue stop on the opposite side of the building. Pedestrians can also walk from parking lots or on-street parking or from other nearby State Capitol campus buildings via the tunnels to the DLS Building.

The proposed new work will include the consideration of the following: relocating the brick bus stop/location to more southerly location nearer to Bladen Street intersection and farther from loading entrance at northwestern corner of site; placing signs along College Avenue and restriping curb lane beside DLS to show designation of loading/unloading of passengers, bus stop and upcoming loading dock entrance. This Lawyers Mall stop serves many users (shuttles, Trolley, field trips, etc.) and should be closer to Lawyers Mall and other pedestrian connections.

The plans presented herein do not change any of the public roadways or traffic patterns but there may be some impact during construction. It is important to note that all the streets noted herein above are controlled by the City of Annapolis. The State controls Route 70, Rowe Blvd. from Route 50 southward until it crosses over the College Creek bridge at which point control reverts to the City. The City is very aware of the sensitive nature of this area and the amount of traffic that uses these roads daily. In addition, they are very sensitive to special events when roadways must remain open (e.g. Naval Academy Graduation, Annapolis Boat Show, inaugurations, etc.). Any work during construction that has the possibility of affecting the public roads or traffic patterns thereon must be vetted through the City of Annapolis early in the design and/or construction process.

E. Building Service Access, Loading and Parking

Building services and loading are located in the north section of the site near the intersection of College Ave and North Street. The access to the service area is off of College Ave. Dumpsters and mechanical equipment are permanently housed in this area still leaving adequate room for medium to small trucks for deliveries. Large, over-the-road trucks are likely required to park temporarily on the surrounding streets.

As proposed, the new building uses this north corner of the site for additional building space. Consequently, some new service/loading space will need to be established. It is likely that such an area will still be accessed from College Ave however, it may be that picking up dumpsters or small deliveries will require blocking some traffic therefore, such activities will need to be scheduled during low-traffic hours.

There is no on-site parking, and none is required on this urban site. Parking for the overall area is provided in several nearby garages and on smaller streets. The closest on-street parking (2-hour limit) is across North Street from the DLS. The closest (0.2 miles) off-street parking is at

Noah Hillman Garage (425 spaces of paid parking), including ADA spaces. The closest handicapped parking is on North Street. The Circulator Trolley serves the trolley stop at the DLS on College Avenue connecting with the central business district and four parking garages.

F. Excavation and Soils

The City of Annapolis is on the waterfront. This particular section of the City is on a peninsula surrounded by Spa Creek, College Creek, and the Severn River, all tributary to the Chesapeake Bay. As a result, the soils in the general area are expected to be the tertiary deposits consisting of clay, silt, and sand, but are expected to be adequate to support the new structure. Soil borings, testing, and a geotechnical report will be needed to confirm this. At this time, the building shows no evidence of major soil settlement below the foundations.

The new building plan will have two levels below grade therefore some new excavation will be required. The use of temporary shoring will allow this excavation while still protecting the surrounding improved areas and minimizing impact to traffic-bearing roadways.

Based on the test boring data included on Sheet A.1 Site Plan, Test Borings, etc. (DLS Existing Building Plan, Combined, dated 1970), the site contains Fill Materials to depths ranging from 7.5 feet to 10 feet below existing grade, underlain by Brown to Green SAND with little Clay.

The foundation of the existing structure is located in the natural Soils (consisting of SAND with Clay). The groundwater was observed at depths ranging from 8.5 feet to 23 ft. below the existing grade.

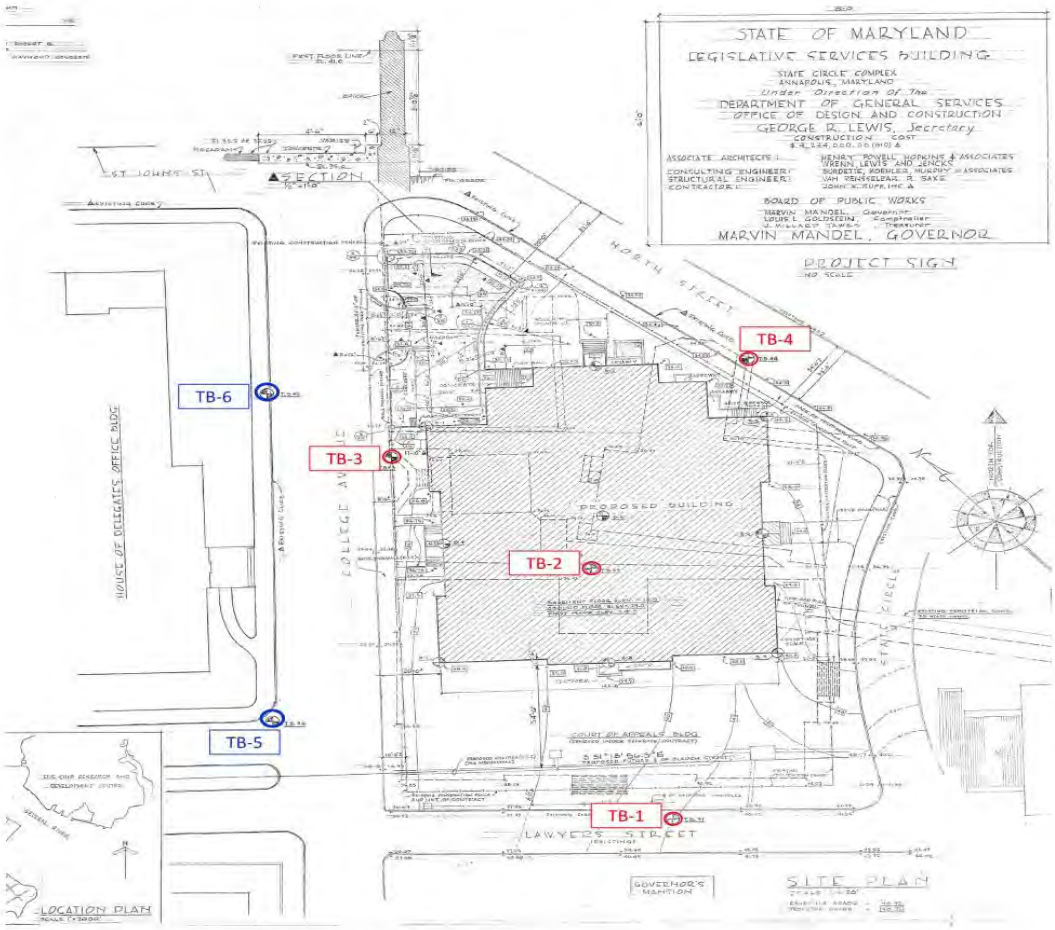
In four test borings (TB-1, TB-2, TB-3 and TB-4 that were drilled in October 1970), the 24 hrs. groundwater level is approximately at the basement floor elevation level (~ EL +18±). However, the other two borings (TB-5 and TB-5 that were drilled in April 1970), showed the 24 hrs. groundwater observation level to be as high as EL + 27±.

Fluctuations of the water table can occur due to seasonal variation (such as rain and snow, etc.). Also, development of a perched water level at willower depths above less permeable layers may occur depending upon the amount of precipitation and water runoff to the site from higher elevations during a wet season.

Figure 8.6: Original Boring Location Plan and Data

Boring Location Plan (1970)

Borings TB-1, TB-2, TB-2 and TB-4 drilled by Balter, October 1970
Borings TB-5 and TB-6 drilled by Raymong Concrete Pile Division, April 1970
{Sheet A.1 Site Plan, Test Borings, etc. (DLS Existing Building Plan, Combined, dated 1970)}



Summary of Groundwater Data - DLS Building (1970)

(Data from Sheet A.1 Site Plan, Test Borings, etc. (DLS Existing Building Plan, Combined, dated 1970))

Boring No.	Existing Ground Surface Elevation, ft	Depth of Water, During Drilling, ft	Elevation of Water, During Drilling, ft	Depth of Water, 24-Hr, ft	Elevation of Water, 24-Hr, ft
TB-1	40.0			23.1	16.9
TB-2	36.0			18.9	17.1
TB-3	35.0			18.2	16.8
TB-4	34.0			15.3	18.7
TB-5	35.0	20.0	15.0	8.5	26.5
TB-6	35.0	20.0	15.0	8.5	26.5

G. Drainage and Stormwater Management

At present there is no stormwater management (SWM) on the site. Runoff flows overland to inlets and surrounding areas and then into the City storm drain system.

In the proposed plan some level of SWM will be required. The site will be classified as "redevelopment" due to the level of impervious area existing and proposed thereby mitigating some of the treatment requirements. SWM will be provided using *Environmentally Sensitive Designs* to the *Maximum Extent Possible* as prescribed by the Maryland Department of the Environment (MDE). Devices such as micro-bioretention, either above or below grade, are likely to be the most cost-effective tool. Should the project capital and operating budgets allow, the use of a green roof will minimize the impact of SWM on the surface thereby allowing more pedestrian areas.

H. Forest Stand Delineation Plan

Any land disturbance of 20,000 square feet or more, will require that the project comply with the Maryland reforestation regulations. At present there are scattered trees around the building most of which appear to be on the State's property and most of which are mature trees.

In the proposed new building reforestation will be required. A Simplified Forest Stand Delineation Plan (FSD) will need to be prepared and submitted to the Maryland Department of Natural Resources (DNR) to determine the requirements for reforestation. It is unlikely that the required number of trees can be replanted on the site therefore a fee-in-lieu or off-site banking will need to be explored. Given that there is an obvious attempt to have green spaces in this urban area, this new design must accommodate as many trees as can be reasonably replanted on the site.

I. Hardscapes and Open Spaces

The building fronts on a large open space known as Lawyer's Mall. This area is the gateway to the State House and the Governor's Mansion. It carries most of the pedestrian traffic in the area and is a gathering space for everything from lunch groups to the occasional Governor's press conference. This area will constitute most of the hardscape and open space for the DLS Building. A renovation of this area is currently under design.

Around the remainder of the perimeter of the DLS Building, there are mostly sidewalks facilitating pedestrian travel. These improvements will remain largely unchanged.

J. Landscaping, Vegetation and Soil Management

The majority of the vegetation on this site includes mature trees along the perimeters. Some lower plantings are scattered about. This is not intended to change in the new designs. Some new trees are anticipated where possible and, if surface SWM is used, small plantings will be found in those devices. Otherwise, the majority of the plantings will be in the newly renovated Lawyer's Mall

K. Site Furnishing and Exterior Signage

Again, the Lawyer's Mall will constitute the exterior space and hence, will contain the site furnishings. We anticipate no site furnishings *per se* for this project. There is the possibility of a decorative sign either at the entrance or on the building wall identifying the building, but no other site signage is anticipated.

8.04 Utilities Design

The building is served by a full complement of utilities with the single exception of gas. As the first phase of the renovation of Lawyer's Mall, and a continuation of a neighborhood steam line replacement project, a number of existing utilities were replaced. The following is the best available information based on the work at Lawyer's Mall and record drawings.

A. Water

The incoming water service is six inches (6") and is located on the southwest corner of the building and is served from a ten inch (10") main in College Avenue. While the existing house connection is likely to be replaced, for reasons of age, there appears to be adequate capacity in the overall system to serve either the new or replacement building option. A hydrant flow test will be required at the start of design to provide more detailed information for domestic and sprinkler design.

B. Sanitary

The outgoing sanitary service is six inches (6") and is located on the west wall of the building, the wall parallel to College Avenue. It transitions to an eight-inch (8") line within approximately five feet (5') of the building wall. This appears to discharge to an existing eight-inch (8") line in College Avenue. While the existing house connection is likely to be replaced, for reasons of age and possibly location, there appears to be adequate capacity in the overall system to serve either the new or replacement building option.

C. Storm

There are numerous storm drains located on various sides of the building which all appear to be directly associated with existing roof drains. The south and east sides are collected and outfall from the site to a main in North Street. On the north side, drains are collected and routed to outfall to a main in Lawyer's Mall which was recently replaced. While the existing on-site lines are likely to be replaced, for reasons of age and location, there appears to be adequate capacity in the overall system to serve either the new or replacement building option especially considering that there will be SWM required for the new project that does not currently exist.

D. Steam

The recent work in Lawyer's Mall saw the replacement of the steam lines serving this and nearby buildings. These enter the building from Lawyer's Mall to the west of the main entrance. For more information see the Mechanical sections of this report.

E. Hot & Chilled Water

The recent work in Lawyer's Mall saw the replacement of the hot and chilled water supply and return lines serving this and nearby buildings. These enter the building from Lawyer's Mall to

the west of the main entrance adjacent to the steam lines. For more information see the Mechanical sections of this report.

F. Underground Electric

The recent work in Lawyer's Mall saw the replacement of the underground electric serving this building. These enter the building from Lawyer's Mall to the west of the main entrance about halfway between that entrance and the corner of the building. For more information see the Electrical sections of this report.

8.05 Mechanical & Plumbing

A. General Criteria and Codes/ Standards

The A/E team will coordinate the design of all elements of the building to meet the requirements of function, energy, and aesthetics. The design will comply with Annapolis Building Code with Amendments, all applicable codes, good engineering practice, and City of Annapolis Historical Preservation. The A/E team will select the building orientation, massing, structural types, day-lighting, equipment location, and building materials as part of the earliest discussions in the Study Design Phase of the project. Selection should be made so that they will flow smoothly into the other design phases of the project and not create roadblocks that would interfere with schedule and complying with the goal of achieving LEED Silver Rating Certification. In general, the work must be designed to provide maximum reliability. This may require the use of standard equipment or alternate modes of operation for critical systems or equipment. The requirement for reliability also includes the avoidance of systems or equipment for which there is inadequate history of satisfactory performance. In addition, the work must be designed to be readily maintainable. Adequate clearances for servicing must be provided for all operating equipment. No operating equipment will be located above ceilings unless specifically designed for above ceiling applications.

In addition to the other team members, the A/E team is required to designate an "Energy Analyst" on the design team. It is the Energy Analyst's responsibility to ensure that the project design team is aware of their responsibilities, to review project design for compliance, and prepare written reports at the Schematic and Design Development Phase.
The A/E design will adhere to:

- IBC
- IMC
- NSPC
- IECC
- NFPA 101
- NFPA 13/14
- ANSI 17.1-Elevator Code
- ASHRAE Handbooks- HVAC System Design Guidelines
- ASPE Handbooks- Plumbing Design Guidelines
- SMACNA- Ductwork Design Guidelines
- ASHRAE 62.1-Ventilation Standards
- ASHRAE 90.1-Energy Guidelines

B. Design Criteria

The design of the building mechanical systems will comply with ASHRAE and SMACNA requirements and standards. The building will have standardized, low temperature, Variable Air Volume (VAV) air-handling units, using Variable Frequency Drives (VFD) and single inlet VAV boxes with heating water coils. The air handlers have hot water and chilled water coils. Heating water and low temperature chilled water will require on-site boilers and chillers in the existing plant. The air-handling units distribute the low temperature air to the zones through the VAV boxes. The VAV boxes have hydronic heating coils.

The air handling units will be of highest quality design. The air handlers will be provided with appropriate vibration isolation so that noise from the air handler is not transmitted to the building structure or to the ductwork.

The ductwork will be of appropriate class, thickness, rectangular with external insulation. Internal lining will be used to minimize sound transmission where required. The ductwork will be provided with access doors for inspection and duct cleaning. The ductwork will be galvanized steel from the air-handling unit to the terminal devices.

Insulated flexible ductwork may be used on the low side of the terminal devices to the diffusers provided the runs are limited to providing flexibility in diffuser to ceiling grid alignment. Return air will fully ducted except for office and administrative occupancies, which may include ceiling plenums.

Ventilation will be provided in accordance with ASHRAE Standard 62. The ventilation rates will be based upon the prescriptive standards with the appropriate diversities applied. Ventilation fan systems will be designed to provide quiet and appropriate exhaust flows. All ventilation systems will have dampers with motor operators that are interlocked to the motor starter circuits. The dampers will be low leakage, tightly fitting with stainless steel perimeter and lip seals. All exhaust fans will be connected to the Building Automation System and interlocked with their respective air handling system.

C. Ventilation/ Filtration/ Pressurization/ Air Change Rates

The building will be pressurized to reduce infiltration of moist humid air in the summer and cold air in the winter. All areas will be ventilated following ASHRAE 62.1 standards. Carbon Dioxide sensors will be installed in high people density spaces to reduce supply air to spaces (e.g. Conference and meeting rooms) to minimize outdoor ventilation air requirements. Occupancy sensors will be specified to shut-down air to spaces when not in use to reduce building supply air requirements. Other specific requirements include:

- Office & Support Areas: 3 ACH minimum occupied / MERV 13 filters / positive
- Circulation Areas: ASHRAE 62.1 / MERV 13 filters / positive
- Building Service Areas: ASHRAE 62.1 / MERV 13 filters /negative/continuous exhaust as required by code
- Mechanical / Electrical Areas: ASHRAE 62.1 / MERV 13 filters / negative

D. Equipment Loads & Backup

Equipment will be selected for 1/3 of the peak design load. For example, each pump in a three-pump system will be selected for 1/3 of the peak design flow. Other requirements include:

- Air handling equipment: Manifold or utilize fan arrays in air handling units to provide some redundancy for during repair or servicing
- Heating equipment: Provide emergency power for heating pumps and coil freeze protection pumps
- Cooling equipment: Provide emergency power for small stand-alone cooling systems only

E. Cooling Source and Distribution

Primary systems (not included in this assessment) include chilled water which is fed from an adjacent plant via below grade tunnels in the southwest corner of the building.

The HVAC consists of primary/secondary systems. Secondary chilled water pumps interconnect with the primary system to provide chilled water to the building.

Air handling unit cooling coils will have a side stream circulator sized at 50% of coil flow. This circulator will operate below 35-degree F to protect coils from freezing and eliminate the need to drain cooling coils in the winter. Critical data and telecom rooms and elevator equipment rooms will have standalone cooling systems. Standalone cooling systems will be able to operate at an outdoor ambient temperature of 0-degree F. Pump minimum flow requirements will be addressed by means of by-pass legs at ends of major branches utilizing control valves sequenced to open upon reaching a critical system differential pressure.

F. Heating Source and Distribution

Primary system (not included in this assessment) includes steam which is fed from an adjacent plant via below grade tunnels in the southwest corner of the building. The HVAC consists of primary/secondary systems. The building hot water system is fed through steam to hot water heat exchangers.

Heating hot water will be distributed throughout the building by a variable flow heating hot water pumping system to air handling unit heating coils, unit heaters, cabinet heaters and reheat coils associated with variable airflow (VAV) boxes. All heating coils will have 2-way control valves. Provide perimeter fin radiation at all large expanses of perimeter glass. Air handling unit heating coils will have a side stream circulator sized at 50% of coil flow. This circulator will operate below 35-degree F to protect coils from freezing.

G. Air Distribution System

Supply ductwork upstream of variable volume boxes will be designed for SMACNA 3 inches WC pressure class. Duct airflow velocities will be limited to 1800 feet per minute (FPM) to reduce duct generated noise within the building and save fan operating energy cost. Also, ductwork upstream of the VAV boxes will be sized for maximum dynamic air pressure drop of 0.15 Inches WC/100 feet equivalent duct length. Employ services of an Acoustical Consultant to target space

noise criteria and to review building system designs to ensure that the noise criteria are maintained.

Ductwork downstream of the VAV boxes will be sized for maximum pressure drop of 01. Inches WC/100 feet equivalent duct length. In general ductwork will be G90 galvanized steel. Acoustical duct sound lining will not be allowed. All ductwork will be sealed in excess of Class A. All joints, seams and duct penetrations will be sealed. Leakage rate will not exceed 2 CFM per 100 SF of ductwork at 3 inches WG duct pressure.

Commercial VAV terminal units with hot water re-heat coils will be used throughout the building. All ductwork will be thermally insulated in accordance with the energy code. Variable air volume VAV boxes will be set-up in a constant volume mode, 2-position mode or variable volume mode depending on space served.

The A/E team will study incorporation of energy recovery in building exhaust systems to minimize building energy consumption.

H. Exhaust System

General Exhaust will be designed for SMACNA 3 inches WC pressure class. Duct airflow velocities will be limited to 1800 feet per minute (FPM) to reduce duct generated noise within the building and save fan operating energy cost. Occupancy sensors, where allowed, will be specified to shut-down exhaust to spaces when not in use. Specific requirements include:

- Toilet Rooms - 50-75 cfm per toilet/urinal
- Janitor's closet - 75 CFM per sink
- Mechanical rooms – negative, continuous exhaust as required by code

I. Building Automation System (BAS)

To the maximum extent possible building systems will be integrated using IP technology to provide the maximum cost savings and flexibility. The building automation control systems will comply with the ASHRAE Standard 135, Building Automation Control Network, An Open Protocol (BACnet). The BAS will be a stand-alone Direct Digital Control (DDC) and ASHRAE BACNet compatible system. The system will consist of DDC terminal devices networked to a Graphical User Interface (GUI) terminal through a network of intermediate control units. The GUI will provide a real-time display of all HVAC and mechanical systems, contain all the standard DDC control programming, and provide secure local and remote operator access. A dedicated and secure space will be provided in the building to locate the GUI and provide sufficient work area and storage for the building's drawings and other records. The A/E team will design the building complex BAS in accordance with local standards and preferences.

J. Testing, Adjustment, Balancing and Commissioning

The A/E team will incorporate the requirements of ANSI/ASHRAE 111-1988 or the most current approved version, Practices for Measurement, Testing, Adjusting, and Balancing of Building Heating, Ventilation, Air Conditioning, and Refrigeration Systems, into the construction

specifications. The building will be commissioned by a third-party commissioning agent meeting the LEED certification criteria for scope of services.

K. Plumbing

Plumbing Systems will comply with the Annapolis Building Code with amendments, and any applicable codes, and will be ADA compliant. All devices specified will be low flow to minimize water consumption. The building will have a dedicated master water meter. The building will be provided with sub-meters for landscaping hose-bibbs, and other non-sewage uses.

L. Fire Suppression and Smoke Control

The building will be fully sprinklered. The building is on city water, so a fire pump needs to be determined if required. However, the A/E team will confirm this conclusion and to ensure that the sprinkler system will meet the requirements of NFPA 13 and 14. Dry pipe or pre-action systems will be provided where freezing has a potential to occur.

8.06 Electrical, Communication & AV/IT Requirements & Criteria

A. General Criteria, Codes and Standards

The design will comply with all applicable codes, standards, good engineering practice, and local standards. The design of the building electrical systems will comply with applicable Energy Conservation Codes and the National Electric Code. The new building will be designed with provisions for lighting, emergency, receptacle and HVAC power, and life safety. Building power will be segregated to the separate load categories and metered in accordance with the applicable Energy Conservation Codes. All electrical power systems will be encased in steel conduit and properly supported from the overhead structural steel. Conduits will not be buried in the slab of the building complex unless it is the primary underground feed from the building transformer to the main distribution panels. Underground electrical conduits will be Schedule 40 PVC encased in concrete. Motors will be premium efficiency and meet IEEE standards for Variable Frequency Drive compatibility.

The A/E design will adhere to:

- Americans with Disabilities Act (ADA)
- ANSI/ASME A17.1 Safety Code for Elevators and Escalators
- International Green Construction Code (IGCC)
- National Electrical Code
- Applicable editions of National Fire Protection Association (NFPA)
- State and local codes and regulations
- American Concrete Institute (ACI)
- American National Standards Institute (ANSI)
- American Society of Mechanical Engineers (ASME)
- Certified Ballast Manufacturers Association (CBM)
- Electronics Industry Association/ Telecommunications Industry Association (EIA/TIA)
- Illuminating Engineering Society of North America (IESNA)
- Institute of Electrical and Electronics Engineers (IEEE)
- Insulated Power Cable Engineers Association (IPCEA)

- International Building Code (IBC)
- National Electrical Manufacturers (NEMA)
- Underwriters Laboratories, Inc. (UL)
- US Green Building Council (USGBC)
- Maryland Occupational Safety and Health Administration
- ASHRAE/IESNA 90.1
- ANSI: "National Electrical Safety Code" – ANSI C-2 and ANSI C-37

In general, all spaces will be controlled to conserve energy either by sensors or by other means. All exit lights will be low wattage LED's. All equipment, transformers, and motors will be energy efficient types deigned to minimize the production of harmonic distortion.

Although energy efficiency is of major consequence, priority considerations in the design of the facilities will be given to operational, environmental safety, functional, and flexibility requirements.

B. Power Distribution System

Main Distribution Switchboard
The existing Main Distribution Switchboard "MDP" will be replaced in its entirety. The new Main Distribution Switchboard "MDP" will be a 480/277V switchboard rated 3000A, 3-phase, 4-wire and will comply with utility service-entrance requirements. The switchboard will be front accessible and provided with electrically operated out circuit breakers. The switchboard features will include digital trip breakers, a remote breaker control cabinet, and breaker lifting devices. The switchboard will be as manufactured by General Electric, Eaton Electrical, Square-D, or approved equal. Existing distribution raceways will be reused as much as possible but all conductors will be new.

Motor Control Centers
The existing Motor Control Centers (MCC) will be replaced and additional motor control centers will be provided based on new mechanical equipment demand. The new motor centers will have latest technology devices, power quality meters, molded case circuit breakers, and Power Quality meters.

Dry-Type Transformers
The existing transformers will be replaced in its entirety. The new transformers will be energy efficient and will have proper NEC code clearances. The new transformers will be as manufactured by General Electric, Eaton Electrical, Square D, or approved equal. Additional transformers and panelboards will be provided for the new addition to the building. Step-down 480-208Y/120 Volt transformers will be provided as required for the 208Y/120 Volt panelboards Dedicated panels will be provided for computer loads via K-Rated transformers.

C. Emergency Power System

A new indoor standby emergency generator will be provided for life safety systems and standby power. The fuel source will be natural gas. Life safety will include emergency egress and exit lighting, fire alarm and other code required systems. Standby power will include items such as telecom/data systems, security, elevator and its associated equipment, building management system and other equipment required or desired to have back-up power.

Two separate automatic transfer switches and associated separate panelboards will be required for the life safety loads and standby loads. The new automatic transfer switch will be as manufactured by Eaton Electrical, ASCO, GE-Zenith, or approved equal.

D. Lighting System

A new lighting system will be provided and designed to meet the current IECC code requirements for lighting controls and power density. It will also be designed to meet LEED requirements. Interior lighting sources will be LED with appropriate drivers for lighting controls such as 0-10 Volt dimming where applicable. Office lighting fixtures will either utilize a two-level ballast with bi-level control to provide 50% or 100% light output or utilize 0-10V electronic dimming ballast to provide multiple levels of light output when connected to a daylight monitoring sensor for daylight harvesting. Wall or ceiling mounted occupancy sensors will be provided for automatic lighting control. Lighting will be 277 Volt. Emergency egress and exit lighting will be provided throughout and served by the new generator. Emergency lighting will be automatically switched on during a power outage. Exterior building-mounted perimeter security lighting will be LED type light source.

E. Site Lighting

Pole-mounted site lighting will be provided for the new building and will be by LED light sources. Overall site lighting scheme will be developed in collaboration with the landscape architect and the project architect such that exterior lighting blend with the outdoor environment. Pole locations, style, and height will be coordinated to eliminate glare, light pollution, and light trespasses to the neighboring properties. Lighting levels will be designed in accordance with the recommendations of the Illuminating Engineering Society of North America (IESNA). Out-door lighting will be controlled by photocell and lighting contactor.

F. Lightning Protection System

The building will be protected by a complete building structure lightning protection system in compliance with NFPA 780, Standard for the Installation of Lightning Protection Systems.

G. Fire Alarm / Mass Notification System

A digital, addressable type fire detection and alarm system is required and will coordinate with Mass Notification System (MNS.) Provide Mass Notification System functionality per the building standard and NFPA 72, Chapter 24. Provisions should also be made for remote monitoring at a central fire command center. Fire alarm systems will have an open protocol and will be compatible for integration with other building management systems. All work must be

compatible with the fire alarm/mass notification system. A fire alarm system will be designed to consider and address the following:

- The building fire alarm system will be a microprocessor based, logic controlled, advanced protection control unit that supervises intelligent, addressable, smoke detection devices.
- A graphic fire alarm annunciator panel that will indicate trouble, power on, tamper, sprinkler flow, pull station activation, fire pump status, and emergency generator status will be located at the main entrance.
- The annunciator panel will be tied into the emergency generator, elevator, and elevator recall.
- A digital alarm communicating transmitter (DACT) will be provided for the fire alarm system to report to both an off-site control monitoring station and the campus security office. Integrate fire alarm with the building-wide mass notification system.
- Combination audio/visual devices and, manual and automatic initiating devices will be provided per applicable local, state, national, and ADA codes and requirements. All work must be compatible with the building's Fire Alarm and Mass Notification System.

The entire fire alarm system is to be UL-listed and compliant with all applicable national and local code requirements.

H. Telecommunications Structured Cabling

The following outlines design and performance features for the data network and voice PBX telecommunications Structured Cabling System (SCS) for the Department of Legislative Services (DLS) building. Wherever possible, existing standards for the telecommunications SCS will be incorporated into the design of the facility. This narrative also describes the Telecommunications Rooms (TRs) required to support the SCS. These rooms require coordination with the architect, as well as the electrical, mechanical and structural engineers. The SCS will be installed in to support the majority of the Information Technology (IT) systems requirements, building management systems, security and access control systems. The Structured Cabling System solution manufacturer will be Belden, or equal, with a minimum Twenty-five (25) year warranty.

The following specifications are the basis of design for the DLS Building SCS and TRs.

Outside Plant Cabling Connection

The DLS Building will receive Outside Plant copper, coax and optical fiber cabling from the Data Center in in the House of Delegates 4th floor Network room. The pathway is existing conduits between buildings. Suggested cable types and quantities between the Data Center in in the House of Delegates 4th floor Network room to the MLS building TR MC/MDF are as follows:

- One (1) 1200 pair copper cable
- Two (2) 48 Strand Single Mode OS2 Optical Fiber cable

Intra-Building Vertical Riser Cable System
The Intra-Building Vertical Riser cabling will be installed to connect each floor to the new network. Cabling will run from the TR - MC/MDF within DLS Building to each TR/IDF. Current building footprint will require one basement TR/MC/MDF and two (2) TR/HC/IDF's on each floor. Suggested cable types and quantities between TRs are as follows:

- One (1) 200 pair copper cable
- One (1) 24 Strand Single Mode OS2 Optical Fiber cable

Communications Horizontal Cabling
All network cables will be terminated onto Category 6A 48-port patch panels, where applicable, in each TR. There will be horizontal wire management above and below each patch panel. At the station locations the Category 6A cables will be terminated onto 8-position 8-conductor colored to match the faceplate modules, which will be single gang and colored to match the electrical faceplates. Each faceplate will have icons for voice and data. A typical office will feature 2 data and 1 voice.

Communications Cable Pathway
The primary intra-building horizontal pathway systems pathway for telecommunications cabling throughout the interior of building will be via cable tray. The cable tray will be sized to accommodate 50% fill capacity of specified cables. For any cable tray that passes through a rated wall the cable tray will stop and fire stop sleeves that match the walls rating will be placed in the wall space.

The secondary pathway will be non-continuous cable supports (NCCS) "J-hooks" that will be utilized for any areas between conduit stub-ups and cable tray that exceeds 4 feet. The NCCS will be installed between 4 and 5-foot centers. The outlet pathway will include EMT conduit stubbed to accessible above finished ceiling space or cable tray. The EMT fill ratio is not to exceed 40% with 3 or more cables.

TR Room Categories
The Telecommunication Room (TR) is an enclosed architectural space for housing telecommunications equipment, cable terminations, and cross-connect cabling. The following sub-categories describe the different requirements for each TR.

Horizontal cross-connect (HC): A group of connectors (e.g., patch panel or punch-down block) that allows equipment and backbone cabling to be cross-connected with patch cords or jumpers. Floor distributor is the international equivalent term for horizontal cross-connect. (IDF)
Intermediate cross-connect (IC): The connection point between a backbone cable that extends from the main cross-connect (campus distributor [first-level backbone]) and the backbone cable from the horizontal cross-connect (floor distributor [second-level backbone]). Building distributor is the international equivalent term for intermediate cross-connect.

Main cross-connect (MC): The cross-connect normally located in the (main) equipment room for cross-connection and interconnection of entrance cables, first-level backbone cables, and

equipment cables. Campus distributor is the international equivalent term for main cross-connect. (MDF or BDF)

Entrance facility (EF): An entrance to a building for both public and private network service cables (as well as wireless) including the entrance point at the building wall and continuing to the entrance room or space. In this building the EF will be located in the MC.

The maximum cable length distance between the TR room and the end user outlet should not exceed 290'. The TR/HC/IDF is to be sized minimum 10' X 12', The TR/MC/MDF is to be sized minimum 10' X 20'. Both TR types will house the following systems: Telecommunications Hardwired and Wireless Infrastructure, LAN equipment, and potentially Audio Visual Equipment, Access Control panels and Building Automation panels.

Architectural Room Design

The TR walls will extend from the finished floor to the structural ceiling (slab), be covered with two coats of fire-retardant white paint (or other light-colored finish) and be fire-rated as required by the applicable codes and regulations. Three of the TR walls will be covered with a 19mm (3/4 trade size) A-C graded plywood backboard, securely fastened to the supporting walls with the A grade surface face out and painted with at least two coats of fire-retardant paint which matches interior room color.

The TR ceiling recommended height from the finished floor to the finished ceiling is at least 8.5 feet. Any ceiling protrusions (e.g., sprinkler heads) must be placed to assure a minimum clear height of 8 feet that is clear of obstructions. This is to provide space over the equipment frames for cables and suspended cable/ladder trays. The ceiling finish should minimize dust and be light colored to enhance the room lighting.

The TR floor will be a concrete surface coated with a static dissipative and nonconductive porous surface sealant designed for high-technology environments or if floor tile is used then the floor tile will be Electrostatic Discharge type that is bonded to the TR busbar with a measured resistance between of < 1 Ohm.

The TR doorways that are planned for use during equipment delivery must have fully opening, lockable doors that are at least 3 feet wide and 7 feet tall. Wherever possible, the doors to all TR's should open outward. All TR doors will be securable with restricted keycard access.

Environmental Controls

Telecommunications equipment can be sensitive to environmental conditions and typically has strict requirements for its operating environment. Each TR requires the HVAC system to function properly at all times (24 hours per day, 365 days per year). If a building's HVAC system cannot ensure continuous operation (including weekends and holidays), provide a stand-alone HVAC unit with independent controls for each space.

The HVAC system that serves the TR will be connected to the building emergency generator.

The HVAC system that serves the TR should be tuned to maintain a positive air pressure differential with respect to surrounding areas. If environmental conditions warrant, provide equipment to control humidity and air quality.

The standard for environmental control systems in each TR is to maintain a temperature of 18°C to 24°C (64°F to 75°F) with a relative humidity of 30% to 55%. HVAC sensors and controls must be located in the equipment closet. Ideally, the sensors are placed 5 feet above the finished floor and should be IP addressable.

Every TR should be designed to provide two complete changes of air per hour as a minimum, or meet the below listed BTU requirements, whichever is greater. Each full height telecommunications equipment rack may require heat dissipation of up to 15,000 BTU per hour per and server equipment rack may require heat dissipation up to 32,000 BTU per hour per.

Electrical Service

Provide each TR with a power supply circuits that serve only the one room and terminates in its own electrical panel. The feeders that supply the power for telecommunications equipment should be dedicated only to supplying that equipment (see NEC Article 215 and CEC Section 26). Power required for other equipment in the room (e.g., fluorescent lighting, motors, air conditioning equipment) should be supplied by a separate feeder, conduit, and distribution panel. Also, each TR power feeder for telecommunications equipment should be served with emergency generator power.

Each floor standing telecommunications rack should have one (1) dedicated 120VAC 20amp circuits with duplex receptacles and one (1) dedicated 208VAC 30amp with twist lock receptacles. The TR should also have convenience duplex receptacles on a 20amp Circuit, located at 18” AFF and placed at 6’ intervals around perimeter walls. All telecommunications equipment with redundant power supplies will be fed from different circuits.

The TR should be served by a point-of use portable UPS capable of providing 5 minutes of uninterrupted emergency backup power to each equipment rack. This will serve to maintain equipment status during switchover to emergency generator power.

Lighting

The lighting for the TR’s should be adequate and uniform that provides a minimum equivalent of 500 lux (50 footcandles) when measured 3 feet above the finished floor level. The light fixtures will be located a minimum of 8.5 feet above the finished floor. The light switches will be located near the entrance and dimmers are not recommended. The lighting layout needs to be coordinated with the equipment layout—especially overhead cable trays/ladder racks—to ensure that the light is not obstructed. The power for the lighting should not come from the same circuits as power for the telecommunications equipment. Also utilize a light-colored finish to enhance room lighting and provide any emergency lighting as required by applicable building codes.

Bonding and Grounding

TR bonding/grounding is to conform to the following codes, standards, and practices: NFPA 70 of NEC, ANSI J-STD-607-A, IEEE, latest edition of BICSI method manual and all applicable National, State and Local building codes. Each TR space require a Secondary Bonding Busbar (SBB) connected to the Primary Bonding Busbar (PBB) and bonded to approved building ground. All connections are to be bonded with a minimum 6 AWG conductor with compression crimp style connectors with a double lug pattern for busbar connections and a single lug pattern for all other connections. The use of stainless-steel hardware for connection is required. Each equipment rack should have its own 6AWG wire run to the PBB or SBB. The ladder tray bonding may be daisy chained. Consideration should also be given to a Telecommunications Bonding Backbone (TBB) size of up to 3/0. The TBB is to be connected to the Electrical Service Ground. If the environment requires communications copper cabling entrance protection in the TR then all copper entrance cable to be terminated in a protected entrance terminal and protected by 240VDC solid state type modules that are UL497 listed.

I. Audio/ Visual Systems

The spaces to receive audiovisual systems to be designed by the AV designer will include multiple space types throughout the facility. Rooms will be able to operate in a stand-alone capacity, as well as centrally controlled via the Local Area Network.

Below are outlined several spaces for recommended to receive audiovisual systems:

Digital Signage	Training Room – 15 person
Small Meeting/Huddle Rooms	Breakout space
Medium Meeting Rooms	Joint Hearing Room
Large Conference Rooms	

The proposed Department of Legislative Services building should feature a Networked AV Systems. This will provide the most flexibility in terms of signal routing. All AV signals to include, but not limited to: analog audio, digital audio, analog video, digital video, and control signals will be encoded onto Cat6A and sent to a centralized AV Equipment room on each floor. These AV rooms will be co-located in the central IT closets on each floor. The equipment in this room will take any input from any room on the floor, process the signal, and return that signal to the same room's associated output media; be it projector, flat panel display, or ceiling loudspeaker. There will also be the capability to have any inputs from any room be redistributed across the entire AV equipment network to any desired output in any room throughout the building. This flexibility will provide the most options and greatest degree of freedom for a technologically-enhanced building. Further enhancing the flexibility of this system will be the capability to wirelessly present from any device. Wireless Presentation Gateways in each room will have their inputs passed back to the central AV equipment room in order to be distributed back to their associated room or any other room. For the purposes of this basis of design, Bring Your Own Device (BYOD) inputs will refer to HDMI and Wireless Connectivity options. Department of Legislative Services prefers Crestron based switching, therefore the basis of the design will feature Crestron Electronics in addition to all other necessary encoders, decoders, and DSPs.

The overall design intent for the AV systems and supporting infrastructure would be to provide the Department of Legislative Services with cutting edge multimedia systems to enhance collaboration within the building and to handle overflow of Committee room. In addition, the AV systems design effort is intended to meet the following design goals:

- Create State-of-the-Art Instructional, Presentation and Collaboration Spaces
- Provide administration and visitors with an intuitive, standardized user interface and flexible system architecture
- Integrate Digital Media and Streaming Presentation Technologies into the architectural fabric of the building
- Utilize cost efficient methods of achieving desired functionality
- Provide Low-Voltage Systems which conform to or exceed the standards and requirements established by DLS

Digital Signage

The building will include integrated displays for use as content delivery for the Department Of Legislative Services along with news, announcements and entertainment in non-public spaces and public spaces. Each Digital Signage display will be remotely controllable via a building-wide management system. This system will also allow for the remote implementation of content to each individual display or group of displays. Digital signage can also support CATV content, for each display, if desired. The systems will contain the following key elements:

- Display Technology -Flat Panel Display with integrated loudspeakers
- AV Sources - Digital Signage Player and Cable Television Tuner

Small Meeting/Huddle Rooms

The AV systems to the Small Meeting Rooms will be used primarily for collaboration audio and video content. Each of these spaces will contain one (1) wall-mounted Flat Panel Display with the ability to display television channels (if a CATV feed is provided) and will have an auxiliary input plate for owner-furnished AV devices, including laptops. The systems will contain the following key elements:

- Display Technology - One (1) 50” Class LCD Flat Panel Display with integrated loudspeakers
- AV Sources - Wireless presentation gateway, Cable Television Tuner and Owner Furnished Laptop Computer
- Webcam with integral microphone
- Control system on wall (button pad)

Medium Meeting Rooms

The AV systems to the Medium Meeting Rooms will be used primarily for collaboration audio and video content. Each of these spaces will contain two (2) wall-mounted Flat Panel Display with the ability to display television channels (if a CATV feed is provided) and will have an auxiliary input plate for owner-furnished AV devices, including laptops. The systems will contain the following key elements:

- Display Technology - Two (2) 50” Class LCD Flat Panel Display with integrated loudspeakers

- AV Sources - Wireless presentation gateway, Cable Television Tuner and Owner Furnished Laptop Computer
- Program and Speech Audio Reinforcement - Ceiling speakers and Ceiling microphone array
- Camera - PTZ robotic auto tracking camera
- Conference encoder
- Tabletop inputs
- Control system on wall for each display (button pad)

Large Conference Rooms

The Conference Rooms will serve as a platform for multimedia presentations and collaboration. The space will feature three (3) flat panel displays. This will allow the room to be used for local presentations as well as for video teleconferencing (VTC) applications that feature multiple screen technology. The VTC will also have two (2) cameras, at the front and rear of the room. This will allow for both collaboration and the ability to attend and/or present to the hearing room. Other inputs will include a Blu-Ray/DVD player, ceiling mounted digital document camera, OFE host computer with a digital annotation device and OFE laptop computers. Sources will in a credenza at the front of the room, and there will be auxiliary connections located in the conference table cable cubby.

Program sound reinforcement in the space will be via in-wall loudspeakers. For conferencing, the space will feature both a wired conference phone as well as wireless lapel microphones. The system will include an integrated control processor with a wireless touchscreen control panel. The control system will integrate with the room's lighting and shade control to automate one-touch room configurations.

Unique infrastructure requirements for this space include a multi-service floor box to be located under the meeting room table. The systems will contain the following key elements:

- Display Technology - Three (3) Flat Panel LCD Displays - mirror image
- AV Sources - Video Teleconferencing System with Two (2) High Definition Cameras, Blu-Ray/DVD Player, Wireless presentation gateway, Cable Television Tuner, Ceiling Mounted Digital Document Camera, Owner Furnished Host Computer and Owner Furnished Laptop Computer
- Speech and Audio Reinforcement - Wireless Lapel Microphones and Wall Mounted Loudspeakers
- System Control - Integrated Control Processor, 5" Remote Control Touch panel on wall and table, Tabletop inputs
- Camera - Two (2) PTZ robotic auto tracking camera – for flexible seating arrangements
- Conference encoder

Training Room – 15 person

The Training rooms will function as a presentation space in which instruction will be enhanced by audiovisual technology systems. These will be technology rich environments to support a variety of presentations, lectures, or meetings. The audiovisual presentation system will contain

a projector and projection screen, capable of displaying a variety of sources including a host computer, laptops, or wireless presentation gateway.

The room will also feature a video camera to support both lecture capture and web-based video conferencing capabilities. Ceiling recessed loudspeakers will provide audio reinforcement for both speech and program material. An assisted listening system will be included in compliance with ADA.

The space will feature an equipment rack to house AV equipment. A remote control touch panel and auxiliary inputs will be located at a lectern serviced by multimedia floor-box.

The control system will integrate with the room's lighting and shade control to automate one-touch room configurations.
The system will contain the following key elements:

- Display Technology - Ceiling Recessed, Electric Projection Screen and Ceiling Mounted Projector
- AV Sources - Owner Furnished Host Computer (capable of playing Blu-Ray), User Furnished Laptop Computer, Wireless Presentation Gateway, Lecture Capture and Video Teleconferencing System with Two (2) High Definition Cameras
- Program and Speech Audio Reinforcement - Wireless Lapel and Handheld Microphones, Ceiling microphones, Assisted Listening System and Distributed Ceiling Recessed Loudspeakers
- System Control - Integrated Control Processor and 10" Remote Control Touch Panel
- Conference encoder

Joint Hearing Room
The Joint Hearing Room will serve as assembly space for the Department of Legislative Services. The AV system design will enhance presentations by improving communications within the space via visual media reproduction and high fidelity speech reinforcement. Special emphasis will be placed on ease of use, audiovisual sightlines and visibility, and speech intelligibility to facilitate clear, articulate discussions within the space.

The front of the room will feature a 16 foot X 10 foot Video Wall as well as numerous wall and ceiling mounted flat panel displays throughout the space to provide comfortable viewing to all occupants. This will allow the room to be used for local presentations as well as for video teleconferencing (VTC) applications that feature multiple screen technology. The VTC will also have multiple robotic assist cameras, at the front and rear of the room. This will allow for both collaboration and the ability to attend and/or present to the hearing room. User inputs will be provided at the podium, clerks' desks, and dais for system connection. Furthermore, content may be shared wirelessly via a wireless presentation gateway. Additional source devices include a Blu-ray player, cable television tuner, digital signage player, and host computer. A wall mounted display will be provided outside the room, near the entrance, to identify room status and meeting agenda.

Wall-mounted loudspeakers will be installed for stereo program audio, and distributed ceiling-recessed loudspeakers will be provided for speech reinforcement. A gooseneck microphone will be specified for each participant, to interface with the delegate system. Several wireless handheld and lavalier microphones will also be provided. At each microphone a speak to press and get recognized button will be specified. An audio recorder will maintain record of meetings held, and an audio plate with 16 line level XLR outputs will be provided in the rear of the room for press audio connections. The system will also include an induction loop assistive listening system to accommodate users with T-Coil enabled hearing aids without the need for additional wireless receivers.

The presentation system will be controlled by touch panels with a custom user interface, which will be consistent across all spaces with AV systems. The room will feature both a hardwired, lectern-mounted touch panel, as well as a wireless touch panel with a wall-mounted charging station. Each touch panel will have control of all system functions, including lighting and shade controls, with presets configured for single button activation.

System components will be installed in a full-height, floor-mounted rack within a dedicated AV equipment closet, with minimum interior dimensions 2’-6” x 3’. Unique infrastructure requirements for this space include multi-service floor boxes to be located at the podium, dais and clerks’ desks. The systems will contain the following key elements:

- Display Technology - One (1) 16’ X 10’ video wall, Wall Mounted Flat Panel Displays, One (1) Room Scheduling / Agenda Display, Flat Panel Displays at presenter tables and Confidence Panels
- Audio Technology - Wall-Mounted Program Loudspeakers, Ceiling-Recessed Loudspeakers, Gooseneck Microphones at each member seat, Wireless Handheld and Lavalier Microphones, Digital Signal Processor, Induction Loop Assistive Listening System and Speak to press and get recognized button at each member seat
- AV Sources - User Devices, Owner Furnished Host Computer, Blu-Ray Player, HD Cable TV Tuner, Digital Signage Player and Delegate Microphone System
- System Control - Integrated Control Processor, Hardwired, Lectern-Mounted 10” Remote Control Touch panel, Hardwired, 10” Remote Control Touch panel at each member seat and Wireless 10” Remote Control Touch panel with Wall Docking Station.
- Multiple PTZ robotic auto tracking cameras
- Conference encoder

Joint Hearing Room – AV control room

The AV Control Room will be a front and center high-design space, adjacent to the Joint Hearing Room. In addition to control of the Joint Hearing Room, this space could have the ability to view and control the AV spaces throughout the building.

Equipment racks for the Joint Hearing Room will be located in this location. Control Room operators will have preview monitors and control panels to run the Joint Hearing Room AV systems. There can also be monitors to preview the content of other AV spaces throughout the Department Of Legislative Services Building. The system will contain the following key elements:

- Display Technology - Flat Panel Preview Displays
- AV Sources - Owner Furnished Host Computers, User Furnished Laptop Computer, Video Codices, Streaming and Recording Devices and Network Switch connecting all AV systems in the building
- Program Audio Reinforcement - Distributed Ceiling Mounted Loudspeakers and
- Owner Furnished Host Computer
- System Control - Integrated Control Processor and 12" Remote Control Touch Panels

J. Electronic Security – Access Control System

The Access Control System will provide restriction of entrance to facilities, rooms and zones of each of the buildings to authorized personnel via locks, keys, and card access system. Door access will be accomplished via a proximity card reader and strike or mortise electrified lockset provided in the door hardware. Auto doors motors, specified in the door hardware documents, will need to be controllable and lockable and be able to interface with access control systems. Doors will unlock automatically at successful card swipe, and authorization will be controlled via a central database/computer in any authorized security system workstation. Building wide lockdown will be possible for emergency situations. Initiation can be from any authorized security system workstation. The current Access Control System is controlled by the State of Maryland Department of General Service (DGS). DGS controls the database and card access. The Access Control System is made by Vanderbilt Industries.

Connectivity requires Low voltage cabling from each door/access location to nearest TR location. Card communication between TR's and to central database/computer will be via IP network cards in each TR. The system requires one standard telecom outlet in each TR for card connectivity to network and one standard outlet at the Central security monitoring station. Wall mounted proximity reader and strike or mortise electrified lockset or magnetic lock will be provided in the door hardware schedule and specification. Door conduit routing to be as shown on communications drawings set and coordinated with architectural design, with cabling run in conduit from each access control location back to respective TR. A single duplex power receptacle at each termination equipment cabinet is required.

K. Electronic Security – Video Surveillance System

The Video Surveillance System will be used for surveillance of exterior spaces, entrance/exits to the buildings, and common area spaces via hard wired video cameras. The proposed system will include remote video cameras located at strategic locations throughout the facilities and associated parking areas. The camera locations will be determined in conjunction with security representatives. All cameras will be IP type. Software, storage requirements and monitoring policies are to be further outlined in the DD phase of the project. At a minimum the recording policy archives to be 30 days in duration. The Video Surveillance System is controlled by the State of Maryland Department of General Service (DGS). DGS controls the database and video servers. The Video Management System is made by Genetec. The Cameras are made by Axis. Each camera location requires one category 6 cable with 8-position 8-conductor 568B termination outlets at mount location. Category 6 cable terminations in a single gang faceplate. TR termination- category 6 cable terminations onto 48 port rack mounted patch panel.

Proposed monitoring location (i.e. the Security Office) will have a 55” LCD screen specified. The system will also require conduits and cable tray for routing of cables above finished ceiling.

L. Distributed Antenna System

Public Service Distributed Antennae System (DAS). The system will be used to boost coverage for first responder radios, team radios for the Department of Legislative Services offices of Safety and Security and Facilities and other fire and life safety wireless communications within the building. The design will not include cellular carrier service. A distributed antenna system is a network of spatially separated antenna nodes connected to a common source via a transport medium that provides wireless service within a geographic area or structure. DAS antenna elevations are generally at or below the clutter level and node installations are compact.
Cellular Carrier Distributed Antennae System (DAS). The system will be used to boost coverage for cellular carrier service. A distributed antenna system is a network of spatially separated antenna nodes connected to a common source via a transport medium that provides wireless service within a geographic area or structure. DAS antenna elevations are generally at or below the clutter level and node installations are compact.

M. Emergency Telephones

Per the DGS Capitol Police standards, “blue light” emergency phones will not be used on the DLS Building site.

N. Building Commissioning Requirements & Criteria

The Commissioning Agent will develop specifications and plans for the commissioning of the building in accordance with The City of Annapolis and ASHRAE Commissioning Guidelines. The A/E team will be responsible to integrate necessary elements of the commissioning plan into the A/E specifications. The commissioning will include the design, construction, and start-up process as well as post commissioning, warranty related monitoring. The commissioning includes requirements for the level of detail required in the submittal process, equipment labeling, provisions for documentation for the DLS maintenance management system, requirements for documentation of equipment tests, and measurement, operator training, and submittal of maintenance manuals. The A/E team is required to coordinate the provisions of this section with the Construction Manager and the Commissioning Agent.

O. Operations & Maintenance Instruction Manual Requirements

Operation, Maintenance, Instructional Manuals, and Spare Parts.

The DLS maintains a maintenance and operations staff capable of troubleshooting and repairing most mechanical, plumbing, electrical and telecommunications equipment systems. Therefore, it is required that five copies of suitable manuals are furnished with the equipment and systems. The following items and information are minimum requirements:

- Manufacturer's catalog descriptions of specifics items of equipment
- Manufacturer's operating and maintenance instructions
- Wiring diagrams for inter- and intra-connections of components

- Schematics and location drawings of components and systems with "troubleshooting" guidance
- Component breakout lists for ordering replacement parts, etc.

Operations and Maintenance Manuals will be provided to the Building Facilities two weeks in advance of any testing or commissioning of any equipment.

Energy Incentives Program

The A/E team will review with the DLS the current Commercial Incentives Program offered by the campus utility service provider for opportunities to participate in financial incentive and rebate programs. If incentives are available, the A/E team will meet with the Utility Service Provider Program Coordinator and complete and submit the necessary forms to obtain incentive payments

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Section 9 Space Requirements

9.01 Building Organization and Zoning

Beyond the intra-departmental functional relationships, the building will be organized by public, private and service zones, access to natural light, and support of the over-arching mission of the Department of Legislative Services (DLS) to serve the members and staff of the Maryland General Assembly. Bubble diagrams in this section describe an overall organization that limits public access spaces to the First and Ground Floors (focused primarily on the two-story Joint Hearing Room), service space at the Basement and private (staff and Assembly members) to the Second, Third and Fourth Floors. The existing site limitations restrict the overall size of the new building floor plates; where it is not possible to locate full departmental agencies on a single floor plate, opportunities for interconnectivity between floors should be investigated.
The following are the three major programmatic zones for the new DLS building.

Public Zone, comprised of the main entrance lobby, the Joint Hearing Room, and small portions of the print shop and library. These heavily trafficked spaces are open to outside visitors and guests, as well as State Capitol campus employees. Some agencies located on the First Floor, such as Human Resources, will have a public entry and reception zone within the department.

Private Zone, comprised of private offices, meeting rooms, and break rooms. The private zone is restricted to employees of the building.

Service Zone, comprised of mechanical, storage, and other functional spaces that support the main building functions.

The main entrance to the new building will be located off Lawyer's Mall at the south end of the site. Wayfinding to the main entrance and through the public spaces of the building will be a critical design consideration in the Study Design phase of work. Refer to Section 8.01 D for further description of the proposed building layout by floor as well as descriptions of the circulation and other key organizational considerations.

Spatial Relationships and Adjacencies

Following are bubble diagrams illustrating the desired horizontal and vertical spatial relationships and adjacencies to be used as a guide by the A/E team in the subsequent Study Design phase of work. The diagrams are arranged by floorplate for the proposed new six-floor building.

Figure 9.1: Basement Floor Adjacencies Bubble Diagram

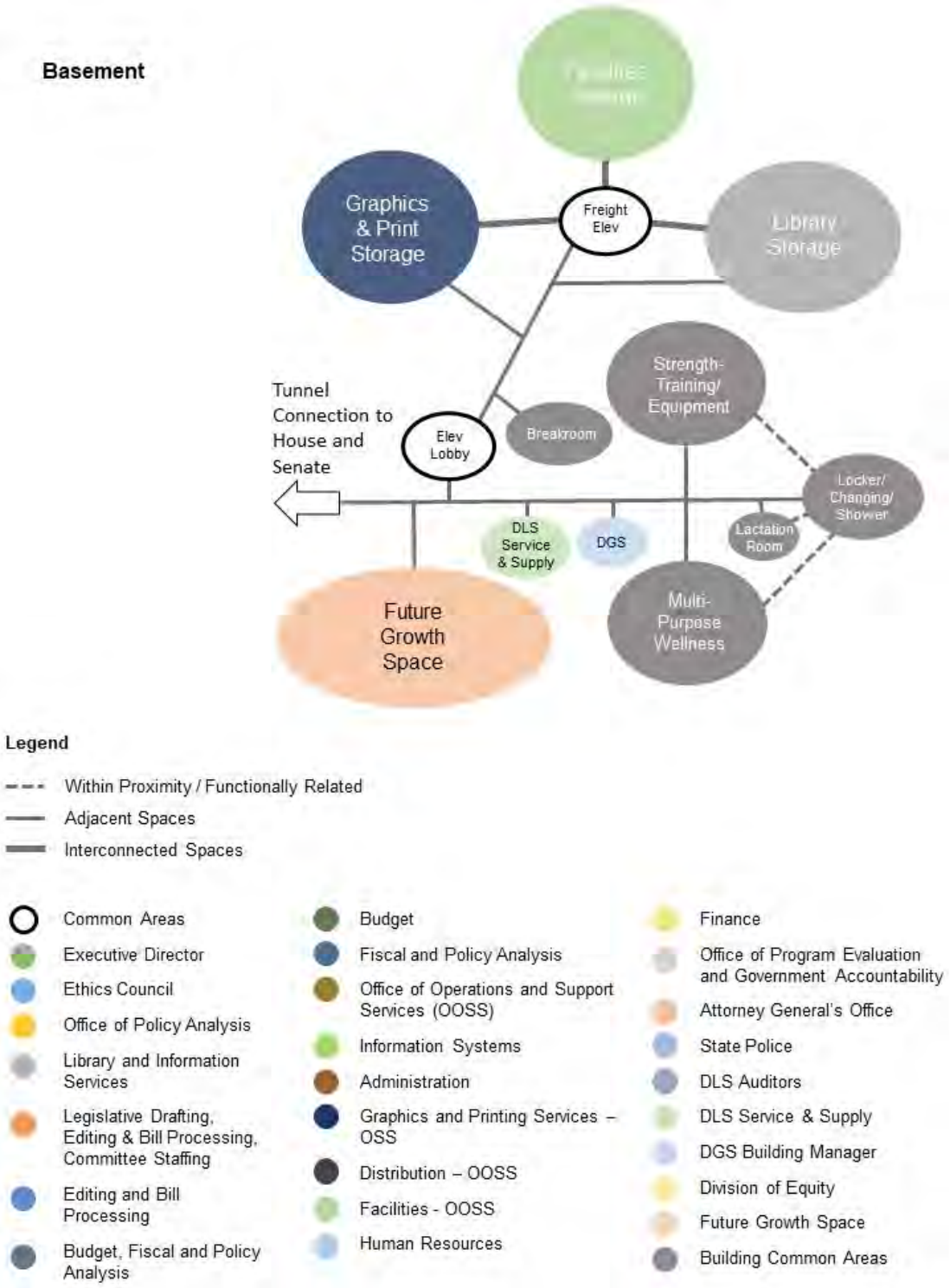


Figure 9.2: Ground Floor Adjacencies Bubble Diagram

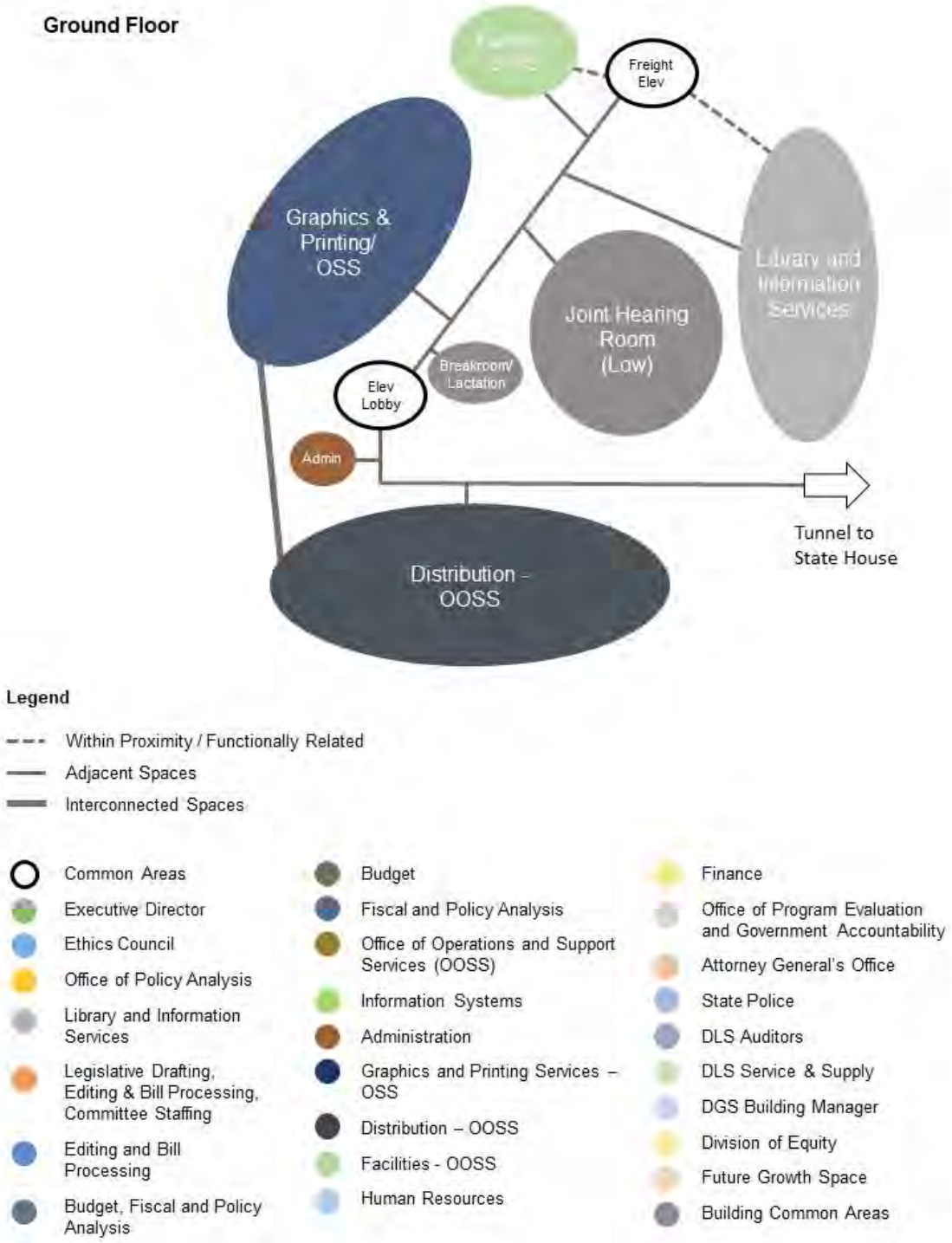


Figure 9.3: First Floor Adjacencies Bubble Diagram

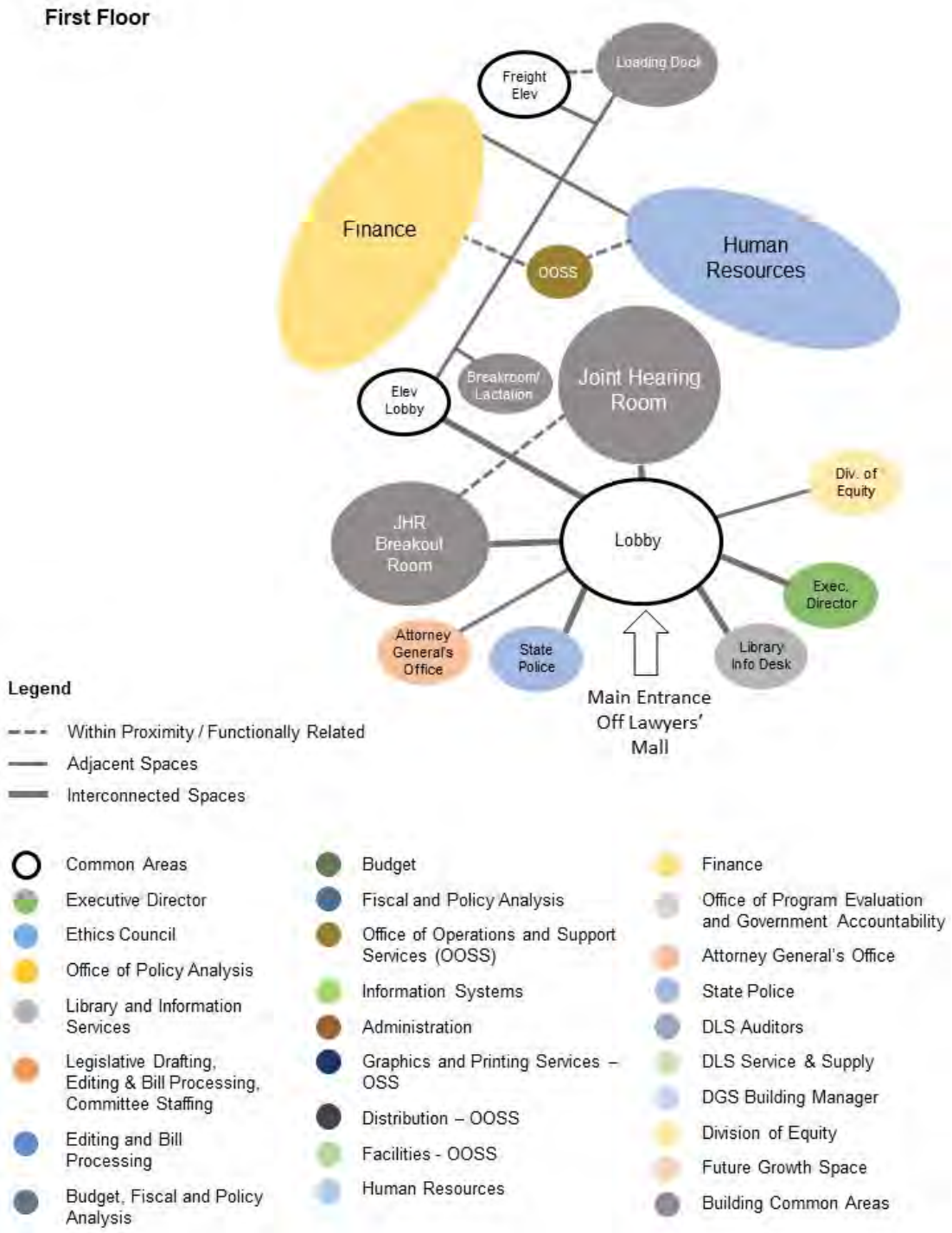


Figure 9.4: Second Floor Adjacencies Bubble Diagram

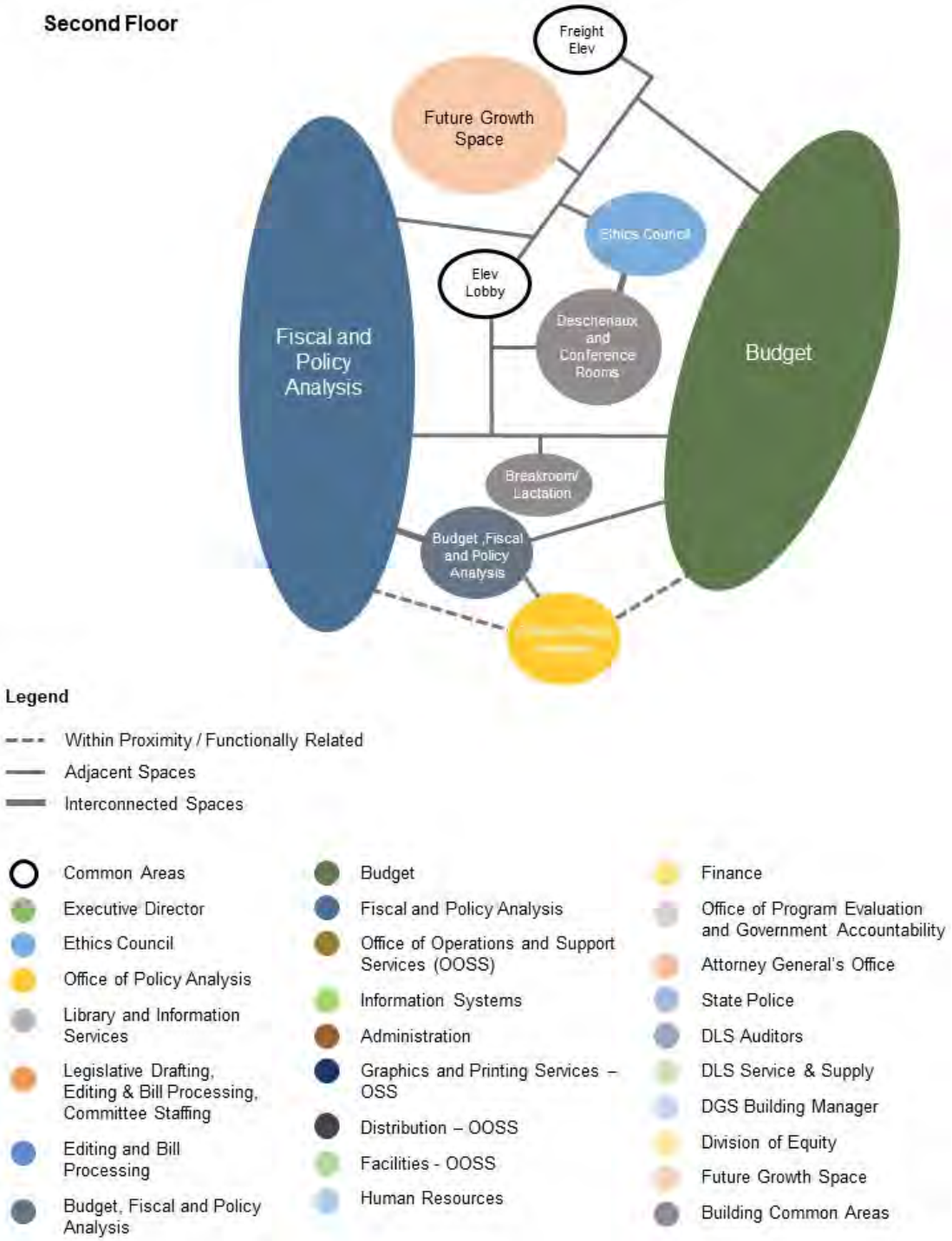


Figure 9.5: Third Floor Adjacencies Bubble Diagram

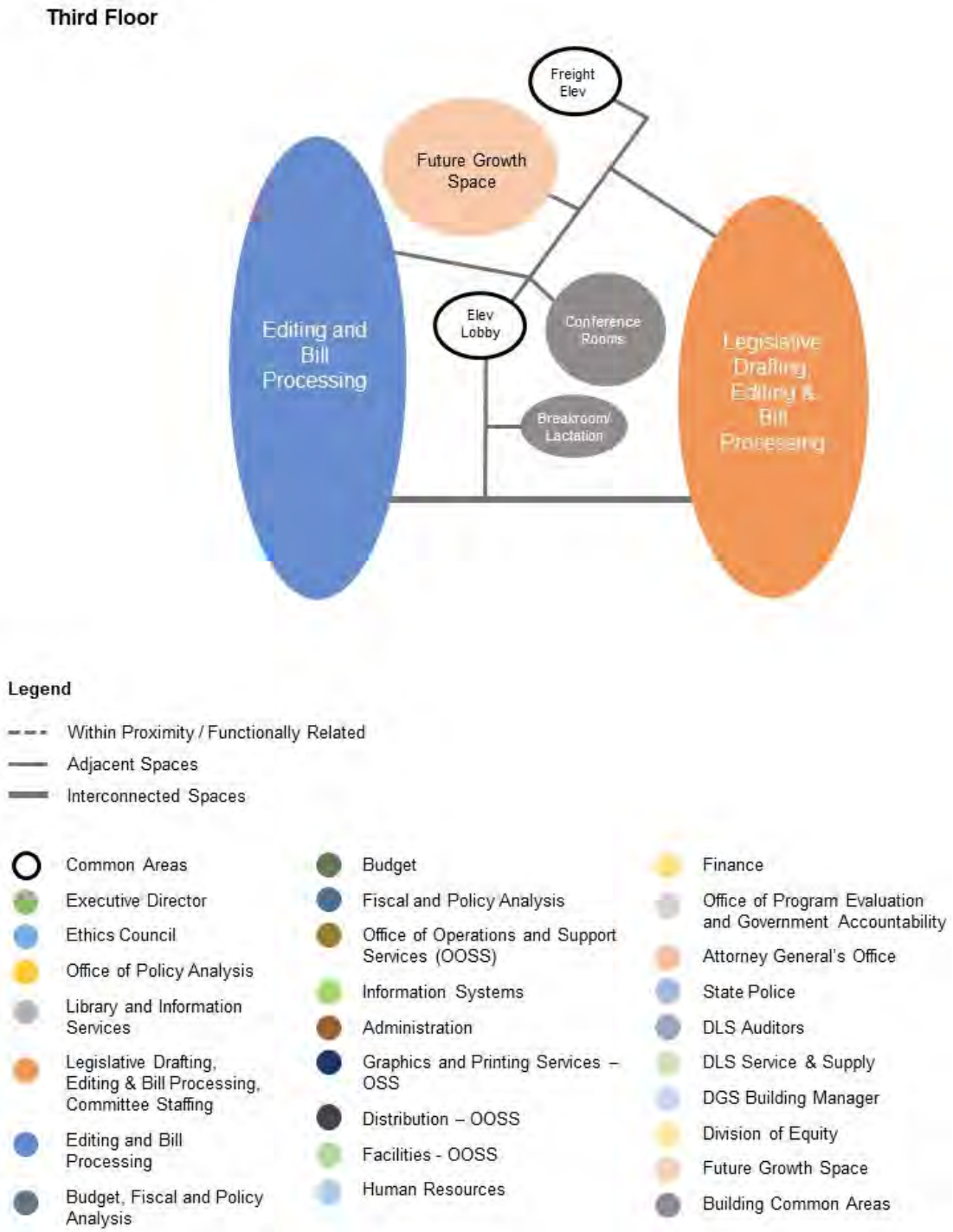
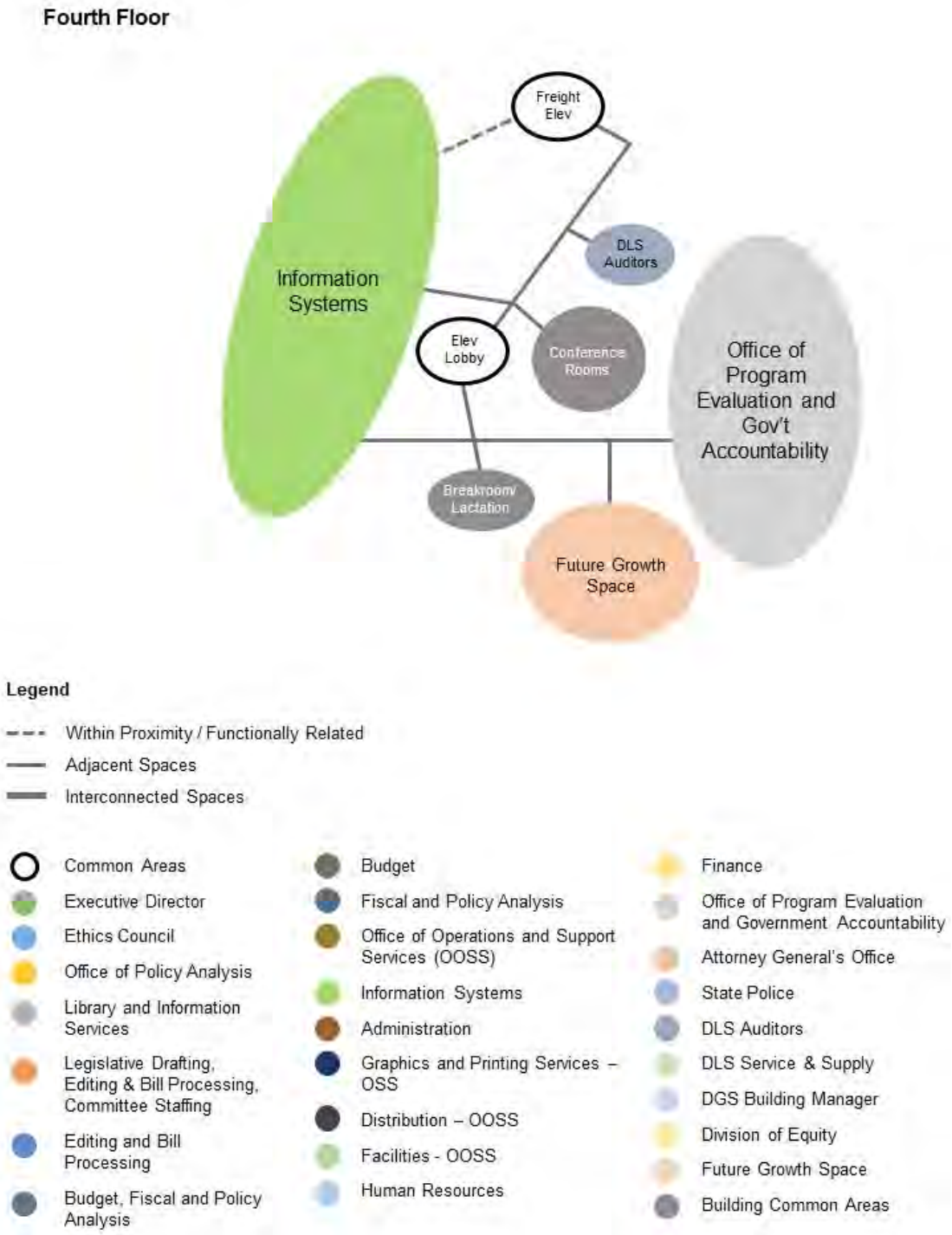


Figure 9.6: Fourth Floor Adjacencies Bubble Diagram



9.02 Room Layouts and Space Data Sheets

Figure 9.7 provides typical layouts proposed for private and open office spaces and conference/meeting rooms proposed in the program. These typical layouts have been developed to provide standardization, consistency and equity throughout the building and will be a resource for the A/E team for use in developing the interior design of the new building. Table 9.1 on the following pages includes a space data sheet for each space proposed in the program. The space sheets, in combination with the Sections 6, 7 and 8 provide detailed information on the project scope of work as well as the function, capacity, adjacencies, performance requirements and design criteria for the project. This documentation served as the basis for developing the schedule and cost estimate worksheet for the project.

Figure 9.7: Office and Conference/Meeting Space Layouts

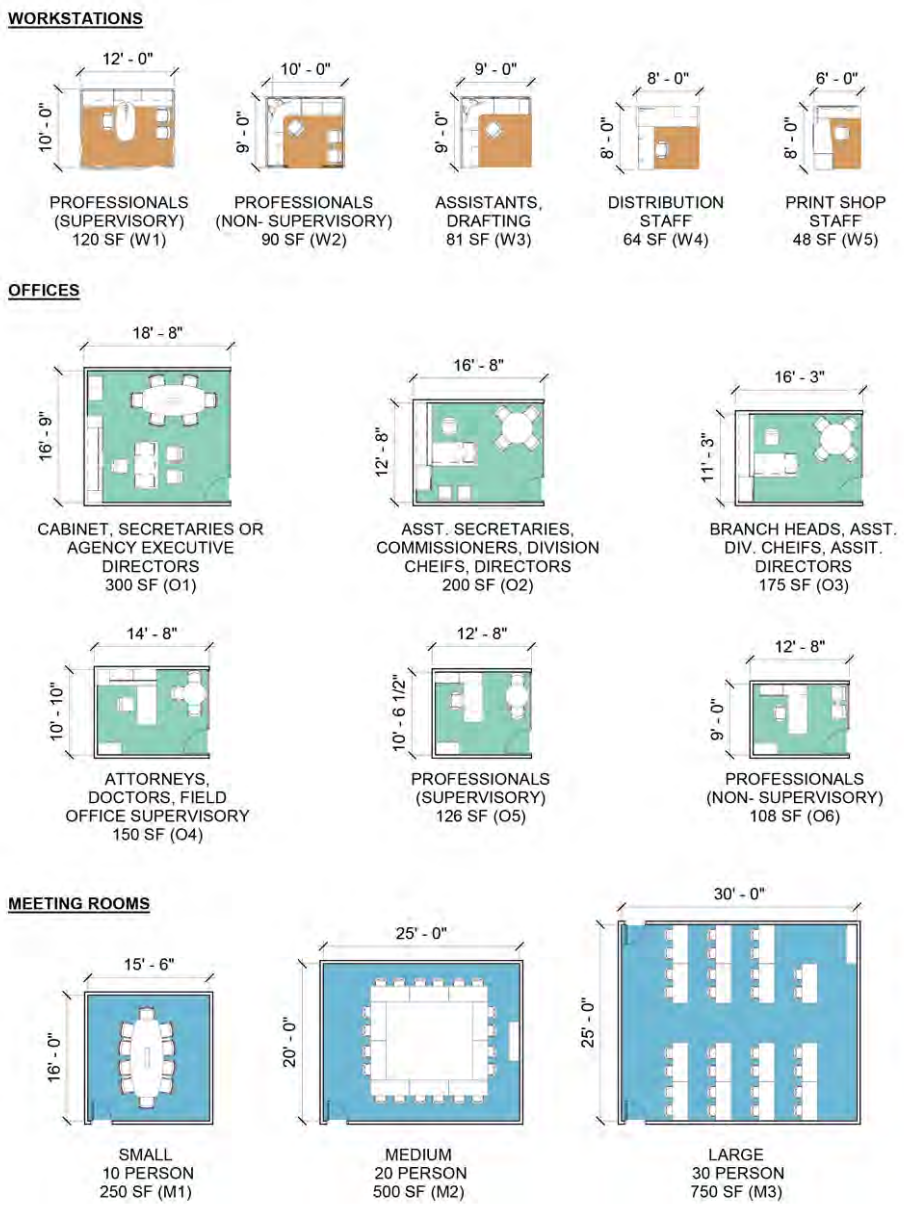


Table 9.1 – DLS Building Space Data Sheets

	Department/ Room	HEGIS	Rooms	Capacity	NASF	Total NSF
1.00	**Executive Director Suite**					**914**
1.01	Executive Director	310	1	9 persons	300	300
1.02	Reception/ Waiting	315	1	4 persons	80	80
1.03	Supervisory - Private Office	310	1	3 persons	126	126
1.04	Non-Supervisory - Private Office	310	1	3 persons	108	108
1.05	Conference Room	350	1	12 persons	300	300

Space No.:	1.01	Space Title:	Executive Director		
HEGIS Code:	310	**Area NSF:**	300	**Space Quantity:**	1
Function:		Private office for Executive Director (Type 01)			
Occupants:		9 persons			
Relationships:		Adjacent to Reception/ Waiting, Close to Primary Public Entry			
Architectural		**Flooring:**	Carpet	**Base:**	Wood
		Walls:	Wallboard, Storefront at Entry Wall (STC-60 mn)	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel with wallboard (STC-60 min)	**Min. Ceiling Ht.:**	8'-6"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	Flush Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	From Reception/ Waiting	**Other:**	N/A
Built-in Millwork		None			
Movable Furnishings		(1) Executive Desk, (1) Meeting Table, (1) Task Chair, (8) Side Chairs			
Storage		(3) Lateral Files, (2) Pedestal Files, (1) Credenza, Bookshelves			
Technology		(1) Voice/ Data outlet at Desk, (1) Voice/ Data outlet at meeting table. Computer with flat screen monitor, Phone, Printer, WiFi coverage			
Lighting		LED lighting with occupancy sensors			
Electrical		120V, 1P power receptacles for Desk, Credenza, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		Whiteboard at wall adjacent to meeting table, coat hook on door. Sound gaskets at door, or STC-rated assembly.			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

Space No.:	1.02	Space Title:	Reception/ Waiting		
HEGIS Code:	315	**Area NSF:**	80	**Space Quantity:**	1
Function:		Office and Waiting Area (W3)			
Occupants:		4 persons			
Relationships:		Adjacent to Executive Director and Supervisory Office			
Architectural		**Flooring:**	Carpet	**Base:**	Wood
		Walls:	Wallboard/ Storefront at Entry/ Wood Trim	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	8'-6"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	Full Glass	**Door Size:**	3'-0" x 7'-0"
		Access:	From Corridor	**Other:**	Sidelights
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair, (3) Side Chairs			
Storage		(2) Lateral Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Credenza, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

Space No.:	1.03	Space Title:	Supervisory - Private Office		
HEGIS Code:	310	**Area NSF:**	126	**Space Quantity:**	1
Function:		Private office for Supervisor (Type 05)			
Occupants:		3 persons			
Relationships:		Adjacent to Reception/ Waiting			
Architectural		**Flooring:**	Carpet	**Base:**	Wood
		Walls:	Wallboard, Sorefront at Entry Wall	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	8'-6"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	Flush Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	From Reception/ Waiting	**Other:**	N/A
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair, (1) Small Meeting Table, (2) Side Chairs			
Storage		(1) Lateral Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		Coat hook on door			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

Space No.:	1.04	Space Title:	Non-Supervisory - Private Office		
HEGIS Code:	310	**Area NSF:**	108	**Space Quantity:**	1
Function:		Private office for Non-Supervisor (Type 06)			
Occupants:		3 persons			
Relationships:		Adjacent to Reception/ Waiting preferred			
Architectural		**Flooring:**	Carpet	**Base:**	Wood
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	8'-6"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	Full Glass Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	From Reception/ Waiting	**Other:**	Sidelight
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair, (2) Side Chairs			
Storage		(1) Lateral Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		Coat hook on door			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

Space No.:	1.05	Space Title:	Conference Room		
HEGIS Code:	350	**Area NSF:**	300	**Space Quantity:**	1
Function:		Meeting Room for Executive Director staff (Type M1)			
Occupants:		12 persons			
Relationships:		Adjacent to Reception/ Waiting preferred, but may be from corridor			
Architectural		**Flooring:**	Carpet	**Base:**	Wood
		Walls:	Wallboard/ Wood Trim/ STC-60 (min.)	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel with wallboard (STC-60 min)	**Min. Ceiling Ht.:**	9'-6"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	Flush Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	From Reception/ Waiting and Private from rear	**Other:**	N/A
Built-in Millwork		None			
Movable Furnishings		(1) Meeting Table, (12) Side Chairs			
Storage		(1) Credenza (movable)			
Technology		Presenter Station with digital controls, computer, bluray, cable tv tuner, document camera, portable input, (3) digital displays, program audio, speech reinforcement, PTZ cameras, WiFi			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		Marker Board on one long wall			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

	Department/ Room	HEGIS	Rooms	Capacity	NASF	Total NSF
2.00	**Ethics Council**					**383**
2.01	Executive Director	310	1	9 persons	175	175
2.02	Reception/ Waiting	315	1	4 persons	100	100
2.03	Non-Supervisory - Private Office	310	1	3 persons	108	108

Space No.:	2.01	Space Title:	Branch Head Ethics - Private Office		
HEGIS Code:	310	**Area NSF:**	175	**Space Quantity:**	1
Function:		Private office for Branch Head (Type 03)			
Occupants:		5 persons			
Relationships:		Adjacent to Branch Head and Non-Supervisory Office			
Architectural		**Flooring:**	Carpet	**Base:**	Wood
		Walls:	Wallboard, Sorefront at Entry Wall	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	8'-6"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	Full Glass Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	From Corridor	**Other:**	Sidelight
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Meeting Table, (4) Side Chairs, (1) Task Chair			
Storage		(2) Lateral Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Credenza, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

Space No.:	2.02	Space Title:	Reception/ Waiting		
HEGIS Code:	315	**Area NSF:**	100	**Space Quantity:**	1
Function:		Office and Waiting Area (W3)			
Occupants:		5 persons			
Relationships:		Adjacent to Executive Director and Supervisory Office			
Architectural		**Flooring:**	Carpet	**Base:**	Wood
		Walls:	Wallboard/ Storefront at Entry/ Wood Trim	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	8'-6"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	Full Glass Alum	**Door Size:**	3'-0" x 7'-0"
		Access:	From Corridor	**Other:**	N/A
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair, (3) Side Chairs			
Storage		(2) Lateral Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Credenza, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

Space No.:	2.03	Space Title:	Non-Supervisory - Private Office		
HEGIS Code:	310	**Area NSF:**	108	**Space Quantity:**	1
Function:		Private office for Non-Supervisor (Type 06)			
Occupants:		3 persons			
Relationships:		Adjacent to Reception/ Waiting preferred			
Architectural		**Flooring:**	Carpet	**Base:**	Wood
		Walls:	Wallboard, Sorefront at Entry Wall	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	8'-6"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	Full Glass Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	From Reception/ Waiting	**Other:**	Sidelight
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair, (2) Side Chairs			
Storage		(1) Lateral Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

	Department/ Room	HEGIS	Rooms	Capacity	NASF	Total NSF
3.00	**Office of Policy Analysis**					**1,674**
3.01	Executive Director	310	1	9 persons	200	200
3.02	Reception/ Waiting	315	1	4 persons	60	60
3.03	Supervisory - Private Office	310	1	3 persons	126	126
3.04	Non-Supervisory - Private Office	310	6	3 persons	108	648
3.05	Intern - Open Office Workstation	310	10	1 person	64	640

Space No.:	3.01	Space Title:	Director - Private Office		
HEGIS Code:	310	**Area NSF:**	200	**Space Quantity:**	1
Function:		Private office for Director (Type 02)			
Occupants:		7 persons			
Relationships:		Adjacent to Reception/ Waiting			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard, Storefront at Entry	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	8'-6"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	Full Glass	**Door Size:**	3'-0" x 7'-0"
		Access:	From Reception/ Waiting	**Other:**	Sidelights
Built-in Millwork		None			
Movable Furnishings		(1) Executive Desk, (1) Meeting Table for 4, (1) Task Chair, (6) Side Chairs			
Storage		(1) Lateral Files, (1) Pedestal File, Overhead at desk			
Technology		(1) Voice/ Data outlet at Desk, (1) Voice/ Data outlet at meeting table. Computer with flat screen monitor, Phone, Printer, WiFi coverage			
Lighting		LED lighting with occupancy sensors			
Electrical		120V, 1P power receptacles for Desk, Credenza, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		Whiteboard at wall adjacent to meeting table, coat hook on door			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

Space No.:	3.02	Space Title:	Reception/ Waiting		
HEGIS Code:	315	**Area NSF:**	60	**Space Quantity:**	1
Function:		Office and Waiting Area (W3)			
Occupants:		3 persons			
Relationships:		Adjacent to Executive Director and Supervisory Office			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard, Storefront at Entry	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	8'-6"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	Full Glass Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	From Corridor	**Other:**	Sidelight
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair, (2) Side Chairs			
Storage		(2) Lateral Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Credenza, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

Space No.:	3.03	Space Title:	Supervisory - Private Office		
HEGIS Code:	310	**Area NSF:**	126	**Space Quantity:**	1
Function:		Private office for Supervisor (Type 05)			
Occupants:		3 persons			
Relationships:		Adjacent to Reception/ Waiting			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard, Storefront at Entry	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	8'-6"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	Full Glass	**Door Size:**	3'-0" x 7'-0"
		Access:	From Reception/ Waiting	**Other:**	Sidelights
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair, (1) Small Meeting Table, (2) Side Chairs			
Storage		(1) Lateral File, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		Coat hook on door			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

Space No.:	3.04	Space Title:	Non-Supervisory - Private Office		
HEGIS Code:	310	**Area NSF:**	108	**Space Quantity:**	6
Function:		Private office for Non-Supervisor (Type 06)			
Occupants:		3 persons			
Relationships:		Adjacent to Reception/ Waiting preferred			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard, Storefront at Entry	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	8'-6"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	Full Glass	**Door Size:**	3'-0" x 7'-0"
		Access:	From Corridor	**Other:**	Sidelights
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair, (2) Side Chairs			
Storage		(1) Lateral Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		Coat hook on door			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

Space No.:	3.05	Space Title:	Intern - Open Office Workstation		
HEGIS Code:	310	**Area NSF:**	64	**Space Quantity:**	10
Function:		Open workstation for Intern (Type W4)			
Occupants:		1 person			
Relationships:		Within open office area adjacent to Reception/ Waiting			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	9'-0"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	None	**Door Size:**	N/A
		Access:	Open Office	**Other:**	N/A
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair			
Storage		(1) Pedestal, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		Coat hook on door			
Electronic Security		None			

	Department/ Room	HEGIS	Rooms	Capacity	NASF	Total NSF
4.00	**Library and Information Services**					**9,025**
4.01	Branch Head - Library Manager	310	1	5 persons	175	175
4.02	Non-Supervisory - Private Office	310	1	3 persons	108	108
4.03	Supervisory - Private Office	310	1	3 persons	120	120
4.04	Non-Supervisory - Open Office (Information Desk)	310	5	3 persons	90	450
4.05	Information Desk	315	1	1 person	150	150
4.06	Non-Supervisory - Open Office (Visitors' Program)	310	3	3 persons	90	270
4.07	Visitors' Program Storage	315	1	N/A	100	100
4.08	Non-Supervisory - Private Office	310	1	3 persons	108	108
4.09	Supervisory - Open Office (Indexing and Cataloging))	310	1	3 persons	120	120
4.10	Non-Supervisory - Open Office (Indexing and Cataloging)	310	2	3 persons	90	180
4.11	Supervisory - Private Office (Reference Librarian)	310	1	3 persons	126	126
4.12	Non-Supervisory - Private Office (Reference Librarians)	310	5	3 persons	108	540
4.13	Reference Desk/ Display/ Lobby	315	1	1 person	200	200
4.14	Supervisory - Private Office (Acquisition Services)	310	3	3 persons	126	378
4.15	Non-Supervisory - Open Office (Acquisition Services)	310	4	3 persons	90	360
4.16	Non-Supervisory - Open Office (Information Desk)	310	6	1 person	90	540
4.17	Copy Room	315	1	N/A	150	150
4.18	Conference Room	350	1	8 Persons	200	200
4.19	Work Carrels and Tables	410	8	8 Persons	25	200
4.20	Open Shelving Collections	420	1	N/A	900	900
4.21	Compact Shelving Collections	420	1	N/A	3,200	3,200
4.22	Library Storage (Acquisition Services)	425	1	N/A	300	300
4.23	General Storage	315	1	N/A	150	150

Space No.:	4.01	Space Title:	Branch Head - Library Manager		
HEGIS Code:	310	**Area NSF:**	175	**Space Quantity:**	1
Function:		Private office for Branch Head (Type 03)			
Occupants:		5 persons			
Relationships:		Adjacent to Open Office			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard, Sorefront at Entry Wall	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	8'-6"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	Flush Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	From Open Office	**Other:**	
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Meeting Table for 4, (1) Task Chair, (4) Side Chairs			
Storage		(1) Lateral Files, (1) Pedestal File, Overhead at desk			
Technology		(1) Voice/ Data outlet at Desk, (1) Voice/ Data outlet at meeting table. Computer with flat screen monitor, Phone, Printer, WiFi coverage			
Lighting		LED lighting with occupancy sensors			
Electrical		120V, 1P power receptacles for Desk, Credenza, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		Whiteboard at wall adjacent to meeting table, coat hook on door			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

Space No.:	4.02	Space Title:	Non-Supervisory - Private Office (Librarian)		
HEGIS Code:	310	**Area NSF:**	108	**Space Quantity:**	1
Function:		Private office for Non-Supervisor (Type 06)			
Occupants:		3 persons			
Relationships:		Adjacent to Branch Head			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard< Storefront at Entry Wall	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	8'-6"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	Full Glass Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	From Open Office	**Other:**	Sidelight
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair, (2) Side Chairs			
Storage		(1) Lateral Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		Coat hook on door			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

Space No.:	4.03	Space Title:	Supervisory - Open Office (Information Desk)		
HEGIS Code:	310	**Area NSF:**	120	**Space Quantity:**	1
Function:		Open office workstation for Supervisor (Type W1)			
Occupants:		3 persons			
Relationships:		Adjacent to Library reference areas			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	9'-0"
		Windows:	Natural Light Desirable	**Window Treatments:**	Roller Shades
		Doors:	N/A	**Door Size:**	N/A
		Access:	From Open Office, Collection	**Other:**	N/A
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped or Peninsula-configured Desk, (1) Task Chair, (2) Side Chairs			
Storage		(1) Pedestal, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

Space No.:	4.04	Space Title:	Non-Supervisory - Open Office (Information Desk)		
HEGIS Code:	310	**Area NSF:**	90	**Space Quantity:**	5
Function:		Open office workstation for Non-Supervisor (Type W2)			
Occupants:		3 persons			
Relationships:		Adjacent to Library reference areas			
Architectural		**Flooring:**	Carpet	**Base:**	Wood
		Walls:	Wallboard/ Wood Trim	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	9'-0"
		Windows:	Natural Light Desirable	**Window Treatments:**	Roller Shades
		Doors:	N/A	**Door Size:**	N/A
		Access:	From Open Office, Collection	**Other:**	N/A
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair, (2) Side Chairs			
Storage		(2) Lateral Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		None			

Space No.:	4.05	Space Title:	Information Desk		
HEGIS Code:	315	**Area NSF:**	150	**Space Quantity:**	1
Function:		Open workstation with transaction counter			
Occupants:		1 person			
Relationships:		Locate for optimal access by library users (close to public entry)			
Architectural		**Flooring:**	Carpet	**Base:**	Wood
		Walls:	Wallboard, Storefront at Entry, Wood Trim	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	9'-0"
		Windows:	Natural Light Desirable	**Window Treatments:**	Roller Shades
		Doors:	Full Glass	**Door Size:**	3'-0" x 7'-0"
		Access:	Public Corridor	**Other:**	Sidelight
Built-in Millwork		Transaction counter with security shutter			
Movable Furnishings		(1) Workstation, (1) Task Chair			
Storage		(2) Pedestals, Overhead storage at workstation			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		None			

Space No.:	4.06	Space Title:	Non-Supervisory - Open Office (Visitors' Program)		
HEGIS Code:	310	**Area NSF:**	90	**Space Quantity:**	3
Function:		Open office workstation for Non-Supervisor (Type W2)			
Occupants:		3 persons			
Relationships:		Adjacent to Collection			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	9'-0"
		Windows:	Natural Light Desirable	**Window Treatments:**	Roller Shades
		Doors:	N/A	**Door Size:**	N/A
		Access:	From Open Office, Collection	**Other:**	N/A
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair, (2) Side Chairs			
Storage		(2) Lateral Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		None			

Space No.:	4.07	Space Title:	Visitors' Program Storage		
HEGIS Code:	315	**Area NSF:**	100	**Space Quantity:**	1
Function:		General storage for Visitors' Program			
Occupants:		N/A			
Relationships:		Non-Supervisory - Open Office (Visitors' Program)			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	9'-0"
		Windows:	None	**Window Treatments:**	N/A
		Doors:	Flush Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	From Open Office	**Other:**	N/A
Built-in Millwork		Full height adjustable shelving for half of wall space			
Movable Furnishings		None			
Storage		Storage Cabinet (36" x 18" x 72"h)			
Technology		N/A			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

Space No.:	4.08	Space Title:	Non-Supervisory - Private Office		
HEGIS Code:	310	**Area NSF:**	108	**Space Quantity:**	1
Function:		Private office for Non-Supervisor (Type 06)			
Occupants:		3 persons			
Relationships:		Within open office, close to collection			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard, Storefront at Entry Wall	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	8'-6"
		Windows:	Preferred	**Window Treatments:**	
		Doors:	Full Glass Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	From Open Office	**Other:**	Sidelight
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair, (2) Side Chairs			
Storage		(1) Lateral Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		Coat hook on door			
Electronic Security		None			

Space No.:	4.09	Space Title:	Supervisory - Open Office (Indexing and Cataloging))		
HEGIS Code:	310	**Area NSF:**	120	**Space Quantity:**	1
Function:		Open office workstation for Supervisor (Type W1)			
Occupants:		3 persons			
Relationships:		Within Open Office, close to Non-Supervisory - Open Office (Indexing and Cataloging)			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	9'-0"
		Windows:	Natural Light Desirable	**Window Treatments:**	Roller Shades
		Doors:	N/A	**Door Size:**	N/A
		Access:	From Open Office	**Other:**	N/A
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped or Peninsula-configured Desk, (1) Task Chair, (2) Side Chairs			
Storage		(1) Pedestal, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		None			

Space No.:	4.10	Space Title:	Non-Supervisory - Open Office (Indexing and Cataloging)		
HEGIS Code:	310	**Area NSF:**	90	**Space Quantity:**	2
Function:		Open office workstation for Non-Supervisor (Type W2)			
Occupants:		3 persons			
Relationships:		Adjacent to Supervisory - Open Office (Indexing and Cataloguing)			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	9'-0"
		Windows:	Natural Light Desirable	**Window Treatments:**	Roller Shades
		Doors:	N/A	**Door Size:**	N/A
		Access:	From Open Office	**Other:**	N/A
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair, (2) Side Chairs			
Storage		(2) Lateral Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		None			

Space No.:	4.11	Space Title:	Supervisory - Private Office (Reference Librarian)		
HEGIS Code:	310	**Area NSF:**	126	**Space Quantity:**	1
Function:		Private office for Supervisor (Type 05)			
Occupants:		3 persons			
Relationships:		Close to Non-Supervisory - Private Offices (Reference Librarians)			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard, Storefront at Entry Wall	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	8'-6"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	Full Glass Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	From Open Office	**Other:**	Sidelight
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair, (1) Small Meeting Table, (2) Side Chairs			
Storage		(1) Lateral Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		Marker Board adjacent to Meeting Table, Coat hook on door			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

Space No.:	4.12	Space Title:	Non-Supervisory - Private Office (Reference Librarians)		
HEGIS Code:	310	**Area NSF:**	108	**Space Quantity:**	5
Function:		Private office for Non-Supervisor (Type 06)			
Occupants:		3 persons			
Relationships:		Within open office, close to Supervisory - Private Office (Reference Librarians)			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard, Storefront at Entry Wall	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	8'-6"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	Full Glass Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	From Open Office	**Other:**	Sidelight
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair, (2) Side Chairs			
Storage		(1) Lateral Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		Coat hook on door			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

Space No.:	4.13	Space Title:	Reference Desk/ Display/ Lobby		
HEGIS Code:	315	**Area NSF:**	200	**Space Quantity:**	1
Function:		Open workstation with transaction counter			
Occupants:		1 person			
Relationships:		Locate for optimal access by library users, close to Reference Librarians, Copy Room			
Architectural		**Flooring:**	Carpet	**Base:**	Wood
		Walls:	Wallboard/ Storefront at Entry/ Wood Paneling	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	9'-0"
		Windows:	Natural Light Desirable	**Window Treatments:**	Roller Shades
		Doors:	Full Glass	**Door Size:**	(2) 3'-0" x 7'-0"
		Access:	Lobby	**Other:**	N/A
Built-in Millwork		None			
Movable Furnishings		(1) U-shaped Desk with transaction counter, (1) Task Chair			
Storage		(2) Pedestals			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

Space No.:	4.14	Space Title:	Supervisory - Private Office (Acquisition Services)		
HEGIS Code:	310	**Area NSF:**	126	**Space Quantity:**	3
Function:		Private office for Supervisor (Type 05)			
Occupants:		3 persons			
Relationships:		Close to Non-Supervisory - Private Offices (Reference Librarians)			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard, Storefront at Entry Wall	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	8'-6"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	Full Glass Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	From Open Office	**Other:**	Sidelight
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair, (1) Small Meeting Table, (2) Side Chairs			
Storage		(1) Lateral Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		Marker Board adjacent to Meeting Table, Coat hook on door			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

Space No.:	4.15	Space Title:	Non-Supervisory - Open Office (Acquisition Services)		
HEGIS Code:	310	**Area NSF:**	90	**Space Quantity:**	4
Function:		Open office workstation for Non-Supervisor (Type W2)			
Occupants:		3 persons			
Relationships:		Adjacent to Supervisory - Open Office (Indexing and Cataloguing) and Supervisory - Private Off			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	9'-0"
		Windows:	Natural Light Desirable	**Window Treatments:**	Roller Shades
		Doors:	N/A	**Door Size:**	N/A
		Access:	From Open Office	**Other:**	N/A
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair, (2) Side Chairs			
Storage		(2) Lateral Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		None			

Space No.:	4.16	Space Title:	Contractual Staff - Open Office		
HEGIS Code:	310	**Area NSF:**	90	**Space Quantity:**	6
Function:		Open office workstation for Non-Supervisor (Type W2)			
Occupants:		1 person			
Relationships:		Distribute within open office			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	9'-0"
		Windows:	Natural Light Desirable	**Window Treatments:**	Roller Shades
		Doors:	N/A	**Door Size:**	N/A
		Access:	From Open Office	**Other:**	N/A
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair, (2) Side Chairs			
Storage		(2) Lateral Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		None			

Space No.:	4.17	Space Title:	Copy Room		
HEGIS Code:	315	**Area NSF:**	150	**Space Quantity:**	1
Function:		Area for copiers, workspace and paper storage			
Occupants:		N/A			
Relationships:		Reference Librarians			
Architectural		**Flooring:**	LVT	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	9'-0"
		Windows:	No requirement	**Window Treatments:**	N/A
		Doors:	N/A	**Door Size:**	N/A
		Access:	From Open Office	**Other:**	N/A
Built-in Millwork		Adjustable shelving above storage credenza			
Movable Furnishings		None			
Storage		Storage credenza with worksurface			
Technology		N/A			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacle (ded) for each copier, one additional for convenience			
Mechanical		General Building HVAC, local exhaust at copiers			
Plumbing		None			
Specialized Equipment		(2) Floor-Mount Copiers (96" x 36")			
Electronic Security		None			

Space No.:	4.18	Space Title:	Conference Room		
HEGIS Code:	350	**Area NSF:**	200	**Space Quantity:**	1
Function:		Meeting Room (M1)			
Occupants:		8 Persons			
Relationships:		Open Office			
Architectural		**Flooring:**	Carpet	**Base:**	Wood
		Walls:	Wallboard, Wood Trim	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	9'-0"
		Windows:	No requirement	**Window Treatments:**	N/A
		Doors:	Full glass, wood	**Door Size:**	3'-0" x 7'-0"
		Access:	From Open Office	**Other:**	Sidelight
Built-in Millwork		None			
Movable Furnishings		(1) Meeting Table, (8) Side Chairs			
Storage		(1) Credenza			
Technology		Presenter Station with digital controls, computer, bluray, cable tv tuner, document camera, portable input, (3) digital displays, program audio, speech reinforcement, PTZ cameras, WiFi			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC, local exhaust at copiers			
Plumbing		None			
Specialized Equipment		Marker Board on long wall			
Electronic Security		None			

Space No.:	4.19	Space Title:	Work Carrels and Tables		
HEGIS Code:	410	**Area NSF:**	25	**Space Quantity:**	8
Function:		Library user study			
Occupants:		8 Persons			
Relationships:		Close to Collection and Reference Desk			
Architectural		**Flooring:**	Carpet	**Base:**	Wood
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	9'-0"
		Windows:	No requirement	**Window Treatments:**	N/A
		Doors:	N/A	**Door Size:**	N/A
		Access:	From Open Shelving Collections	**Other:**	N/A
Built-in Millwork		None			
Movable Furnishings		Total (All): (1) 4'' X 6' Study Table, (4) Study Carrels, (8) Side Chairs			
Storage		None			
Technology		WiFi coverage			
Lighting		LED lighting with occupancy sensor, task lighting at table, carrels			
Electrical		120V, 1P power receptacles near carrels and work table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		None			

Space No.:	4.20	Space Title:	Open Shelving Collections		
HEGIS Code:	420	**Area NSF:**	900	**Space Quantity:**	1
Function:		Storage of Collections on Archival Shelving for storage and access			
Occupants:		N/A			
Relationships:		Near Reference Desk, Work Carrels and Table			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	9'-6"
		Windows:	No requirement	**Window Treatments:**	N/A
		Doors:	N/A	**Door Size:**	N/A
		Access:	From Reference	**Other:**	N/A
Built-in Millwork		None			
Movable Furnishings		None			
Storage		(80) single-faced sections 7'- high Library Archival Grade Cantilever Shelving (3' wide sections) with base, wood end caps, range finders - ranges on 5' centers			
Technology		WiFi coverage			
Lighting		Linear LED lighting with occupancy sensors			
Electrical		120V, 1P power receptacles for Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		Secure caged area for additoonal 12 single-faced sections of shelving			
Electronic Security		None			

Space No.:	4.21	Space Title:	Compact Shelving Collections		
HEGIS Code:	420	**Area NSF:**	3,200	**Space Quantity:**	1
Function:		Storage of Collections on Mobile Archival Shelving for storage and access			
Occupants:		N/A			
Relationships:		Near Reference Desk, Work Carrels and Table, Open Shelving Collections			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	9'-6"
		Windows:	No requirement	**Window Treatments:**	N/A
		Doors:	N/A	**Door Size:**	N/A
		Access:	From Open Shelving Collections	**Other:**	N/A
Built-in Millwork		None			
Movable Furnishings		None			
Storage		(550) min. Single-faced 7'- high Library Archival Grade Cantilever Shelving (3' wide sections) on manual (crank) mobile carriages.			
Technology		WiFi coverage			
Lighting		Linear LED lighting perpendicular to ranges, with occupancy sensors			
Electrical		120V, 1P power receptacles for Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		None			

Space No.:	4.22	Space Title:	Library Storage (Acquisition Services)		
HEGIS Code:	425	**Area NSF:**	300	**Space Quantity:**	1
Function:		Temporary storage of Acquired Library Materials			
Occupants:		N/A			
Relationships:		Locate close to loading dock			
Architectural		**Flooring:**	Resilient flooring	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	9'-6"
		Windows:	No requirement	**Window Treatments:**	N/A
		Doors:	(2) Flush Metal Doors	**Door Size:**	2 @ 3'-0" x 7'-0"
		Access:	From Loading dock, or corridor	**Other:**	N/A
Built-in Millwork		None			
Movable Furnishings		None			
Storage		7'- high, 2' deep utility-grade shelving along one two walls			
Technology		WiFi coverage			
Lighting		LED lighting with occupancy sensors			
Electrical		120V, 1P power receptacles for Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

Space No.:	4.23	Space Title:	General Storage		
HEGIS Code:	315	**Area NSF:**	150	**Space Quantity:**	1
Function:		General Library storage			
Occupants:		N/A			
Relationships:		Locate close to loading dock			
Architectural		**Flooring:**	Resilient flooring	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	9'-6"
		Windows:	No requirement	**Window Treatments:**	N/A
		Doors:	(2) Flush Metal Doors	**Door Size:**	2 @ 3'-0" x 7'-0"
		Access:	From Loading dock, or corridor	**Other:**	N/A
Built-in Millwork		None			
Movable Furnishings		None			
Storage		7'- high, 2' deep utility-grade shelving along two walls			
Technology		WiFi coverage			
Lighting		LED lighting with occupancy sensors			
Electrical		120V, 1P power receptacles for Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

	Department/ Room	HEGIS	Rooms	Capacity	NASF	Total NSF
5.00	**Legislative Drafting, Editing and Bill Processing, Committee Staffing**					**4,188**
5.01	Non-Supervisory - Private Office	310	6	3 persons	108	648
5.02	Supervisory - Open Office	310	1	3 persons	120	120
5.03	Non-Supervisory - Open Office	310	8	3 persons	90	720
5.04	Bill Drafting Reception/ Waiting	315	1	5 persons	100	100
5.05	Bill Drafting Storage	315	1	N/A	150	150
5.06	Non-Supervisory - Private Office	310	15	3 persons	108	1,620
5.07	Field Office Supervisor - Private Office	310	4	3 persons	150	600
5.08	Reception/ Waiting	315	1	4 persons	80	80
5.09	Workroom/ Library	315	1	4 persons	150	150

Space No.:	5.01	Space Title:	Non-Supervisory - Private Office		
HEGIS Code:	310	**Area NSF:**	108	**Space Quantity:**	6
Function:		Private office for Non-Supervisor (Type 06)			
Occupants:		3 persons			
Relationships:		Close to Bill Drafting Reception/ Waiting preferred			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard, Storefront at Entry Wall	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	8'-6"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	Full Glass Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	From Corridor	**Other:**	Sidelight
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair, (2) Side Chairs			
Storage		(1) Lateral Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		Coat hook on door			
Electronic Security		None			

Space No.:	5.02	Space Title:	Supervisory - Open Office		
HEGIS Code:	310	**Area NSF:**	120	**Space Quantity:**	1
Function:		Open office workstation for Supervisor (Type W1)			
Occupants:		3 persons			
Relationships:		Adjacent to Supervisory - Private Office			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	9'-0"
		Windows:	Natural Light Desirable	**Window Treatments:**	Roller Shades
		Doors:	N/A	**Door Size:**	N/A
		Access:	From Open Office	**Other:**	N/A
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped or Peninsula-configured Desk, (1) Task Chair, (2) Side Chairs			
Storage		(1) Pedestal, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		None			

Space No.:	5.03	Space Title:	Non-Supervisory - Open Office		
HEGIS Code:	310	**Area NSF:**	90	**Space Quantity:**	8
Function:		Open office workstation for Non-Supervisor (Type W2)			
Occupants:		3 persons			
Relationships:		Adjacent to Information Desk			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	9'-0"
		Windows:	Natural Light Desirable	**Window Treatments:**	Roller Shades
		Doors:	N/A	**Door Size:**	N/A
		Access:	From Open Office, Collection	**Other:**	N/A
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair, (2) Side Chairs			
Storage		(2) Lateral Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		None			

Space No.:	5.04	Space Title:	Bill Drafting Reception/ Waiting		
HEGIS Code:	315	**Area NSF:**	100	**Space Quantity:**	1
Function:		Office and Waiting Area (W3)			
Occupants:		5 persons			
Relationships:		Adjacent to Non-Supervisory Private Offices			
Architectural		**Flooring:**	Carpet	**Base:**	Wood
		Walls:	Wallboard, Storefront at Entry, Wood Trim	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	8'-6"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	Full Glass	**Door Size:**	3'-0" x 7'-0"
		Access:	From Corridor	**Other:**	Sidelight
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair, (4) Side Chairs			
Storage		(2) Lateral Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Credenza, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

Space No.:	5.05	Space Title:	Bill Drafting Storage		
HEGIS Code:	315	**Area NSF:**	150	**Space Quantity:**	1
Function:		General building storage			
Occupants:		N/A			
Relationships:		Locate within Bill Drafting office suite			
Architectural		**Flooring:**	Resilient flooring	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	9'-6"
		Windows:	No requirement	**Window Treatments:**	N/A
		Doors:	Flush Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	From Loading dock, or corridor	**Other:**	N/A
Built-in Millwork		None			
Movable Furnishings		None			
Storage		7'- high, 1' deep adjustable shelving along two walls			
Technology		WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

Space No.:	5.06	Space Title:	Non-Supervisory - Private Office		
HEGIS Code:	310	**Area NSF:**	108	**Space Quantity:**	15
Function:		Private office for Non-Supervisor (Type 06)			
Occupants:		3 persons			
Relationships:		Adjacent to Non-Supervisory - Open Offices			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard, Storefront at Entry Wall	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	8'-6"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	Full Glass Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	From Open Office	**Other:**	Sidelight
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair, (2) Side Chairs			
Storage		(1) Lateral Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		Coat hook on door			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

Space No.:	5.07	Space Title:	Field Office Supervisor - Private Office		
HEGIS Code:	310	**Area NSF:**	150	**Space Quantity:**	4
Function:		Private office for Supervisor (Type 04)			
Occupants:		3 persons			
Relationships:		Close to Non-Supervisory - Private Offices			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard, Storefront at Entry Wall	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	8'-6"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	Full Glass Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	from Corridor	**Other:**	Sidelight
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair, (1) Small Meeting Table, (3) Side Chairs			
Storage		(1) Lateral Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		Marker Board adjacent to Meeting Table, Coat hook on door			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

Space No.:	5.08	Space Title:	Reception/ Waiting		
HEGIS Code:	315	**Area NSF:**	80	**Space Quantity:**	1
Function:		Office and Waiting Area (W3)			
Occupants:		4 persons			
Relationships:		Adjacent to Field Office - Supervisory Office			
Architectural		**Flooring:**	Carpet	**Base:**	Wood
		Walls:	Wallboard/ Storefront at Entry/ Wood Trim	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	8'-6"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	Full Glass Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	From Corridor	**Other:**	Sidelight
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair, (3) Side Chairs			
Storage		(2) Lateral Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Credenza, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

Space No.:	5.09	Space Title:	Workroom/ Library		
HEGIS Code:	315	**Area NSF:**	150	**Space Quantity:**	1
Function:		Library and study/ work area			
Occupants:		4 persons			
Relationships:		Close to Bill Drafting offices			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	8'-6"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	Full Glass Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	From Corridor	**Other:**	Sidelight
Built-in Millwork		None			
Movable Furnishings		Meeting/ study table for 4, (4) side chairs			
Storage		Adjustable Shelving (3'-0" wide sections) on two walls			
Technology		(1) Voice/ Data outlet adjacent to study table , Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		None			

	Department/ Room	HEGIS	Rooms	Capacity	NASF	Total NSF
6.00	**Editing and Bill Processing**					**4,072**
6.01	Supervisory - Open Office	310	1	3 persons	120	120
6.02	Non-Supervisory - Open Office (Editing Staff incl. Session Employees)	310	27	3 persons	90	2,430
6.03	Supervisory - Private Office	310	4	3 persons	126	504
6.04	Non-Supervisory - Private Office	310	1	3 persons	108	108
6.05	Non-Supervisory - Open Office	310	7	3 persons	90	630
6.06	Reception/ Waiting	315	1	4 persons	80	80
6.07	Workroom/ Library	315	1	4 persons	200	200

Space No.:	6.01	Space Title:	Supervisory - Open Office		
HEGIS Code:	310	**Area NSF:**	120	**Space Quantity:**	1
Function:		Open office workstation for Supervisor (Type W1)			
Occupants:		3 persons			
Relationships:		Adjacent to Non-Supervisory - Open Office			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	9'-0"
		Windows:	Natural Light Desirable	**Window Treatments:**	Roller Shades
		Doors:	N/A	**Door Size:**	N/A
		Access:	From Open Office	**Other:**	N/A
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped or Peninsula-configured Desk, (1) Task Chair, (2) Side Chairs			
Storage		(1) Pedestal, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		None			

Space No.:	6.02	Space Title:	Non-Supervisory - Open Office (Editing Staff incl. Session Employees)		
HEGIS Code:	310	**Area NSF:**	90	**Space Quantity:**	27
Function:		Open office workstation for Non-Supervisor (Type W2)			
Occupants:		3 persons			
Relationships:		Adjacent to other Open Office Spaces in Editing and Bill Processing			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	9'-0"
		Windows:	Natural Light Desirable	**Window Treatments:**	Roller Shades
		Doors:	N/A	**Door Size:**	N/A
		Access:	From Open Office	**Other:**	N/A
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair, (2) Side Chairs			
Storage		(2) Lateral Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		None			

Space No.:	6.03	Space Title:	Supervisory - Private Office		
HEGIS Code:	310	**Area NSF:**	126	**Space Quantity:**	4
Function:		Private office for Supervisor (Type 05)			
Occupants:		3 persons			
Relationships:		Adjacent to Reception/ Waiting and close to Non-Supervisory - Private Offices			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	8'-6"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	Full Glass Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	From Corridor or Open Office	**Other:**	Sidelight
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair, (1) Small Meeting Table, (2) Side Chairs			
Storage		(1) Lateral Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		Marker Board adjacent to Meeting Table, Coat hook on door			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

Space No.:	6.04	Space Title:	Non-Supervisory - Private Office		
HEGIS Code:	310	**Area NSF:**	108	**Space Quantity:**	1
Function:		Private office for Non-Supervisor (Type 06)			
Occupants:		3 persons			
Relationships:		Adjacent to Non-Supervisory - Open Offices			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard, Storefront at Entry Wall	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	8'-6"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	Full Glass Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	From Open Office	**Other:**	Sidelight
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair, (2) Side Chairs			
Storage		(1) Lateral Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		Coat hook on door			
Electronic Security		None			

Space No.:	6.05	Space Title:	Non-Supervisory - Open Office		
HEGIS Code:	310	**Area NSF:**	90	**Space Quantity:**	7
Function:		Open office workstation for Non-Supervisor (Type W2)			
Occupants:		3 persons			
Relationships:		Adjacent to Non-Supervisory - Private Office and other Non-Supervisory Open Office spaces			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	9'-0"
		Windows:	Natural Light Desirable	**Window Treatments:**	Roller Shades
		Doors:	N/A	**Door Size:**	N/A
		Access:	From Open Office	**Other:**	N/A
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair, (2) Side Chairs			
Storage		(2) Lateral Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		None			

Space No.:	6.06	Space Title:	Reception/ Waiting		
HEGIS Code:	315	**Area NSF:**	80	**Space Quantity:**	1
Function:		Office and Waiting Area (W3)			
Occupants:		4 persons			
Relationships:		Adjacent to Field Office - Supervisory Office			
Architectural		**Flooring:**	Carpet	**Base:**	Wood
		Walls:	Wallboard/ Storefront at Entry/ Wood Trim	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	8'-6"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	Full Glass Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	From Corridor	**Other:**	Sidelight
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair, (3) Side Chairs			
Storage		(2) Lateral Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Credenza, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

Space No.:	6.07	Space Title:	Workroom		
HEGIS Code:	315	**Area NSF:**	200	**Space Quantity:**	1
Function:		Study/ work area			
Occupants:		4 persons			
Relationships:		Close to Open Office			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	8'-6"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	Full Glass Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	From Open Office	**Other:**	Sidelight
Built-in Millwork		None			
Movable Furnishings		Work table (approx. 4' x 8') with (4) side chairs			
Storage		Adjustable Shelving (3'-0" wide sections) on one wall			
Technology		(1) Voice/ Data outlet adjacent to work table , Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		None			

	Department/ Room	HEGIS	Rooms	Capacity	NASF	Total NSF
7.00	**Budget, Fiscal and Policy Analysis**					**175**
7.01	Branch Head - Private Office	310	1	3 persons	175	175

Space No.:	7.01	Space Title:	Branch Head - Private Office		
HEGIS Code:	310	**Area NSF:**	175	**Space Quantity:**	1
Function:		Private office for Branch Head (Type 03)			
Occupants:		5 persons			
Relationships:		Close to Budget and Fiscal and Policy Analysis suites			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard, Storefront at Entry Wall	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	8'-6"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	Flush Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	From Corridor	**Other:**	N/A
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Meeting Table for 4, (1) Task Chair, (4) Side Chairs			
Storage		(1) Lateral Files, (1) Pedestal File, Overhead at desk			
Technology		(1) Voice/ Data outlet at Desk, (1) Voice/ Data outlet at meeting table. Computer with flat screen monitor, Phone, Printer, WiFi coverage			
Lighting		LED lighting with occupancy sensors			
Electrical		120V, 1P power receptacles for Desk, Credenza, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		Whiteboard at wall adjacent to meeting table, coat hook on door			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

	Department/ Room	HEGIS	Rooms	Capacity	NASF	Total NSF
8.00	**Budget**					**3,748**
8.01	Field Office Supervisor - Private Office	310	4	3 persons	150	600
8.02	Non-Supervisory - Private Office	310	16	3 persons	108	1,728
8.03	Supervisory - Private Office	310	1	3 persons	120	120
8.04	Non-Supervisory - Open Office	310	8	3 persons	90	720
8.05	Reception/ Waiting	315	1	4 persons	80	80
8.06	Workroom	315	1	4 persons	200	200
8.07	Conference Room	350	1	12 Persons	300	300

Space No.:	8.01	Space Title:	Field Office Supervisor - Private Office		
HEGIS Code:	310	**Area NSF:**	150	**Space Quantity:**	4
Function:		Private office for Supervisor (Type 04)			
Occupants:		3 persons			
Relationships:		Adjacent to Reception/ Waiting and close to Non-Supervisory - Private Offices			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard, Storefront at Entry Wall	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	8'-6"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	Full Glass Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	from Corridor	**Other:**	Sidelight
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair, (1) Small Meeting Table, (3) Side Chairs			
Storage		(1) Lateral Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		Marker Board adjacent to Meeting Table, Coat hook on door			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

Space No.:	8.02	Space Title:	Non-Supervisory - Private Office		
HEGIS Code:	310	**Area NSF:**	108	**Space Quantity:**	16
Function:		Private office for Non-Supervisor (Type 06)			
Occupants:		3 persons			
Relationships:		Close to Field Supervisor - Private Office			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard, Storefront at Entry Wall	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	8'-6"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	Full Glass Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	From Corridor or Open Office	**Other:**	Sidelight
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair, (2) Side Chairs			
Storage		(1) Lateral Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		Coat hook on door			
Electronic Security		None			

Space No.:	8.03	Space Title:	Supervisory - Open Office		
HEGIS Code:	310	**Area NSF:**	120	**Space Quantity:**	1
Function:		Open office workstation for Supervisor (Type W1)			
Occupants:		3 persons			
Relationships:		Adjacent to Non-Supervisory - Open Office			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	9'-0"
		Windows:	Natural Light Desirable	**Window Treatments:**	Roller Shades
		Doors:	N/A	**Door Size:**	N/A
		Access:	From Open Office	**Other:**	N/A
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped or Peninsula-configured Desk, (1) Task Chair, (2) Side Chairs			
Storage		(1) Pedestal, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		None			

Space No.:	8.04	Space Title:	Non-Supervisory - Open Office		
HEGIS Code:	310	**Area NSF:**	90	**Space Quantity:**	8
Function:		Open office workstation for Non-Supervisor (Type W2)			
Occupants:		3 persons			
Relationships:		Adjacent to Supervisory - Open Office			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	9'-0"
		Windows:	Natural Light Desirable	**Window Treatments:**	Roller Shades
		Doors:	N/A	**Door Size:**	N/A
		Access:	From Open Office	**Other:**	N/A
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair, (2) Side Chairs			
Storage		(2) Lateral Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		None			

Space No.:	8.05	Space Title:	Reception/ Waiting		
HEGIS Code:	315	**Area NSF:**	80	**Space Quantity:**	1
Function:		Office and Waiting Area (W3)			
Occupants:		4 persons			
Relationships:		Adjacent to Field Office Supervisor - Private Office			
Architectural		**Flooring:**	Carpet/ Storefront at Entry/ Wood Trim	**Base:**	Wood
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	8'-6"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	Full Glass	**Door Size:**	3'-0" x 7'-0"
		Access:	From Corridor	**Other:**	Sidelight
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair, (3) Side Chairs			
Storage		(2) Lateral Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Credenza, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

Space No.:	8.06	Space Title:	Workroom		
HEGIS Code:	315	**Area NSF:**	200	**Space Quantity:**	1
Function:		Study/ work area			
Occupants:		N/A			
Relationships:		Close to Open Office			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	8'-6"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	Full Glass Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	From Open Office	**Other:**	Sidelight
Built-in Millwork		None			
Movable Furnishings		Work table (approx. 4' x 8') with , (4) side chairs			
Storage		Adjustable Shelving (3'-0" wide sections) on one wall			
Technology		(1) Voice/ Data outlet adjacent to work table , Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		None			

Space No.:	8.07	Space Title:	Conference Room		
HEGIS Code:	350	**Area NSF:**	300	**Space Quantity:**	1
Function:		Meeting Room (M1)			
Occupants:		12 Persons			
Relationships:		Open Office			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	9'-0"
		Windows:	No requirement	**Window Treatments:**	N/A
		Doors:	Full glass, wood	**Door Size:**	3'-0" x 7'-0"
		Access:	From Open Office	**Other:**	Sidelight
Built-in Millwork		None			
Movable Furnishings		(1) Meeting Table, (12) Side Chairs			
Storage		(1) Credenza			
Technology		Presenter Station with digital controls, computer, bluray, cable tv tuner, document camera, portable input, (3) digital displays, program audio, speech reinforcement, PTZ cameras, WiFi			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC, local exhaust at copiers			
Plumbing		None			
Specialized Equipment		Marker Board on long wall			
Electronic Security		None			

	Department/ Room	HEGIS	Rooms	Capacity	NASF	Total NSF
9.00	**Fiscal and Policy Analysis**					**4,926**
9.01	Non-Supervisory - Private Office	310	27	3 persons	108	2,916
9.02	Field Office Supervisor - Private Office	310	4	3 persons	150	600
9.03	Supervisory - Open Office	310	1	3 persons	120	120
9.04	Non-Supervisory - Open Office	310	9	3 persons	90	810
9.05	Reception/ Waiting	315	1	4 persons	80	80
9.06	Workroom	315	1	N/A	200	200
9.07	Storage	315	1	12 Persons	200	200

Space No.:	9.01	Space Title:	Non-Supervisory - Private Office		
HEGIS Code:	310	**Area NSF:**	108	**Space Quantity:**	27
Function:		Private office for Non-Supervisor (Type 06)			
Occupants:		3 persons			
Relationships:		Close to Field Supervisor - Private Office			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard, Storefront at Entry Wall	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	8'-6"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	Full Glass Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	From Corridor or Open Office	**Other:**	Sidelight
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair, (2) Side Chairs			
Storage		(1) Lateral Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		Coat hook on door			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

Space No.:	9.02	Space Title:	Field Office Supervisor - Private Office		
HEGIS Code:	310	**Area NSF:**	150	**Space Quantity:**	4
Function:		Private office for Supervisor (Type 04)			
Occupants:		3 persons			
Relationships:		Close to Non-Supervisory - Private Offices			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard, Storefront at Entry Wall	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	8'-6"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	Full Glass Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	from Corridor	**Other:**	Sidelight
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair, (1) Small Meeting Table, (3) Side Chairs			
Storage		(1) Lateral Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		Marker Board adjacent to Meeting Table, Coat hook on door			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

Space No.:	9.03	Space Title:	Supervisory - Open Office		
HEGIS Code:	310	**Area NSF:**	120	**Space Quantity:**	1
Function:		Open office workstation for Supervisor (Type W1)			
Occupants:		3 persons			
Relationships:		Adjacent to Non-Supervisory - Open Office			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	9'-0"
		Windows:	Natural Light Desirable	**Window Treatments:**	Rolling Shades
		Doors:	N/A	**Door Size:**	N/A
		Access:	From Open Office	**Other:**	N/A
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped or Peninsula-configured Desk, (1) Task Chair, (2) Side Chairs			
Storage		(1) Pedestal, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		None			

Space No.:	9.04	Space Title:	Non-Supervisory - Open Office		
HEGIS Code:	310	**Area NSF:**	90	**Space Quantity:**	9
Function:		Open office workstation for Non-Supervisor (Type W2)			
Occupants:		3 persons			
Relationships:		Adjacent to Supervisory - Open Office			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	9'-0"
		Windows:	Natural Light Desirable	**Window Treatments:**	Roller Shades
		Doors:	N/A	**Door Size:**	N/A
		Access:	From Open Office	**Other:**	N/A
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair, (2) Side Chairs			
Storage		(2) Lateral Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		None			

Space No.:	9.05	Space Title:	Reception/ Waiting		
HEGIS Code:	315	**Area NSF:**	80	**Space Quantity:**	1
Function:		Office and Waiting Area (W3)			
Occupants:		4 persons			
Relationships:		Adjacent to Field Office Supervisor - Private Office			
Architectural		**Flooring:**	Carpet/ Storefront at Entry/ Wood Trim	**Base:**	Wood
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	8'-6"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	Full Glass Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	From Corridor	**Other:**	Sidelight
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair, (3) Side Chairs			
Storage		(2) Lateral Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Credenza, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

Space No.:	9.06	Space Title:	Workroom		
HEGIS Code:	315	**Area NSF:**	200	**Space Quantity:**	1
Function:		Study/ work area			
Occupants:		N/A			
Relationships:		Close to Open Office			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	8'-6"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	Full Glass Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	From Open Office	**Other:**	Sidelight
Built-in Millwork		None			
Movable Furnishings		Work table (approx. 4' x 8') with , (4) side chairs			
Storage		Adjustable Shelving (3'-0" wide sections) on one wall			
Technology		(1) Voice/ Data outlet adjacent to work table , Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		None			

Space No.:	9.07	Space Title:	Storage		
HEGIS Code:	315	**Area NSF:**	200	**Space Quantity:**	1
Function:		General office storage			
Occupants:		N/A			
Relationships:		Adjacent to Open Office			
Architectural		**Flooring:**	Resilient flooring	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	9'-6"
		Windows:	No requirement	**Window Treatments:**	N/A
		Doors:	Flush Wood Door	**Door Size:**	3'-0" x 7'-0"
		Access:	From Open Office	**Other:**	N/A
Built-in Millwork		None			
Movable Furnishings		None			
Storage		7'- high, 1' deep adjustable shelving along two walls			
Technology		WiFi coverage			
Lighting		LED lighting with occupancy sensors			
Electrical		120V, 1P power receptacles for Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

	Department/ Room	HEGIS	Rooms	Capacity	NASF	Total NSF
10.00	**Office of Operations and Support Services**					**200**
10.01	Director - Private Office	310	1	3 persons	200	200

Space No.:	10.01	Space Title:	Director - Private Office		
HEGIS Code:	310	**Area NSF:**	200	**Space Quantity:**	1
Function:		Private office for Director (Type 02)			
Occupants:		7 persons			
Relationships:		Close to OOSS and Information Systems			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard, Storefront at Entry Wall	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	8'-6"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	Full Glass Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	From Corridor	**Other:**	Sidelight
Built-in Millwork		None			
Movable Furnishings		(1) Executive Desk, (1) Meeting Table for 4, (1) Task Chair, (6) Side Chairs			
Storage		(1) Lateral Files, (1) Pedestal File, Overhead at desk			
Technology		(1) Voice/ Data outlet at Desk, (1) Voice/ Data outlet at meeting table. Computer with flat screen monitor, Phone, Printer, WiFi coverage			
Lighting		LED lighting with occupancy sensors			
Electrical		120V, 1P power receptacles for Desk, Credenza, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		Whiteboard at wall adjacent to meeting table, coat hook on door			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

	Department/ Room	HEGIS	Rooms	Capacity	NASF	Total NSF
11.00	**Information Systems**					**7,573**
11.01	Director - Private Office	310	1	7 persons	200	200
11.02	Assistant Director - Private Office	310	1	5 persons	175	175
11.03	Receptionist - Open Office	315	1	1 person	81	81
11.04	Receptionist/ Waiting	315	1	10 persons	150	150
11.05	Supervisory - Private Office	310	2	3 persons	126	252
11.06	Non-Supervisory - Private Office	310	35	3 persons	108	3,780
11.07	Non-Supervisory - Open Office (SAP)	310	4	3 persons	90	360
11.08	Upgrade Room	750	2	N/A	800	1,600
11.09	Training Room	210	1	15 persons	525	525
11.10	Conference Room	350	1	12 Persons	300	300
11.11	Storage	315	1	N/A	150	150

Space No.:	11.01	Space Title:	Director - Private Office		
HEGIS Code:	310	**Area NSF:**	200	**Space Quantity:**	1
Function:		Private office for Director (Type 02)			
Occupants:		7 persons			
Relationships:		Adjacent to Reception/ Waiting			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard, Storefront at Entry Wall	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	8'-6"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	Flush Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	From Reception/ Waiting	**Other:**	N/A
Built-in Millwork		None			
Movable Furnishings		(1) Executive Desk, (1) Meeting Table for 4, (1) Task Chair, (6) Side Chairs			
Storage		(1) Lateral Files, (1) Pedestal File, Overhead at desk			
Technology		(1) Voice/ Data outlet at Desk, (1) Voice/ Data outlet at meeting table. Computer with flat screen monitor, Phone, Printer, WiFi coverage			
Lighting		LED lighting with occupancy sensors			
Electrical		120V, 1P power receptacles for Desk, Credenza, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		Whiteboard at wall adjacent to meeting table, coat hook on door			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

Space No.:	11.02	Space Title:	Assistant Director - Private Office		
HEGIS Code:	310	**Area NSF:**	175	**Space Quantity:**	1
Function:		Private office for Branch Head (Type 03)			
Occupants:		5 persons			
Relationships:		Adjacent to Non-Supervisory - Private Offices and close to Director			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard, Storefront at Entry Wall	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	8'-6"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	Flush Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	From Corridor	**Other:**	N/A
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Meeting Table for 4, (1) Task Chair, (4) Side Chairs			
Storage		(1) Lateral Files, (1) Pedestal File, Overhead at desk			
Technology		(1) Voice/ Data outlet at Desk, (1) Voice/ Data outlet at meeting table. Computer with flat screen monitor, Phone, Printer, WiFi coverage			
Lighting		LED lighting with occupancy sensors			
Electrical		120V, 1P power receptacles for Desk, Credenza, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		Whiteboard at wall adjacent to meeting table, coat hook on door			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

Space No.:	11.03	Space Title:	Receptionist - Open Office		
HEGIS Code:	315	**Area NSF:**	81	**Space Quantity:**	1
Function:		Office and Waiting Area (W3)			
Occupants:		1 person			
Relationships:		Adjacent to Director and close to Non-Supervisory - Private Offices			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	8'-6"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	Full Glass Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	From Corridor	**Other:**	Sidelight
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair, (3) Side Chairs			
Storage		(2) Lateral Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Credenza, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		None			

Space No.:	11.04	Space Title:	Receptionist/ Waiting		
HEGIS Code:	315	**Area NSF:**	150	**Space Quantity:**	1
Function:		Office and Waiting Area (W3)			
Occupants:		10 persons			
Relationships:		Adjacent to Director and close to Non-Supervisory - Private Offices			
Architectural		**Flooring:**	Carpet	**Base:**	Wood
		Walls:	Wallboard/ Storefront at Entry/ Wood Trim	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	8'-6"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	Full Glass Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	From Corridor	**Other:**	Sidelight
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair, (9) Side Chairs, (2) End Tables			
Storage		(2) Lateral Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Credenza, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

Space No.:	11.05	Space Title:	Supervisory - Private Office		
HEGIS Code:	310	**Area NSF:**	126	**Space Quantity:**	2
Function:		Private office for Supervisor (Type 05)			
Occupants:		3 persons			
Relationships:		Close to Open Office			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard, Storefront at Entry Wall	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	8'-6"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	Full Glass Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	From Open Office	**Other:**	Sidelight
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair, (1) Small Meeting Table, (2) Side Chairs			
Storage		(1) Lateral Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		Marker Board adjacent to Meeting Table, Coat hook on door			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

Space No.:	11.06	Space Title:	Non-Supervisory - Private Office		
HEGIS Code:	310	**Area NSF:**	108	**Space Quantity:**	35
Function:		Private office for Non-Supervisor (Type 06)			
Occupants:		3 persons			
Relationships:		Adjacent to Director and Assistant Director			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard, Storefront at Entry Wall	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	8'-6"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	Full Glass Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	From Corridor	**Other:**	Sidelight
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair, (2) Side Chairs			
Storage		(1) Lateral Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		Coat hook on door			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

Space No.:	11.07	Space Title:	Non-Supervisory - Open Office (SAP)		
HEGIS Code:	310	**Area NSF:**	90	**Space Quantity:**	4
Function:		Open office workstation for Non-Supervisor (Type W2)			
Occupants:		3 persons			
Relationships:		Adjacent to Non-Supervisory - Private Offices			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard, Storefront at Entry Wall	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	9'-0"
		Windows:	Natural Light Desirable	**Window Treatments:**	Roller Shades
		Doors:	N/A	**Door Size:**	N/A
		Access:	From Open Office	**Other:**	N/A
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair, (2) Side Chairs			
Storage		(2) Lateral Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		None			

Space No.:	11.08	Space Title:	Upgrade Room		
HEGIS Code:	750	**Area NSF:**	800	**Space Quantity:**	2
Function:		Work area for computer repair and upgrades			
Occupants:		N/A			
Relationships:		Close to Non-Supervisory - Private Offices, Training Room			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	9'-0"
		Windows:	Natural Light Desirable	**Window Treatments:**	RollerShades
		Doors:	Flush Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	From Corridor	**Other:**	N/A
Built-in Millwork		None			
Movable Furnishings		(12) workbenches with integral storage drawers, (4) "staging" tables, (12) castered task chairs, (6) repair carts			
Storage		Secure (lockable) "caged" area for storage of computer components in bins and on adjustable shelves - approximately 150 SF)			
Technology		(1) Voice/ Data outlet at each workbench location, wall-mounted Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacle to each workbench location, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

Space No.:	11.09	Space Title:	Training Room		
HEGIS Code:	210	**Area NSF:**	525	**Space Quantity:**	1
Function:		Meeting/ Teaching Room (M3)			
Occupants:		15 persons			
Relationships:		Close to Upgrade Room, convenient to visitors			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	9'-6"
		Windows:	Natural Light Desirable	**Window Treatments:**	Roller Shades
		Doors:	Full Glass Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	From Corridor	**Other:**	Sidelight
Built-in Millwork		None			
Movable Furnishings		(8) 2'-0" x 6'-0" nesting, castered tables (with power/data outlets), (16) task chairs			
Storage		None			
Technology		(1) Instructor's Station w/digital control system and computer/monitor, (1) Motorized projection screen with ceiling-mounted data projector			
Lighting		LED lighting with occupancy sensor. Two lighting zones: front and back			
Electrical		120V, 1P power receptacles to bring power to each table location, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		4'-0" high markerboard full width of teaching wall and along one side wall			
Electronic Security		None			

Space No.:	11.10	Space Title:	Conference Room		
HEGIS Code:	350	**Area NSF:**	300	**Space Quantity:**	1
Function:		Meeting Room (M1)			
Occupants:		12 Persons			
Relationships:		Close to Open Office and Non-Supervisory - Private Offices			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	9'-0"
		Windows:	No requirement	**Window Treatments:**	N/A
		Doors:	Full glass, wood	**Door Size:**	3'-0" x 7'-0"
		Access:	From Open Office	**Other:**	Sidelight
Built-in Millwork		None			
Movable Furnishings		(1) Meeting Table, (12) Side Chairs			
Storage		(1) Credenza			
Technology		Presenter Station with digital controls, computer, bluray, cable tv tuner, document camera, portable input, (3) digital displays, program audio, speech reinforcement, PTZ cameras, WiFi			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC, local exhaust at copiers			
Plumbing		None			
Specialized Equipment		Marker Board on long wall			
Electronic Security		None			

Space No.:	11.11	Space Title:	Storage		
HEGIS Code:	315	**Area NSF:**	150	**Space Quantity:**	1
Function:		General office storage			
Occupants:		N/A			
Relationships:		Adjacent to Upgrade Room			
Architectural		**Flooring:**	Resilient flooring	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	9'-0"
		Windows:	No requirement	**Window Treatments:**	N/A
		Doors:	Flush Wood Door	**Door Size:**	3'-0" x 7'-0"
		Access:	From corridor	**Other:**	N/A
Built-in Millwork		None			
Movable Furnishings		None			
Storage		7'- high, 2' deep utility-grade shelving along two walls			
Technology		WiFi coverage			
Lighting		LED lighting with occupancy sensors			
Electrical		120V, 1P power receptacles for Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

	Department/ Room	HEGIS	Rooms	Capacity	NASF	Total NSF
12.00	**Administration**					**150**
12.01	Director - Private Office	310	1	3 persons	150	150

Space No.:	12.01	Space Title:	Field Office Supervisor - Private Office		
HEGIS Code:	310	**Area NSF:**	150	**Space Quantity:**	1
Function:		Private office for Supervisor (Type 04)			
Occupants:		3 persons			
Relationships:		Close to Operations			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard, Storefront at Entry Wall	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	8'-6"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	Full Glass Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	from Corridor	**Other:**	Sidelight
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair, (1) Small Meeting Table, (3) Side Chairs			
Storage		(1) Lateral Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		Marker Board adjacent to Meeting Table, Coat hook on door			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

	Department/ Room	HEGIS	Rooms	Capacity	NASF	Total NSF
13.00	**Graphics and Printing Services - OOSS - Office of Operations and Support Services**					**6,931**
13.01	Supervisory - Private Office (Printing Services)	310	5	3 persons	126	630
13.02	Non-Supervisory - Open Office (Print Shop)	310	16	2 persons	48	768
13.03	Print Shop Work Area	750	1	N/A	3,800	3,800
13.04	Open Work Area	750	1	N/A	200	200
13.05	Storage	315	1	N/A	400	400
13.06	Receptionist/ Waiting/ Service Window	315	1	10 persons	150	150
13.07	Receptionist Staff - Open Office (Graphic Print Shop)	315	3	2 persons	81	243
13.08	Non-Supervisory - Open Office	310	5	3 persons	90	450
13.09	Non-Supervisory - Open Office (Future Graphic Designers)	310	1	3 persons	90	90
13.10	Art Design Workroom	315	1	N/A	200	200

Space No.:	13.01	Space Title:	Supervisory - Private Office (Printing Services)		
HEGIS Code:	310	**Area NSF:**	126	**Space Quantity:**	5
Function:		Private office for Supervisor (Type 05)			
Occupants:		3 persons			
Relationships:		Close to Open Office			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard, Storefront at Entry Wall	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	8'-6"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	Full Glass Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	From Open Office	**Other:**	Sidelight
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair, (1) Small Meeting Table, (2) Side Chairs			
Storage		(1) Lateral Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		Marker Board adjacent to Meeting Table, Coat hook on door			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

Space No.:	13.02	Space Title:	Non-Supervisory - Open Office (Print Shop)		
HEGIS Code:	310	**Area NSF:**	48	**Space Quantity:**	16
Function:		Open office workstation for Non-Supervisor (Type W5)			
Occupants:		2 persons			
Relationships:		Adjacent to Supervisory - Private Offices			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	9'-0"
		Windows:	Natural Light Desirable	**Window Treatments:**	Roller Shades
		Doors:	N/A	**Door Size:**	N/A
		Access:	From Open Office	**Other:**	N/A
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair, (1) Chairs			
Storage		(1) Pedestal File, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		None			

Space No.:	13.03	Space Title:	Print Shop Work Area		
HEGIS Code:	750	**Area NSF:**	3,800	**Space Quantity:**	1
Function:		Work area for printing operations			
Occupants:		N/A			
Relationships:		Close to Open Office			
Architectural		**Flooring:**	Resilient Flooring	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	9'-6"
		Windows:	Natural Light Desirable	**Window Treatments:**	Roller Shades
		Doors:	(2) Flush Metal Doors	**Door Size:**	(2)3'-0" x 7'-0"
		Access:	From Corridor	**Other:**	N/A
Built-in Millwork		None			
Movable Furnishings		(20) Worktables/chairs (72" x 30"), (3) Worktables/chairs (60" x 30")			
Storage		24 LF of 7'H utility shelving, pallet storage for 5 pallets, (1) Chemical storage cabinet, (15) Storage (Job) Carts			
Technology		(1) Voice/ Data outlet to each desk and (4) workbench locations, coordinate data outlets with printing equipment, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles to bring power to each workbench location, Coordinate power with print shop equipment, Convenience			
Mechanical		General Building HVAC, local exhaust capabilities at equipment locations			
Plumbing		Utility Sink, Eyewash Station			
Specialized Equipment		(2) Color Print Lines (192" x 36"), (9) Color Print Lines (132" x 36"), (1) Print Line (72" x 30"), (3) Printing Presses (60" x 60"), (1) Paper Folder (120" x 120"), (3) Paper Drills (36" x 36"), (1) Dye Cutter (60" x 48"), (1) Heat Press (96" x 48"), (2) Stitchers (48" x 36"), (2) Paper Cutters (120" x 60"), (1) Bookbinder (120" x 96"), (1) Stamp Machine Station (96" x 36"), (1) Stamp Maker (36" x 30"), (3) Plate Makers (36" x 30"), (3) Tabletop Printer/Copiers, (2) Floor-Mount Copiers (96" x 36")			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

Space No.:	13.04	Space Title:	Open Work Area		
HEGIS Code:	750	**Area NSF:**	200	**Space Quantity:**	1
Function:		Flexible storage and equipment area for printing operations			
Occupants:		N/A			
Relationships:		Adjacent to Print Shop Work Area			
Architectural		**Flooring:**	Resilient Flooring	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	9'-0"
		Windows:	Natural Light Desirable	**Window Treatments:**	
		Doors:	(2) Flush Metal Doors	**Door Size:**	(2)3'-0" x 7'-0"
		Access:	From Corridor	**Other:**	
Built-in Millwork		None			
Movable Furnishings		(1) workbench with integral storage drawers, (1) task chair			
Storage		7' high x 9' wide utility shelving			
Technology		(1) Voice/ Data outlet at workbench location, wall-mounted Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles to bring power to each workbench location, Convenience			
Mechanical		General Building HVAC, Special exhaust			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

Space No.:	13.05	Space Title:	Storage		
HEGIS Code:	315	**Area NSF:**	400	**Space Quantity:**	1
Function:		General office storage			
Occupants:		N/A			
Relationships:		Adjacent to Upgrade Room			
Architectural		**Flooring:**	Resilient flooring	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	9'-0"
		Windows:	No requirement	**Window Treatments:**	N/A
		Doors:	Flush Wood Door	**Door Size:**	3'-0" x 7'-0"
		Access:	From corridor	**Other:**	N/A
Built-in Millwork		None			
Movable Furnishings		(2) Storage Cabinets (18" x 36" x 42"h), (1) Storage Cabinet (24" x 36" and 72"h.), (1) Flat File (36" x 44")			
Storage		7'- high, 2' deep utility-grade shelving along two walls			
Technology		WiFi coverage			
Lighting		LED lighting with occupancy sensors			
Electrical		120V, 1P power receptacles for Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

Space No.:	13.06	Space Title:	Receptionist/ Waiting/ Service Window		
HEGIS Code:	315	**Area NSF:**	150	**Space Quantity:**	1
Function:		Office and Waiting Area with Service Window (W3)			
Occupants:		10 persons			
Relationships:		Adjacent to Open Offices - Graphic/ Print Shop and Print Shop			
Architectural		**Flooring:**	Carpet	**Base:**	Wood
		Walls:	Wallboard/ Storefront at Entry/ Wood Trim	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	8'-6"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	Full Glass	**Door Size:**	3'-0" x 7'-0"
		Access:	From Corridor	**Other:**	Sidelight
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair, (9) Side Chairs, (2) End Tables			
Storage		(2) Lateral Files, Overhead Storage at Desk, (5) 36"w sections of adjustable shelving			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Credenza, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

Space No.:	13.07	Space Title:	Receptionist Staff - Open Office (Graphic Print Shop)		
HEGIS Code:	315	**Area NSF:**	81	**Space Quantity:**	3
Function:		Office and Waiting Area (W3)			
Occupants:		2 persons			
Relationships:		Adjacent to Receptionist/ Waiting/ Service Window			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	8'-6"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	Full Glass	**Door Size:**	3'-0" x 7'-0"
		Access:	From Corridor	**Other:**	Sidelight
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair, (3) Side Chairs			
Storage		(2) Lateral Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Credenza, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

Space No.:	13.08	Space Title:	Non-Supervisory - Open Office		
HEGIS Code:	310	**Area NSF:**	90	**Space Quantity:**	5
Function:		Open office workstation for Non-Supervisor (Type W2)			
Occupants:		3 persons			
Relationships:		Adjacent to Supervisory - Private Offices			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	9'-0"
		Windows:	Natural Light Desirable	**Window Treatments:**	Roller Shades
		Doors:	N/A	**Door Size:**	N/A
		Access:	From Open Office	**Other:**	N/A
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair, (2) Side Chairs			
Storage		(2) Lateral Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		None			

Space No.:	13.09	Space Title:	Non-Supervisory - Open Office (Future Graphic Designers)		
HEGIS Code:	310	**Area NSF:**	90	**Space Quantity:**	1
Function:		Open office workstation for Non-Supervisor (Type W2)			
Occupants:		3 persons			
Relationships:		Adjacent to Non-Supervisory - Open Offices			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	9'-0"
		Windows:	Natural Light Desirable	**Window Treatments:**	
		Doors:		**Door Size:**	
		Access:	From Open Office	**Other:**	
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair, (2) Side Chairs			
Storage		(2) Lateral Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		None			

Space No.:	13.10	Space Title:	Art Design Workroom		
HEGIS Code:	315	**Area NSF:**	200	**Space Quantity:**	1
Function:		Work area for Graphic Design (2-D) development			
Occupants:		N/A			
Relationships:		Close to Open Office			
Architectural		**Flooring:**	Resilient Flooring	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	8'-6"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	Full Glass Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	From Open Office	**Other:**	Sidelight
Built-in Millwork		None			
Movable Furnishings		Work table (approx. 30" x 96") with (4) side chairs			
Storage		(1) Art Table (36" x 72"). Adjustable Shelving (3'-0" wide sections) on one wall			
Technology		(1) Voice/ Data outlet adjacent to work table , Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for table, each piece of equipment (dedicated), Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		(4) Tabletop Printer/ Copiers, (1) Floor-Mounted Copier (36" x 96"), , (1) Tabletop Flatbed Scanner (16" x 20")			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

	Department/ Room	HEGIS	Rooms	Capacity	NASF	Total NSF
14.00	**Distribution - OOSS - Office of Operations and Support Services, Distribution**					**2,811**
14.01	Supervisory - Private Office	310	1	3 persons	126	126
14.02	Supervisory - Open Office (Bill Room)	310	2	2 persons	90	180
14.03	Non-Supervisory - Open Office (Bill Room Contractual Staff)	310	10	1 person	64	640
14.04	Bin Room	310	1	N/A	1,110	1,110
14.05	Mail Room Staff - Open Office	315	5	1 person	81	405
14.06	Mail Room Boxes	315	1	N/A	150	150
14.07	Storage - Bill Room	315	1	N/A	200	200

Space No.:	14.01	Space Title:	Supervisory - Private Office (Printing Services)		
HEGIS Code:	310	**Area NSF:**	126	**Space Quantity:**	1
Function:		Private office for Supervisor (Type 05)			
Occupants:		3 persons			
Relationships:		Close to Open Office			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard, Storefront at Entry Wall	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	8'-6"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	Full Glass Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	From Open Office	**Other:**	Sidelight
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair, (1) Small Meeting Table, (2) Side Chairs			
Storage		(1) Lateral Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		Marker Board adjacent to Meeting Table, Coat hook on door			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

Space No.:	14.02	Space Title:	Non-Supervisory - Open Office (Bill Room)		
HEGIS Code:	310	**Area NSF:**	90	**Space Quantity:**	2
Function:		Open office workstation for Non-Supervisor (Type W2)			
Occupants:		3 persons			
Relationships:		Adjacent to Supervisory - Private Offices			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	9'-0"
		Windows:	Natural Light Desirable	**Window Treatments:**	Roller Shades
		Doors:	N/A	**Door Size:**	N/A
		Access:	From Open Office	**Other:**	N/A
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair, (2) Side Chairs			
Storage		(2) Lateral Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		None			

Space No.:	14.03	Space Title:	Non-Supervisory - Open Office (Bill Room Contractual Staff)		
HEGIS Code:	310	**Area NSF:**	64	**Space Quantity:**	10
Function:		Open office workstation for Non-Supervisor (Type W4)			
Occupants:		1 person			
Relationships:		Adjacent to Supervisory - Private Offices			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	9'-0"
		Windows:	Natural Light Desirable	**Window Treatments:**	Roller Shaded
		Doors:	N/A	**Door Size:**	N/A
		Access:	From Open Office	**Other:**	N/A
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair			
Storage		(1) Pedestal Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		None			

Space No.:	14.04	Space Title:	Bin Room		
HEGIS Code:	310	**Area NSF:**	1,110	**Space Quantity:**	1
Function:		Document sorting and distribution			
Occupants:		N/A			
Relationships:		Adjacent to Mail Room Staff - Open Office			
Architectural		**Flooring:**	Resilient Flooring	**Base:**	Rubber
		Walls:	Wallboard/ Storefront	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	9'-0"
		Windows:	Natural Light Desirable	**Window Treatments:**	Roller Shades
		Doors:	Full Glass	**Door Size:**	3'-0" x 7'-0"
		Access:	From Corridor	**Other:**	Sidelight
Built-in Millwork		Transaction window with counter			
Movable Furnishings		(4) workbenches, (4) desks, (2) relocated collating tables, (12) castered task chairs,			
Storage		Relocate existing cubby-style shelves - (5) 12' long ranges, new adjustable wall-mounted adjustable shelving. Paper recycling center			
Technology		(1) Voice/ Data outlet for phone, computer, monitor at desk locations and transaction counter; WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles to each desk location, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

Space No.:	14.05	Space Title:	Mail Room Staff - Open Office		
HEGIS Code:	315	**Area NSF:**	81	**Space Quantity:**	5
Function:		Open office workstations (W3)			
Occupants:		1 person			
Relationships:		Adjacent to Bin Room			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	8'-6"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	N/A	**Door Size:**	N/A
		Access:	From Open Office	**Other:**	N/A
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair			
Storage		(1) Pedestal Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Credenza, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		None			

Space No.:	14.06	Space Title:	Mail Room Boxes		
HEGIS Code:	315	**Area NSF:**	150	**Space Quantity:**	1
Function:		Sorting, storage and distribution of mail			
Occupants:		N/A			
Relationships:		Adjacent to Open Offices - Graphic/ Print Shop and Print Shop			
Architectural		**Flooring:**	Resilient Flooring	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	8'-6"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	Full Glass Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	From Corridor	**Other:**	Sidelight
Built-in Millwork		None			
Movable Furnishings		(1) Workbench (84" x 30"), (1) Worktable (108" x 36"), (1) Worktable (120" x 30"), (1) Worktable (96" x 30")			
Storage		(5) 36" section mailbox storage system with 24" deep lower and 12" deep upper boxes (adjustable), (4) 24"w utility storage units, (2) 3 x 36"w x 24"d utility shelving			
Technology		(1) Voice/ Data outlet at each workbench and postage center, WIFI coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles to workbenches and postage center, and for Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		Computerized postage center (re-use existing), (2) Tabletop printer/ copiers			
Electronic Security		Integrated door hardware set with card reader, door position switch and REX.			

Space No.:	14.07	Space Title:	Storage - Bill Room		
HEGIS Code:	315	**Area NSF:**	200	**Space Quantity:**	1
Function:		General office storage			
Occupants:		N/A			
Relationships:		Adjacent to Bin Room			
Architectural		**Flooring:**	Resilient flooring	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	9'-0"
		Windows:	No requirement	**Window Treatments:**	
		Doors:	Flush Wood Door	**Door Size:**	3'-0" x 7'-0"
		Access:	From corridor	**Other:**	
Built-in Millwork		None			
Movable Furnishings		None			
Storage		7'- high, 2' deep utility-grade shelving along two walls			
Technology		WiFi coverage			
Lighting		LED lighting with occupancy sensors			
Electrical		120V, 1P power receptacles for Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

	Department/ Room	HEGIS	Rooms	Capacity	NASF	Total NSF
15.00	**Facilities - OOSS - Office of Operations and Support Services, Administration**					**686**
15.01	Supervisory - Private Office	310	1	3 persons	126	126
15.02	Non-Supervisory - Open Office	310	4	2 persons	90	360
15.03	Non-Supervisory - Open Office (Bill Room Contractual Staff)	315	1	1 person	200	200

Space No.:	15.01	Space Title:	Supervisory - Private Office		
HEGIS Code:	310	**Area NSF:**	126	**Space Quantity:**	1
Function:		Private office for Supervisor (Type 05)			
Occupants:		3 persons			
Relationships:		Adjacent to Open Office			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard, Storefront at Entry Wall	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	8'-6"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	Full Glass Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	From Open Office	**Other:**	Sidelight
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair, (1) Small Meeting Table, (2) Side Chairs			
Storage		(1) Lateral Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		Marker Board adjacent to Meeting Table, Coat hook on door			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

Space No.:	15.02	Space Title:	Non-Supervisory - Open Office		
HEGIS Code:	310	**Area NSF:**	90	**Space Quantity:**	4
Function:		Open office workstation for Non-Supervisor (Type W2)			
Occupants:		3 persons			
Relationships:		Adjacent to Supervisory - Private Office			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard, Storefront at Entry Wall	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	9'-0"
		Windows:	Natural Light Desirable	**Window Treatments:**	Roller Shades
		Doors:	N/A	**Door Size:**	N/A
		Access:	From Open Office	**Other:**	N/A
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair, (2) Side Chairs			
Storage		(2) Lateral Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		None			

Space No.:	15.03	Space Title:	Storage		
HEGIS Code:	315	**Area NSF:**	200	**Space Quantity:**	1
Function:		General office storage			
Occupants:		N/A			
Relationships:		Adjacent to Open Offices			
Architectural		**Flooring:**	Resilient flooring	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	9'-0"
		Windows:	No requirement	**Window Treatments:**	N/A
		Doors:	Flush Wood Door	**Door Size:**	3'-0" x 7'-0"
		Access:	From corridor	**Other:**	N/A
Built-in Millwork		None			
Movable Furnishings		None			
Storage		7'- high, 2' deep utility-grade shelving along two walls			
Technology		WiFi coverage			
Lighting		LED lighting with occupancy sensors			
Electrical		120V, 1P power receptacles for Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

	Department/ Room	HEGIS	Rooms	Capacity	NASF	Total NSF
16.00	**Human Resources**					**1,873**
16.01	Field Office Supervisor - Private Office	310	1	5 persons	175	175
16.02	Reception/ Waiting	315	1	10 persons	150	150
16.03	Reception Staff - Open Office	315	4	1 person	81	324
16.04	Non-Supervisory - Private Office	310	3	3 persons	108	324
16.05	Supervisory - Open Office	310	1	3 persons	120	120
16.06	Non-Supervisory - Open Office	310	2	3 persons	90	180
16.07	Conference Room	350	1	10 Persons	250	250
16.08	Conference Room	350	1	6 Persons	150	150
16.09	Storage - Confidential Files	315	1	N/A	200	200

Space No.:	16.01	Space Title:	Field Office Supervisor - Private Office		
HEGIS Code:	310	**Area NSF:**	175	**Space Quantity:**	1
Function:		Private office for Supervisor (Type 03)			
Occupants:		5 persons			
Relationships:		Adjacent to Reception/ Waiting			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard, Storefront at Entry Wall	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	8'-6"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	Flush Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	From Corridor	**Other:**	N/A
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped or Peninsula Desk, (1) Meeting Table for 4, (1) Task Chair, (4) Side Chairs			
Storage		(1) Lateral Files, (1) Pedestal File, Overhead at desk			
Technology		(1) Voice/ Data outlet at Desk, (1) Voice/ Data outlet at meeting table. Computer with flat screen monitor, Phone, Printer, WiFi coverage			
Lighting		LED lighting with occupancy sensors			
Electrical		120V, 1P power receptacles for Desk, Credenza, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		Whiteboard at wall adjacent to meeting table, coat hook on door			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

Space No.:	16.02	Space Title:	Reception/ Waiting		
HEGIS Code:	315	**Area NSF:**	150	**Space Quantity:**	1
Function:		Office and Waiting Area (W3)			
Occupants:		10 persons			
Relationships:		Adjacent to Field Office Supervisor and Open Office			
Architectural		**Flooring:**	Carpet	**Base:**	Wood
		Walls:	Wallboard/ Storefront at Entry/ Wood Trim	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	8'-6"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	Full Glass	**Door Size:**	3'-0" x 7'-0"
		Access:	From Corridor	**Other:**	Sidelight
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair, (9) Side Chairs, (2) End Tables			
Storage		(2) Lateral Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Credenza, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

Space No.:	16.03	Space Title:	Reception Staff - Open Office		
HEGIS Code:	315	**Area NSF:**	81	**Space Quantity:**	4
Function:		Open office workstation (W3)			
Occupants:		1 person			
Relationships:		Adjacent to Receptionist/ Waiting			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	8'-6"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	Full Glass Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	From Open Office	**Other:**	Sidelight
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair			
Storage		(2) Pedestal Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Credenza, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		None			

Space No.:	16.04	Space Title:	Non-Supervisory - Private Office		
HEGIS Code:	310	**Area NSF:**	108	**Space Quantity:**	3
Function:		Private office for Non-Supervisor (Type 06)			
Occupants:		3 persons			
Relationships:		Close to Field Supervisor - Private Office and Open Office			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard, Storefront at Entry Wall	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	8'-6"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	Full Glass Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	From Corridor or Open Office	**Other:**	Sidelight
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair, (2) Side Chairs			
Storage		(1) Lateral Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		Coat hook on door			
Electronic Security		None			

Space No.:	16.05	Space Title:	Supervisory - Open Office		
HEGIS Code:	310	**Area NSF:**	120	**Space Quantity:**	1
Function:		Open office workstation for Supervisor (Type W1)			
Occupants:		3 persons			
Relationships:		Adjacent to Non-Supervisory - Open Office			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	9'-0"
		Windows:	Natural Light Desirable	**Window Treatments:**	
		Doors:		**Door Size:**	
		Access:	From Open Office	**Other:**	
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped or Peninsula-configured Desk, (1) Task Chair, (2) Side Chairs			
Storage		(1) Pedestal, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		None			

Space No.:	16.06	Space Title:	Non-Supervisory - Open Office		
HEGIS Code:	310	**Area NSF:**	90	**Space Quantity:**	2
Function:		Open office workstation for Non-Supervisor (Type W2)			
Occupants:		3 persons			
Relationships:		Adjacent to Supervisory - Private Office			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	9'-0"
		Windows:	Natural Light Desirable	**Window Treatments:**	
		Doors:		**Door Size:**	
		Access:	From Open Office	**Other:**	
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair, (2) Side Chairs			
Storage		(2) Lateral Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		None			

Space No.:	16.07	Space Title:	Conference Room		
HEGIS Code:	350	**Area NSF:**	250	**Space Quantity:**	1
Function:		Meeting Room (M1)			
Occupants:		10 Persons			
Relationships:		Close to Open Office			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	9'-0"
		Windows:	No requirement	**Window Treatments:**	Blinds at door
		Doors:	Full glass, wood	**Door Size:**	3'-0" x 7'-0"
		Access:	From Open Office	**Other:**	Sidelight
Built-in Millwork		None			
Movable Furnishings		(1) Meeting Table, (10) Side Chairs			
Storage		(1) Credenza			
Technology		Presenter Station with digital controls, computer, bluray, cable tv tuner, document camera, portable input, (2) digital displays, program audio, PTZ cameras, WiFi			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC, local exhaust at copiers			
Plumbing		None			
Specialized Equipment		Marker Board on long wall			
Electronic Security		None			

Space No.:	16.08	Space Title:	Conference Room		
HEGIS Code:	350	**Area NSF:**	150	**Space Quantity:**	1
Function:		Meeting Room (M1)			
Occupants:		6 Persons			
Relationships:		Close to Open Office			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	9'-0"
		Windows:	No requirement	**Window Treatments:**	Blinds at door
		Doors:	Full glass, wood	**Door Size:**	3'-0" x 7'-0"
		Access:	From Open Office	**Other:**	Sidelight
Built-in Millwork		None			
Movable Furnishings		(1) Meeting Table, (6) Side Chairs			
Storage		(1) Credenza			
Technology		Presenter Station with digital controls, computer, bluray, cable tv tuner, document camera, portable input, (2) digital displays, program audio, PTZ cameras, WiFi			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC, local exhaust at copiers			
Plumbing		None			
Specialized Equipment		Marker Board on long wall			
Electronic Security		None			

Space No.:	16.09	Space Title:	Storage - Confidential Files		
HEGIS Code:	315	**Area NSF:**	200	**Space Quantity:**	1
Function:		Confidential file storage			
Occupants:		N/A			
Relationships:		Adjacent to Open Offices			
Architectural		**Flooring:**	Resilient flooring	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	9'-0"
		Windows:	No requirement	**Window Treatments:**	N/A
		Doors:	Flush Wood Door	**Door Size:**	3'-0" x 7'-0"
		Access:	From open office	**Other:**	N/A
Built-in Millwork		None			
Movable Furnishings		None			
Storage		(12) 3-drawer lateral files			
Technology		WiFi coverage			
Lighting		LED lighting with occupancy sensors			
Electrical		120V, 1P power receptacles for Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

	Department/ Room	HEGIS	Rooms	Capacity	NASF	Total NSF
17.00	**Finance**					**1,872**
17.01	Field Office Supervisor - Private Office	310	1	4 persons	150	150
17.02	Supervisory - Private Office	310	5	3 persons	126	630
17.03	Non-Supervisory - Private Office	310	4	3 persons	108	432
17.04	Non-Supervisory - Open Office	310	4	3 persons	90	360
17.05	Reception/ Waiting	315	1	5 persons	100	100
17.06	Non-Supervisory - Open Office	315	1	N/A	200	200

Space No.:	17.01	Space Title:	Field Office Supervisor - Private Office		
HEGIS Code:	310	Area NSF:	150	Space Quantity:	1
Function:		Private office for Field Office Supervisor (Type 04)			
Occupants:		4 persons			
Relationships:		Adjacent to Reception/ Waiting			
Architectural		Flooring:	Carpet	Base:	Rubber
		Walls:	Wallboard, Storefront at Entry Wall	Wall Finish:	Paint
		Ceiling:	Acoustic Panel	Min. Ceiling Ht.:	8'-6"
		Windows:	Preferred	Window Treatments:	Roller Shades
		Doors:	Full Glass Wood	Door Size:	3'-0" x 7'-0"
		Access:	from Corridor	Other:	Sidelight
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair, (1) Small Meeting Table, (3) Side Chairs			
Storage		(1) Lateral Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		Marker Board adjacent to Meeting Table, Coat hook on door			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

Space No.:	**17.02**	**Space Title:**	**Supervisory - Private Office**		
HEGIS Code:	310	**Area NSF:**	126	**Space Quantity:**	5
Function:		Private office for Supervisor (Type 05)			
Occupants:		3 persons			
Relationships:		Adjacent to Open Office			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	8'-6"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	Full Glass Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	From Open Office	**Other:**	Sidelight
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair, (1) Small Meeting Table, (2) Side Chairs			
Storage		(1) Lateral Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		Marker Board adjacent to Meeting Table, Coat hook on door			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

Space No.:	17.03	Space Title:	Non-Supervisory - Private Office		
HEGIS Code:	310	Area NSF:	108	Space Quantity:	4
Function:		Private office for Non-Supervisor (Type 06)			
Occupants:		3 persons			
Relationships:		Close to Open Office			
Architectural		Flooring:	Carpet	Base:	Rubber
		Walls:	Wallboard, Storefront at Entry Wall	Wall Finish:	Paint
		Ceiling:	Acoustic Panel	Min. Ceiling Ht.:	8'-6"
		Windows:	Preferred	Window Treatments:	Roller Shades
		Doors:	Full Glass Wood	Door Size:	3'-0" x 7'-0"
		Access:	From Open Office	Other:	Sidelight
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair, (2) Side Chairs			
Storage		(1) Lateral Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		Coat hook on door			
Electronic Security		None			

Space No.:	**17.04**	**Space Title:**	**Non-Supervisory - Open Office**		
HEGIS Code:	310	**Area NSF:**	90	**Space Quantity:**	4
Function:		Open office workstation for Non-Supervisor (Type W2)			
Occupants:		3 persons			
Relationships:		Close to Supervisory - Private Office and Non-Supervisory - Private Offices			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	9'-0"
		Windows:	Natural Light Desirable	**Window Treatments:**	Roller Shades
		Doors:	N/A	**Door Size:**	N/A
		Access:	From Open Office	**Other:**	N/A
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair, (2) Side Chairs			
Storage		(2) Lateral Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		None			

Space No.:	17.05	Space Title:	Reception/ Waiting		
HEGIS Code:	315	Area NSF:	100	Space Quantity:	1
Function:		Office and Waiting Area (W3)			
Occupants:		5 persons			
Relationships:		Adjacent to Field Office Supervisor and Open Office			
Architectural		Flooring:	Carpet	Base:	Wood
		Walls:	Wallboard/ Storefront at Entry/ Wood Trim	Wall Finish:	Paint
		Ceiling:	Acoustic Panel	Min. Ceiling Ht.:	8'-6"
		Windows:	Preferred	Window Treatments:	Roller Shades
		Doors:	Full Glass	Door Size:	3'-0" x 7'-0"
		Access:	From Corridor	Other:	Sidelight
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair, (4) Side Chairs, (1) End Table			
Storage		(2) Lateral Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Credenza, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

Space No.:	**17.06**	**Space Title:**	**Non-Supervisory - Open Office**		
HEGIS Code:	315	**Area NSF:**	200	**Space Quantity:**	1
Function:		Confidential file storage			
Occupants:		N/A			
Relationships:		Adjacent to Open Offices			
Architectural		**Flooring:**	Resilient flooring	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	9'-0"
		Windows:	Natural Light Desirable	**Window Treatments:**	Roller Shades
		Doors:	Flush Wood Door	**Door Size:**	3'-0" x 7'-0"
		Access:	From open office	**Other:**	N/A
Built-in Millwork		None			
Movable Furnishings		None			
Storage		(6) 3-drawer lateral files, 1' deep adjustable shelving along one long wall			
Technology		WiFi coverage			
Lighting		LED lighting with occupancy sensors			
Electrical		120V, 1P power receptacles for Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		None			

	Department/ Room	HEGIS	Rooms	Capacity	NASF	Total NSF
18.00	**Office of Program Evaluation and Government Accountability**					**1,563**
18.01	Director - Private Office	310	1	7 persons	200	200
18.02	Assistant Director - Private Office Future)	310	1	5 persons	175	175
18.03	Non-Supervisory - Private Office (Future)	310	11	3 persons	108	1,188

Space No.:	18.01	Space Title:	Director - Private Office		
HEGIS Code:	310	**Area NSF:**	200	**Space Quantity:**	1
Function:		Private office for Director (Type 02)			
Occupants:		7 persons			
Relationships:		Adjacent to Assistant Director, Close to Non-Supervisory - Private Offices			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	8'-6"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	Flush Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	From suite corridor	**Other:**	N/A
Built-in Millwork		None			
Movable Furnishings		(1) Executive Desk, (1) Meeting Table for 4, (1) Task Chair, (6) Side Chairs			
Storage		(1) Lateral Files, (1) Pedestal File, Overhead at desk			
Technology		(1) Voice/ Data outlet at Desk, (1) Voice/ Data outlet at meeting table. Computer with flat screen monitor, Phone, Printer, WiFi coverage			
Lighting		LED lighting with occupancy sensors			
Electrical		120V, 1P power receptacles for Desk, Credenza, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		Whiteboard at wall adjacent to meeting table, coat hook on door			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

Space No.:	18.02	Space Title:	Assistant Director - Private Office Future)		
HEGIS Code:	310	**Area NSF:**	175	**Space Quantity:**	1
Function:		Private office for Branch Head (Type 03)			
Occupants:		5 persons			
Relationships:		Adjacent to Non-Supervisory - Private Offices and close to Director			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	8'-6"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	Flush Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	From Corridor	**Other:**	N/A
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Meeting Table for 4, (1) Task Chair, (4) Side Chairs			
Storage		(1) Lateral Files, (1) Pedestal File, Overhead at desk			
Technology		(1) Voice/ Data outlet at Desk, (1) Voice/ Data outlet at meeting table. Computer with flat screen monitor, Phone, Printer, WiFi coverage			
Lighting		LED lighting with occupancy sensors			
Electrical		120V, 1P power receptacles for Desk, Credenza, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		Whiteboard at wall adjacent to meeting table, coat hook on door			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

Space No.:	18.03	Space Title:	Non-Supervisory - Private Office (Future)		
HEGIS Code:	310	**Area NSF:**	108	**Space Quantity:**	11
Function:		Private office for Non-Supervisor (Type 06)			
Occupants:		3 persons			
Relationships:		Close to Director and Assistant Director			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	8'-6"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	Full Glass Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	From Corridor	**Other:**	Sidelight
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair, (2) Side Chairs			
Storage		(1) Lateral Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		Coat hook on door			
Electronic Security		None			

	Department/ Room	HEGIS	Rooms	Capacity	NASF	Total NSF
19.00	**Attorney General's Office**					**1,507**
19.01	Branch Head - Private Office	310	1	5 persons	175	175
19.02	Attorney - Private Office	310	4	4 persons	150	600
19.03	Reception/ Waiting	315	1	8 persons	120	120
19.04	Reception Staff - Open Office	315	2	1 person	81	162
19.05	Conference Room	350	1	12 persons	300	300
19.06	Workroom/ Storage	315	1	4 persons	150	150

Space No.:	19.01	Space Title:	Branch Head - Private Office		
HEGIS Code:	310	**Area NSF:**	175	**Space Quantity:**	1
Function:		Private office for Branch Head (Type 03)			
Occupants:		5 persons			
Relationships:		Adjacent to Reception/ Waiting and Attorney - Private Offices			
Architectural		**Flooring:**	Carpet	**Base:**	Wood
		Walls:	Wallboard/ Wood Trim	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	8'-6"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	Flush Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	From suite corridor	**Other:**	N/A
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Meeting Table for 4, (1) Task Chair, (4) Side Chairs			
Storage		(1) Lateral Files, (1) Pedestal File, Overhead at desk			
Technology		(1) Voice/ Data outlet at Desk, (1) Voice/ Data outlet at meeting table. Computer with flat screen monitor, Phone, Printer, WiFi coverage			
Lighting		LED lighting with occupancy sensors			
Electrical		120V, 1P power receptacles for Desk, Credenza, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		Whiteboard at wall adjacent to meeting table, coat hook on door			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

Space No.:	19.02	Space Title:	Attorney - Private Office		
HEGIS Code:	310	**Area NSF:**	150	**Space Quantity:**	4
Function:		Private office for Attorney (Type 04)			
Occupants:		4 persons			
Relationships:		Close to Reception/ Waiting and Branch Head - Private Office			
Architectural		**Flooring:**	Carpet	**Base:**	Wood
		Walls:	Wallboard/ Wood Trim	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	8'-6"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	Full Glass Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	from suite corridor	**Other:**	Sidelight
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair, (1) Small Meeting Table, (3) Side Chairs			
Storage		(1) Lateral Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		Marker Board adjacent to Meeting Table, Coat hook on door			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

Space No.:	19.03	Space Title:	Reception/ Waiting		
HEGIS Code:	315	**Area NSF:**	120	**Space Quantity:**	1
Function:		Office and Waiting Area (W3)			
Occupants:		8 persons			
Relationships:		Adjacent to Branch Head and Attorney - Private Offices			
Architectural		**Flooring:**	Carpet	**Base:**	Wood
		Walls:	Wallboard/ Storefront at Entry/ Wood Trim	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	8'-6"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	Full Glass Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	From Corridor	**Other:**	Sidelight
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair, (7) Side Chairs, (2) End Tables			
Storage		(2) Lateral Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Credenza, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

Space No.:	19.04	Space Title:	Reception Staff - Open Office		
HEGIS Code:	315	**Area NSF:**	81	**Space Quantity:**	2
Function:		Open office workstation (W3)			
Occupants:		1 person			
Relationships:		Adjacent to Receptionist/ Waiting			
Architectural		**Flooring:**	Carpet	**Base:**	Wood
		Walls:	Wallboard/ Wood Trim	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	8'-6"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	Full Glass Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	From office suite corridor	**Other:**	Sidelight
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair			
Storage		(2) Pedestal Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Credenza, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		None			

Space No.:	19.05	Space Title:	Conference Room		
HEGIS Code:	350	**Area NSF:**	300	**Space Quantity:**	1
Function:		Meeting Room for Attorney General's Office (Type M1)			
Occupants:		12 persons			
Relationships:		Adjacent to Reception/ Waiting preferred, but may be from corridor			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	9'-0"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	Full Glass Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	From Reception/ Waiting	**Other:**	Sidelight
Built-in Millwork		None			
Movable Furnishings		(1) Meeting Table, (12) Side Chairs			
Storage		(1) Credenza			
Technology		Presenter Station with digital controls, computer, bluray, cable tv tuner, document camera, portable input, (3) digital displays, program audio, speech reinforcement, PTZ cameras, WiFi			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		Marker Board on one long wall			
Electronic Security		None			

Space No.:	19.06	Space Title:	Workroom/ Storage		
HEGIS Code:	315	**Area NSF:**	150	**Space Quantity:**	1
Function:		Library and study/ work area			
Occupants:		4 persons			
Relationships:		Within Attorney General's suite			
Architectural		**Flooring:**	Carpet	**Base:**	Wood
		Walls:	Wallboard/ Wood Trim	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	8'-6"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	Full Glass Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	From Corridor	**Other:**	Sidelight
Built-in Millwork		None			
Movable Furnishings		Meeting/ study table for 4, (4) side chairs			
Storage		Adjustable Shelving (3'-0" wide sections) on two walls			
Technology		(1) Voice/ Data outlet adjacent to study table , Phone, WIFI coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

	Department/ Room	HEGIS	Rooms	Capacity	NASF	Total NSF
20.00	**State Police**					**1,017**
20.01	Supervisory - Open Office	310	4	3 persons	120	480
20.02	Non-Supervisory - Open Office	310	2	3 persons	81	162
20.03	Conference Room	350	1	15 Persons	375	375

Space No.:	20.01	Space Title:	Supervisory - Open Office		
HEGIS Code:	310	**Area NSF:**	120	**Space Quantity:**	4
Function:		Open office workstation for Supervisor (Type W1)			
Occupants:		3 persons			
Relationships:		Adjacent to Non-Supervisory - Open Office			
Architectural		**Flooring:**	Carpet	**Base:**	Wood
		Walls:	Wallboard/ Wood Trim	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	9'-0"
		Windows:	Natural Light Desirable	**Window Treatments:**	Roller Shades
		Doors:	N/A	**Door Size:**	N/A
		Access:	From Open Office	**Other:**	N/A
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped or Peninsula-configured Desk, (1) Task Chair, (2) Side Chairs			
Storage		(1) Pedestal, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		None			

Space No.:	20.02	Space Title:	Non-Supervisory - Open Office		
HEGIS Code:	310	**Area NSF:**	81	**Space Quantity:**	2
Function:		Open office workstation for Non-Supervisor (Type W3)			
Occupants:		3 persons			
Relationships:		Close to Supervisory - Open Office			
Architectural		**Flooring:**	Carpet	**Base:**	Wood
		Walls:	Wallboard/ Wood Trim	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	9'-0"
		Windows:	Natural Light Desirable	**Window Treatments:**	Roller Shades
		Doors:	N/A	**Door Size:**	N/A
		Access:	From Open Office	**Other:**	
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair			
Storage		(1) Pedestal Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		None			

Space No.:	20.03	Space Title:	Conference Room		
HEGIS Code:	350	**Area NSF:**	375	**Space Quantity:**	1
Function:		Meeting Room (M1)			
Occupants:		15 Persons			
Relationships:		Close to Supervisory - Open Office			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	9'-0"
		Windows:	No requirement	**Window Treatments:**	Blinds at door
		Doors:	Full glass, wood	**Door Size:**	3'-0" x 7'-0"
		Access:	From Open Office	**Other:**	Sidelight
Built-in Millwork		None			
Movable Furnishings		(1) Meeting Table, (15) Side Chairs			
Storage		(1) Credenza			
Technology		Presenter Station with digital controls, computer, bluray, cable tv tuner, document camera, portable input, (3) digital displays, program audio, speech reinforcement, PTZ cameras, WiFi			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC, local exhaust at copiers			
Plumbing		None			
Specialized Equipment		Marker Board on long wall			
Electronic Security		None			

	Department/ Room	HEGIS	Rooms	Capacity	NASF	Total NSF
21.00	**DLS Auditors**					**90**
21.01	Non-Supervisory - Open Office	310	1	3 persons	90	90

Space No.:	21.01	Space Title:	Non-Supervisory - Open Office		
HEGIS Code:	310	**Area NSF:**	90	**Space Quantity:**	1
Function:		Open office workstation for Non-Supervisor (Type W2)			
Occupants:		3 persons			
Relationships:		None			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	9'-0"
		Windows:	Natural Light Desirable	**Window Treatments:**	Roller Shades
		Doors:	N/A	**Door Size:**	N/A
		Access:	From Open Office	**Other:**	N/A
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair, (2) Side Chairs			
Storage		(2) Lateral Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		None			

	Department/ Room	HEGIS	Rooms	Capacity	NASF	Total NSF
22.00	**DLS Service and Supply**					**530**
22.01	Non-Supervisory - Open Office	310	3	3 persons	90	270
22.02	Service Window	315	1	5 persons	60	60
22.03	Storage	315	1	N/A	200	200

Space No.:	22.01	Space Title:	Non-Supervisory - Open Office		
HEGIS Code:	310	**Area NSF:**	90	**Space Quantity:**	3
Function:		Open office workstation for Non-Supervisor (Type W2)			
Occupants:		3 persons			
Relationships:		Close to Supervisory - Private Office and Non-Supervisory - Private Offices			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	9'-0"
		Windows:	Natural Light Desirable	**Window Treatments:**	Roller Shades
		Doors:	N/A	**Door Size:**	N/A
		Access:	From Open Office	**Other:**	N/A
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair, (2) Side Chairs			
Storage		(2) Lateral Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		None			

Space No.:	22.02	Space Title:	Service Window		
HEGIS Code:	315	**Area NSF:**	60	**Space Quantity:**	1
Function:		Office and Service Window			
Occupants:		1 person			
Relationships:		Adjacent Non-Supervisory Open Office			
Architectural		**Flooring:**	Carpet	**Base:**	Wood
		Walls:	Wallboard/ Storefront at Entry/ Wood Trim	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	8'-6"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	Full Glass Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	From Corridor	**Other:**	Sidelight
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair, (4) Side Chairs, (1) End Table			
Storage		(2) Lateral Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Credenza, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

Space No.:	22.03	Space Title:	Storage		
HEGIS Code:	315	**Area NSF:**	200	**Space Quantity:**	1
Function:		General office storage			
Occupants:		N/A			
Relationships:		Adjacent to Open Office			
Architectural		**Flooring:**	Resilient flooring	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	9'-6"
		Windows:	No requirement	**Window Treatments:**	N/A
		Doors:	Flush Wood Door	**Door Size:**	3'-0" x 7'-0"
		Access:	From Open Office	**Other:**	N/A
Built-in Millwork		None			
Movable Furnishings		None			
Storage		7'- high, 1' deep adjustable shelving along two walls			
Technology		WiFi coverage			
Lighting		LED lighting with occupancy sensors			
Electrical		120V, 1P power receptacles for Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

	Department/ Room	HEGIS	Rooms	Capacity	NASF	Total NSF
23.00	**DGS Building Manager**					**258**
23.01	Non-Supervisory - Private Office	310	1	3 persons	108	108
23.02	Storage	315	1	N/A	150	150

Space No.:	23.01	Space Title:	Non-Supervisory - Private Office		
HEGIS Code:	310	**Area NSF:**	108	**Space Quantity:**	1
Function:		Private office for Non-Supervisor (Type 06)			
Occupants:		3 persons			
Relationships:		Adjacent to Reception/ Waiting preferred			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Wallboard, Storefront at Entry	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	8'-6"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	Full Glass	**Door Size:**	3'-0" x 7'-0"
		Access:	From Corridor	**Other:**	Sidelights
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair, (2) Side Chairs			
Storage		(1) Lateral Files, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		Coat hook on door			
Electronic Security		None			

Space No.:	23.02	Space Title:	Storage		
HEGIS Code:	315	**Area NSF:**	150	**Space Quantity:**	1
Function:		General office storage			
Occupants:		N/A			
Relationships:		Adjacent to Open Office			
Architectural		**Flooring:**	Resilient flooring	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	9'-6"
		Windows:	No requirement	**Window Treatments:**	N/A
		Doors:	Flush Wood Door	**Door Size:**	3'-0" x 7'-0"
		Access:	From Open Office	**Other:**	N/A
Built-in Millwork		None			
Movable Furnishings		None			
Storage		7'- high, 1' deep adjustable shelving along two walls			
Technology		WiFi coverage			
Lighting		LED lighting with occupancy sensors			
Electrical		120V, 1P power receptacles for Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

	Department/ Room	HEGIS	Rooms	Capacity	NASF	Total NSF
24.00	**Division of Equity**					**126**
24.01	Supervisory - Private Office	310	1	3 persons	126	126

Space No.:	**24.01**	**Space Title:**	**Supervisory - Private Office**		
HEGIS Code:	310	**Area NSF:**	126	**Space Quantity:**	1
Function:		Private office for Supervisor (Type 05)			
Occupants:		3 persons			
Relationships:		Adjacent to Reception/ Waiting			
Architectural		**Flooring:**	Carpet	**Base:**	Wood
		Walls:	Wallboard, Storefront at Entry/ Wood Trim	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	8'-6"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	Full Glass	**Door Size:**	3'-0" x 7'-0"
		Access:	From Reception/ Waiting	**Other:**	Sidelights
Built-in Millwork		None			
Movable Furnishings		(1) L-shaped Desk, (1) Task Chair, (1) Small Meeting Table, (2) Side Chairs			
Storage		(1) Lateral File, Overhead Storage at Desk			
Technology		(1) Voice/ Data outlet at Desk, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		Coat hook on door			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

	Department/ Room	HEGIS	Rooms	Capacity	NASF	Total NSF
25.00	**Future Growth Space**					**17,715**
25.01	Supervisory - Private Office	310	1	3 persons	17,715	17,715

Space No.:	25.01	Space Title:	Future Growth Space		
HEGIS Code:	310	**Area NSF:**	17,715	**Space Quantity:**	1
Function:		Future Office/ Support Space			
Occupants:		N/A			
Relationships:		N/A			
Architectural		**Flooring:**	Exposed Concrete	**Base:**	None
		Walls:	Wallboard	**Wall Finish:**	None
		Ceiling:	Exposed Structure	**Min. Ceiling Ht.:**	N/A
		Windows:	No Requirement	**Window Treatments:**	N/A
		Doors:	Temporary	**Door Size:**	3'-0" x 7'-0"
		Access:	From Corridor	**Other:**	N/A
Built-in Millwork		None			
Movable Furnishings		None			
Storage		None			
Technology		None			
Lighting		LED lighting with occupancy sensor (temporary)			
Electrical		120V, 1P power receptacles (minimum) for Convenience			
Mechanical		General Building HVAC, no branch ductwork			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

	Department/ Room	HEGIS	Rooms	Capacity	NASF	Total NSF
26.00	**Building Common Spaces**					**14,250**
26.01	Joint Hearing Room	680	1	299	3,825	3,825
26.02	A/V Room - Joint Hearing Room	685	1	N/A	160	160
26.03	Joint Hearing Room Breakout Meeting Space	680	1	30 persons	750	750
26.04	Deschenaux Conference Room	350	1	30 persons	750	750
26.05	General Purpose Meeting Room (Medium)	350	2	20 persons	500	1,000
26.06	General Purpose Meeting/ Interview Rooms (Small)	680	2	10 persons	250	500
26.07	Break Room/ Kitchenette	650	5	N/A	125	625
26.08	Copy Room	315	5	N/A	200	1,000
26.09	Locker/ Changing/ Shower/ Toilet Rooms (Men's and Women's)	670	2	25 persons	750	1,500
26.10	Multi-Purpose Wellness Room	670	1	25 persons	750	750
26.11	Strength Training/ Equipment Room	670	1	N/A	1,500	1,500
26.12	Lactation Room	650	3	1 person	80	240
26.13	Electronics Shop	720	1	N/A	150	150
26.14	Loading Dock Entry	725	1	N/A	250	250
26.15	Loading Dock Storage	730	1	N/A	500	500
26.16	Building Storage	730	5	N/A	150	750

Space No.:	26.01	Space Title:	Joint Hearing Room		
HEGIS Code:	680	**Area NSF:**	3,825	**Space Quantity:**	1
Function:		Large tiered meeting room with fixed seating and dais			
Occupants:		299 persons			
Relationships:		Locate immediately adjacent to main level lobby. Joint Hearing A/V Room with visiual access.			
Architectural		**Flooring:**	Wood at dais, Resilient Flooring, Aisles carpeted	**Base:**	Wood
		Walls:	Wallboard/ Wood/ Acoustic Panels	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel and Wallboard	**Min. Ceiling Ht.:**	14'-0""
		Windows:	No requirement	**Window Treatments:**	N/A
		Doors:	Wood with Glass	**Door Size:**	(Multiple) 3'-0" x 7'-0"
		Access:	From Public Lobby	**Other:**	N/A
Built-in Millwork		Curved desktops with modesty panels for panel of 76, (223) fixed upholstered seats at audience area			
Movable Furnishings		(76) castered task chairs at panel area			
Storage		Racked equipment storage within presenter station. Storage close immediately adjacent to dais.			
Technology		Presenter station with digital controls at dais, computer, bluray player, cable TV tuner, document camera, portable unit inputs, video wall flat screen monitor, individual monitors at presenter table, program audio and speech reinforcement (microphones at dais) , PTZ cameras, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensors, multiple zones, directional lighting for dais, dimming			
Electrical		120V, 1P power receptacles for Desk, Credenza, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		Digital signage at entry door			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

Space No.:	26.02	Space Title:	A/V Room - Joint Hearing Room		
HEGIS Code:	685	**Area NSF:**	160	**Space Quantity:**	1
Function:		Dedicated A/V Projection and Control Room for Joint Hearing Room			
Occupants:		N/A			
Relationships:		Adjacent to Joint Hearing Room			
Architectural		**Flooring:**	Resilient Flooring	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	8'-6"
		Windows:	Control Room Window to Joint Hearing Room	**Window Treatments:**	None
		Doors:	Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	From Corridor	**Other:**	N/A
Built-in Millwork		Fixed worksurface			
Movable Furnishings		(2) Task Chairs			
Storage		None			
Technology		Racked A/V Equipment (Source Equipment, Digital Controls, Distribution Equipment)			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Desk, Meeting Table, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		Digital signage at entry door			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

Space No.:	26.03	Space Title:	Joint Hearing Room Breakout Meeting Space		
HEGIS Code:	680	**Area NSF:**	750	**Space Quantity:**	1
Function:		Conference/ Meeting/ Breakout Space			
Occupants:		30 Persons			
Relationships:		Access from Public Corridor			
Architectural		**Flooring:**	Carpet	**Base:**	Wood
		Walls:	Wallboard, Wood, Acoustic Panels	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel and Wallboard	**Min. Ceiling Ht.:**	10'-0"
		Windows:	No requirement	**Window Treatments:**	N/A
		Doors:	Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	From Public Corridor	**Other:**	N/A
Built-in Millwork		None			
Movable Furnishings		(1) Presenter Station, (15) (24" x 72") castered, nesting tables (30) Stack Chairs, Chair cart.			
Storage		Storage closet for stack chairs on cart, nesting tables			
Technology		Presenter Station with digital controls, computer, bluray, cable tv tuner, document camera, portable input, (3) digital displays, program audio, speech reinforcement, PTZ cameras, WiFi			
Lighting		LED lighting with occupancy sensor, three zones: Front Wall, Table area, General Room Lighting			
Electrical		120V, 1P power receptacles at floor supporting multpiple table locations, Presenter Station, Displays, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		Marker Board full width of front wall. Acoustic wall panels along rear wall. Digital signage at entry door.			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

Space No.:	26.04	Space Title:	Deschenaux Conference Room		
HEGIS Code:	350	**Area NSF:**	750	**Space Quantity:**	1
Function:		Meeting Room (M3)			
Occupants:		30 Persons			
Relationships:		Access from Public Corridor			
Architectural		**Flooring:**	Carpet	**Base:**	Wood
		Walls:	Wallboard, Wood, Acoustic Panels	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel and Wallboard	**Min. Ceiling Ht.:**	10'-0"
		Windows:	No requirement	**Window Treatments:**	N/A
		Doors:	Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	From Public Corridor	**Other:**	N/A
Built-in Millwork		None			
Movable Furnishings		(1) Presenter Station, (15) (24" x 72") castered, nesting tables (30) Stack Chairs, Chair cart.			
Storage		Storage closet for stack chairs on cart, nesting tables			
Technology		Presenter Station with digital controls, computer, bluray, cable tv tuner, document camera, portable input, (3) digital displays, program audio, speech reinforcement, PTZ cameras, WiFi			
Lighting		LED lighting with occupancy sensor, three zones: Front Wall, Table area, General Room Lighting			
Electrical		120V, 1P power receptacles at floor supporting multpiple table locations, Presenter Station, Displays, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		Marker Board full width of front wall. Acoustic wall panels along rear wall. Digital signage at entry door.			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

Space No.:	26.05	Space Title:	General Purpose Meeting Room (Medium)		
HEGIS Code:	350	**Area NSF:**	500	**Space Quantity:**	2
Function:		Meeting Room (M2)			
Occupants:		20 persons			
Relationships:		From Pulic Corridor			
Architectural		**Flooring:**	Carpet	**Base:**	Wood
		Walls:	Wallboard, Wood, Acoustic Panels	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel and Wallboard	**Min. Ceiling Ht.:**	10'-0"
		Windows:	No requirement	**Window Treatments:**	N/A
		Doors:	Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	From Public Corridor	**Other:**	N/A
Built-in Millwork		None			
Movable Furnishings		(1) Presenter Station, (10) (24" x 72") castered, nesting tables (20) Task Chairs			
Storage		Storage closet for stack chairs on cart, nesting tables			
Technology		Presenter Station with digital controls, computer, bluray, cable tv tuner, document camera, portable input, (3) digital displays, program audio, speech reinforcement, PTZ cameras, WiFi			
Lighting		LED lighting with occupancy sensor, three zones: Front Wall, Table area, General Room Lighting			
Electrical		120V, 1P power receptacles at floor supporting multpiple table locations, Presenter Station, Displays, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		Marker Board full width of front wall. Acoustic wall panels along rear wall. Digital signage at entry door.			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

Space No.:	26.06	Space Title:	General Purpose Meeting/ Interview Room (Small)		
HEGIS Code:	680	**Area NSF:**	250	**Space Quantity:**	2
Function:		Meeting Room (M1)			
Occupants:		10 persons			
Relationships:		Convenient access from Public Corridor			
Architectural		**Flooring:**	Carpet	**Base:**	Wood
		Walls:	Wallboard/ Wood	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	9'-0"
		Windows:	No Requirement	**Window Treatments:**	N/A
		Doors:	Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	Corridor	**Other:**	N/A
Built-in Millwork		None			
Movable Furnishings		(1) Meeting Table, (10) Side Chairs			
Storage		None			
Technology		Presenter controls at wall, Flat panel display, Portable source inputs, Microphone, Phone at Meeting Table, WiFi coverage			
Lighting		LED lighting with occupancy sensor, three zones: Front Wall, Table, General Room Lighting			
Electrical		120V, 1P power receptacles at Meeting Table (from floor), Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		Marker Board full width of front wall. Digital signage at entry door.			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

Space No.:	26.07	Space Title:	Break Room Kitchenette		
HEGIS Code:	650	**Area NSF:**	125	**Space Quantity:**	5
Function:		Break Room with Kitchenette for coffee, food storage/ prep			
Occupants:		N/A			
Relationships:		Adjacent to Open Office areas			
Architectural		**Flooring:**	Resilient Flooring	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	9'-0"
		Windows:	No Requirement	**Window Treatments:**	N/A
		Doors:	None	**Door Size:**	N/A
		Access:	From Open Office	**Other:**	N/A
Built-in Millwork		Base and wall cabinets with adjustable shelves along long wall. Solid surfacing countertops			
Movable Furnishings		(1) table, (4) side chairs			
Storage		Trash receptacle, Recycling station			
Technology		WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles at countertop, Convenience			
Mechanical		General Building HVAC			
Plumbing		Stainless steel sink			
Specialized Equipment		Refrigerator, (3) Microwave ovens, (1) Coffee-maker/ Keurig,			
Electronic Security		None			

Space No.:	26.08	Space Title:	Copy Room		
HEGIS Code:	315	**Area NSF:**	200	**Space Quantity:**	5
Function:		Area for copiers, workspace and paper storage			
Occupants:		N/A			
Relationships:		Adjacent to Open Office Areas			
Architectural		**Flooring:**	LVT	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	9'-0"
		Windows:	No requirement	**Window Treatments:**	N/A
		Doors:	None	**Door Size:**	N/A
		Access:	From Open Office	**Other:**	N/A
Built-in Millwork		Adjustable shelving above storage credenza			
Movable Furnishings		None			
Storage		Storage credenza with worksurface, Trash and Recycling			
Technology		N/A			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacle for each copier, one additional for convenience			
Mechanical		General Building HVAC, local exhaust at copiers			
Plumbing		None			
Specialized Equipment		Copiers			
Electronic Security		None			

Space No.:	26.09	Space Title:	Locker/ Changing/ Shower/ Toilet Rooms (Men's and Women's)		
HEGIS Code:	670	**Area NSF:**	750	**Space Quantity:**	2
Function:		Locker, Shower and Toilet Facilities for Staff			
Occupants:		25 persons			
Relationships:		Adjacent to Wellness and Strength Training, Close to staff areas			
Architectural		**Flooring:**	Porcelain tile	**Base:**	Porcelain tile
		Walls:	Porcelain Tile	**Wall Finish:**	Tile
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	9'-0"
		Windows:	No Requirement	**Window Treatments:**	N/A
		Doors:	Full Glass Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	From Corridor	**Other:**	Sidelight
Built-in Millwork		Wood lockers, wood benches in locker area, solid surfacing countertops and mirror at lavatories			
Movable Furnishings		None			
Storage		Recessed trash receptacles			
Technology		WiFi coverage			
Lighting		LED lighting with occupancy sensor, zoned by use. Dedicated task lighting at lavatories			
Electrical		120V, 1P power to A/V equipment, receptacles for Convenience			
Mechanical		General Building HVAC, Exhaust			
Plumbing		Showers, Lavatories, Water closets			
Specialized Equipment		Paper towel dispensers, Soap dispensers, Toilet tissue dispensers, Feminine napkin disposals, grab bars, toilet compartments			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

Space No.:	26.10	Space Title:	Multi-Purpose Wellness Room		
HEGIS Code:	670	**Area NSF:**	750	**Space Quantity:**	1
Function:		Flexible use space for yoga, stretching, core training			
Occupants:		25 persons			
Relationships:		Adjacent to Locker/ Changing/ Shower/ Toilet Rooms and Strength-Training			
Architectural		**Flooring:**	Laminated Wood	**Base:**	Laminated Wood
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	9'-0"
		Windows:	No Requirement	**Window Treatments:**	N/A
		Doors:	Full Glass Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	From Corridor	**Other:**	Sidelight
Built-in Millwork		None			
Movable Furnishings		None			
Storage		Racked A/V equipment in closet			
Technology		Ceiling-mounted loudspeaker system (sourced from A/V closet with portable inputs), WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power to A/V equipment, receptacles for Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		Mirrors along one wall, Digital Signage			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

Space No.:	26.11	Space Title:	Strength-Training/ Equipment Room		
HEGIS Code:	670	**Area NSF:**	1,500	**Space Quantity:**	1
Function:		Exercise room			
Occupants:		N/A			
Relationships:		Adjacent to Locker/ Changing/ Shower/ Toilet Rooms (Men's and Women's) and Multi-purpose Wellness Room			
Architectural		**Flooring:**	Resilient Flooring	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	9'-0"
		Windows:	No Requirement	**Window Treatments:**	N/A
		Doors:	Full Glass Wood	**Door Size:**	2@ 3'-0" x 7'-0"
		Access:	From Open	**Other:**	N/A
Built-in Millwork		None			
Movable Furnishings		None			
Storage		Wall and base cabinets for towel storage			
Technology		Ceiling-mounted loudspeaker system (sourced from A/V closet with portable inputs), WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for exercise equipment, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		(3) Treadmills, (3) Elliptical trainers, (1) 5-Stack Gym with 10 stations, (2) Adjust. sit-up bench, (2) Utility benches, (1) Dumbbell set, (1) Bar set, (5) Dumbbell Stations, Digital Signage			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

Space No.:	26.12	Space Title:	Lactation Room		
HEGIS Code:	650	**Area NSF:**	80	**Space Quantity:**	3
Function:		Space for mothers to extract breast milk			
Occupants:		1 person			
Relationships:		Close to Restrooms			
Architectural		**Flooring:**	Resilient flooring	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	8'-6"
		Windows:	Preferred	**Window Treatments:**	Roller Shades
		Doors:	Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	From Corridor	**Other:**	N/A
Built-in Millwork		Plastic laminate-faced base and wall cabinets with solid surfacing countertop			
Movable Furnishings		Upholstered vinyl chair with high back, end table			
Storage		Waste receptacle, Recycling			
Technology		WiFi coverage			
Lighting		LED lighting with occupancy sensor, dimmer			
Electrical		120V, 1P power receptacles adjacent to chair, Convenience			
Mechanical		General Building HVAC			
Plumbing		Solid surfacing integral bowl			
Specialized Equipment		Under-counter refrigerator, mirror			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

Space No.:	26.13	Space Title:	Electronics Shop		
HEGIS Code:	720	**Area NSF:**	150	**Space Quantity:**	1
Function:		Workroom for electronics repair			
Occupants:		N/A			
Relationships:		Locate close to loading dock and building storage			
Architectural		**Flooring:**	Resilient Flooring (anti-static)	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	9'-0"
		Windows:	No Requirement	**Window Treatments:**	N/A
		Doors:	Full Glass Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	Corridor	**Other:**	Sidelight
Built-in Millwork		Base cabinets with wood benchtops			
Movable Furnishings		(1) Counter-height Task Chair			
Storage		Adjustable Shelving			
Technology		(1) Voice/ Data outlet at Workbench, Computer with flat screen monitor, Phone, WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles (power strip) for Workbench, Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

Space No.:	26.14	Space Title:	Loading Dock Entry		
HEGIS Code:	725	**Area NSF:**	250	**Space Quantity:**	1
Function:		Staging area for loading			
Occupants:		N/A			
Relationships:		At Loading Dock			
Architectural		**Flooring:**	Sealed Concrete	**Base:**	Rubber
		Walls:	Wallboard, Wall Protection	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel or Exposed Stı	**Min. Ceiling Ht.:**	10'-6"
		Windows:	None	**Window Treatments:**	N/A
		Doors:	Flush Metal	**Door Size:**	(2) 3'-0" x 7'-0"
		Access:	From Loading Dock Storage and Corridor	**Other:**	N/A
Built-in Millwork		None			
Movable Furnishings		None			
Storage		None			
Technology		WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

Space No.:	26.15	Space Title:	Loading Dock Storage		
HEGIS Code:	730	**Area NSF:**	500	**Space Quantity:**	1
Function:		Secure storage and staging area for Loading Dock			
Occupants:		N/A			
Relationships:		Adjacent to Loading Dock			
Architectural		**Flooring:**	Sealed Concrete	**Base:**	Rubber
		Walls:	Wallboard with Wall Protection or CMU	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	10'-0"
		Windows:	None	**Window Treatments:**	N/A
		Doors:	Flush Metal	**Door Size:**	(2) 3'-0" x 7'-0"
		Access:	From Loading Dock and Corridor	**Other:**	N/A
Built-in Millwork		None			
Movable Furnishings		None			
Storage		Utility Shelvina long one wall			
Technology		WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		Forklift recharging station			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

Space No.:	26.16	Space Title:	Building Storage		
HEGIS Code:	730	**Area NSF:**	150	**Space Quantity:**	5
Function:		Storage Room for General Building Supplies			
Occupants:		N/A			
Relationships:		Distribute evenly throughout building (one per floor)			
Architectural		**Flooring:**	LVT	**Base:**	Rubber
		Walls:	Wallboard	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht.:**	9'-0"
		Windows:	None	**Window Treatments:**	N/A
		Doors:	Flush Wood	**Door Size:**	3'-0" x 7'-0"
		Access:	From Corridor	**Other:**	N/A
Built-in Millwork		Wall-mounted adjustable shelving on two walls			
Movable Furnishings		None			
Storage		Adjustable utility shelving			
Technology		WiFi coverage			
Lighting		LED lighting with occupancy sensor			
Electrical		120V, 1P power receptacles for Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			
Electronic Security		Integrated door hardware set with cardreader, door position switch and REX.			

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Appendix A

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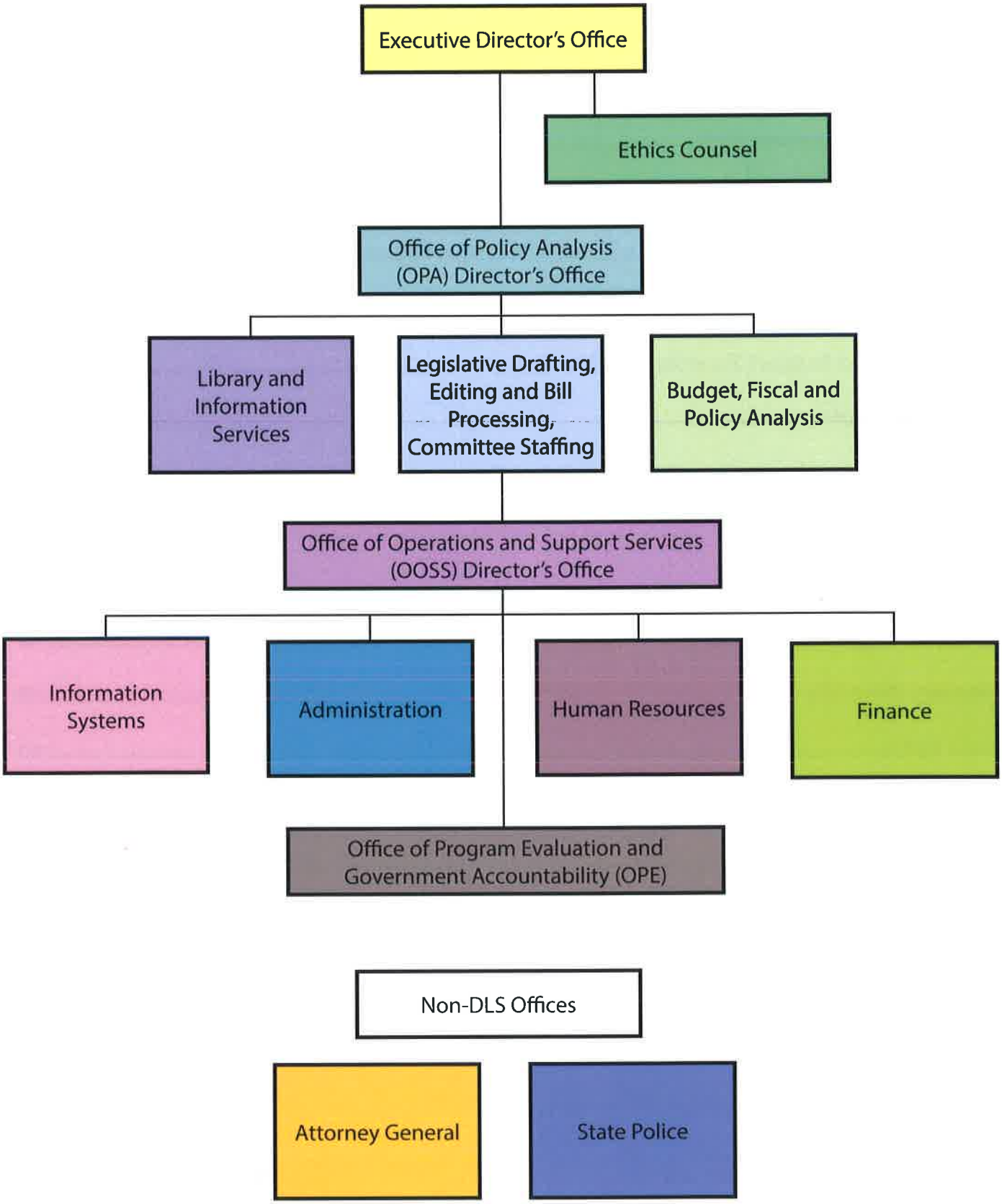
Department of Legislative Services
Organizational Chart and Color Key



Executive Director's Office

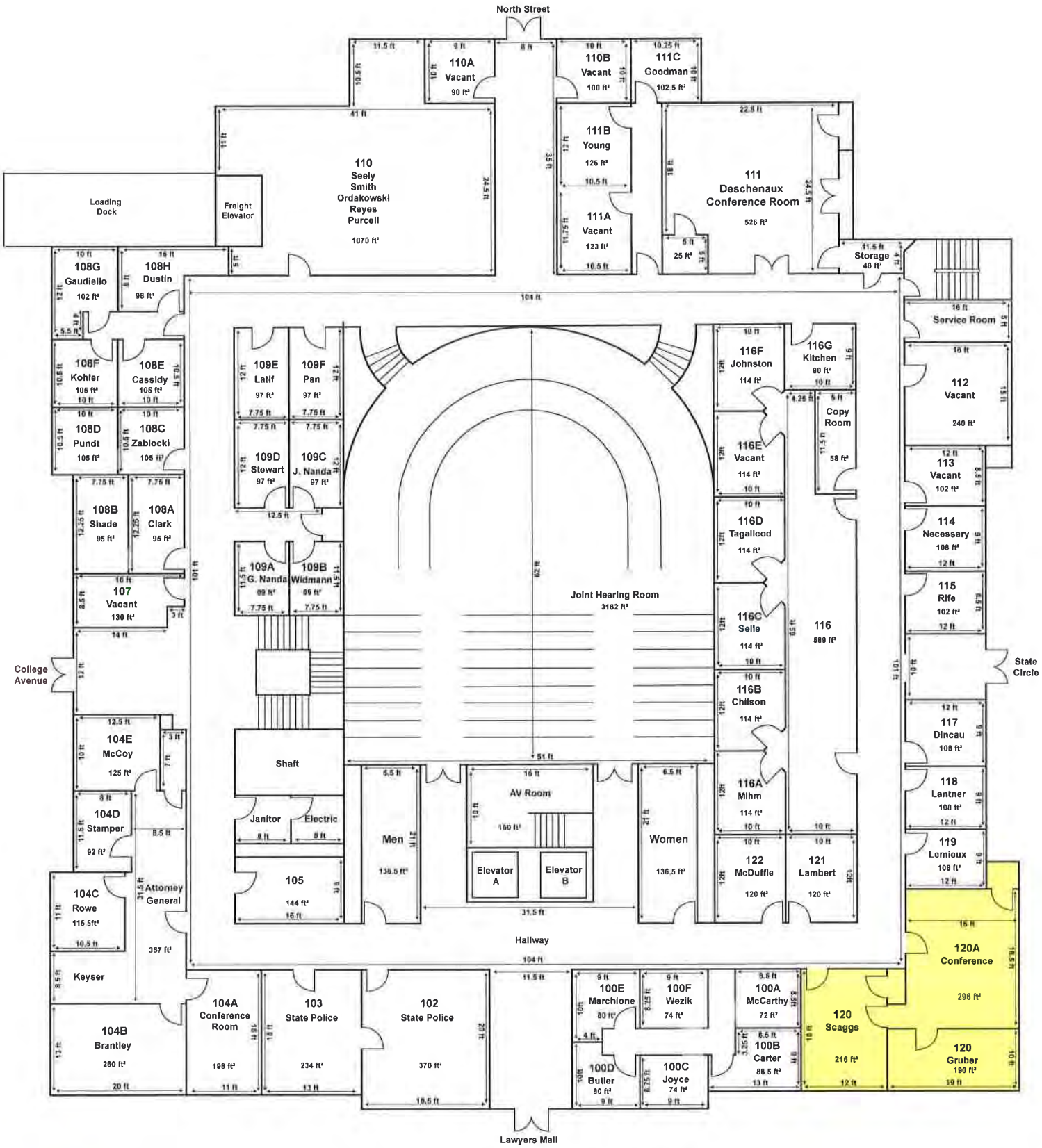
First Floor

Appointed by the House Speaker and Senate President in consultation with the House and Senate Minority Leaders, the Executive Director has overall responsibility and supervision over the offices, functions, personnel, and activities of the Department of Legislative Services.

The Executive Director supervises and provides direction for the Department's four main Offices: the Office of Policy Analysis (OPA), the Office of Operations and Support Systems (OOSS), Office of Program Evaluation and Government Accountability (OPE) and the Office of Legislative Audits (OLA). The position of Counsel to the Joint Committee on Legislative Ethics, which functions as Ethics Advisor to the General Assembly also falls under the supervision of the Executive Director.

Executive Directors Office

First Floor



Executive Director's Office

Executive Director's Office, Ethics Counsel

Second Floor

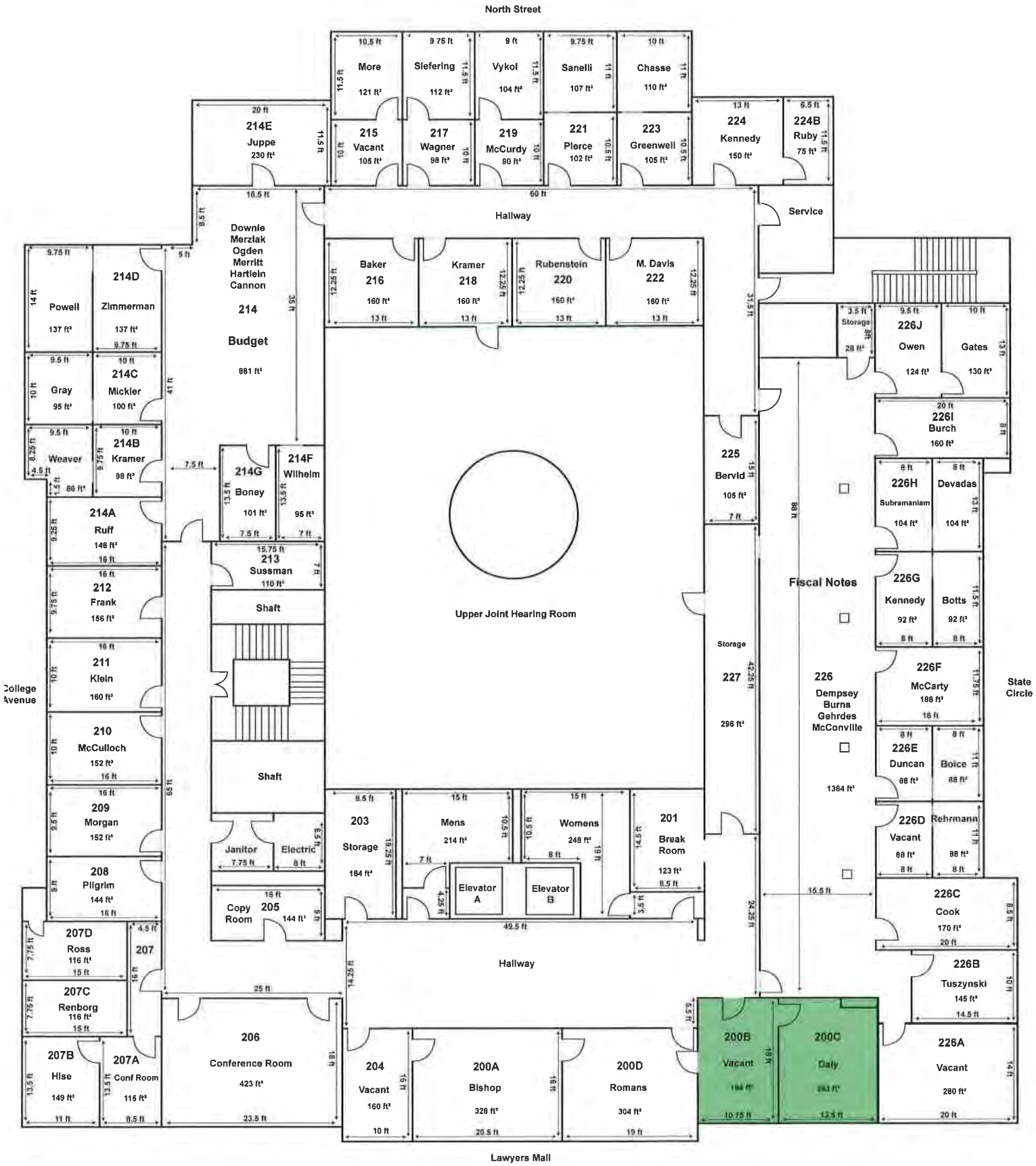
What your office does:
Provides confidential ethics advice to legislators. Assists the Ethics Committee in its activities, including confidential matters.

Explanation of your unit's workflow:
I meet with each legislator at least once each year. I provide additional assistance to members as needed. I provide this advice in person, on the phone, via email, and via US Mail.

The Ethics Committee holds confidential meetings dealing with very sensitive matters. To ensure confidentiality, for especially sensitive matters, we have asked State troopers to assist us by ensuring that no one is eavesdropping on the meeting. We often face challenges in finding a meeting room that provides appropriate confidentiality. The committee chairs have requested a soundproof conference room. The room would need to hold 12 committee members, 4 staff members, a court reporter, a respondent with counsel, and a witness with counsel. Hearings are closed to the public so there is no need for public seating. Ideally, the room will be wired to record meetings but WILL NOT have streaming capability. It would also be helpful to have multiple entrances to the room so that a witness can enter and leave the room in a manner that protects the witness's identity.
In addition, my chairs have suggested that my office be soundproofed. This would protect the confidentiality of my conversations with legislators, with my chairs, with the presiding officers' staff, and with members of the Ethics Committee.

Interaction with Other Units:
I report to the Executive Director and share support staff with her. I also have regular interaction with document design, the print shop, and the mailroom. I have substantial interaction with the Office of the Attorney General. In addition, I have a great deal of interaction with the presiding officers' offices.

Executive Director's Office, Ethics Counsel
2nd Floor



Executive Director's Office, Ethics Counsel

Office of Policy Analysis (OPA)

Office of Policy Analysis

In the Office of Policy Analysis (OPA), staff works in one of three functional areas: Fiscal and Policy Analysis, Legislation and Committee Support, or Library and Information Services. Fiscal and Policy Analysis staff work in the areas of budget and fiscal review and analysis. Staff also prepare an estimate of the cost of every bill introduced during the legislative session. The area of Legislation includes legislative and amendment drafting, statutory revision, and legal review and analysis. Committee Support comprises staff that provide professional services to all legislative committees, subcommittees, commissions, and task forces. Library and Information Services serves the legislature, staff, and the public through the operation of the legislative library and the provision of public information services about legislative activities.

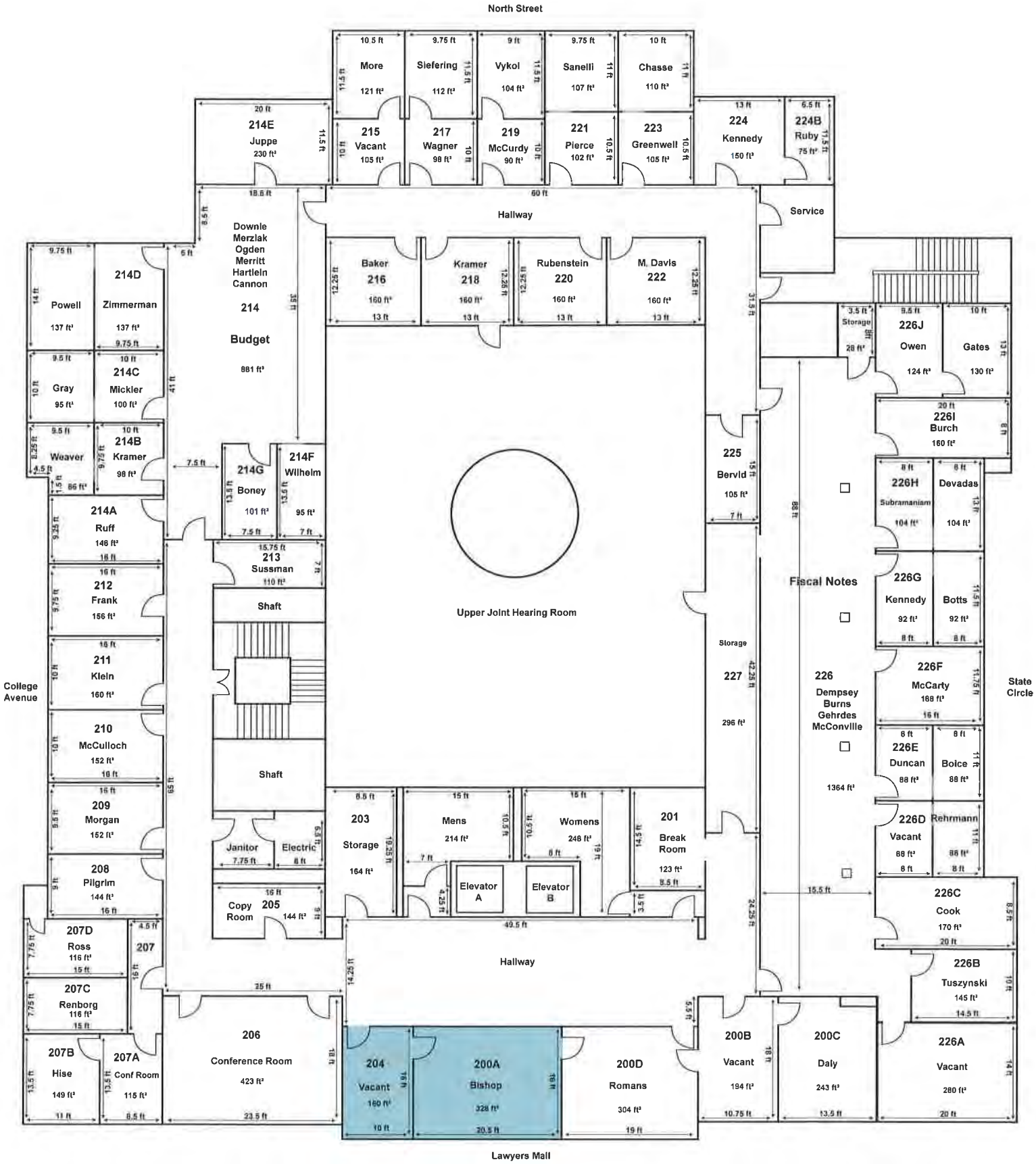
Workgroups

In addition to their functional responsibilities, OPA staff works in policy-related groups that operate during the legislative interim to review and analyze issues in subject areas such as business, technology, and economic development; courts and civil matters; criminal justice and public safety; education; taxes and fiscal planning; health and human services; intergovernmental matters; legal matters; natural resources, environment, and transportation; as well as program review and special projects; public administration; and taxes and revenues. The primary purpose of the workgroups is to foster the development of subject-area expertise in order to support the multidisciplinary research needs of the committees during the interim and to answer legislative inquiries.

Publication Program

Additionally, the office maintains an active publication program to fulfill its statutory charge to conduct general research studies, develop options, make recommendations, and report to the General Assembly on various fiscal and policy matters.

Office Of Policy Analysis (OPA)
Director's Office
2nd Floor



Office of Policy Analysis, Director's Office

Office of Policy Analysis (OPA)
Library and Information Services

What this office does:
The Library and Information Services unit provides reference and information services to all members of the General Assembly, their staff, departmental staff, and State agencies. The Library and Information Services unit is the only area in the Department of Legislative Services (DLS) that interacts directly with the public on a regular basis. This unit is frequently the entrée to the Legislature and the legislative process for many constituents. Legislative librarians, consisting of researchers, indexers, catalogers, and acquisitions are a team of experts who provide intellectual and physical access to legislative information and records. The Publications Editor, Mandated Report Specialist, and Visitor's Coordinator are also all a part of this office.

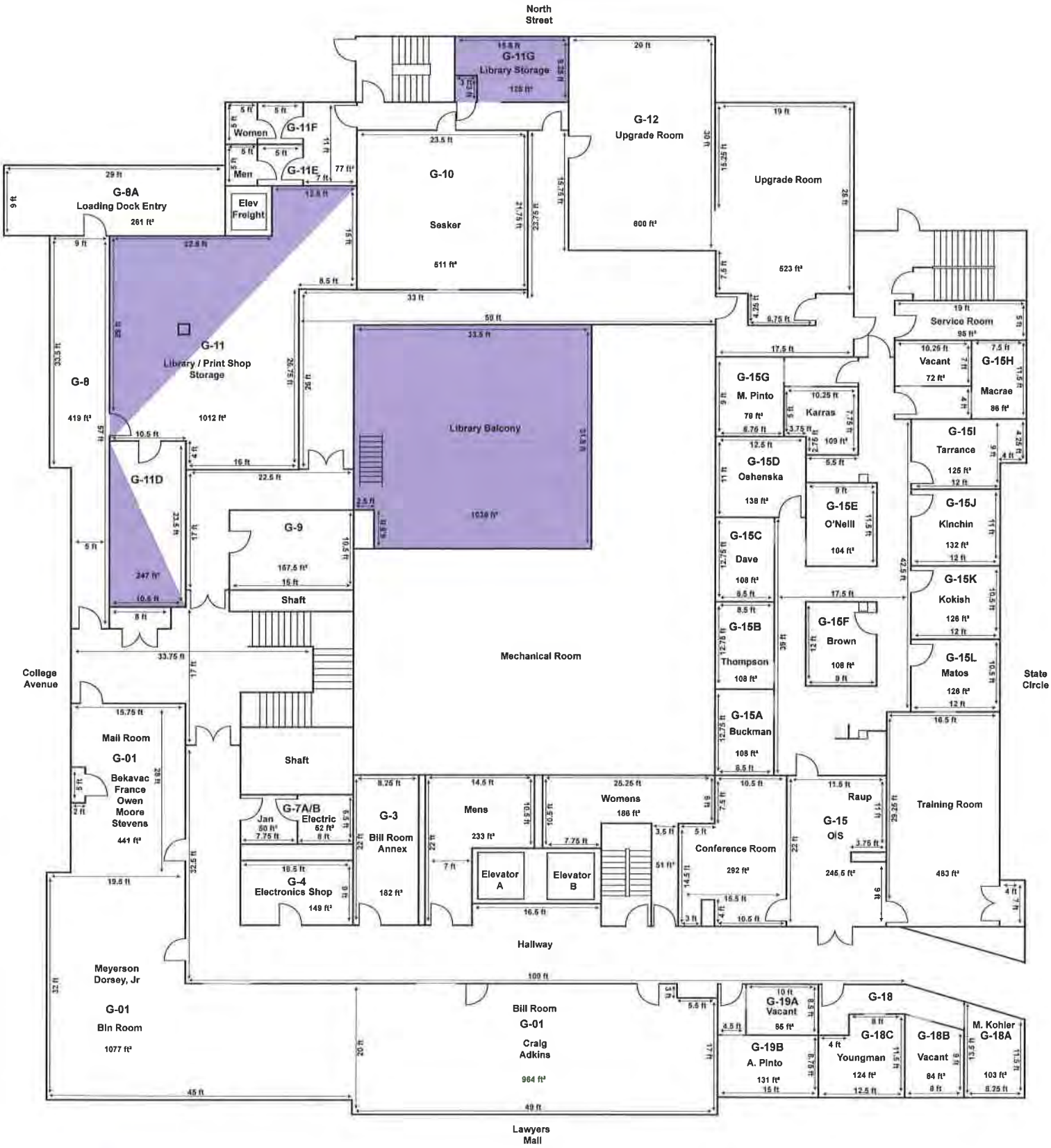
Explanation of unit's workflow:
The Information Services Desk receives all DLS publications for distribution and stores them for a year if not more. They produce the Maryland Clipper that is produced daily during session and weekly during the interim. During the legislative session they listen to all the committee hearings and mark all bills for posting to the MGA website. They also receive and post committee votes to the MGA website.
The five Reference Librarians work on research projects for Legislators and staff year-round as well as work on special library-related projects as time permits during session and the interim.
The Visitor's Coordinator schedules and arranges educational programs and tours throughout the year with an increased workload during session. Often members or their staff come to this office to pick up MGA lapel pins that are given to members for one term in office. (If they want more than the allocated amount, members pay $1 for each pin.)
The Indexing and Cataloging Librarians index all proposed, and later amended legislation for the MGA website. During the interim, they index the Laws of Maryland, the Senate and House Journals, the Maryland Public Local Laws, and the Governor's Executive Orders. They also catalog all library materials providing electronic links to items within the catalog record.
The Acquisitions Librarian orders and receives library books, including the Annotated Code for staff and legislators. The Mandated Reports specialist receives publications from State agencies and prepares them for cataloging. Technical Services prepares materials for shipping to offsite storage. They also receive legislative history files and prepare them for archival purposes. They prepare Legislative records, books, periodicals, etc. for binding. There is an ongoing microfilm and scanning project for scanning legislative history files done by the technical services staff. This division also does all the video streaming in the Joint Hearing room.
The Publications Editor produces the Daily Synopsis during session and the Committee Meetings and Hearing Schedule, the Roster and List of Committees, DLS Newsletter, Your Voice in Annapolis, and various other brochures and flyers. The Administrative Assistant produces the Notice of Legislative Unit Invitations to Meals and Receptions and during session, the Brief Roster and List of Committees.

Interaction with Other Units:
While the Library and Information Services unit does not have other units that work in our area, all staff from other units may come to the Library or the Information Desk for assistance. There is also an area on the first floor that houses the Code for all of the 50 States that the library keeps up-to-date.

Office of Policy Analysis (OPA)
Library and Information Services
Basement

Office of Policy Analysis (OPA), Library

Office of Policy Analysis (OPA)
Library and Information Services
Ground Floor



Office of Policy Analysis (OPA), Library

Office of Policy Analysis (OPA)
Legislative Drafting, Editing and Bill Processing, Committee Staffing

What your office does:

- The Legislation function along with Editing and Bill Processing is primarily responsible for drafting, reviewing, proofreading, and printing bills and amendments at the request of legislators.
- During the interim all Legislation function staff are in individual offices.
- During the session we staff both the bill drafting office and the amendment office.

- Bill Drafting Office
  - For the first 30 days of session 3 drafters plus the drafting manager relocate to desks in the bill drafting office (Room 110) to be available to help with the intake of bill requests.
  - In the bill drafting office, drafters need space to work, but they also need space to be able to meet with legislators, aides, and lobbyists who stop by the office to leave bill requests.
  - The purpose of bringing drafters into the bill drafting office is both to train the newest drafters in an environment that allows them to learn from each other and issues as they arise and to offer an convenient place for members and staff to come to quickly talk to someone about requested legislation.

- Amendment Office
  - During the entire 90 days of the legislative session the amendment office is staffed with 8 drafters, 5 support staff, and 4 editors.
  - The drafters are in the central office both for the ease of the members and aides in requesting amendments and because of the quick turnaround often required for requested amendments

- Editing and Bill Processing
  - Editing is responsible for proofreading legislation at every stage, from LR through enrolled bill.
  - Bill Processing is responsible for the typing, correction, and initiation of printing bills at every stage in the process.

- Support Staff
  - Support staff are responsible for logging bill requests both in the interim and the session. This involves intake of email requests, phone requests, and in person requests.
  - Support staff also facilitate the workflow of bills by making sure that pink sheets and paper work are delivered to where they need to be at each stage in the process.
  - Support staff work with the Administration to make sure that administrative and departmental bills are properly processed.
  - Support staff work with delegations to make sure that their bills are properly processed.
  - In the amendment office, support staff are responsible for logging and tracking amendments as well as typing corrections into draft amendments.

Explanation of your unit's workflow:

- Legislative Requests
  - Intake typically flows through the support staff in Room 110 either by way of support staff directly receiving the request (by email, mail, fax, phone, or in person) and inputting the information into the LRBS system or by support staff forwarding a call or directing a person to a drafter.
  - Once a request is logged into LRBS, support staff gives the hard copy of the pink sheet to certain reviewers to assign a drafter. During most of the year, support staff puts the pink sheet

in a reviewer's mailbox to assign, but during the bill drafting crunch a runner delivers pink sheets directly to the reviewer.

- After a drafter is assigned, the reviewer puts the pink sheet in a basket in room 110, support staff enters the drafters name into LRBS, and the drafter receives the pink sheet and drafts the request (same as above – depending on the time of year, the pink sheet is either placed in a mailbox or delivered directly to the drafter).
- The pink sheet along with any supporting documents is returned to room 110 where support staff gives it to the appropriate reviewer (same as above – depending on the time of year, the drafter either returns the pink sheet to room 110 or a runner picks it up from the drafter).
- The reviewer receives the pink sheet packet and reviews the draft online and either takes the packet back to room 110 to be given to a second reviewer or prints out the final version of the LR and takes the packet to room 110 to be taken upstairs to EBP (or depending on the time of year, a runner picks it up from the reviewer).
- The packet is taken up to EBP by support staff from 110.
- The LR is opened electronically by a document technician and any necessary formatting changes are made.
- The LR then goes to editing where two editors work together to proofread the document for errors.
- The LR goes back and forth between the document technicians and the editors until all corrections have been made.
- Before the prefile deadline, the EBP technical coordinator takes the necessary steps to electronically send the document electronically back to support staff in room 110 and the pink packet is delivered back to room 110. Support staff in room 110 email the copy of the LR to the sponsor and co–sponsor.
- After the prefile deadline, the EBP technical coordinator takes the necessary steps to electronically send the LR to the print shop to have a backing and copies printed. The pink packet and the backing is delivered to support staff in room 110. Support staff in room 110 deliver the backings to sponsors starting on the first day of session.

- Amendments
  - Requests are received by email, phone, or in person. The requests are typically taken by a drafter after being routed through the amendment office coordinator or support staff.
  - A blue or yellow request form is filled out for each request.
  - Drafters in both the amendment office and the legislative services building are assigned amendments to draft by the legislation function mangers.
  - Drafters draft the amendments and then attach the amendment, a copy of the bill, and any work papers to the request form and carry the request either to the amendment office or to a designated reviewer in LSB.
  - A reviewer reviews the amendment and, generally, hand marks any changes.
  - A typist in the amendment office incorporates the hand marked changes into the amendment and then takes the clean copy along with the packet and the marked up copy to the editors for proofreading.
  - The amendment goes back and forth between the editors and the typists until all changes have been made.
  - The amendment is then sent to the print shop by the coordinator.
  - When the amendment returns to the print shop it is either delivered to the legislator or the legislator is called to pick up the amendment.

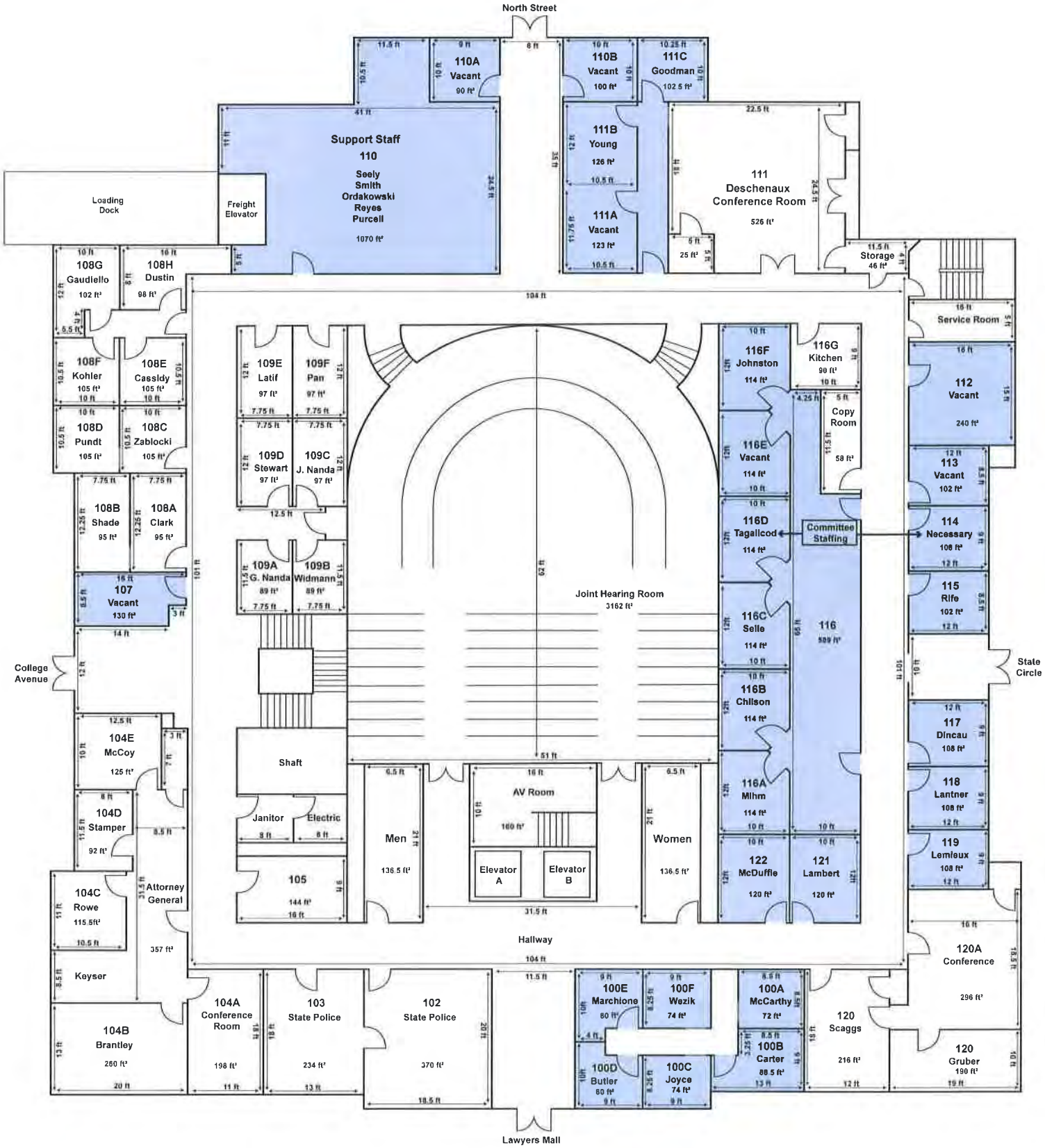
- First and Third Readers
  - The processing of first and third readers does not involve the drafters or the first floor.

- The requests are worked on by editors and document technicians in a manner very similar to LRs.
- The technical coordinator electronically promotes the completed bills to the print shop.

Interaction with Other Units:

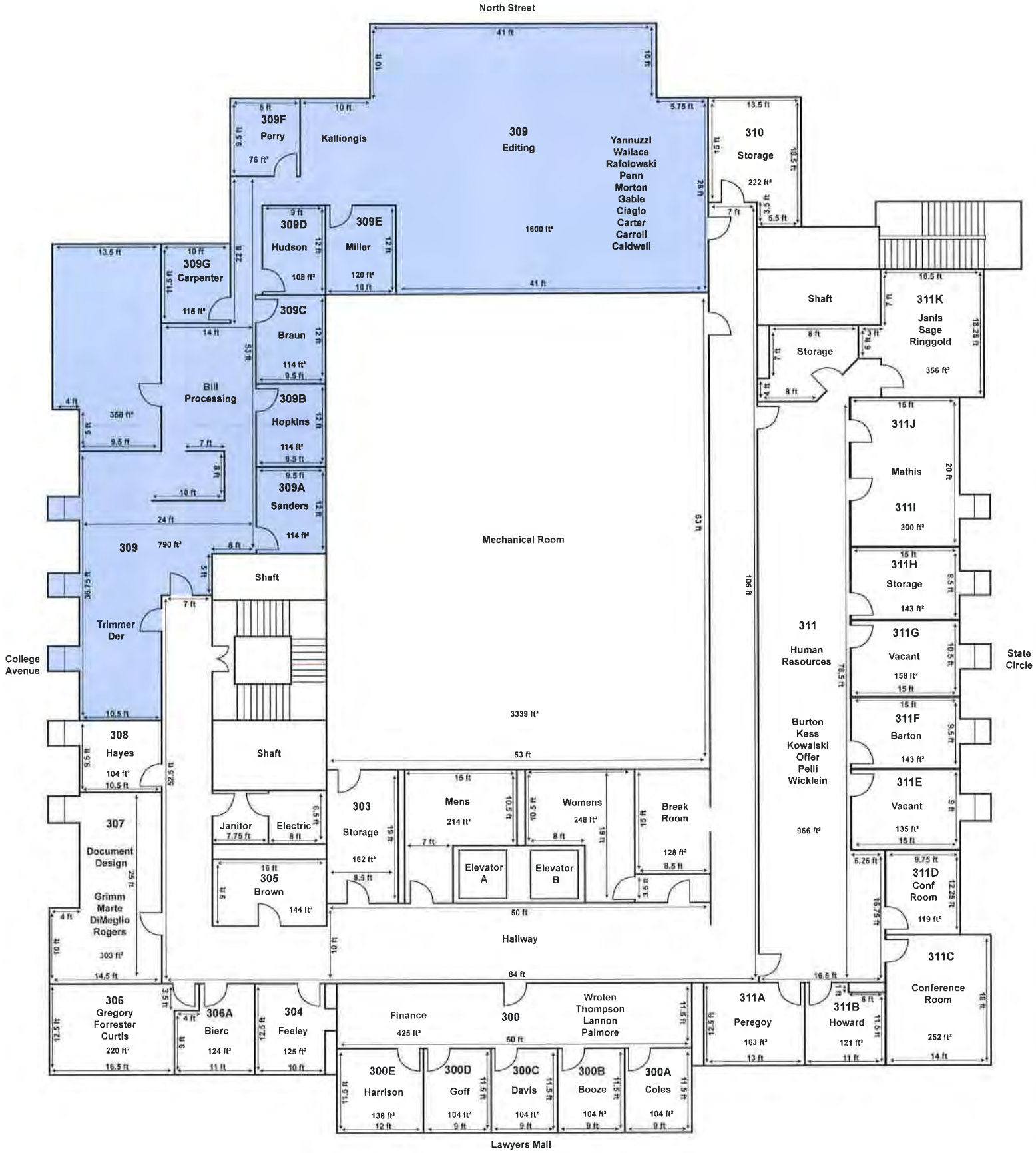
- Committee staff – drafting and reviewing bills
- Fiscal Notes – note writers access the bill drafting files to obtain information for their notes, drafters assist with writing fiscal notes after the drafting crunch
- Print Shop

Office of Policy Analysis (OPA)
Legislative Drafting, Editing and Bill Processing, Committee Staffing
First Floor



Office of Policy Analysis, Legislative Drafting, Editing and Bill Processing, Committee Staffing

Office of Policy Analysis (OPA)
Legislative Drafting, Editing and Bill Processing, Committee Staffing
3rd Floor



Office of Policy Analysis (OPA) Legislative Drafting, Editing and Bill Processing, Committee Staffing

Office of Policy Analysis (OPA)
Budget, Fiscal and Policy Analysis

Budget Function (Operating & Capital)
Budget review is a year-round process. During the legislative session, analysts prepare and present written analyses of State agency budgets. The analyses include an overview of the proposed spending, summary of agency performance, issues on agency finances and policies, and recommendations for action by the General Assembly. Analysts also support the General Assembly's decision process and prepare materials summarizing and explaining the actions of the General Assembly. When the General Assembly is not in session, staff review proposed amendments to the budget, prepare revenue and expenditure forecasts, monitor State spending, and immerse themselves in the operations of State agencies.

Fiscal and Policy Analysis (Notes)
Legal, programmatic, policy, and economic and fiscal impact information for legislation introduced in each legislative session can be found in the fiscal and policy notes developed by analysts in the Office of Policy Analysis.

Generally, a fiscal and policy note prepared on a bill contains (1) a summary of the bill; (2) an estimate of the fiscal impact of the bill on the revenues and expenditures of State and local governments during the year in which the bill is to become effective and for the next four years following that year; (3) an overview of relevant existing law; and (4) an assessment of the bill's economic impact on small businesses. A fiscal and policy note also identifies when a bill mandates an appropriation to a program as well as when it establishes a mandate on a unit of local government. When available, a fiscal and policy note may also incorporate background information about the bill's introduction or associated programs and policies.

Prior to the hearing on a bill, copies of the fiscal and policy note are furnished to the sponsor of the bill and to the members of the standing committee assigned the bill. Subsequently, if an amendment included in a Third Reader or Enrolled version of a bill affects the original fiscal and policy note, staff develops and issues a revised fiscal and policy note. The most recent version of fiscal and policy notes are available on the Maryland General Assembly website. To access the note on a particular bill, you will need to know the bill number and the year in which the bill was introduced.

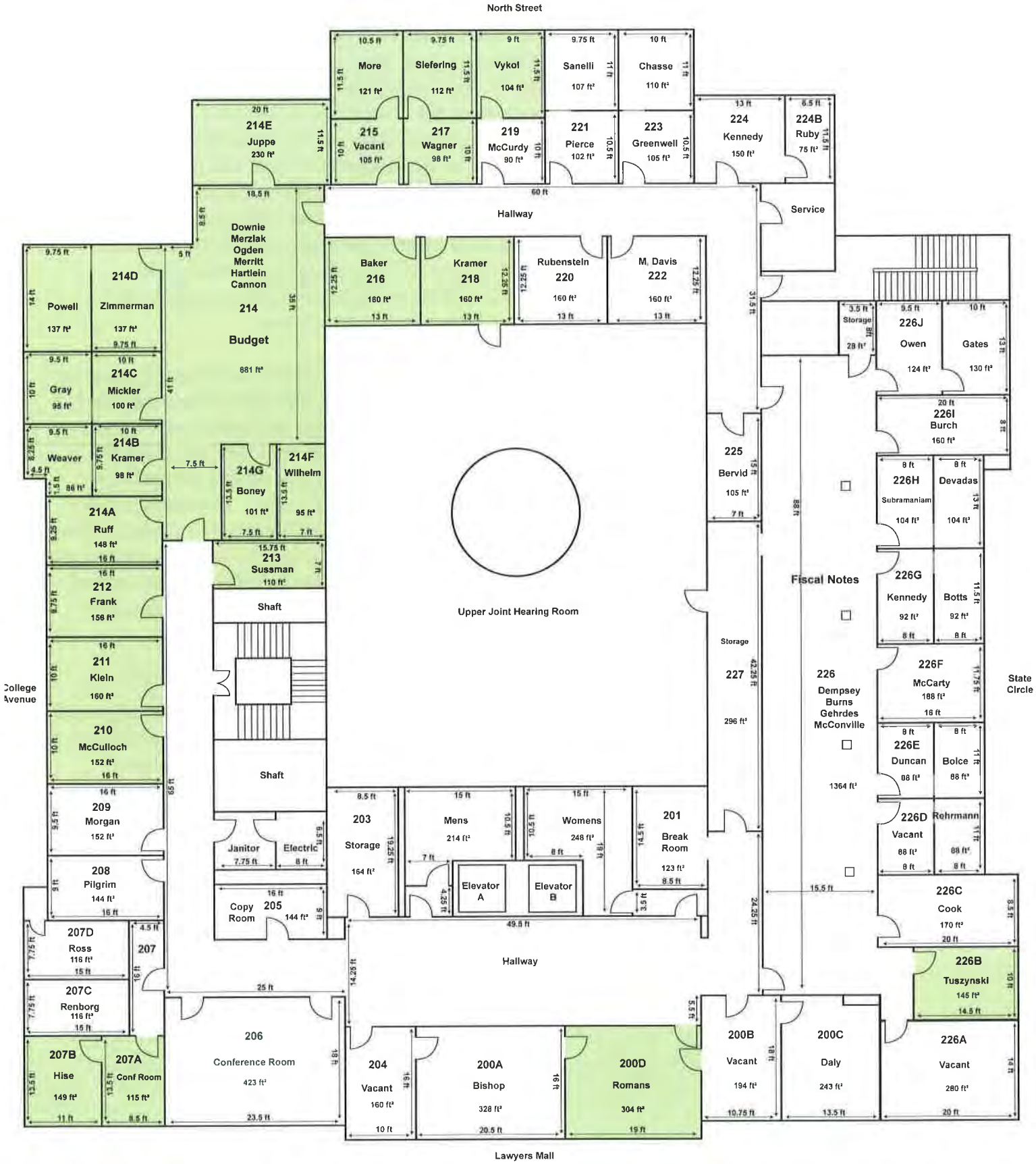
Office of Policy Analysis (OPA)
Budget

What your office does:
Prepares written analyses the Governor's proposed operating and capital budgets, makes numerous presentations to committees, supports consideration and action on the budget by the budget committees and the full House of Delegates and Senate of Maryland. Support staff format all budget-related documents from the budget function and support the Health and Human Services and Taxes & Fiscal Planning workgroups when the legislature is not in session.

Explanation of your unit's workflow:
Internal workflow during the legislative session consists of the preparation of over 130 operating and capital budget analyses, which entails close interaction between the budget analysts, support staff, operating and capital budget managers, and review by the Fiscal Policy Coordinator and OPA Director. In addition to the analyses the budget function produces subcommittee and full committee decision documents, subcommittee and full committee reports, materials that support the floor debate, fiscal briefing documents, and summary materials. When the legislature is not in session the function produces research reports, briefing materials for the Spending Affordability Committee, correspondence to legislative committees and members, and other committee materials. During the interim, the support staff work closely with workgroup members in setting up for committee/commission/task force meetings (making phone calls, sending out memoranda/letters to members re meetings, formatting all documentation/ reports/presentations). External workflow consists of interactions between the budget function, the print shop, and editing & bill processing followed by the distribution of documents to legislators, legislative committees, and the House and Senate chambers. The operating and capital budgets as well as budget reconciliation legislation are amended by editing & bill processing in conjunction with the budget function. After these bills are amended and proofed for errors they are sent to the print shop. All other session supporting materials, including the Joint Chairmen's Report and the 6-volume set of budget analyses are produced by the function and sent to the print shop for publication.

Interaction with Other Units:
Print Shop, Graphics & Printing, Editing and Bill Processing

Office Of Policy Analysis (OPA)
Fiscal and Policy Analysis (Budget)
2nd Floor



Office of Policy Analysis, Budget Function (Fiscal and Policy Analysis)

Office of Policy Analysis (OPA)
Fiscal and Policy Analysis (Notes)

Current Fiscal and Policy Notes Workflow:
LRs are received electronically from the Bill Drafting function by support staff and printed and given to a Fiscal and Policy Notes manager for assignment. The manager gives the LR back to the support staff coordinator to enter the assignment electronically. The LR document is put into the assigned analyst's mailbox. Runners pick up the paper copies of the Sprints from the Chief Clerk or Secretary of the Senate in the State House and bring them back to DLS, attach an assignment sheet, and give the documents to a Fiscal and Policy Notes manager for assignment. The manager fills in the assignment sheet and gives the documents to the support staff coordinator to enter the assignments electronically. The documents are held by support staff until the printed bills are available (picked up by the runner from the Print Shop). The printed bill is then attached to the assignment sheet and Sprint packet and delivered to the assigned analyst's office. Small business impact statements, departmental packets, and Administration bill information is received by support staff from the Governor's Office in the State House via email. That information is then saved to the appropriate LR/bill folder in the fiscal notes system.

Analysts print their notes and supporting documentation at the same time as they electronically promote their notes for review (currently due at 10 a.m. two days before the hearing). They place these packets in a central location for reviewers to pick up. (If a note goes through multiple layers of review, the first reviewer passes the packet along to the next reviewer.) After a fiscal and policy note is promoted out of review electronically in the fiscal notes system, the reviewer places the paper packet in a central location for support staff to pick up. Once support staff is finished with the document, the packet is reassembled and given to a proofreader to proofread the paper copy. When all changes have been made, the packet is given back to the assigned analyst for final signoff, the analyst places the packet in a specific location, and support staff electronically sends the fiscal and policy note to the print shop. The packet is placed in a file cabinet. Runners pick up the printed fiscal and policy notes from the print shop, sort them for distribution, and deliver the printed copies to the appropriate committee in the House or Senate for bill hearings.

Interaction with Other Units:
During session, in particular, analysts interact directly with their counterparts in Committee, Budget, and Bill Drafting. We also work with the Library. Support staff and the runners interact multiple times a day with the Print Shop as well as the Chief Clerk's Office and the Secretary of the Senate's Office. When we have computer issues, we also rely on Information Services.

Office Of Policy Analysis (OPA)
Fiscal and Policy Analysis
2nd Floor

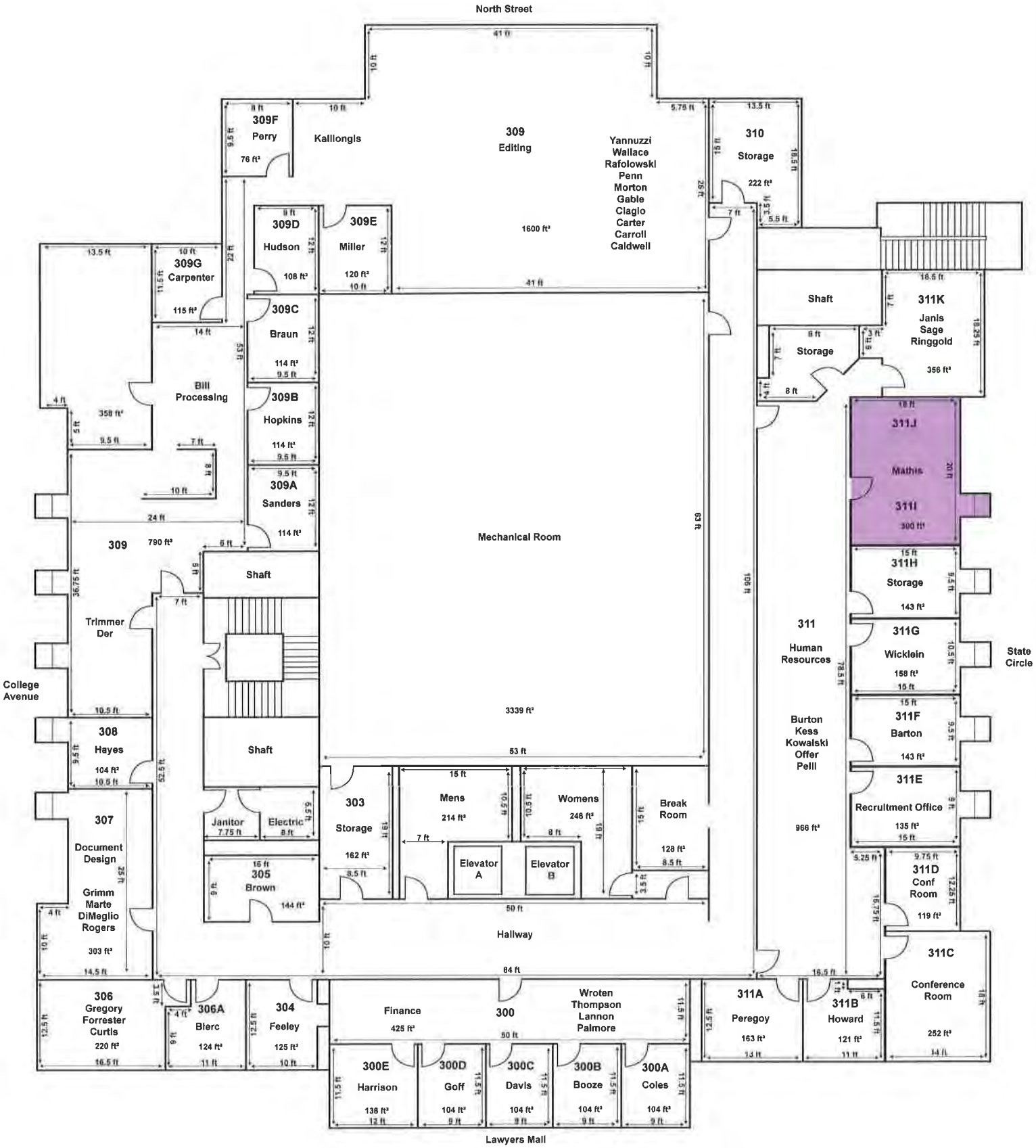
Office of Policy Analysis, Budget Function (Fiscal and Policy Analysis)

Office of Operations and Support Services (OOSS)

Created in 2018, the Director of the Office of Operations and Support Services oversees administrative functions of the Department of Legislative Services. The primary units that make up this office include:

- Information Systems: providing development, maintenance, dedicated user support, and training on custom built legislative data systems;
- Human Resources: providing personnel services for the department and the legislature;
- Administration: overseeing facilities, document design, printing, and distribution of legislative documents; and
- Finance: managing all financial services.

Office of Operations and Support Services (OOSS)
Director's Office
3rd Floor



Office of Operations and Support Services (OOSS), Director's Office

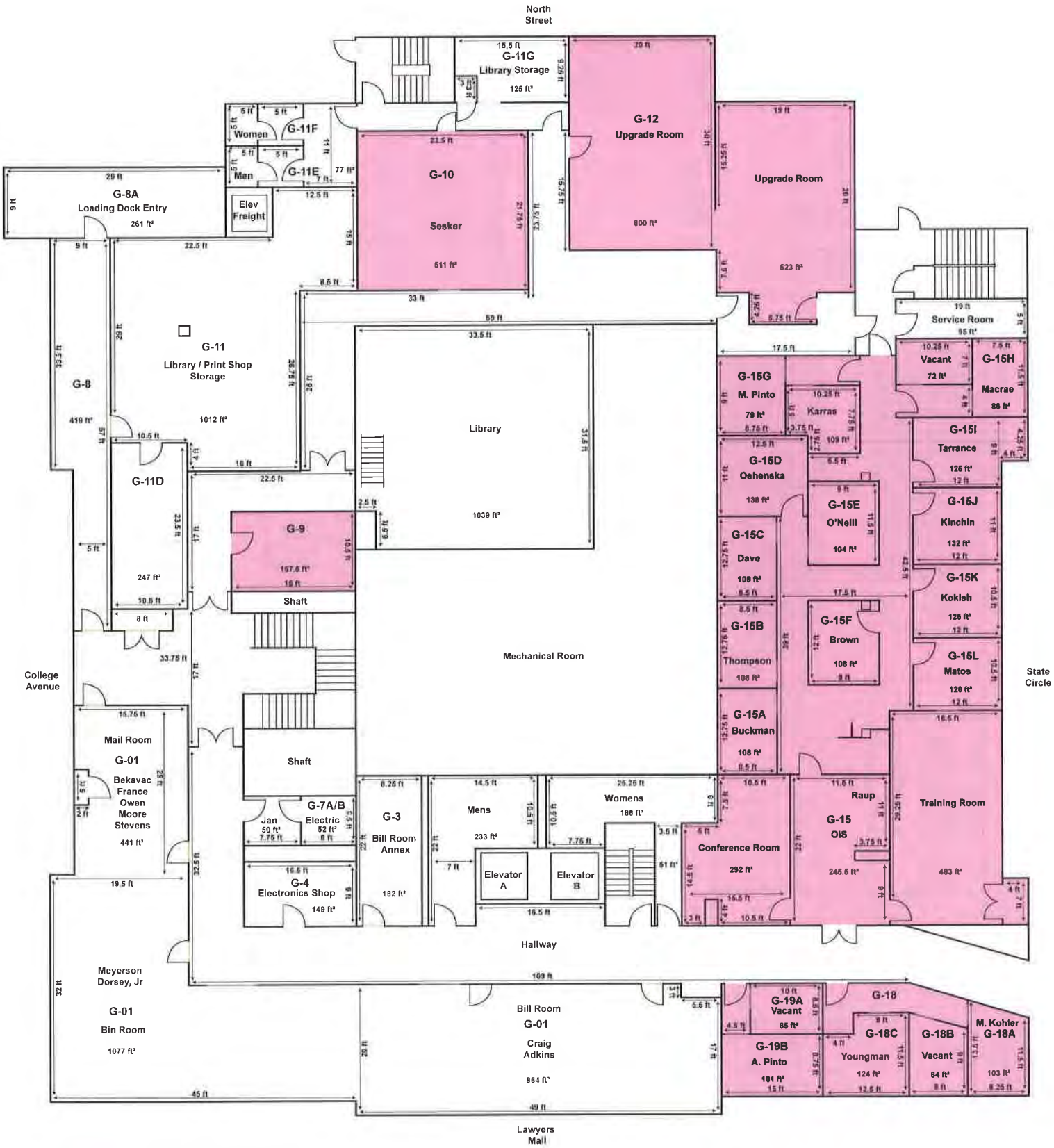
Office of Operations and Support Services (OOSS)
Information Systems

What does your office do?
Information Systems provides all of the data, telecommunications, and computing infrastructure within the General Assembly campus. This includes 1400 computers, 400 printers, and multiple phones for every office. All equipment is maintained and upgraded by the Help Desk. Data and Telecomm wire closets exist in all 6 campus buildings on every floor of each building. All the Data and Telecomm connections eventually terminate on the 4th floor of the House of Delegates building in the MGA Data Center. Additionally, Information Systems maintains a full Help Desk, Programming staff, Systems group, SAP support, AV, Telecomm and Training support as well. Member computing services are also managed by our office.

Explanation of your unit's workflow:
Equipment continuously flows in and out of the secured Help Desk area for either maintenance or upgrades from both staff and members. Demonstrations for staff and member applications, in addition to training, are held in both our training facility and conference room. Programming staff will regularly meet with OPA staff during project development, as well as during the legislative session.

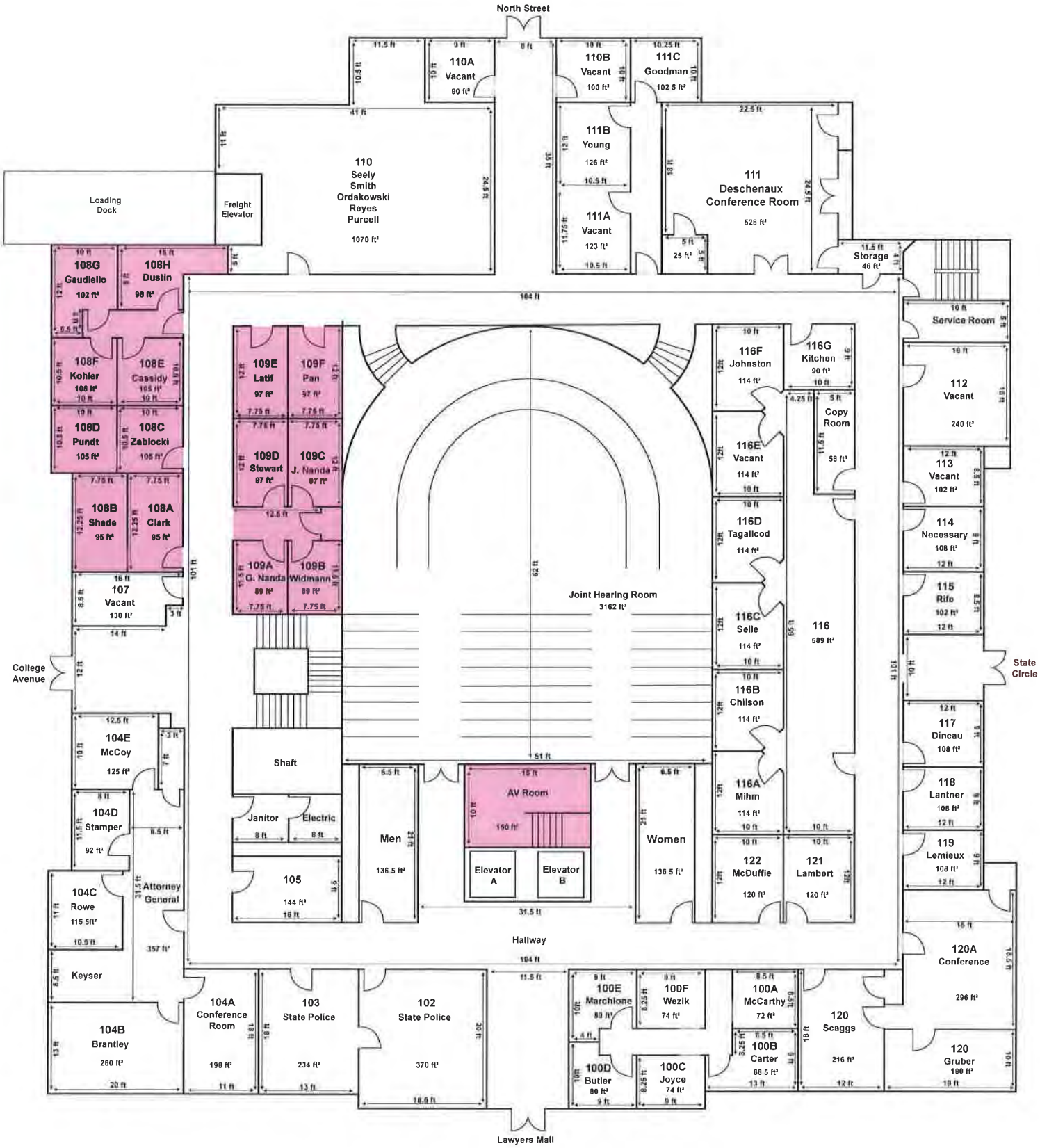
Interaction with Other Units:
Everyone interfaces with Information Systems.

Office of Operations and Support Services (OOSS)
Information Systems
Ground Floor



Office of Operations and Support Services (OOSS), Information Systems

Office of Operations and Support Services (OOSS)
Information Systems
First Floor



Office of Operations and Support Services (OOSS), Information Systems

Office of Operations and Support Services (OOSS)
Administration

Administration consists Graphics and Printing, Facilities, and Distribution. This unit as a whole is responsible for mail pickup and delivery, the distribution of legislative bills, hearing schedules, and other legislative documents, as well as a subscription mailing service, a customer "bin" pickup service, and a centralized FAX service. This unit also provides graphics, printing, and recycling services for the entire complex. Facilities management is responsible for the maintenance and operation of the legislative complex and related building service systems. The DLS building renovation project taking place in the next couple of years also falls under this unit.

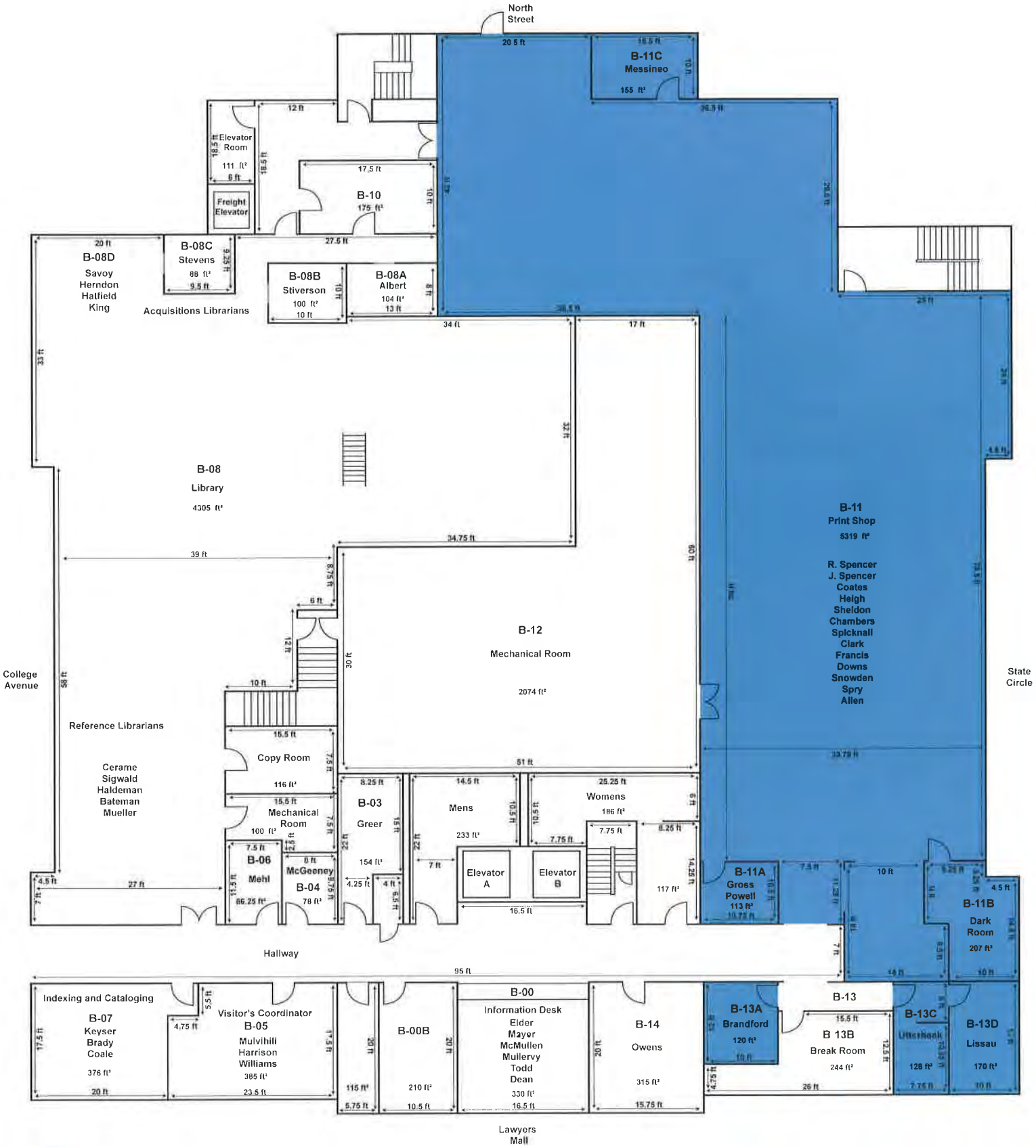
Office of Operations and Support Services (OOSS)
Administration
Graphics and Printing Services

What Graphic and Printing Services does:
Produces a diverse variety of printed and digital materials, such as letterheads, business cards, standard stationery items, and citations and memorials, and also designs artwork for special projects such as posters, signage, tent cards, brochures, and invitations. We print all bills, books, and various other jobs for the department and public. We provide copywriting, proofreading, and editing for all the materials we produce. We make available quality digital input of materials via scanning. In addition we offer photography support to the members of the MGA as well as the other offices in DLS.

Explanation of your unit's workflow:
Receive orders from customers, update or create layout files, print finalized materials or send to Print Shop for printing, and call customers for pickup or delivery.

Other units in the building that work with your unit:
Work with all offices in the complex

Office of Operations and Support Services (OOSS)
Administration
Graphics and Printing Services
Basement



Office of Operations and Support Services (OOSS), Admistration - Graphics and Printing Services

Office of Operations and Support Services (OOSS)
Administration
Graphics and Printing Services
Ground Floor

Office of Operations and Support Services (OOSS)
Administration
Graphics and Printing Services
3rd Floor

Office of Operations and Support Services (OOSS), Admistration - Graphics and Printing Services

Office of Operations and Support Services (OOSS)
Administration
Distribution

What your office does:
Mail pickup and delivery and distribution of legislative bills, hearing schedules, and other legislative documents, as well as a subscription mailing service, a customer "bin" pickup service, and a centralized FAX service. Distribution Services includes the MGA Mailroom , Binroom, and Billroom.

Explanation of your unit's workflow:
Customer services , Mail pickup/delivery and preparation of information for the General Assembly.

Interaction with Other Units:
General Assembly as a whole, Print Shop, Editing, OIS, Finance, Library, and Human Resources.

Office of Operations and Support Services (OOSS)
Administration
Distribution
Ground Floor

Office of Operations and Support Services (OOSS), Administration - Distribution

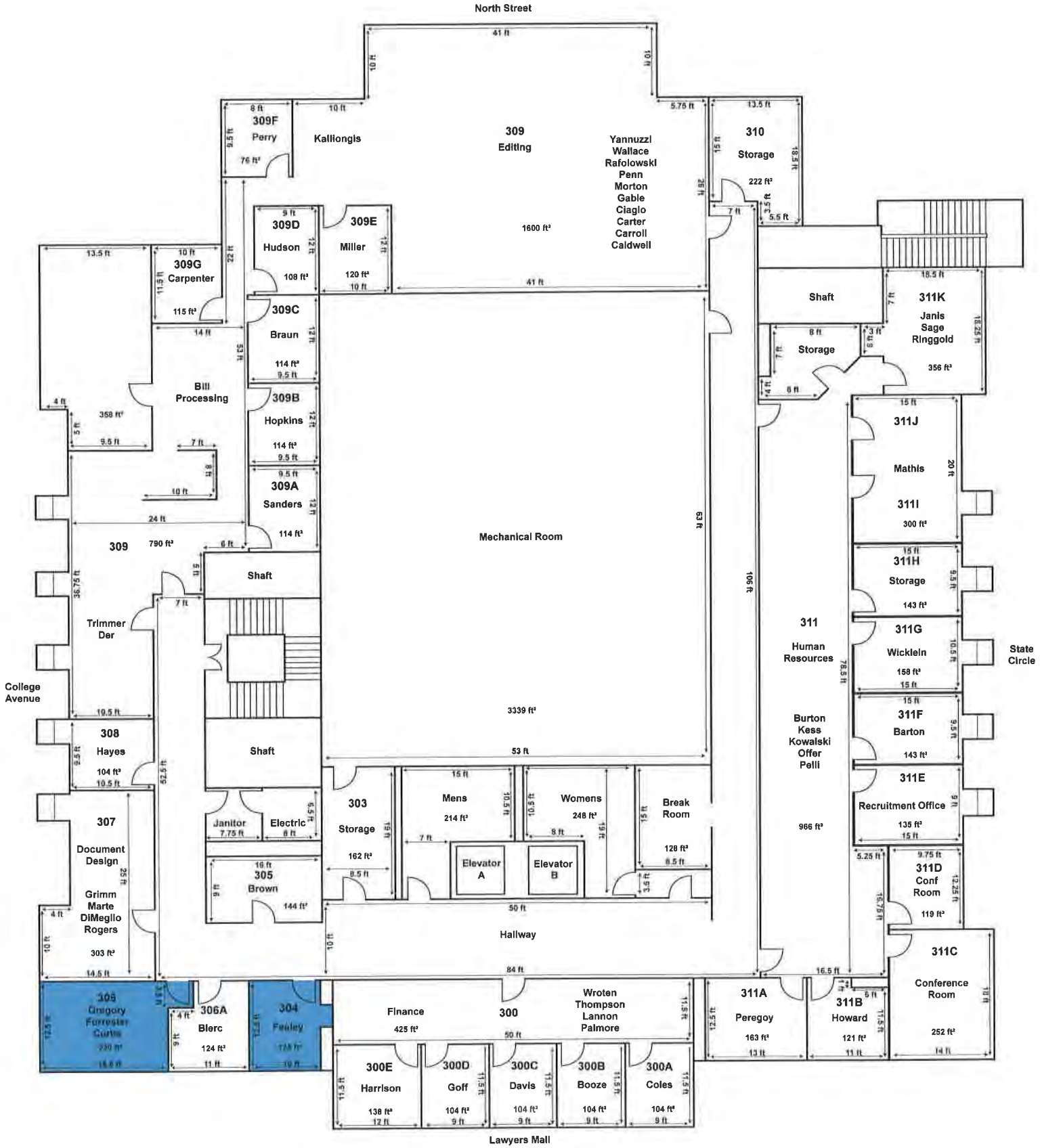
Office of Operations and Support Services (OOSS)
Administration
Facilities

What does your office do?
We perform daily activities related to the maintenance and operation of the Legislative Complex facilities and related building service systems.

Explanation of your unit's workflow:
- We provide direction and guidance to ensure the proper maintenance of the building structures and related building service systems (*e.g.*, HVAC, electrical, plumbing, elevators, proximity card readers, pest control, etc.)
- We are responsible for the moving and relocation of furniture such as office relocations, rearrangements, and renovations.
- We perform "set-ups" throughout the Legislative Complex in preparation for meetings, presentations, or special events as needed.
- We prepare work order from members and staff related to building maintenance needs.
- We arrange contractor access to secure locations.
- We also arrange for carpet and tile cleaning for the complex.
- All nameplate and key requests are provided by us.

Interaction with Other Units:
We basically work with all units in the Legislative Complex.

Office of Operations and Support Services (OOSS)
Administration
Facilities
3rd Floor



Office of Operations and Support Services (OOSS), Admistration - Facilities

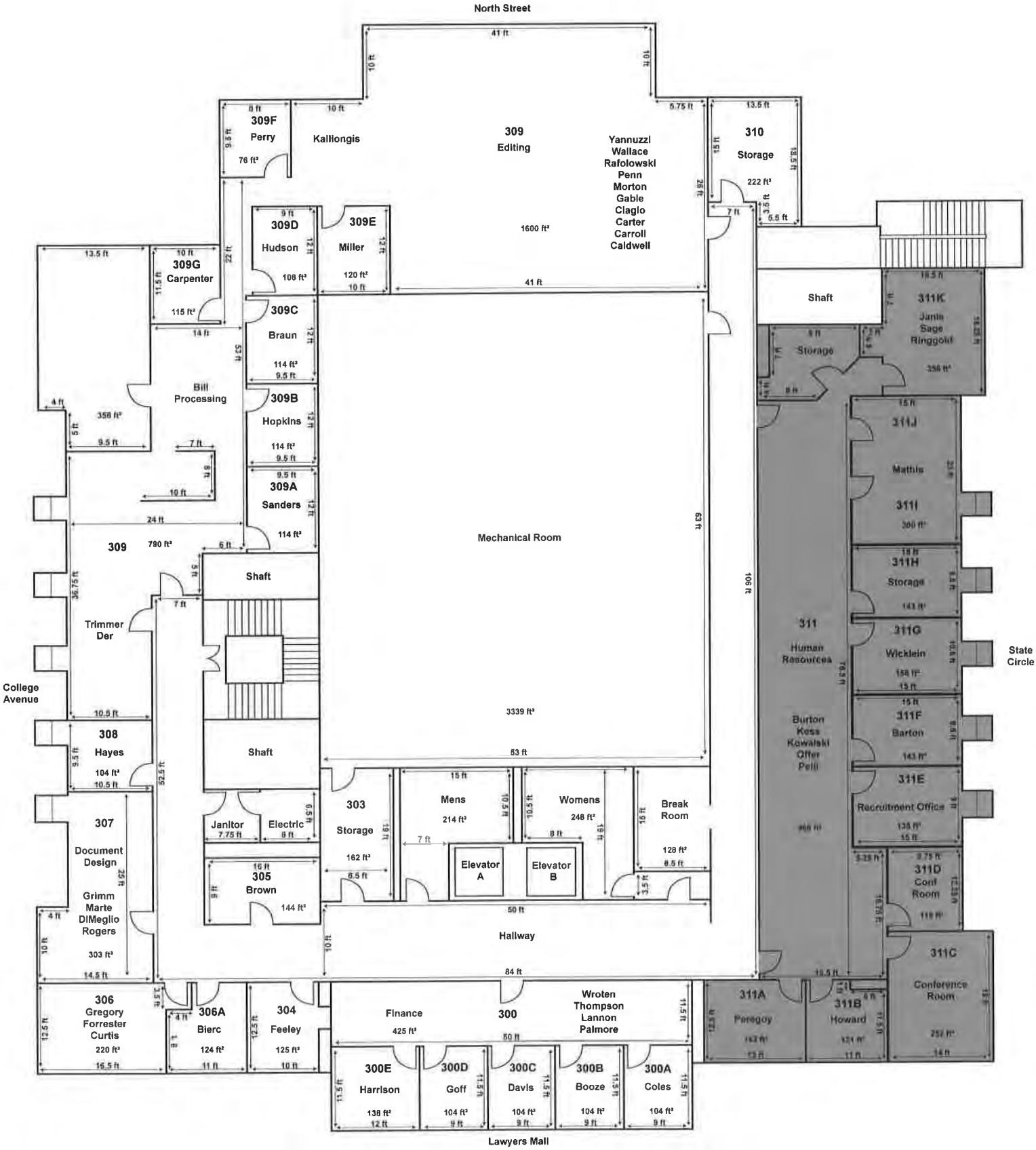
Office of Operations and Support Services (OOSS)
Human Resources

What does the office do?
Human Resources provides personnel services for the employees of the Department of Legislative Services and for members and staff of the Maryland General Assembly. The Maryland General Assembly's Page and Intern program is also coordinated in HR.

Explanation of the unit's workflow: Human Resources is responsible for all personnel functions for the Department of Legislative Services as well as the Maryland General Assembly. We service all new and exiting members and employees. Customers are served with or without appointments and a reception area is critical.
Functions include:
(1) orientation and processing of paperwork; that paperwork is routed through Finance and Payroll (located in HR);
(2) benefits coordination of all staff, including members; mostly handled in the HR office; deferred compensation specialists meet with staff once a month in the office;
(3) Payroll processing; the staff works closely with finance and also receive customers daily in-person and via telephone;
(4) counseling and answering policy questions;
(5) exit interview and processing of final paperwork.
(6) The Page and Intern programs for the Maryland General Assembly are centralized within Human Resources. The student programs usually support 150 interns and 125 pages each session. Each student visits HR for stipend, timesheets, etc. Member's staff review applications in the HR office.
The HR Office currently maintains records dating from the 70s. A mass project would be turning those records into electronic files but at the moment there are about 10 files in the hall leading to the office. Additionally, current files are stored within the HR office.

Interaction with Other Units:
HR works extremely close with Finance regarding funding for MGA employees both contractual and regular part time. We submit tuition requests and other bills to the Finance office. All departmental and General Assembly units work with HR regarding pay, benefits, etc. so we need to be easily accessible. Information Systems, especially the SAP team supports our computers. Human Resources also works closely with the Graphics and Printing Unit.

Office of Operations and Support Services (OOSS)
Human Resources
Third Floor



Office of Operations and Support Services (OOSS) Human Resources

Office of Operations and Support Services (OOSS)
Finance

What does your office do?

The Finance unit manages all financial services in the department and the General Assembly, including accounts payable and receivable, budget preparation and administration, member district office allowance accounting, fiscal / departmental resource usage planning and reporting, inventory recordkeeping, and procurement. In this regard, the Finance unit is responsible for maintaining the Legislature's statewide accounting records (R*STARS) and its internal accounting records (SAP).

Explanation of your unit's workflow.

The Finance unit receives spending or purchase records from authorized requesters throughout the Legislative complex, reviews the related documents for completeness, accuracy and proper authorization and then processes the resulting payment, procurement, or other applicable documentation.

Interaction with Other Units:

The Finance Unit takes requests from and serves the needs of all units in the Legislature. Primary points of contact include Human Resources, MGA leadership offices, members' offices, OIS & OPA business staff

Office of Operations and Support Services (OOSS)
Finance
Third Floor

Office of Operations and Support Services (OOSS) Finance

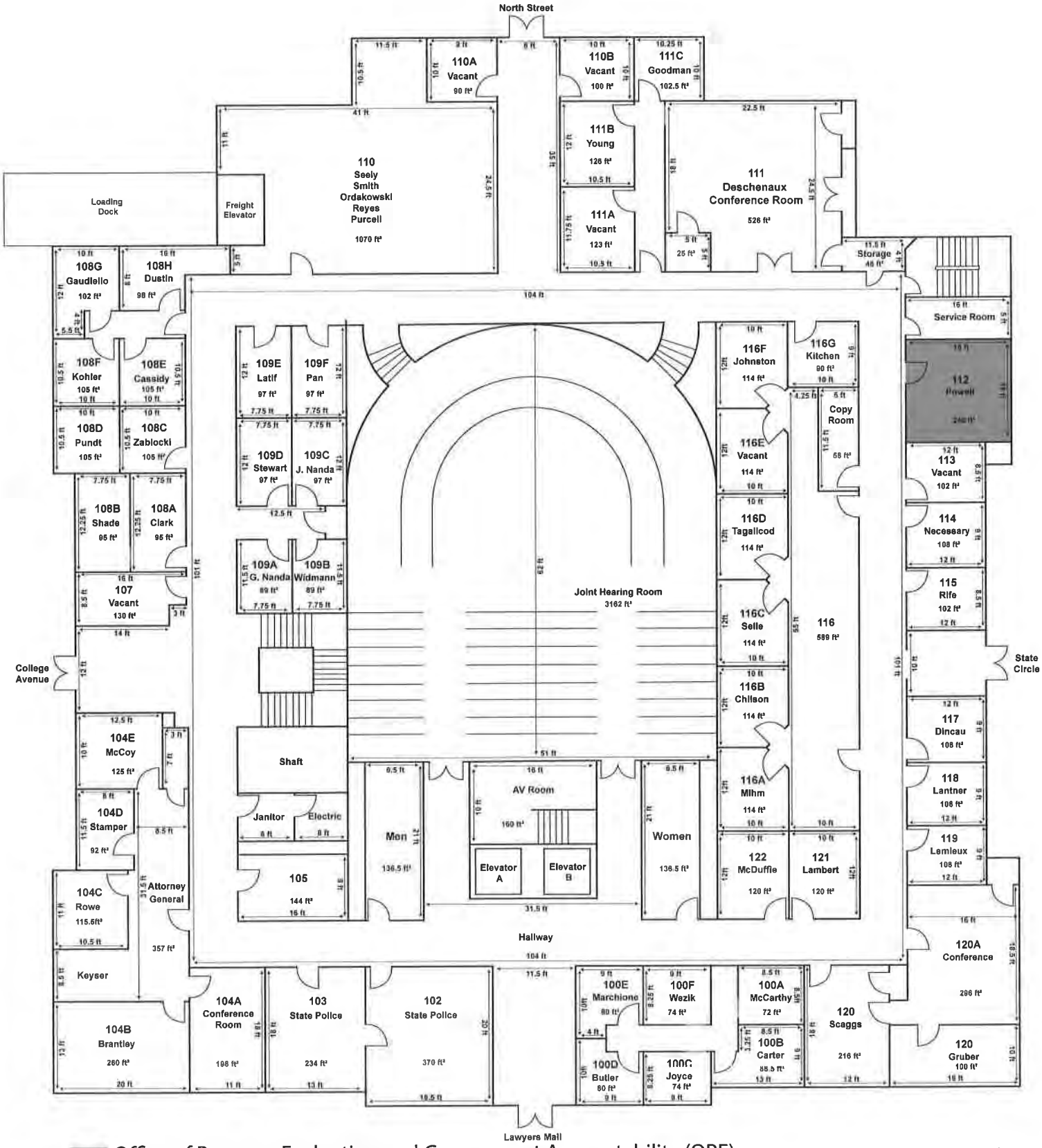
Office of Program Evaluation and Government Accountability (OPE)

First Floor

What your office does.

At the direction of the Joint Audit and Evaluation Committee, the Office of Program Evaluation and Government Accountability (OPE) conducts evaluations of governmental activities and/or units. OPE evaluates the efficiency, effectiveness, and economy with which resources are used; determines whether desired program results are achieved; determines whether a program aligns with the unit's mission; evaluates whether a program duplicates another program or activity within another unit; evaluates whether the governmental activity or unit operates in an open, accountable, fair, and non-discriminatory manner; and determines the reliability of specified performance measures.

Office of Program Evaluation and Government Accountability (OPE) First Floor



Office of Program Evaluation and Government Accountability (OPE)

Attorney General's Office
First Floor

What your office does.
The primary function of the Office of Counsel to the General Assembly is to provide impartial, nonpartisan legal advice to the individual members of the General Assembly, its committees, leadership, and staff on the constitutionality and interpretation of legislation. Much of this work takes place during the 90-day session (or any Special Session), as hundreds of advice letters are generated (along with loads of oral advice), often at break-neck speed. Advice requests continue to be received throughout the year, particularly from the leadership, committee chairs, the Department of Legislative Services, and the Legislative Auditor. In addition, we get requests for advice about the State budget year-round. During the interim, requests from individual legislators tend to be of the constituent-service variety.

There are four attorneys in the office, with one full-time office manager and a part-time administrative assistant during session. Also, during session the Attorney General's director of legislative affairs is housed in our office, usually with another attorney from the Consumer Protection Division. They monitor and occasionally provide testimony on pending legislation on the AG's behalf or at the request of the legislature.

Explanation of your unit's workflow.
Our busiest time of the year is the legislative session, although we do not have a slow period. From January to Sine Die, we are responding to requests for advice about pending legislation. We get requests by email or phone, and in-person. Legislators and staff frequently walk-in our office for consultation.

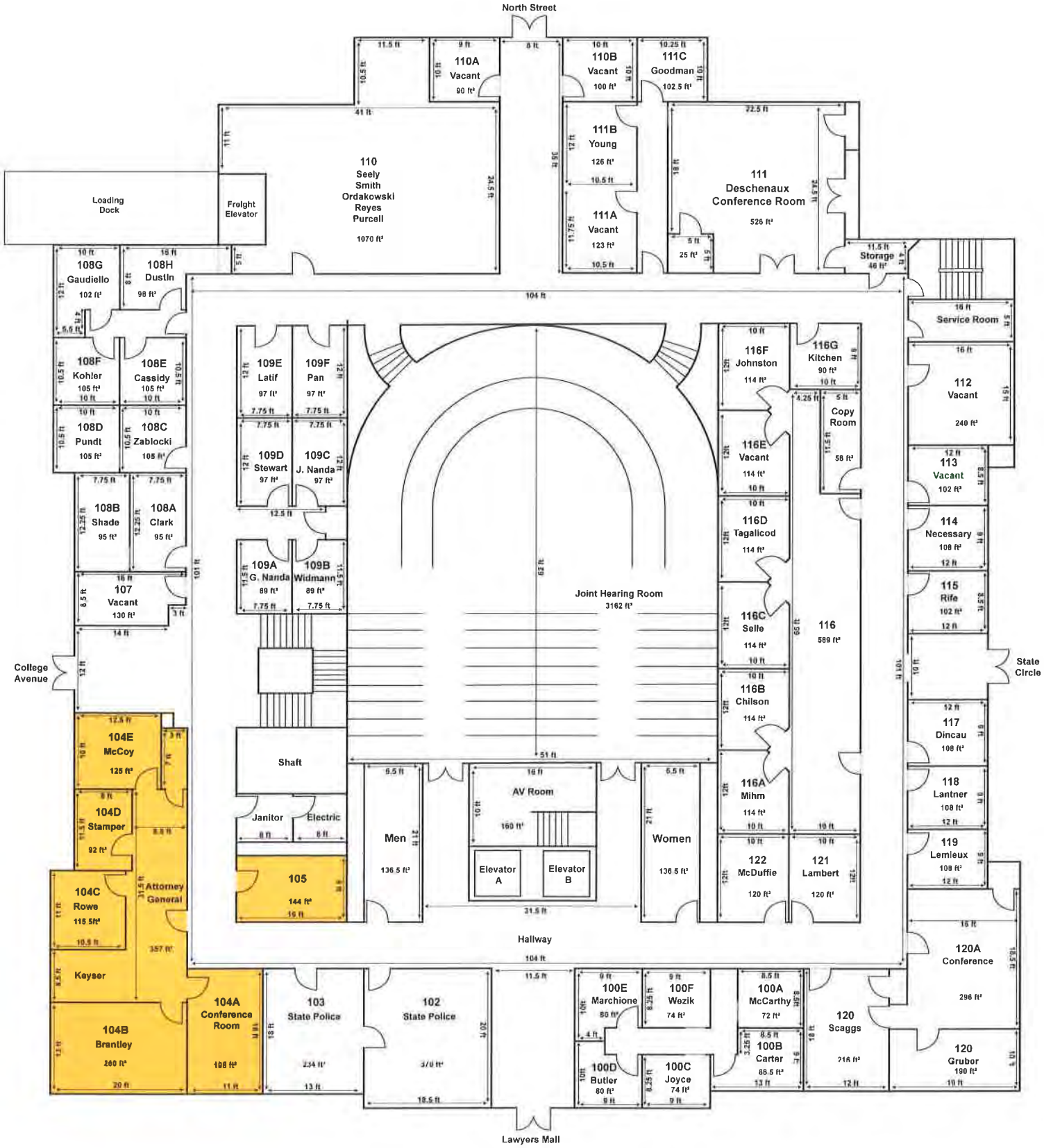
From April through May, we are conducting bill review, during which we must assess the constitutionality of each and every bill that has passed during session, typically 600 to 900 bills. During this bill review, we receive hard copies of passed bills (one for each attorney). We also use an online system to allow agency counsel to co-review about 35 percent of the bills. The bill review letters are sent to the Governor's office for their review before the Governor decides whether to sign or veto the bills.

During the interim, we continue responding to requests for advice. We also assist in reviewing and drafting formal opinions of the Attorney General, and also assist with litigation involving the constitutionality of State laws.

In terms of workload, we average an output of 45 letters of advice per month.

Interaction with Other Units:
We work extensively with the Executive Director, bill drafting staff, and OPA staff. During bill review, we also work closely with the print shop to get the final copies of passed bills. We also on occasion work with the library.

Attorney General's Office
First Floor



Attorney General's Office

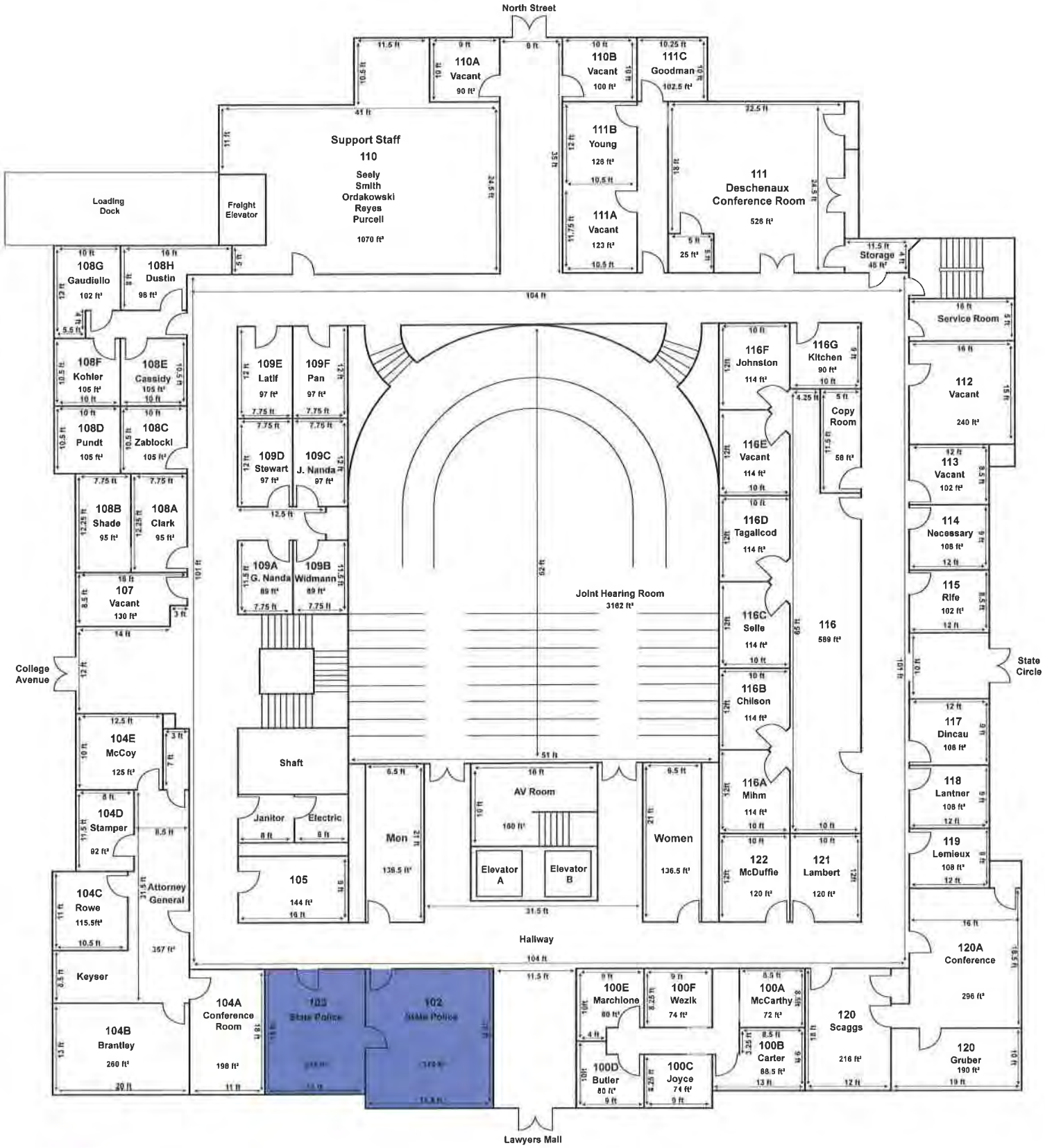
State Police
Legislative Services
First Floor

What your office does.
Security and Protective Services

Explanation of your unit's workflow:
Involved in the security of the complex and the people on the complex

Interaction with Other Units:
Everyone, indirectly.

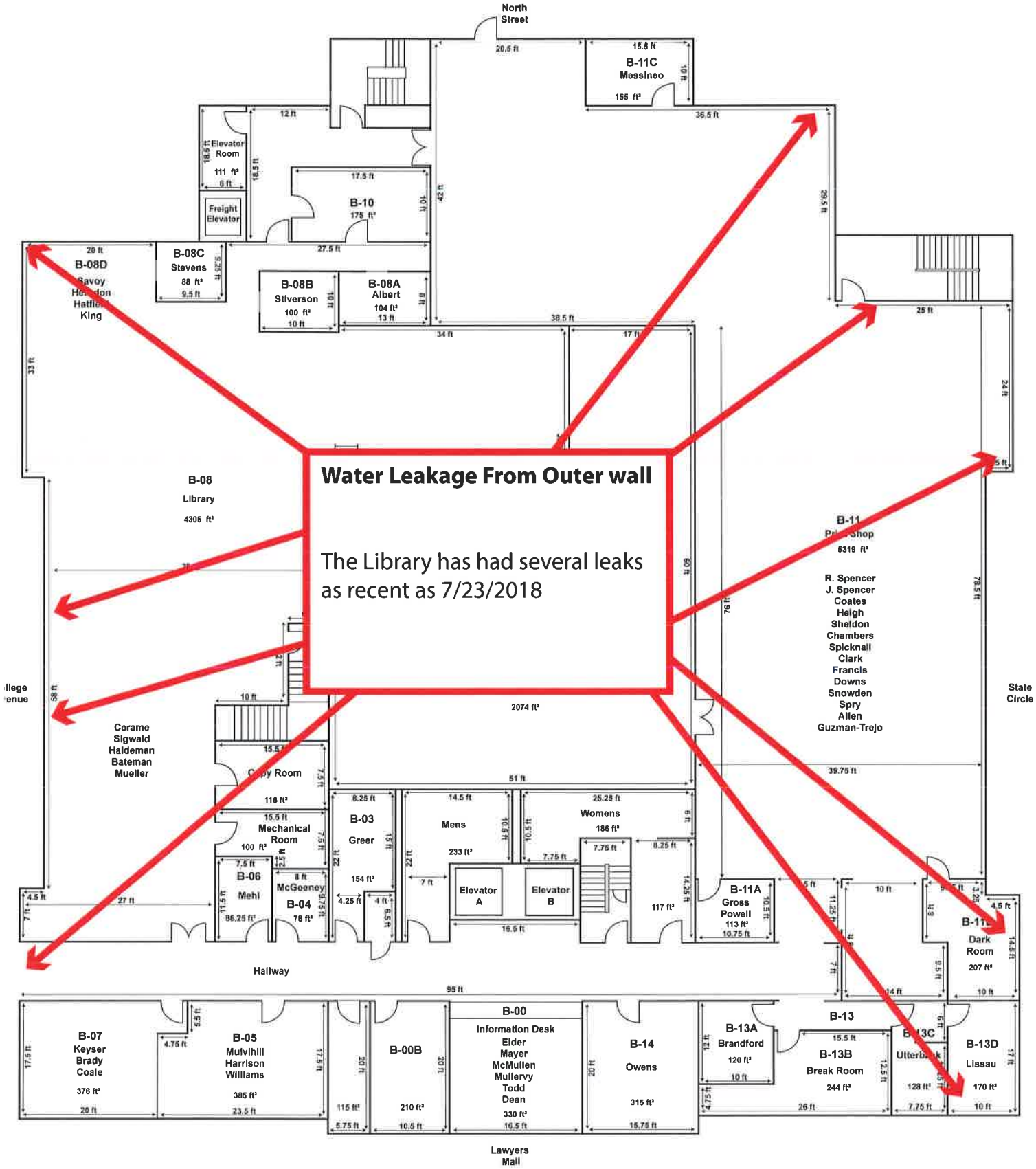
State Police
Legislative Services
First Floor



State Police

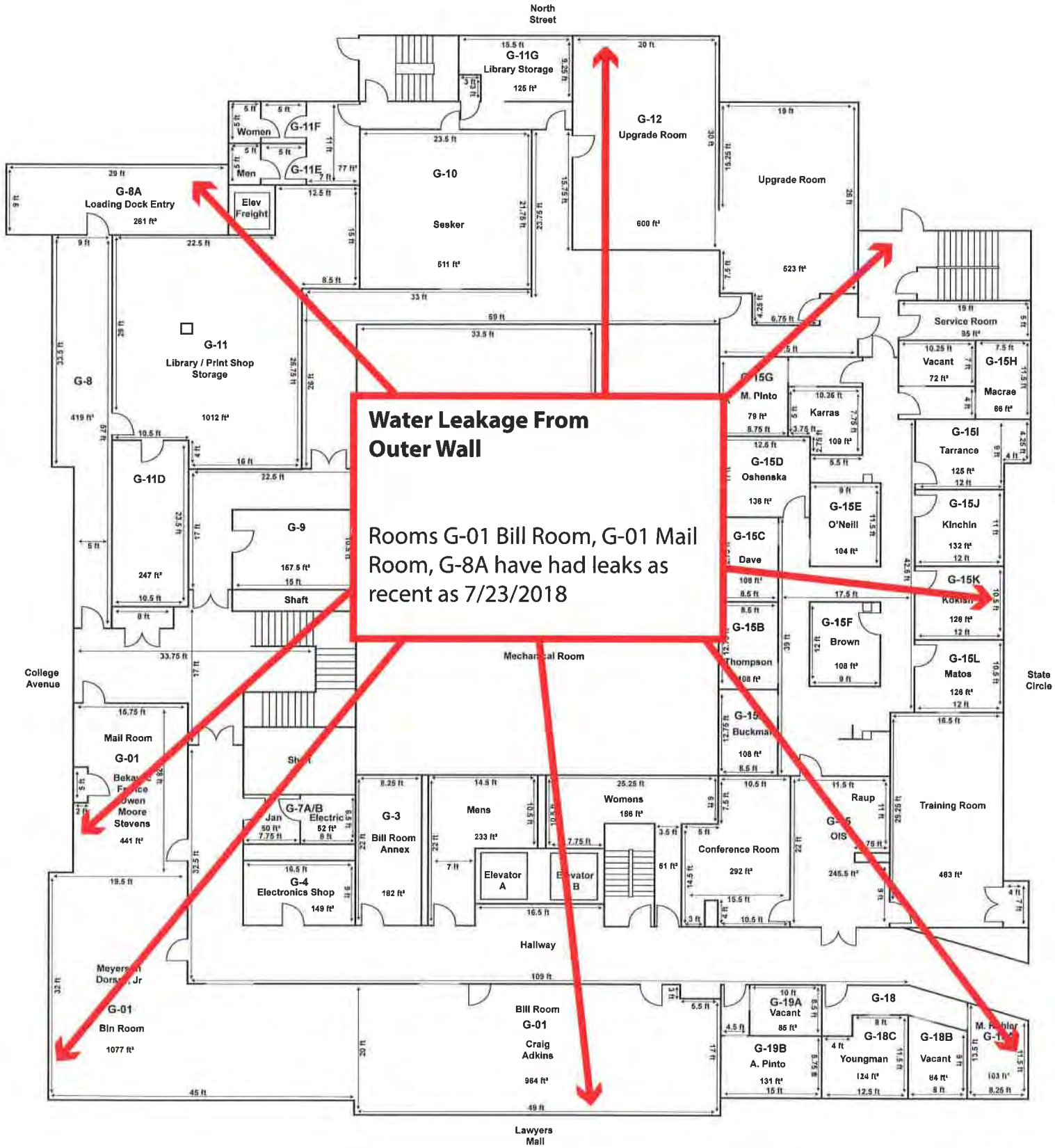
Legislative Services Basement

Water Leakage



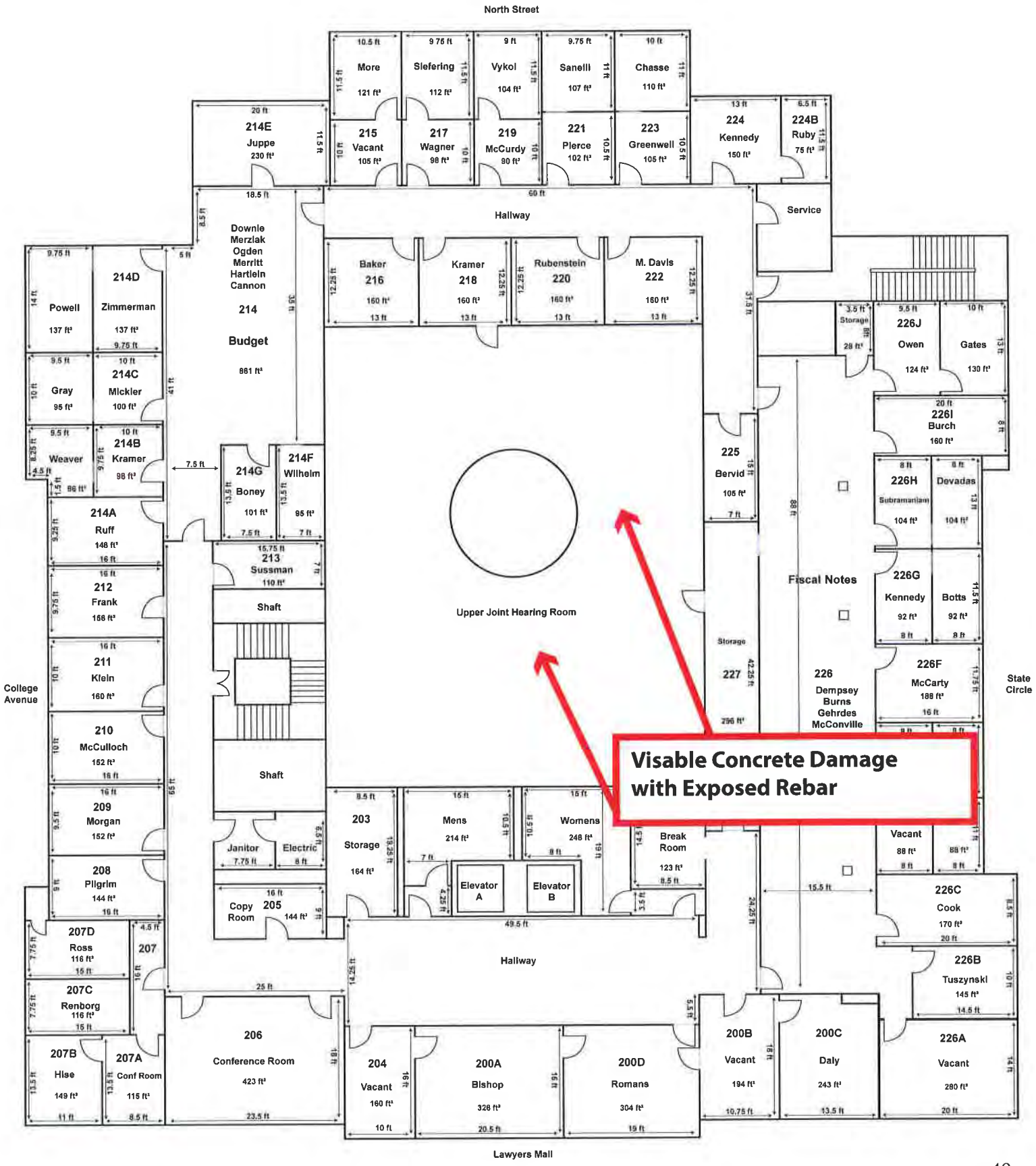
Legislative Services Ground Floor

Water Leakage



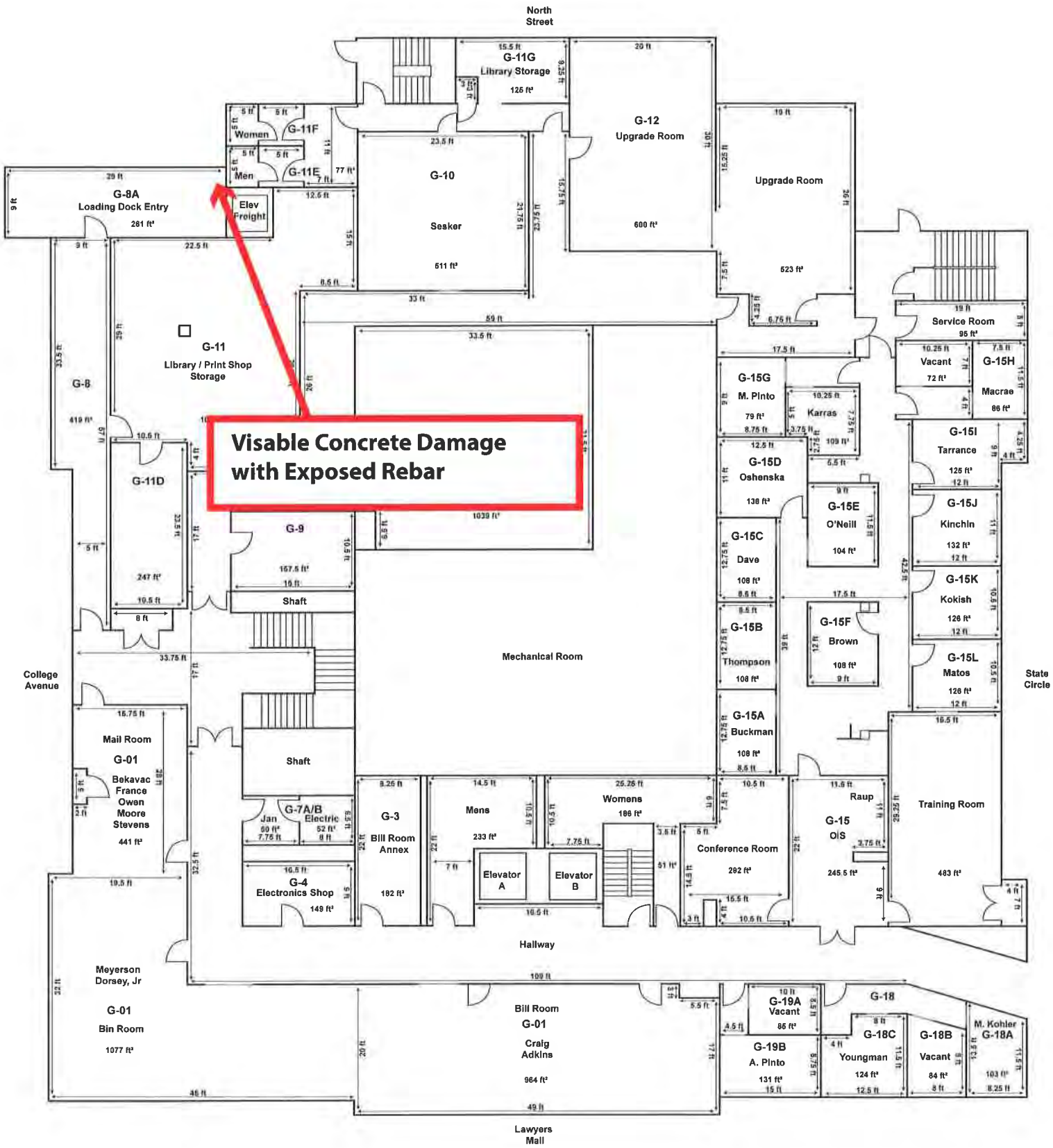
Legislative Services Second Floor

Concrete Damage



Legislative Services Ground Floor

Concrete Damage



Appendix B

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Building Conditions Assessment

State of Maryland
Legislative Services Building
90 State Circle
Annapolis, Maryland

Prepared for -
Maryland Department of General Services
DGS Project Number : BA-691-150-003
September 28, 2018
revised October 30, 2018

Wheeler Goodman Masek
One Annapolis Street #100
Annapolis, Maryland 21401

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1. EXECUTIVE SUMMARY

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1.1 ASSESSMENT SCOPE AND INTENT

The Legislative Services Building, located at 90 State Circle in Annapolis, Maryland, completed construction in 1976 and is owned by the State of Maryland; its primary function is to serve as the headquarters for the Department of Legislative Services.

This report will provide a description of the existing building systems and an assessment of the building; however, the report does not propose or recommend design measures to address any issues described.

The Building Conditions Assessment report is intended to describe the current condition of the building and address the following building elements:

- Architectural
- Building Envelope
- Structural systems
- Mechanical, Electrical, and Plumbing systems
- Telecommunications
- Elevator
- Civil / Site Conditions
- Environmental conditions

The report shall serve as the basis for the future development of a program for a full renovation to continue to serve the Department of Legislative Services.

1.2 ASSESSMENT TEAM

The team which surveyed the building and provided an assessment of conditions include the following consultants:

Architectural –	Wheeler Goodman Masek Architects One Annapolis Street, Suite 100 Annapolis, MD 21401 240-263-6786
Structural –	Hope Furrer Associates, Inc. 501 Fairmont Ave, Suite 205 Towson, MD 21286 410-583-4874
Mechanical –	WFT Engineering, Inc. 1801 Research Blvd., Suite 100 Rockville, MD 20850 301-230-0811
Telecommunications –	Wright Engineering, LLC 853 Ripple Stream Court Joppa, MD 21085-1201 410-877-6297
Envelope –	Restoration Engineering, Inc. 10503 West Drive, Suite A Fairfax, VA 22030 703-272-7787
Civil Engineering –	Bay Engineering, Inc. 2661 Riva Road, Building 800 Annapolis, MD 21401 410-897-9290
Elevator –	Lift Solutions 300 E. Lombard Street, Suite 840 Baltimore, MD 21202 410-944-7555
HAZMAT –	Green Street Environmental LLC 6309 Blair Hill Lane Baltimore, MD 21209 410-296-8800

1.3 REPORT METHODOLOGY AND STRUCTURE

Methodology

Each consultant performed an on-site survey of the building and, using that information created comprehensive assessments for their respective systems.

The consultants all visited the site between November, 2017 and January, 2018 and made visual observations related to their discipline; multiple visits were made to the building if necessary to complete a comprehensive assessment. No demolition was performed to make observations. The observations and reports are in no way intended to serve as as-built documentation, and it is understood that the reports are not intended to represent each and every condition of the building or site.

Visual observations of the structure were made only when the structure was accessible and visible Existing finishes were not removed for the purpose of this study, and no destructive testing of the structural elements was performed. Little to no structure was visible on the interior of the building due to finishes in place at the time of the field survey. Photographs of notable deficiencies were taken and are included with the Structural Building Assessment Forms.

On January 3, 2018, Restoration Engineering, Inc. accessed the flat roof via a roof hatch and performed visual surveys of the roof areas, including flat roof, sloped mansard roofs, chimney masonry, and the cupola. Additionally, they surveyed the interior of the cupola via an access ladder inside. REI utilized binoculars to visually survey from the roof to ground level, the masonry facade, windows, and other facade items. Also, REI visually surveyed the stairs and exposed foundation waterproofing from the ground level. Additionally, they interviewed members of the building staff, regarding previous interior leaks, as well as, past repair projects at the building.

Civil and site obervations by Bay Engineering, Inc. are based on readily available public information and site observations as it relates to existing site improvements. It should be noted that this report is based on visual observations and that there is no claim, either stated or implied, that all conditions were observed. This report does not include any field survey work by Bay Engineering, Inc. It is not intended to provide as-built documentation of the existing conditions for use in design.

A visual review of the elevators currently in use at The Legislative Services Building was conducted by Bruce Pope of Lift Solutions Consult ing on November 15, 2017 to determine overall condition , effectiveness of maintenance and code compliance and modernization assessment, if recommended. In addition to the visual review, performance measurements were taken with regard to operation and compared to established and industry standards. Ride quality was evaluated based on experience with similar installations and compared to industry standards at the time of installation.

Structure

The Report is structured as follows:

- 2. Detailed Building description

  This section is a narrative which describes the building in terms of materiality, structure, and systems; along with a general assessment of the overall building condition. All disciplines will be addressed in this narrative.

- 3. Key Plans

  The Key Plans provide floor plans of each floor, and describe the sectors of the building along with room numbers used to identify spaces in the Asssessment Reports

- 4. Code Analysis

  This section provides an analysis of the building in terms of applicable building codes and areas of non-compliance with ADA guidelines.

- 5. Building Conditions Assessments

  This chapter provides a floor by floor conditions assessment of the building Each subsection provides the assessment per floor for the following disciplines: architectural, structural, MEP, telecommunications, and envelope. There are three parts to each:

  - Key Plan of the applicable floor
  - A brief narrative describing observations by the above disciplines.
  - The individual condition/element reports which give specific instances of conditions within that segment. See below for a description of the condition/element reports.

- 6. Appendices

  The Building Sector Assessments will be followed by three appendices:

  - Elevator Assessment (narrative + reports)
  - Civil Engineering Assessment (narrative + reports)
  - Hazardous Materials (narrative + reports)

1.4 REPORT FORMAT

The following page describes the report format that was used by the assessment team to document their findings for each element observed.

The fields in the top portion of the report give identifying information about the author and the component of the building being assessed. Information shown in the fields “Key Plan Location” and “Room Identification” are intended to be used as reference information to the Key Plans.

The “Condition” field will be filled in with a color coded assessment as follows:

- Critical – Extremely worn or damaged
- Poor – Worn from use, end of expected life cycle
- Fair – Average wear from building use
- Good – Good condition, no reported issues or concerns
- New – New or like-new condition

Photographic Documentation is included to clarify the report. All photographs were taken by the reviewer on site during the assessment.

The Element Description provides a narrative description of the component being addressed and will summarize the condition and reference any code violations.

The bottom line of the report provides a space to list any reports that are cross-referenced with the current report.

SAMPLE CONDITION / ELEMENT REPORT

Discipline:

Indicates which discipline created the report

Room Iden a

Prefix = Building Level
Number = Room Number
See Key Plans for specific location

Element Type + SubType:

Indicates component of the building that is being assessed. e.g. wall, floor, ceiling, etc.

SubType indicates any further

Key Plan Loca

Color coded indication of sector location of room being assessed.

See Key Plans for coordination.

Report number:

Preface = Discipline (A=Arch, etc.) + Number = sequential numbering

Use this number to refer to a specific report.

Department of Legislative Services Building
90 State Circle, Annapolis, MD 21401

Key Plan Location: Location

Condition / Element Report

Discipline:	Choose One	Report Number:	
Room Identification:	Prefix -	Condition:	Assessment
Element Type:	Select the element type		
Element SubType:	N/A		

Photo Documentation

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

References: Clear Text Box

_____

See previous page for condition definitions.

Photographic Documenta

Photographs taken on site by the author of the report to support findings.

Element Descrip

Narrative description of the element being addressed in the report.

References:

Lists any reports that are cross-referenced to the current report.

2. BUILDING + SITE DESCRIPTION

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2.8 Civil / Site Description.....27

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2.1 BUILDING USE

Since its construction, the building has served as the headquarters of the Department of Legislative Services, which provides services in support of the General Assembly. The agency has over 350 employees, of which approximately 310 are located in the existing building. DLS provides legal, fiscal, research, reference, administrative, technical, and auditing support to the members of the legislature and its various committees. Additionally, DLS serves as a major source of information for the public regarding legislative activity. The Department also provides accounting, printing, bill distribution, telecommunication, and supply services to the General Assembly.

The building Use is Business with an accessory use of Assembly for the Joint Hearing Room. The occupant load calculation based on Business Use (excluding the Joint Hearing Room) is 799 occupants. The posted placard occupant load for the Joint Hearing Room is 300; the calculated occupancy load for the full building is 1,099.

The area of the building per level with the allowed occupant load is as follows:

LEVEL	AREA IN SQUARE FEET	ALLOWED OCCUPANT LOAD PER CODE
Basement	16,841	169
Ground	17,210	173
First Floor (Business Use)	16,154	162
First Floor (Assembly)	2,870	300
Second Floor	16,154	162
Third Floor	13,251	133
TOTAL	**82,480**	**1,099**

See Section 4 for a complete code analysis.

2.2 ARCHITECTURAL – GENERAL DESCRIPTION

The building was constructed in 1976 at 90 State Circle within the Colonial Annapolis Historic District. The site is at the northwest corner of State Circle bounded by North Street, State Circle, Lawyer's Mall and College Avenue on a site on which formerly stood the Maryland Court of Appeals, United Calvary Church, and various residential structures. Those functions were relocated in 1972 to prepare for the new building which would be the Legislative Services Building. Bladen Street, which previously had terminated at State Circle, was modified to terminate at College Avenue; this allowed that area to be infilled and rebuilt as Lawyers Mall, which is where the main entry to the building is located. The building is approximately 102,590 gross square feet with five stories, two of which are below grade.

The building was designed by Henry Powell Hopkins & Associates and Wrenn, Lewis and Jencks for the Department of General Services. The drawings were completed in 1973, and the building was completed in 1976. It was designed in the turn-of-the century Georgian Revival Style, which is inspired by Classical Architecture and characterized by symmetry, a sense of order, and classically inspired decorative elements. The Legislative Services Building exhibits these characteristics throughout. The front south elevation of the building, facing Lawyers Mall, presents in three bays faced with red brick in a "Flemish bond" pattern. The center bay is a prominent three story structure flanked by two symmetrical two story bays. The decorative elements on the building are minimal in keeping with the Georgian style, and are limited to dentil molding in painted white wood in the cornice of the center bay. The roof is a hip roof clad in slate, while the cornice is white painted wood. A large white painted wood cupula sits at the peak of the center bay roof. The windows do not display any ornamental trim; however, in keeping with the Georgian Revival Style, the front entrance is marked by a prominent pedimented doorway. This form of ornamentation is a hallmark of this style and can be seen throughout the building. The east and west elevations along State Circle and College Ave., respectively, are treated similarly, and are marked by a series of well-defined bays creating a sense of order; the side entries are defined by white painted wood pediments. The rear north elevation, along North Street, echoes the front elevation in its symmetry, minimal ornamentation, and pedimented doorway.

The primary interior feature of the building is the Joint Hearing Room on the first floor which is a large, circular, two story wood paneled chamber occupying the entire central portion of the first floor. The wood panels are walnut and are articulated with fluted pilasters marked by dentil molding at the cornice and rosettes in the frieze. The floor is sloped and has fixed seating. The central ceiling dome was originally a Tiffany stained glass dome that was designed for and installed in Maryland Court of Appeals, the building which was demolished to make room for the Legislative Services Building. When the Court of Appeals building was razed, the dome was preserved and installed in the Joint Hearing Room of the Legislative Services Building. The dome remained there until 2000, when it was removed and replaced with a plaster dome, with the original ornamental plaster perimeter maintained. The Tiffany dome is now installed in the lobby atrium of the Thomas V. Mike Miller Jr. Senate Building.

The basement level is occupied by a large print shop, located on the east and north portions of the building. The west portion of the basement level is occupied by a library; while the remainder is occupied by various offices and support spaces.

The ground floor is occupied on the east side by the old kitchen which is no longer in use, and shared office space.

The first through third floors are occupied primarily by single occupancy offices along with support spaces such as breakrooms, restrooms, and reference areas.

The materials throughout the building include the following:

- The offices throughout are finished with carpet. The corridors, stairs other than Stair A, and service spaces such as the print shop have vinyl floors. Bathrooms have tile floors.
- Walls are typically painted gypsum board, with painted wood base trim.
- Ceilings throughout are either 2x2 or 2x4 acoustic ceiling tile.
- Doors throughout are painted wood, the hardware varies from original to new depending on when the space has been renovated.
- The windows throughout are divided lite, single pane glass with painted wood trim and mullions.

The primary architectural feature is the marble stair, designated as 'Stair A' on the West side of the building, linking the basement through third floors. The stair on the first floor is open to the corridor, with the remainder separated from the corridors with fire rated wooden doors. The treads are marble, the underside of the stairs is plaster, and the walls are painted gypsum board.

There are three other stairs located throughout the building. 'Stair B' is on the north east corner and links the basement through the third floor, with exterior egress on the ground floor level. Stair C, located in the south sector of the building adjacent to the elevators, links the basement through ground levels and has no exterior access. Stair D, located in the north west corner, also links the basement through ground levels and has exterior egress on the ground level.

There are two passenger elevators linking the basement to third floors, banked side by side in the south sector of the building. Elevator lobbies on each floor guide users to the elevators.

There is a service elevator linking the basement level to the first floor, where an exterior door accessing the loading dock is located.

All of the exterior doors and doors marking the entrance to stairs are marked by painted blue pediments, in keeping with the Georgian Revival style.

Since its construction in 1976, the interior of the building has been modified to accomodate changing uses, with several larger areas being compartmentalized to create banks of smaller offices, and in other areas partitions being removed to create shared spaces. These updates have been done in a fragmented fashion, resulting in conditions which vary significantly between sectors and accross floors. There are portions of the building that have the original finishes, while others areas are in new condition.

To generalize: the basement, which houses the print shop, is in poor condition. The print shop, in particular, is in 'critical' condition, with finishes badly deteriorating.

The ground level contains offices in the east sector of the building (labelled G-15 on the plans) which have been very recently renovated and are in 'good' or 'new' condition.

The remainder of the building is in 'fair' condition. The intention of this designation is to indicate that, while the material or element is still functioning, it is clearly showing it's age and has visible wear and tear.

The building has had various system interventions over the years to address specific concerns. These include but are not limited to:

<u>ADA:</u>	
2008:	Add Auto Door Openers @ Ladies Room – 2nd Floor
2001:	Install ADA Compliant Desk, etc. Joint Hearing Room
<u>Envelope:</u>	
2007:	Repaint Exterior Wood Surfaces
1997 / 1998:	Exterior Painting of Legislative Services Building
2004:	Repair Roof Gutters and Ice Melt System
<u>HazMat:</u>	
2012:	Mold Remediation and Restoration
<u>HVAC:</u>	
2011 / 2013:	Replace Sanitary Force Main
2008 / 2010:	HVAC Upgrade in Print Shop
2007 / 2009:	Replace Motor Control Center on 3rd Floor
2002:	Replace Domestic Hot Water Heaters
2002 / 2001:	Replace mechanical seals on 3 Hot Water Pumps
2002:	Replace AHU in Joint Hearing Room
2000:	Upgrade Lighting in Dome Area and Joint Hearing Room
1982:	Fire Protection Systems - Legislative Print Shop / Duplication Area
<u>Elevator:</u>	
1988 / 1993:	Elevator Modernization

2.3 STRUCTURAL - GENERAL DESCRIPTION

The observed structure is generally consistent with the original construction drawings dated 1973 and prepared by Van Rensselear P. Saxe Structural Engineers. The building floors are conventionally reinforced concrete, and the sloped roof and cupola are framed with steel beams and topped by metal bar grating for floor areas. The sloped roof is framed with sloped steel beams originally topped with gypsum plank. Interior observations reveal that the steel roof beams are topped by plywood, so the gypsum plank was removed and replaced at some point in the past.

The basement floor consists of slab on grade for most areas. There is a mechanical trench below the basement level, and the floor over the trench consists of concrete on metal deck which spans between trench walls.

The ground, first, second, and third floors are comprised of conventionally reinforced concrete beams supporting concrete joists at 36” on center. Beams are placed along the perimeter and typically along interior gridlines running north to south between columns. The center of the building is open or partially open on all but the third floor. The beams switch directions north of the open area, to run east to west between columns. South of the open area, the framing is a solid flat slab, conventionally reinforced. Beam, joist, and slab sizes are provided in the structural drawings. Typically, beams are 30” deep, joists have a 3.5” flange and extend 10” below flanges, and flat slabs are 9” thick. This information is from the original drawings, provided by owner, on sheet S-13.

The central open area at the ground floor is partially open with a depressed one-way concrete slab covering the eastern third of the region. From the first to second floor, the area is used for a sloped and stepped floor in the joint hearing room. The concrete columns below the sloped floor extend only from the foundation to the underside of the slope, which is also comprised of concrete.

Above the sloped floor, a series of steel catwalks hang from the third floor mechanical room. The third floor mechanical room is supported by two steel plate girders which span 53’-0” east to west, from columns at line G to columns at line O. Plate girders are placed at third points within the center area, dividing it into three parts. The middle section consists of 8” thick two-way flat slabs, conventionally reinforced and supported on steel beams oriented north to south between plate girders. The north and south sections also consist of 8” thick two-way slabs, but there are concrete beams which frame into the steel plate girders on one end, and into concrete columns on the other end.

A raised steel platform within the southern pavilion roof is accessed from the third floor mechanical room by steel ship’s ladders. The platform is structural steel with open metal bar grating. A steel ladder provides access to the steel framed cupola above. Plywood sheathing can be observed from the underside, topping all of the sloped steel rafters.

Typical columns are concrete from foundation to the third floor. From the third floor to the roof, columns are wide flange steel supporting the sloped steel rafters. Interior walls, including those at stairs and elevators, are non-bearing infill walls for all levels. This information is from the original drawings, provided by owner, on sheet S-14.

The 1973 drawings show a “new” tunnel on the south west side of the building, connecting to the house and senate building. There is a partial “new” tunnel on the south east side, connecting to tunnel that predates 1973, leading to the state house. The house and senate tunnel is accessed from the basement, and the state house tunnel is accessed from the ground floor. Both tunnels are comprised of reinforced concrete floor, walls, and roof. The connection to the existing state house tunnel is shown on structural drawings with waterproofing overlaps at the joint. The joint occurs along the length of the tunnel and away from the building, so it was outside the extent of our survey. The connection joint from the building to the house and senate tunnel is not shown on either structural or architectural drawings. The new tunnel is perpendicular to the basement wall. There is a knockout panel at the tunnel entrance shown on the structural drawings, which suggests that the building wall was constructed first, and when the tunnel was finished, the knockout panel was removed. Observations at this joint are detailed below

Due to existing finishes in place and the fact that the building is operational, the interior structure was difficult to observe in its entirety. Direct observations were only possible in unfinished areas of the building, such as the mechanical spaces and service areas. It was possible to remove ceiling tiles at suspended ceilings in some locations. When tiles were removed, it was common to find duct work obstructing the view to structural elements.

Exterior walls above grade are not bearing walls. They are comprised of brick veneer with a masonry backup material indicated as “slag block” on original structural drawings. The walls are placed between concrete perimeter beams at each floor. Slag block is not used in modern construction, but it is similar to concrete masonry units that are used today. The walls do not appear to be reinforced for out of plane wind resistance, according to the drawings.

Exterior walls below grade, which extend from the foundation to the first floor, are bearing walls which retain soil. They are comprised of reinforced structural concrete with varied thickness. According to the 1973 structural drawings, the basement walls require bracing from the framing at the ground and first floor levels, thus portions of floor along the exterior walls cannot be removed without providing an alternate bracing method for the walls.

2.4 MECHANICAL, PLUMBING, ELECTRICAL & FIRE ALARM AND SUPPRESSION - GENERAL DESCRIPTION

HVAC

The HVAC systems, though well maintained, are the original base building systems and beyond their useful life. This is primarily air handling equipment and air distribution systems.

The mechanical plant for chilled water and steam is in the building next door and is not part of this assessment. Chilled water and steam are brought into this building via the below grade interconnecting tunnel. A secondary chilled water pump (part of a primary/secondary system) interconnects to the primary system and provides chilled water to the building. Steam is sent though heat exchanges to heat the building heating hot water.

Air handling units are located in the lower level mechanical room and 3rd floor mechanical room. Conditioned air is distributed to hot water terminal units and diffusers located throughout the floor areas. Radiant heating is located along the perimeter wall.

There is a new Liebert unit in the lower level the staff in the Printing Room has requested that it remains as it is functioning adequately.

Plumbing

The sewage ejector, sump pump and water heater generator located in the basement Mechanical Room should be replaced do to age. The service sink and associated eye wash located in the work area of the basement needs to be replaced because of the poor condition. The backflow preventer and associated water meter, valves and gauges located on the ground floor should be in its own water room that has a floor drain installed near the equipment. Finally, some of the water fountains throughout the building need to be replaced because they don't work.

Electrical

The existing electrical service equipment and distribution panelboards appear to be original equipment which was installed when the building was originally constructed. The age and condition of the electrical distribution systems deem them difficult and costly to maintain and service, and in some areas, unsafe. It is recommended that the electrical service and distribution systems should be updated and replaced.

The existing lighting systems are a combination of fluorescent lighting fixtures and incandescent lighting fixtures that have been retrofit with LED screw base lamps. It is recommended that the lighting should be upgraded to energy efficient LED lighting throughout. Up to date, code compliant control systems should be implemented per the latest version of the International Energy Conservation Code (IECC).

Fire Alarm and Fire Suppression

The existing fire alarm system is a conventional (hard-wired), general alarm type, although function it is an antiquated system. It is recommended that the existing fire alarm system should be removed and replaced with a new state of the art addressable multiplex type, UL-listed system and include all new ADA compliant initiating and signaling devices and code required elevator recall/ interface. New fire alarm control panel shall be of modular construction to permit expansion and modification of system functions. Fire alarm condition shall report to a UL-listed off site monitoring station via a new digital dialer.

The existing device layout should be evaluated and updated at the time of system replacement.

The copy center has a Halon Fire Suppression System - The use of halon gas for fixed fire protection is no longer recommended. A hazard assessment should be performed to determine which suppression system may be the most appropriate and cost effective replacement for the halon gas system.

2.5 TELECOMMUNICATIONS - GENERAL DESCRIPTION

The telecommunications include the computer, telephone and cable TV cabling for the building.

Most of the existing cabling is nearing the end of its useful life. The need for faster network and internet connections will require upgrades to the telecom cabling and network / headend equipment throughout the building. The current cabling will not provide the needs for high data speeds and for future proofing of technology.

Lack of dedicated equipment space and suitably sized equipment spaces in strategic locations limits the capcity to upgrade and add technology equipment. Currently the telecom equipment is located in shared rooms with other building systems (gas, plumbing, electrical, etc), which does not meet best practices and current recommended standards.

The telecom spaces do not meet current EIA/TIA standards and need to be replaced with larger, secure, and environmentally controlled dedicated rooms.

In order to increase computer and telephone reliability and availability during power outages, upgrades to telecom rooms are needed, generator power is needed for telecommunications equipment.

2.6 ENVELOPE - GENERAL DESCRIPTION

The following paragraphs summarize of the information contained in the individual reports for specific building envelope elements. Please reference the reports, and attached plans for a more complete description of individual conditions and their locations.

Summary of Conditions

Roofing

a. Sloped Roofing:
   Generally, the existing sloped slate roofing is in good condition, and we estimate the remaining service life will exceed 20 years with the routine maintenance and the following recommended repairs. We recommend resealing all of the slate ridges and hips, and re-driving slate fasteners that have backed out. In addition, throughout the sloped roofs, miscellaneous broken slates and copper snow guards should be replaced.

b. Sloped Roof Flashing:
   The sloped metal roof flashings, consisting of both copper and terne-coated stainless steel, and are generally in good condition. We observed streaks in the copper valley flashings at locations where water drips off the slates and onto the copper valleys (See Roof Plan attached at Enclosure 1).
   The copper erodes at these locations because copper continuously sacrifices its outer surface to form patina. However, the drips wash away the patina creating a never ending cycle that eventually erodes a hole in the copper flashing.
   Consequently, REI recommends either coating the valleys or installing sacrificial copper flashing as required to protect the primary copper valley flashing.

c. Flat Roof:
   Overall, the existing built-up flat roof is in fair condition. We recommend repairing some stripping around the air shafts, and installing a new vent pipe cap flashing at one location (See Roof Plan).

d. Masonry Chimneys:
   The existing masonry chimneys are in fair condition, but various joints require repointing.

e. Cupola:
   The cupola atop the sloped, pyramidal hip roof at the South end of the building appeared to be in fair condition, but the window framing and trim needs to be restored immediately.

Facade

a. Foundation Waterproofing:

The existing foundation waterproofing has failed at the locations indicated on the Facade Elevations at Enclosure 2, and must be replaced immediately. There are a number of active leaks at the sub-grade levels, causing interior damage, and deteriorating the foundation walls. The most significant leak areas were at Room G-18a (southeast corner of the building), and near the loading dock. Additionally, there were other significant leak areas near the Distribution Center and the Library (west side). Consequently, we recommend excavating down to the footing at the southeast corner of the building and installing new external waterproofing from the footing to grade. Then we recommend snaking the existing drainage tile, if present, or installing new perforated drainage pipe embedded in a layer of drainable gravel. In addition, multiple conduit penetrations near the loading dock, must be resealed. At problem areas on the west side, investigative water testing should be performed to identify the source(s) of the leaks.

b. Windows:

The existing, wood-framed windows are in poor condition and should be restored, as soon as possible. Generally, the existing paint was peeling severely, and the perimeter sealant was wide open. In addition, wood framing was deteriorated at a number of isolated areas. We recommend a full-scale window remediation project consisting of restoring deteriorated framing, stripping existing paint, and resealing and repainting frames.

c. Entry Stairways:

The existing joints in the marble stairs at the North, South, East, and West entrances are in poor condition, creating paths for water to migrate beneath the stairs. There were also a few cracks and spalls in the marble steps. Additionally, the base of the iron railings at the stairs had partially corroded, and the corrosion spalled and stained the marble. We recommend restoring cracked/ spalled steps at all entrances, and resealing joints in the stone. Consequently, the North and West stairs should be totally remediated as it is necessary to restore the stairs, masonry, and, if necessary, the stair foundations.

d. Masonry Facade:

Generally, the existing masonry facade is in good condition throughout the building. However, there was significant mortar deterioration below the steps at the North and West entrances, which should be repaired during stair remediation projects. Additionally, cracking in the standalone walls surrounding the loading dock area should be monitored with crack gauges, to determine if foundation underpinning is necessary.

e. Downspouts and Miscellaneous:

i. Two downspouts on the North facade and one on both the West and South facades were loose and must be re-anchored to the masonry walls.

ii. There was a gutter leaking on the north facade wall, which should be closely observed or water tested to determine cause of leak. Other gutters observed appeared to be in good condition.

iii. A broken light fixture at the north stairwell should be replaced.

iv. A corroded louver and lintel at the north stair entrance should be replaced during the stair remediation project.

v. Conductor heads were in good condition.

vi. Doors were in good condition.

vii. There is a small storage/ maintenance building at the corner of the property (near loading dock), that is not connected to the building. The EPDM roof of this building is in poor condition and should be replaced.

2.7 ELEVATOR

The PASSENGER vertical transportation system serving the Legislative Services Building consist of the following characteristics:

Two Overhead Traction elevators #1 & #2
3500 lbs capacity each
Elevators #1 & #2 serve 5 landings (B, G, 1, 2, 3)
Elevators #1 & #2 have a contract speed of 350 fpm
Elevators #1 & #2 have a door configuration of Two Speed Side Slide
Elevators #1 & #2 have an applicable code date of 1971

The FREIGHT vertical transportation system serving the Legislative Services Building consist of the following characteristics:

One In-Ground Hydraulic elevator #3
Front and Rear openings with Bi-Parting type doors
The Freight elevator serves three landings (G, B, 1) and four stops (GF, GR, B, 1R)
The Freight elevator has a capacity of 2000 lbs
The Freight elevator has a contract speed of 75 fpm
The original equipment has an applicable code date of 1971
The upgraded freight doors have an applicable code date of 1991

While we strongly urge you to review the entire report, for your convenience we have summarized our findings within this first section including any items requiring immediate attention of the Maintenance Contractor and/or Property Manager.

A. EVALUATION OF MAINTENANCE AND ADJUSTMENT

For the purpose of evaluating maintenance, Lift Solutions Consulting divides the tasks into four general areas: 1) housekeeping, 2) lubrication, 3) replacement or repair of worn components and 4) adjustments. These areas sometimes overlap but are sufficiently independent to allow separate evaluation.

Based on our findings, which we have detailed in the Elevator , Maintenance Contractor Deficiency Reports and Performance Evaluations , we rate the current maintenance program as follows:

	Rating=	
	1 to 5	Meets Requirement
Housekeeping	4	YES
Adjustment	3	YES
Replacement/Repair	3	YES
Lubrication	4	YES
Overall Average	3.5	YES

Our evaluation of work is based on the following ratings:

1. A rating of “1” indicates unacceptable levels of maintenance. A concentrated effort on the part of your maintenance contractor is required in all areas in order to justify payment of the monthly contract fee. Approximately 10% of our equipment reviews result in this rating.
2. A rating of “2” indicates below average levels of maintenance in most areas. Typically a short term concentrated effort is required by your maintenance contractor to avoid slipping to a “1” rating and or improve to the acceptable rating of 3. Approximately 25% of our equipment review results in this rating.
3. A rating of” 3” indicates acceptable levels of maintenance are being provided by your maintenance contractor. However, improvement may be required in specific areas. Approximately 50% of our equipment review results in this rating.
4. A rating of” 4” in dictates above average levels of maintenance are being provided by your maintenance contractor. This results in very good overall performance and operational characteristics of the equipment with infrequent shutdown of equipment due to maintenance related issues. Approximately 10% of our equipment review results in this rating.
5. A rating of “5” indicates superior levels of maintenance is being provided by you maintenance contractor . We seldom see this rating.

B. IMMEDIATE ACTION ITEMS

1. Contractor Items: The major areas of concern requiring follow-up by the Maintenance Contractor are:

   a. Elevators:
      1) Provide to seal hoist machine oil leaks
      2) Provide for elevators to run contract speed

2. Owner Items: The following items require immediate correction but are not the responsibility of the Maintenance Company:

   a. Elevators:
      1) Provide to make pit sump pump operable per code

2.8 CIVIL / SITE CONDITIONS - GENERAL DESCRIPTION

This report summarizes the findings of the Civil/Site assessment. This report is based on readily available public information and site observations as it relates to existing site improvements. It should be noted that this report is based on visual observations and that there is no claim, either stated or implied, that all conditions were observed. This report does not include any field survey work by Bay Engineering, Inc. It is not intended to provide as-built documentation of the existing conditions for use in design.

Site Location and General Information

The subject property is located at 90 State Circle, Annapolis, MD 21401. The site is known as Tax Map 52A, Grid 13, Parcel 1095 and located at the Southeast quadrant of the College Avenue and Bladen Street intersection. The property is located adjacent to the existing Governor's Mansion, Lawyers Mall and the State House. The property totals approximately 1.18 acres and is currently owned by the State of Maryland. The property is located within the incorporated limits of the City of Annapolis and is zoned P-Professional Office District. The property is also located within the Colonial Annapolis Historic District. The property is not located within the Chesapeake Bay Critical Area.

The existing 3-Story building features a full basement.

The site is bordered to the North by College Avenue and the House of Delegates Building, to the East by North Street and existing residential houses, to the South by State Circle and the State House, and to the West by Lawyers Mall and the Governor's Mansion.

Major Site Characteristics

A. Topography and Site Observations

Based upon the observations of the Anne Arundel County Aerial topographic GIS Maps, DGS records and Site observations, the site is completely developed with minimal landscaping and existing mature trees.

Brick sidewalks exist east around the perimeter of the site. An ADA concrete ramp exists from the building to the existing Lawyers mall, which appears to not meet current ADA accessible routes due to its narrow width. With regards to the condition of the sidewalks they appear to be generally in good shape with some repairs needed in the brick walks with regular site maintenance.

A couple of inlets were observed around the site but it does not appear any Stormwater Management features exist on the site. According to the FEMA Flood Insurance Rate Maps (community-Panel Number 24003C0251F, effective date February 18, 2015) the site is located within Zone "X"-Areas with less than a 0.2% chance of flooding. Field observations did not turn up any areas of concern for non-tidal wetlands and/or flooding concerns.

B. Zoning

The site is currently located within the City of Annapolis with a Zoning designation of P-Professional Office District. Since this property is owned by the State of Maryland any improvements would be exempt from meeting any zoning requirements of the City of Annapolis.

C. Environmental

As noted previously no non-tidal wetlands exist at the site based on our site observations. Several mature trees exist on the property. These existing trees are viewed as important existing features of the site and should be preserved or studied further with any future development plans for the property.

D. Soils

Based on the USDA soils survey, the site is made up mostly of Collington Wist-Urban Land Complex, 0% to 5% slopes which have a hydrologic rating of "B". "B" soils typically are semi-well drained soils with acceptable infiltration rates. These types of soils are typically favorable for infiltration stormwater management practices. It should be noted that with any expansion of the facility, soil borings will need to be performed by a geotechnical engineer in the areas of any building expansion, pavement areas and any location of proposed stormwater management facility (if applicable).

E. Stormwater Management (SWM)

Based on our field observations and City records there doesn't appear to be any evidence of existing stormwater management facilities for the existing legislative building. Currently the loading area drains to College Avenue via surface flow while the building roof drains appear to drain underground to direct connections to perimeter City and State storm drains.

Any redevelopment / expansion of this site with a Limit of Disturbance greater than 5,000 sq ft will be subject to the MDE 2000 Maryland Stormwater Management design criteria (updated in 2007 & 2010).

The MDE SWM Manual requires a unified approach for sizing stormwater Best Management Practices (BMP's) in the State of Maryland to meet pollutant removal goals, maintain groundwater recharge, reduce channel erosion, prevent overbank flooding (10 Year), and pass extreme floods (100 year). If required tests will need to be performed on the property by a geotechnical engineer to determine the infiltration will allow for a greater number of options for providing water quality. Quantity typically would be provided in an open pond (results in loss of development area) or for

this site underground in a vault or stone/pipe trench facility under the parking lot.

The State does recognize the use of non-structural practices that reduce nonpoint source pollution. Generally, these nonstructural practices work in combination with structural practices to meet the stormwater management requirements for the site. Because these nonstructural practices reduce the amount of stormwater generated on the site, they are recognized as credits and, if designed in accordance with the credit criteria, may reduce the sizing requirements. This means both the size and the cost of the stomwater facilities will be reduced. Some of the following credits may be able to be used at final design for a future redevelopment and/or expansion.

- Disconnection of Rooftop Runoff Credit
  This credit is given when rooftop runoff is disconnected and directed to pervious area where it can either infiltrate into the soil or filter over it.

The State manual also recognizes redevelopment which is defined as properties with existing impervious areas greater than 40% of the site area. The existing Legislative Services Building site currently exceeds the 40% limitation and would qualify as a "redevelopment" site should any additions or expansion be proposed in the future. With redevelopment any project must reduce existing impervious areas within the project Limit of Disturbance (LOD) by a minimum of 50%. When a combination of impervious area reduction and Environmentally Sensitive Design (ESD) implementation is used, the combined reduction and treated area must be equal to or exceed 50% of the existing impervious area within the LOD.

For this state owned property the “Maryland Sediment Control and Stormwater Management (Guidelines) for State and Federal Projects”, February 2015 Edition, will govern any redevelopment of this site. Clearing or grading activites that disturb less than 5,000 square feet of land area and disturb less than I 00 cubic yards of earth will qualify for an exemption to the provisions of the Guidelines.

F. Utilities

Water

A 10" City of Annapolis Waterline exists in College Avenue and this line provides the source of existing water supply for the subject property. The legislative building is currently served by a 6" unmetered domestic/fire service at the Southwest corner of the building. A fire department connection is located at the southwest corner of the building. The closest fire hydrant to the site is located along Northwest Street approximately 130 feet from the building.

Sewer-

An existing 8" City of Annapolis Sanitary Sewer Service exists in College Avenue with a 6" sewer service located at the northwestern corner of the building. It appears that the sewer service is gravity for the building and likely a pump for the basement if services are provided to the basement.

Gas/Telephone/Electric/Steam

Gas - Gas exists within College Avenue and North Street. Based on DGS records, a storage tank for propane tanks is located within the loading area.

Telephone - Underground telephone/telecommunications ducts exist along State Circle.

Electric - It appears from old site records that electric service for the building is located in the northern corner of the building with service originating from St. Johns Street.

Steam - Existing chilled water/steam ducts serve the building from the south at Lawyers Mall from a central plant.

G. Access and Roads

A vehicle access point off of College Avenue exists for the loading area of the building. No parking areas are present on or around the perimeter of the site. An existing pedestrian bus shelter exists along College Avenue.

Our site observations indicate that the concrete pavement areas within the loading area and access stairs have cracks and are in need of repair. The asphalt pavement appears to be in decent shape, however; with any redevelopment it is recommended that any cracks and joints be repaired and the loading area seal coated.

With regards to ADA access, the only access point to the building is at the Lawyers Mall entry. It appears that this ADA access is too narrow to meet minimum ADA requirements. Any future reuse of the building will likely require a new ADA access.

3. KEY PLANS

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GROUND LEVEL..... 34

FIRST FLOOR..... 35

SECOND FLOOR..... 36

THIRD FLOOR..... 37

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3. KEY PLANS

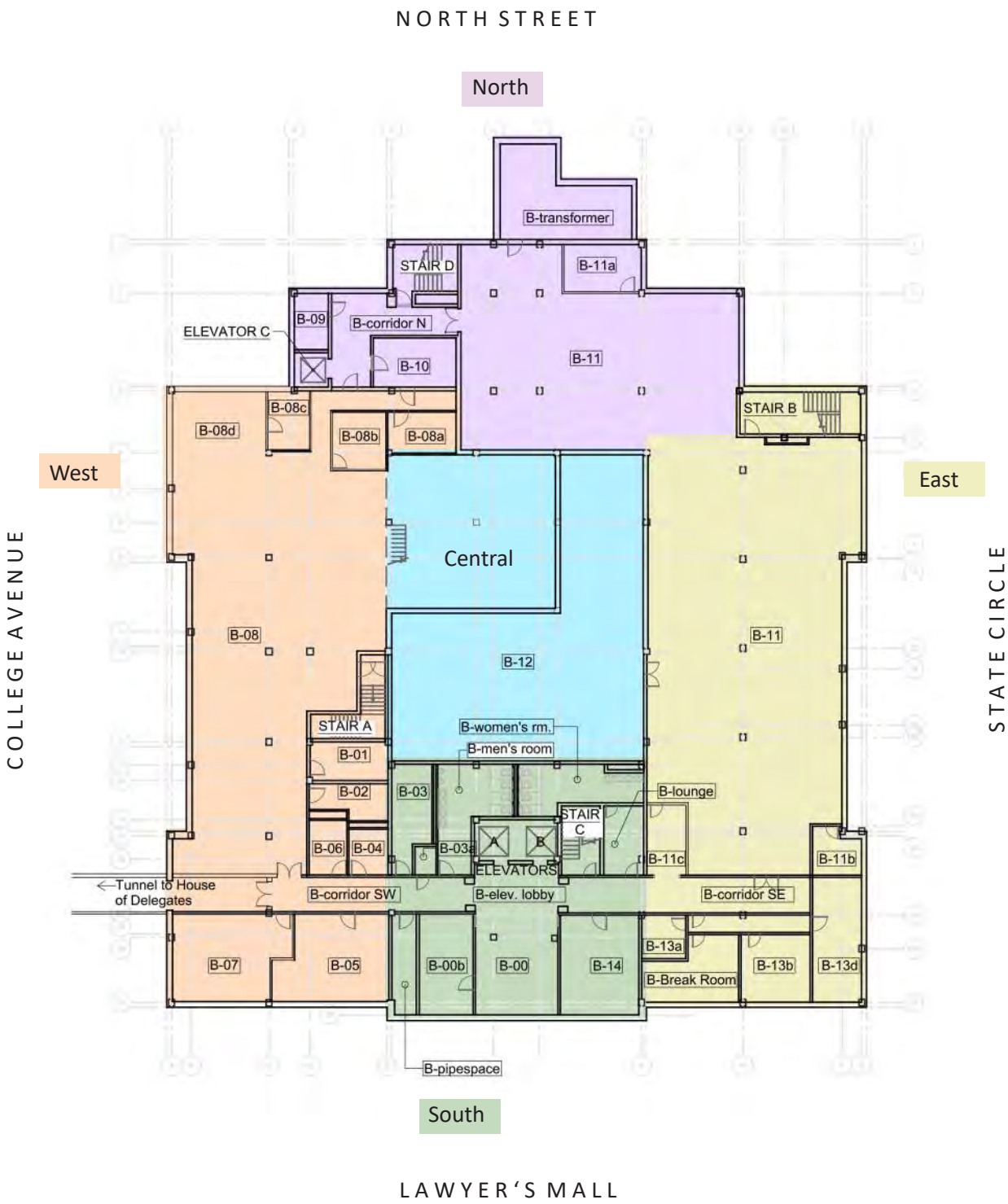
The following pages present the key plans for each floor. These plans are to be used as the reference for the location indicators on the Conditions Reports.
In the upper right corner of each form is an indicator for "Key Plan Location". This refers to the sector of the building that the element is located in: either North, East, South, West, or Central. The sector is also described by color as follows:

- North
- East
- South
- West
- Central

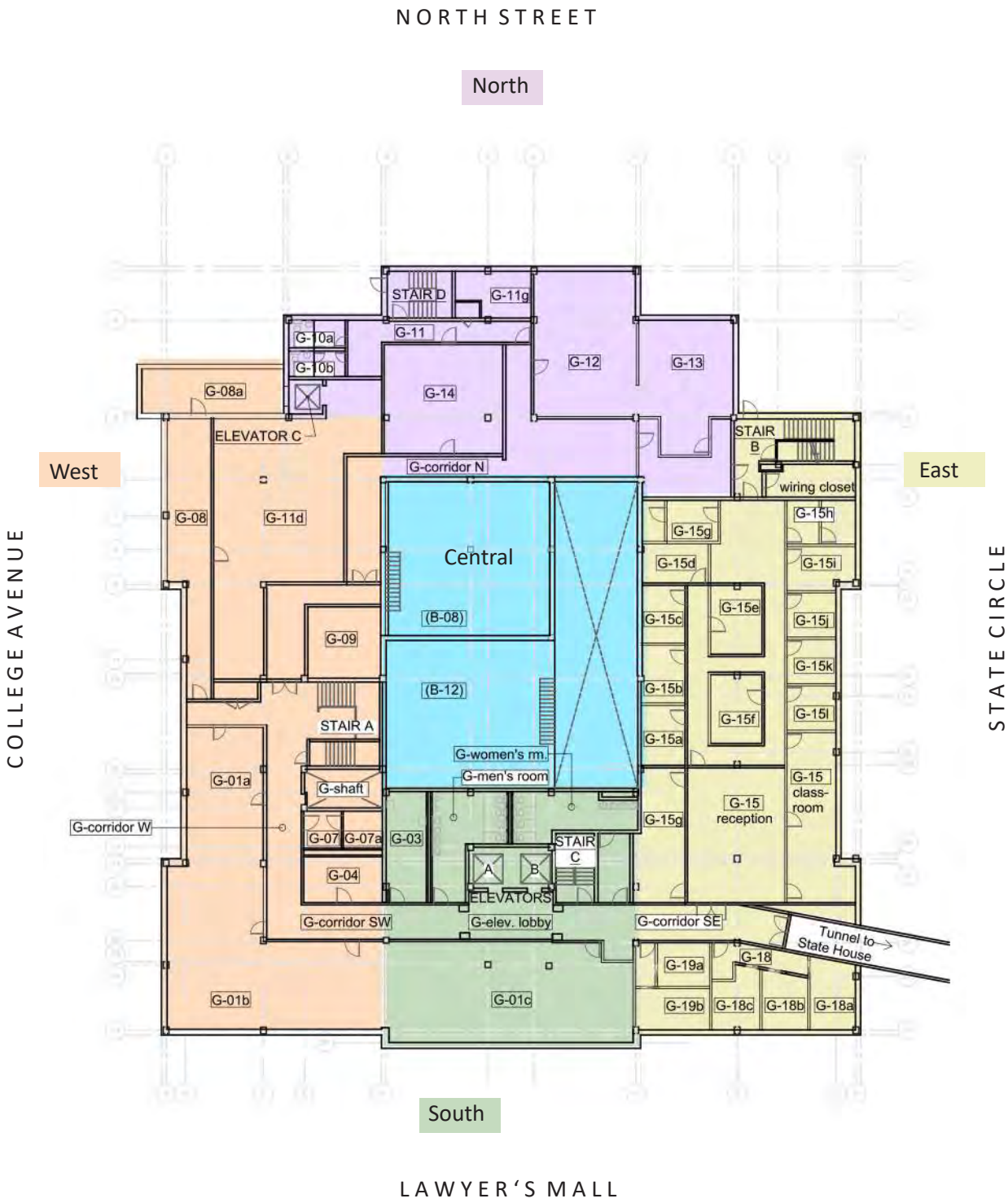
The room numbers indicated are the numbers currently assigned to the spaces.

The plans were generated using the original plans provided by the owner and modified with information from site observations. These plans are not to be considered as-built documents and are provided for reference only.

Key Plan - Basement (below grade)



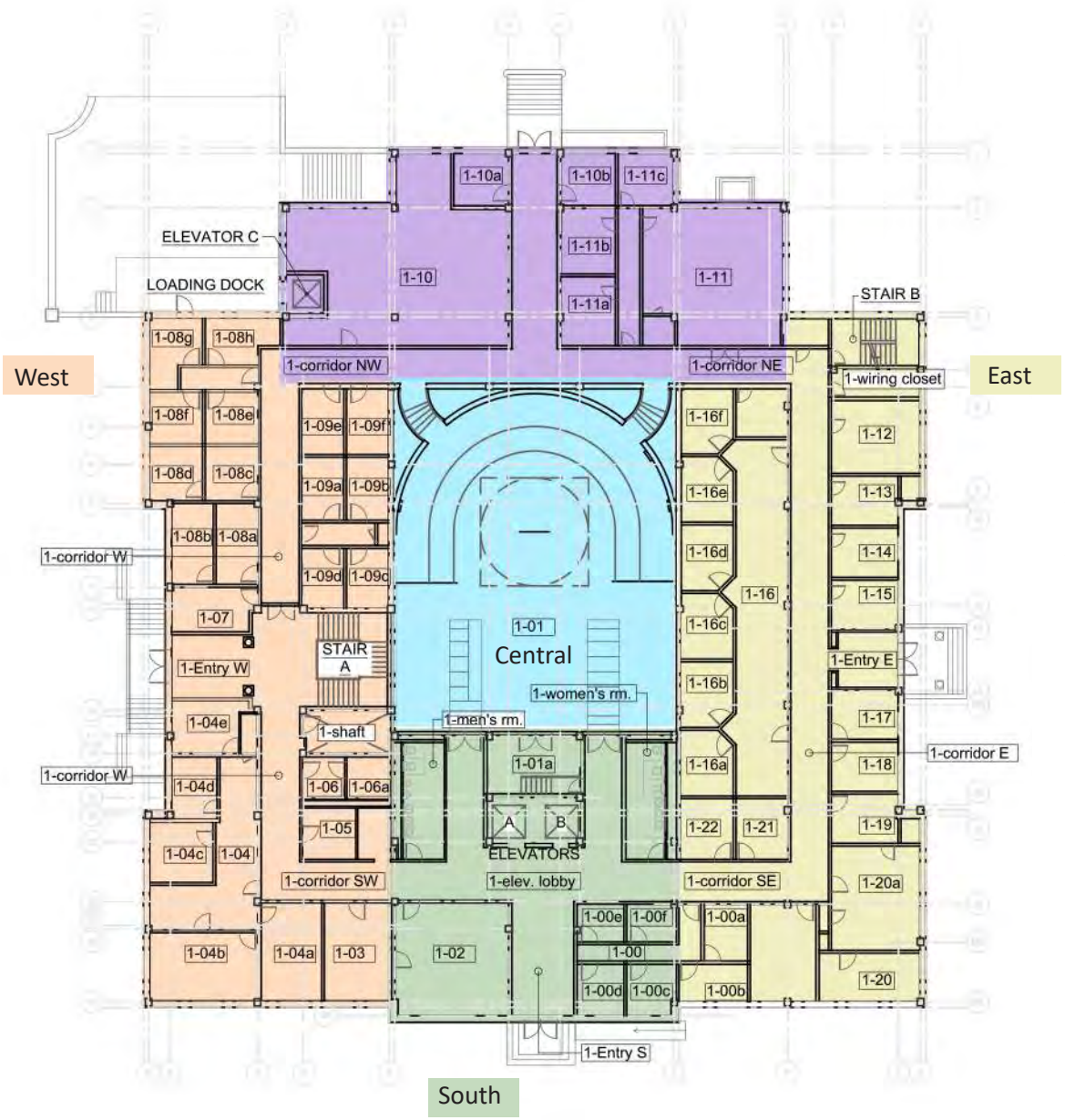
Key Plan - Ground Level (below grade)



Key Plan - First Floor (street level)

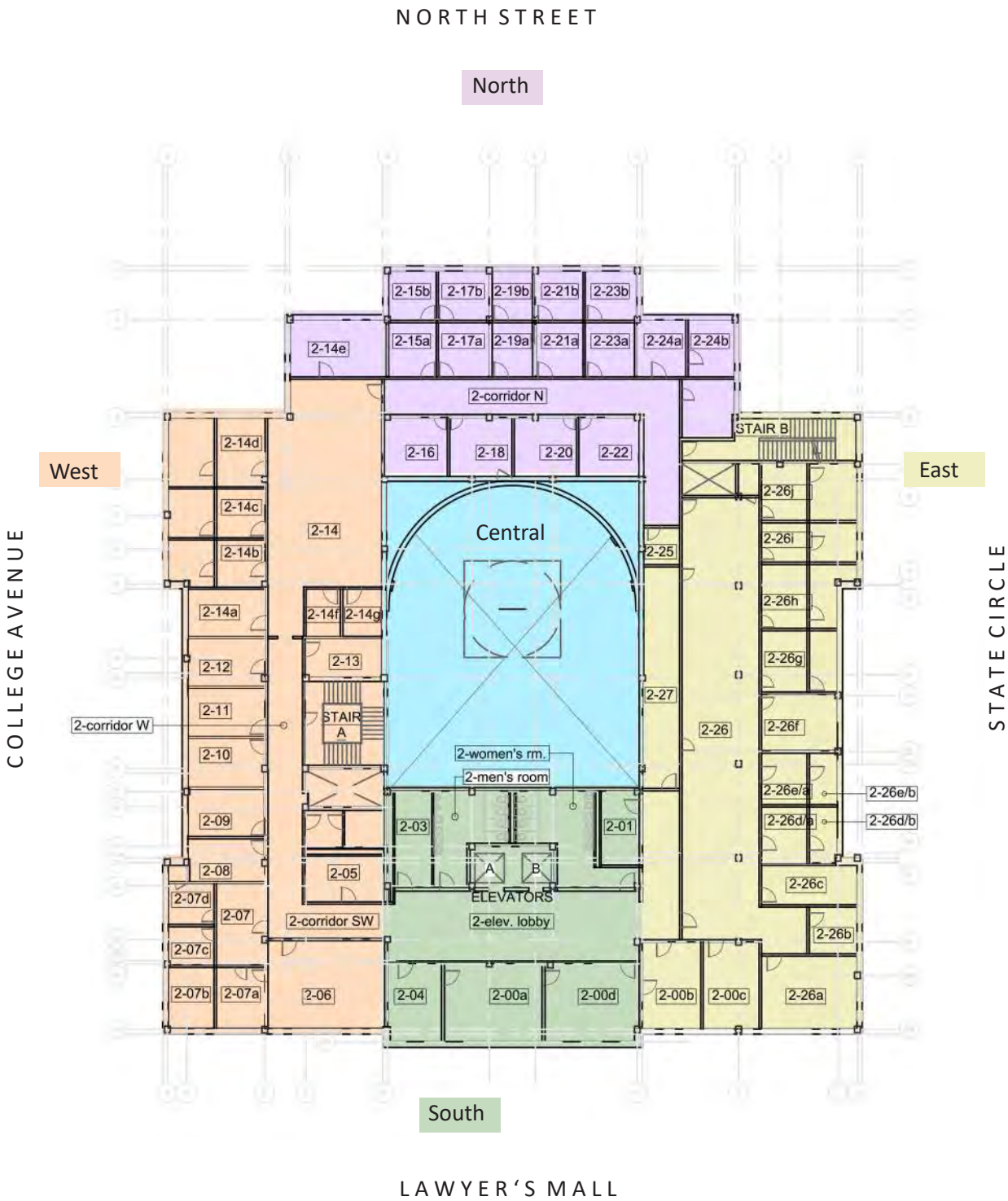
NORTH STREET

North

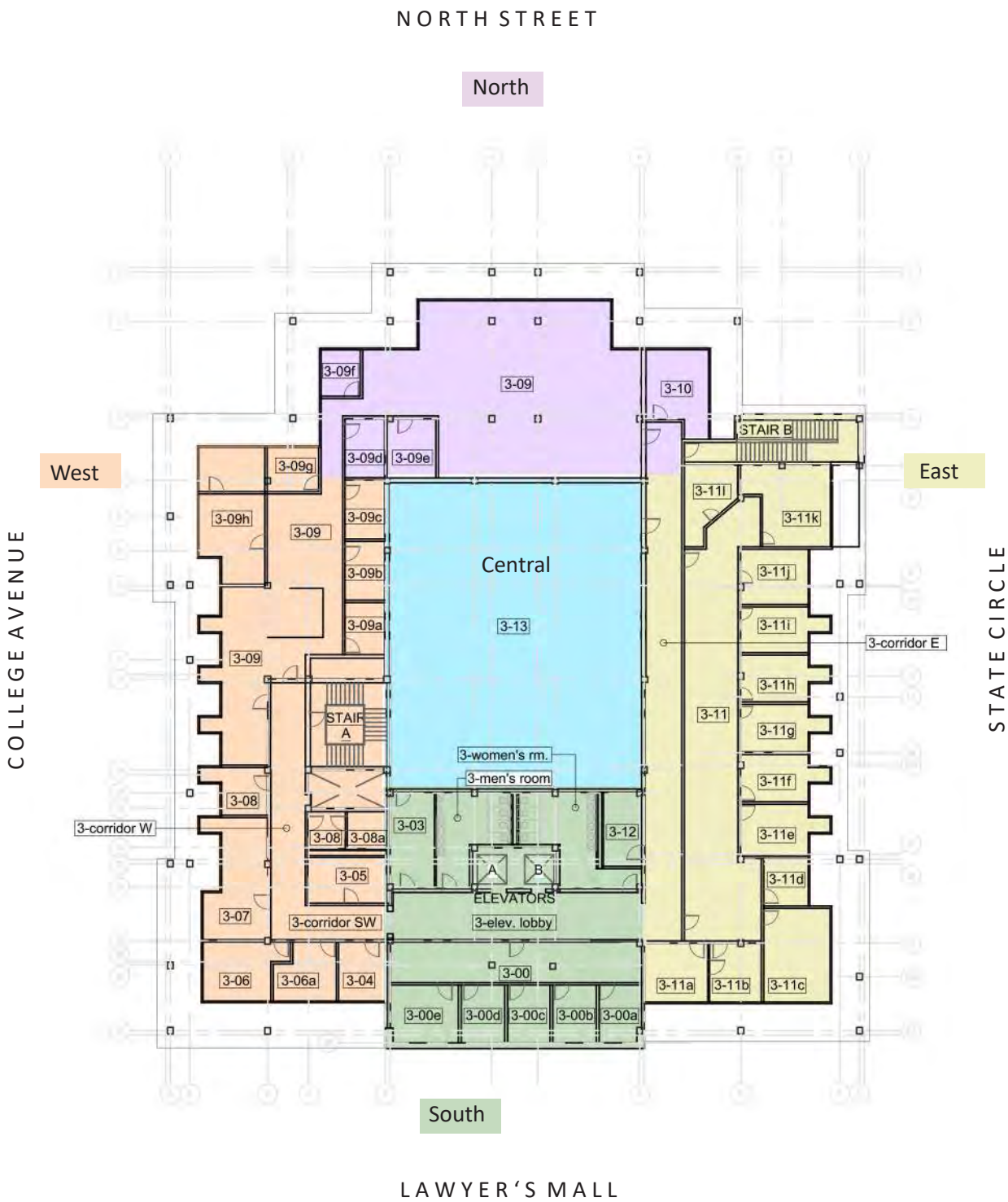


LAWYER'S MALL

Key Plan - Second Floor



Key Plan - Third Floor



4. ADA & BUILDING CODE ANALYSIS

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4.2 BUILDING CODE ANALYSIS.....45

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4. ADA AND BUILDING CODE ANALYSIS

Following is the Maryland Buildng Performance Standard - List of applicable codes and standards. Effective January 1, 2016

- 2015 IBC – International Building Code (IBC) 2015 with the Department of Housing and Community Development (DHCD) modifications (Ref: COMAR 05.02.07)

- 2015 IECC – International Energy Conservation Code 2015 (IECC) (Ref: COMAR 05.02.07)

- 2012 IGCC – International Green Conservation Code 2012 (IGCC) (Ref: COMAR 05.02.07)

- The modifications to the above referenced codes include the following codes and standards:

- 2015 IEBC – Maryland Building Rehabilitation Code (MBRC) incorporating the International Existing Building Code (IEBC) 2012 (Ref: COMAR 05.16)

- 2012 IPMC – Minimum Livability Code incorporating the International Property Maintenance Code (IPMC) 2012 (Ref: COMAR 05.02.03) - Effective September 17, 2012

- 2012 MAC – Maryland Accessibility Code (MAC) (Ref: COMAR 05.02.02)

- 2015 NFPA 101 Life Safety Code – The State Fire Prevention Code incorporating the National Fire Protection Association – NFPA 101 Life Safety Code 2015 (Ref: COMAR 29.06.01) with the State Fire Marshal modifications (Ref: COMAR 05.02.07; the State fire Prevention Code)

- For applicable electrical requirements, refer to the local electrical code and the National Electrical Code (NEC) as adopted and enforced by the State Fire Marshal, authorized fire officials, or building officials (Ref: COMAR 05.02.07; Public Safety Article Title 12, Subtitle 6, Annotated Code of Maryland)

- For the applicable requirements concerning the mechanical systems, refer to the local mechanical code and the mechanical code adopted pursuant to the provisions of Business Regulation Article, section 9A-205, Annotated Code of Maryland (Ref: COMAR 05.02.07; Business Regulation Article, section 9A-205, Annotated Code of Maryland)

- For the applicable requirements concerning the plumbing systems, refer to the local plumbing code and the plumbing code adopted pursuant to the provisions of Business Occupations and Professions Article, Title 12, Annotated Code of Maryland. National Standard Plumbing Code (Ref: COMAR 05.02.07: Business Occupations and Professions Article, Title 12, Annotated Code of Maryland)

- 2015 IBC, Chapter 24, Section 2406 – Safety glazing requirements set forth in the Public Safety Article, Title 12, Subtitle 4, Annotated Code of Maryland, are in addition to Chapter 24, Section 2406 of the IBC 2015 (Ref: COMAR 05.02.07; Public Safety Article, Title 12, Subtitle 4, Annotated Code of Maryland)

- 2015 IBC, Chapter 30 – Elevators and conveying systems requirements set forth in the IBC 2015, chapter 30 are in addition to and not instead of the requirements set forth in Public Safety Article, Title 12, Subtitle 8, Annotated Code of Maryland (Ref: COMMAR 05.02.07; Public Safety Article, Title 12, Subtitle 8, Annotated Code of Maryland)

4.1 ADA Compliance

The Maryland State Government uses the Maryland Accessibility Code for the standards of accessibility. Within that standard:

"(2) The federal regulations require that all State and local government-owned buildings comply with either:

(a) UFAS; or

(b) The 2010 ADA Standards, except that the elevator exemption set forth at §206.2.3 of the 2010 ADA Standards does not apply.

(3) Additional Maryland accessibility requirements for State and local government buildings are as follows:

(a) One in every four accessible parking spaces, but not less than one, shall be:

(i) Served by an access aisle at least 96 inches wide; and

(ii) Designated "Van Accessible" as specified in §D(4) of this regulation; and

(b) Accessibility for toilet stalls shall be assured as follows:

(i) The size of a wheelchair-accessible toilet stall shall be a minimum of 60 inches wide and 56 inches deep for wallhung water closets, and 59 inches deep for floor-mounted water closets;

(ii) In instances of alteration work when provision of this minimum stall size is structurally impracticable or when plumbing code requirements prevent combining existing stalls to provide space, the minimum dimensions of the wheelchair accessible stall are 48 inches wide and 66 inches deep for wall-hung water closets and 69 inches deep for floor-mounted water closets."

To document ADA compliance, the report references the 2010 ADA Standards for Accessible Design published by the Department of Justice.

The following summarizes areas that were found to be in non-compliance with the current ADA standards. This is not considered an ADA Audit and there is no claim that every instance of non-compliance was observed; the intent of this section is to provide an overview to conspicuous violations.

DOOR HARDWARE – 309.4

The most common deficit throughout the building regards the hardware for doors. A large majority of the doors are furnished with knobs, which appear to be the original door hardware for the building. These knobs do not meet the requirements of ADA Standards for Accessible Design.

This condition represents the majority of doors throughout the building; the report does not attempt to address all instances of this condition. As an example of this, refer to this report:

Room	Report #	Page #
Stair A - 3rd Floor	A242	385

SINKS - 606

The sinks in the break rooms on each floor of the building do not comply with the 2010 ADA Standards in that there is no knee or toe clearance under the sink as required by 606.2, controls for faucets do not comply with 309.

See the following reports for specific instances:

Room	Report #	Page #
B-13b Break Room	A-11	67
1-Staff Breakroom	A-103	232
2-01 Staff Kitchen	A-163	300
3-12 Kitchenette	(not shown)	

RAMPS - 405

The ramp in the Joint Hearing Room does not meet ADA regulations. Since it is the only circulation path for ADA access and therefore considered an Accessible Route, it is required to meet ADA regulations for access.

See the following reports for specific instances:

Room	Report #	Page #
Joint Hearing Room	A-79	232

MANEUVERING CLEARANCE AT WATER CLOSET -604

The restrooms on the basement level do not meet maneuvering clearance requirements at water closets.

See the following reports for specific instances:

Room	Report #	Page #
B- Women's & Men's Restrooms	A-24	79
1 - Women's & Men's Restrooms	(not shown)	
3 - Women's & Men's Restrooms	(not shown)	

MANEUVERING CLEARANCE AT DOORS - 404

There are multiple instances throughout the building which do not meet ADA regulations for the maneuvering clearances at doors.

See the following reports for specific instances:

Room	Report #	Page #
Stair D	A-69	169
1-11	A-84	214
Stair A	A-73	173
Stair B - 3rd floor	A-239	382

4.2 Building Code Analysis

- The building code analysis was done using IBC 2015.
- The building use is B (Business), non-sprinklered; the Joint Hearing Room is classified as A2 (Assembly) is considered an accessory space.
- Based on calcuations, the building is in compliance for allowable area and stories above grade. However, the building exceeds the height limit for non-sprinklered buildings.

		Full Building		
		allowed	provided	notes
	Sprinklered?		No	
601	Construction Type		IIB	
504.3	Allowable Building Height-NS	55’	68’	height to bottom of cupula
504.4	Allowable Stories Above Grade-NS	3	3	
506.2	Allowable Area Factor = 23,000			
	Allowable Area			
	A = At + (NS*If)xS			
	A=23,000 + (23,000*.51)*3			
	A=104,190	104,190 s.f.	77,843 s.f.	gross square feet excludes basement
	If = [F/P-0.25]W/30			
	= [473/621.5-0.25]30/30			
	= .51			

Building Code Analysis - Floor by Floor Analysis

- This report uses the International Buidling Code (IBC) 2015 as the applicable code.
- The following two pages are to be read as a single entity.
- The top row lists the floor, followed by the Use Group for that floor.
- Net floor area was calculated from the building plans.
- A code violation is indicated by a red square around that item.

		R=Required by Code P=Provided in building
--	Net Floor Area	calcuated from bldg plan
1004.1.2	Occupancy Allowance	shown as # occ per sq.ft.
	Occupant Load	shows calculated load
1005.3.1	Stairs	0.3" per occupant
1005.3.2	Other Egress Components	0.2" per occupant
1006	Number of Exits	occupant load 1-500
1010.1.1	Size of Doors	Clear opening width = 32"
1010.1.2	Door Swing	In direction of egress
1010.1.6	Landings at Doors	Not less than 44"
1010.1.10	Panic and fire exit hardware	Required in Group A
1010.1.9.4	Bolt locks	Not permitted at egress
1011.6	Stairway Landings	
1012.2	Ramp Slope	
1013	Exit Signs	
1014.2	Handrail Height	not less than 34"
1015.3	Guardrail Height	not less than 42"
1017	Exit Access Travel Distance	Maxiumum 200'
1023.9	Stairway Identification Signs	
2902.1	Plumbing Fixture Totals	TOTAL
		Female: 18 R | 17 P
		Male: 17R | 18 P

Basement		Ground		First						Second		Third	
Business		Business		Assembly		Business		Combined		Business		Business	
R	P	R	P	R	P	R	P	R	P	R	P	R	P
16,841 sq.ft.		17,210 sq.ft.		3,230 sq.ft.		16,154 sq.ft.		19,384sq.ft.		16,154 sq.ft.		13,251 sq.ft.	
100 /sq.ft.		100 /sq.ft.		(placard)		100 /sq.ft.				100 /sq.ft.		100 /sq.ft.	
169		**173**			**300**	**162**				**162**		**133**	
R	P	R	P	R	P	R	P	R	P	R	P	R	P
50.7"	192"	51.9"	192"	n/a		48.6"	n/a			48.6"	96"	39.9"	96"
33.8"	144"	34.6"	144"	60"		32.4"				32.4"	72"	26.6"	72"
2	4	2	4	2	4	2	4			2	2	2	2
32"	36"	32"	36"			32"	36"			32"	21"	32"	21"
	no		✓		✓		✓				no		✓
		yes	no										
no	--	no	--	yes	no	no	--			no	--	no	--
		not permitted	yes										
yes	yes	yes	no	n/a	--	yes				yes	no	yes	no
n/a	--	n/a	--	8%	18%	n/a	--			n/a	--	n/a	--
	✓		✓		✓		✓			yes	no		✓
										34"	32"	34"	32"
										42"	32"	42"	32"
	✓		✓		✓		✓				✓		✓
yes	no	yes	no	yes	--	yes	no			yes	no	yes	no
3	4	3	3					6	3	3	3	3	4
3	4	3	3					5	4	3	3	3	4

5. BUILDING CONDITIONS ASSESSMENT

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5.1 Architectural Assessment Summary

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5.1 ARCHITECTURAL ASSESSMENT SUMMARY

This section provides a summary of the architectural assessments. Pages are per floor, with associated reports listed for reference.

BASEMENT			General Condition Floors	Walls	Ceilings	ADA Compliance	Reference	Code Compliance	Reference	Report Number(s)
East										
	B-11	Print Shop	Critical	Critical	Critical	No		No	1010.1.2	A-1 - A-3
	B-11 b	Dark Room	Critical	Critical	Critical	No				A-4, A-5
	B-11 c	Print Counter	Poor	Poor	Poor	No				A-6, A-7
	B-13 a,c,d	Office	Good	Good	Good	No	309.4			A-8
	B-13 b	Break Room	Fair	Fair	Fair	No	309.4			A-10
							606.3			A-11
		Corridor SE	Fair	Fair	Fair					
North										
	B-10	Office	Poor	Poor	Poor	No	309.4			A-12
	B-11	Print Shop	Critical	Critical	Critical					A-13, A-14
	B-11 a	Office	Good	Critical	Critical					A-15
South										
	B-00	Legislative Info Desk	Fair	Fair	Fair	No	306.3			A-16, A-17
	B-14	Office	Poor	Poor	Poor	No	309.4			A-18, A-19
		Elevator Lobby	Fair	Fair	Good					A-20 - A-22
		Men's Room	Fair	Fair	Fair	No	309.4			A-23
							604			A-24
		Women's Lounge	Fair	Fair	Fair	No	309.4			A-23
		Women's Room	Fair	Fair	Fair	No	604			A-24
West										
	B-04-07	Offices	Fair	Fair	Poor	No	309.4			A-25, A-26
	B-08	Stacks	Fair	Fair	Poor	No				A-27, A-28
	B-08 a,b,d	Offices			Poor	No	309.4			A-29
		Corridor SW	Good	Good	Good					A-30
Stairs										
	East	Stair B	Critical	Good	Critical	No	309.4	No	1023.9	A-31, A-32
	North	Stair D	Poor	Good		No	309.4	No	1023.9	A-33
	South	Stair C	Good	Good	Good	No	309.4	No	1023.9	A-34
	West	Stair A	Poor	Good	Poor	No	309.4	No	1023.9	A-35

GROUND			General Condition Floors	Walls	Ceilings	ADA Compliant	Reference	Code Compliant	Reference	Report Number
Central										
North										
		Corridor North	Poor	Fair	Fair					A-37, A-38
	G-10 a	Women's Room	Fair	Fair	Fair		309.4			A-39, A-40
	G-10 b	Men's Room	Fair	Fair	Fair		309.4			A-39, A-40
	G-11	North Passage	Fair	Fair	Fair					A-41
	G-11 g	Storage	Poor	Poor	Poor		309.4			A-42
	G-12	OIS Servers	Fair	Fair	New					A-43, A-44
	G-13	OIS Servers	New	Fair	New					A-45, A-46
	G-14	OIS Offices	New	New	New	No	309.4			A-47
East										
	G-15	OIS Offices	Good	Good	Good	No	404.2.4			A-48
						No	309.4			
	G-18	Offices	Good	Good	Good	No	309.4			A-49
South										
		Elevator Lobby	Poor	Fair	Poor					A-50, A-51
	G-01c	Bill Services	Fair	Fair	Fair	No	309.4			A-52
		Women's Room	Fair	Fair	Fair					A-53
		Men's Room	Fair	Fair	Fair					A-53
West										
		Corridor West & SW	Poor	Good	Poor	No	309.4			A-54, A-55
	G-01a	Mail Service	Poor	Fair	Fair					A-56 - A-58
	G-01b	Bin & Fax Service	Fair	Fair	Fair	No	309.4			A-59
	G-07	Service	Critical	Critical	Critical	No	309.4			A-60, A-61
	G-11d	Old Kitchen	Poor	Critical	Critical	No	309.4			A-62 - A-64
Stairs										
	East	Stair B	Poor	Fair	Poor	No	309.4	No	1023.9	A-65 - A-67
	North	Stair D	Good	Good	Good	No	404.2.4	No	1023.9	A-68, A-69
	West	Stair A	Fair	Fair	Fair	No	309.4	No	1010.1.6	A-72
									1010.1.9.4	A-72
									1011.6	A-72
									1023.9	

FIRST			General Condition			ADA Compliant		Code Compliant		Report Number
			Floors	Walls	Ceilings		Reference		Reference	
Central										
		Joint Hearing Room	Fair	Good	Fair		309.4	No	1012.2	A-75 - A-79
									1010.1.10	
North										
	1 - 10	Shared Office	Poor	Poor	Poor	No				A-80,A-81
	1 - 11	Conference Room	Fair	Fair	Fair	No	309.4			A-82
	1 - 11 a-c	Offices	Fair	Fair	Fair	No	404.2			A-83, A-84
		Corridor North	Good	Good	Poor					A-85,A-86
East										
	1 - 12	Office	Fair	Fair	Poor	No	309.4			A-87, A-88
	1 - 13-15	Offices	Fair	Fair	Fair	No	309.4			A-89, A-90
	1 - 16 a-f	Offices	Fair	Fair	Fair	No	309.4			A-91
	1 - 16	Shared Office	Fair	Fair	Fair	No	309.4			A-92
	1 - 17-19	Offices	Fair	Fair	Poor	No	309.4			A-93, A-94
	1 - 20+20a	Office	Fair	Fair	Poor	No	309.4			A-95, A-96
	1-21,22	Offices	Fair	Fair	Fair	No	309.4			A-97
		Corridor East	Fair	Fair	Poor					A-98, A-99
		Entry East	Fair	Fair	Poor					A-100, A-101
		Staff Breakroom	Poor	Poor	Poor	No	606.2			A-102, A-103
South										
	1 - 00 a-f	Offices								A-104, A-105
	1 - 02-03	State Police	Poor	Poor	Poor	No	309.4			A-106, A-107
		Elevator Lobby	Fair	Fair	Poor					A-108, A-109
		Entry South	Poor	Fair	Poor					A-110
		Men's Room	Fair	Fair	Fair					A-111
		Women's Room	Fair	Fair	Fair					A-111
West										
	1-04 a-d	Offices	Fair	Fair	Poor	No	309.4			A-113, A-114
	1-05	Office	Good	Good	Good	No	309.4			A-115
	1-07	Office	Fair	Fair	Fair		309.4			A-116
	1-08 c-d	Offices	Fair	Fair	Fair	No	309.4			A-117
	1-08 e-h	Offices	Fair	Fair	Fair					A-116
	1-09 e-f	Offices	Fair	Fair	Fair					A-116
	1-09 a-d	Offices	Fair	Fair	Fair					A-116
		Corridor SW	Good	Good	Poor					A-118, A-119
		Corridor West	Good	Good	Poor					A-118, A-119
		Entry West	Fair	Fair	Poor					A-120, A-121
										A-122
Stairs										
	East	Stair B	Good	Good	Good			No	1023.9	A-123, A-124
	West	Stair A	Fair	Fair	Fair			No	1023.9	A-125, A-126

SECOND			General Condition			ADA Compliance		Code Compliant		Report Number
			Floors	Walls	Ceilings		Reference		Reference	
Central										
North										
	2-15…23	Office	Fair	Fair	Poor	No	309.4			A-132, A-133
	2-16…22	Office	Fair	Fair	Poor	No	309.4			A-134, A-135
	2-24 a-b	Office	Fair	Fair	Fair	No	309.4			A-136
		Corridor	Fair	Fair	Poor					A-137, A-138
East										
	2-00 b-c	Office	Poor	Fair	Fair	No	309.4			A-139 - A-141
	2-25	Office	Fair	Fair	Fair	No	309.4			A-142
	2-26 a	Office	Fair	Poor	Fair	No	309.4			A-143 - 1-145
	2-26 b-e	Office	Fair	Poor	Poor	No	309.4			A-146 - A-149
	2-26 f-j	Office	Fair	Poor	Poor	No	309.4			A-150 - A-153
	2-26	Shared Office	Fair	Poor	Poor	No	309.4			A-154 - A-156
	2-27	Corridor	Fair	Fair	Fair			No	1013	A-157 - A-158
South										
	2-00 a-d	Offices	Fair	Fair	Fair					A-159 - A-161
	2-01	Staff kitchen	Poor	Poor	Poor	No	606.2			A-162, A-163
		Elevator Lobby	Poor	Fair	Fair					A-164, 1-165
		Men's Room								A-166, A-167
		Women's Room								A-166, A-167
West										
	2-06	Conference	Fair	Fair	Poor	No	309.4			A-168 - A-170
	2-07 a-d	Offices	Fair	Fair	Fair	No	309.4			A-171, A-172
	2-08-12	Offices	Fair	Fair	Poor	No	309.4			A-173 - A-175
	2-13	Offices	Fair	Poor	Poor	No	309.4			A-176, A-177
	2-14 b-d	Offices	Fair	Poor	Fair	No	309.4			A-178 - A-181
	2-14	Shared Offices	Poor	Fair	Poor	No	309.4			A-182 - A-184
	2-14 f,g	Offices	Poor	Poor	Poor	No	309.4			A-185
		Corridor West & SW	Poor	Fair	Fair					A-186-A-187
Stairs										
	East	Stair B	Good	Good	Good	No	309.4		1023.9	A-188
	West	Stair A	Fair	Fair	Fair	No			1010.1.1	A-191
									1011.6	
									1014.2	A-190
									1015.3	A-190
		↓							1023.9	

THIRD			General Condition			ADA Compliant		Code Compliant		Report Number
			Floors	Walls	Ceilings		Reference		Reference	
North										
	3-09 d,e,f	Offices	Fair	Fair	Poor					A-195, A-196
	3-09	Shared Office	Fair	Fair	Poor					A-197, A-198
East										
	3-11 a,b	Offices	Fair	Fair	Poor	No	309.4			A-199, A-200
	3-11 e-i	Offices	Fair	Fair	Poor	No	309.4			A-203 - A-205
	3-11 k-l	Offices	Fair	Fair	Poor	No	309.4			A-206, A-207
	3-11	Shared Office	Fair	Fair	Poor					A-208, A-209
		Corridor East	Fair	Fair	Fair					A-210
South										
	3-00 a-e	Offices	Fair	Fair	Poor	No	309.4			A-211 - A-213
	3-00	Shared office	Fair	Fair	Poor	No	309.4			A-214, A-215
	3-12	Kitchenette	Fair	Fair	Fair	No	309.4			A-216
							606.2			A-217
		Elevator Lobby	Poor	Fair	Poor					A-218, A-219
		Men's Room				No	309.4			A-220, A-221
		Women's Room					309.4			A-220, A-221
West										
	3-04	Office	Fair	Fair	Poor	No	309.4			A-222, A-223
	3-05	Office	Fair	Fair	Poor	No	309.4			A-224, A-225
	3-06, 06a	Offices	Fair	Fair	Poor	No	309.4			A-226, A-227
	3-07	Print Office	Fair	Fair	Fair	No	309.4			A-228
	3-08	Office	Fair	Fair	Fair					
	3-09 d,e,f	Offices	Fair	Fair	Poor	No	309.4			A-229, A-230
	3-09 h	Copier	Fair	Fair	Poor		309.4			A-231, A-232
	3-09	Shared Office	Fair	Fair	Poor		309.4			A-233, A-234
		Corridor W & SW	Poor	Fair	Critical					A-235 - A-237
Stairs										
	East	Stair B	Good	Good	Good	No	309.4	No	1023.9	A-238
							404.2.4.1			A-239
	West	Stair A	Fair	Fair	Poor		309.4	No	1010.1.1	A-241, A-242
		↓							1011.6	
									1014.2	A-243
									1015.3	A-243
									1023.9	

5.2.1 Basement Level Conditions Assessment

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5.2.1 BASEMENT LEVEL CONDITIONS ASSESSMENT

5.2.1 a ARCHITECTURAL

Central

- The mechanical space is largely addressed in this report by the mechanical engineer, however, there is water damage noticeable on various surface materials throughout.
- The Library stacks are generally in Fair condition. The arrangement of the stacks does not meet ADA requirements in that the width between the stacks is less than 36 inches.

North

- The Print Shop is in critical condition throughout. The floors, walls, and ceilings all are significantly damaged; the ceiling along column line 2 shows significant deflection. There is water damage along the North exterior wall.
- Office B-11a has significant water damage along the North exterior wall which has damaged both the ceiling and the wall.
- Office B-10 is in Poor condition in terms of finishes, with water damage at the ceiling which can be seen in the south west corner at column G3. In addition it does not meet ADA requirements for door hardware.
- Stair D has substantial damage to the treads and is therefore considered in Poor condition; the walls and ceiling are in Good or Fair condition. The Stair does not meet ADA at this level for door hardware.
- The corridor in the North portion of the building is Critical condition in that all surfaces are significantly damaged due to excessive wear and use.

East

- The Print Shop is in Critical condition throughout with significant damage due to wear and use for floors, walls, and ceilings.
- The Dark Room at the south east corner of the Print Shop is also in Critical condition.
- The Print Counter, B-11c, is in Poor Condition related to its finishes, the trim at the counter is damaged, it is missing the service door, and it also violates ADA requirements regarding accessibility to the counter.
- Stair B is in Critical condition regarding the floor and ceiling. The vinyl tile on several treads is worn through to the substrate; and the ceilings and soffits exhibit signs of efflorescence, which is a surface condition where the salts of the masonry have migrated to the surface.
- At the south east corner of the building are several offices and a staff breakroom. The offices, B-13 a, b, and c appear to be recently refinished and are in Good condition. The breakroom is in Fair condition regarding the finish surfaces. The offices and breakroom (designated B-Breakroom on the plan) are not ADA compliant regarding door hardware. In addition, Office B-13a violates ADA requirements in regarding door clearance.

South

- The Elevator Lobby finishes are in Fair condition, and the ceiling is in Good condition, appearing to have recently been replaced.
- The trim of the lobby is in Poor condition due to significant damage at the casement in the south west corner.
- The Men's and Women's bathrooms are both in Fair condition regarding the finishes, the tile and other finishes do not have any damage however appear to be the original finishes. Neither bathroom meets ADA requirements for fixtures.
- Office B-14 is in Poor condition; the carpet is significantly worn, ceiling tiles are worn and damaged, and as is typical of offices throughout the building, wall plates at electrical fixtures are missing.
- Office B-00, the Legislative Desk, is in Fair condition with only one minor instance of damage to a ceiling tile.

West

- In the Library Stacks, the carpets and wall finishes are in Fair condition; there are no areas of damage, however the carpets appear to be approximately 10 – 15 years old. The ceilings are assessed in Poor condition due to water damage in several areas. There is water damage along column line G at the transition between the primary stack area in the West of the building and the Central portion of the stacks. There is also water damage along the west wall in the area dedicated to office desks. In addition, there is water damage in office 08d along the west wall.
- Corridor SouthWest is in Good condition; all finishes appear to have been recently replaced. There is a connection to a tunnel leading away from the building which was outside the scope of this report.
- Stair A has walls assessed in Good condition, however the floors and ceilings are in Poor condition. The floors have several areas where the floor finish is worn through to the substrate and the treads and significantly worn throughout. The door does not meet ADA requirements in terms of door hardware.
- Offices B-04 – 07 in the South West corner of the building, along with Offices B-08 a and b, adjacent to the stacks, all are assessed in Fair condition regarding floor and wall finishes. The carpet does not have any specific damage and appears to be approximately 10 – 15 years old. The ceilings were assessed in Poor condition due to multiple instances of damaged and discolored tiles.

5.2.1 b STRUCTURAL:

The basement, which is, below grade is concrete slab on grade. The only area that is not slab on grade is at mechanical trench below the basement level. The floor over the trench consists of concrete on metal deck spanning between trench walls.

East

- Visible evidence of water infiltration throughout the offices in the basement below the ground floor, in the form of water spots on ceiling tiles. Workers in the basement offices were using plastic tarps to protect equipment from water prior to the ongoing repairs.
- Room B-13d (Good Condition) - Some structural repairs are visible as white epoxy or caulking material. The area is directly below offices with water damage noted above, and directed by others prior to the field investigation in December 2017. The crack pattern observed here is consistent with un-repaired cracks on the west side, viewed from room B-08.

West

- In Basement library area B-08, we observed water spots in ceiling tiles and employees reported problems with water leaking into their workspace. A large duct runs parallel to the wall and the structure was not typically visible by removal of ceiling tiles because it was obstructed by the duct.
- Room B-08 (Poor Condition) - Crack in the ground floor joist flange where joists bear on exterior basement and retaining wall at line A. The crack pattern resembles cracks that have been repaired at the south side, visible from Room B-13d. This condition is estimated to be below an electrical closet viewed in Room G-01.
- Tunnel to the House and Senate Building - A hose and a bucket were placed by building occupants to collect water from the tunnel ceiling, at the end of basement corridor SW. The structure was not accessible due to finishes in the area. Though the joint itself is non-structural, it is possible that water has affected the concrete in the building wall, tunnel wall, tunnel roof, or all three.

5.2.1 c MEP

HVAC

Center

- The center core contains the main mechanical equipment including the air handling units, chilled and hot water pumps, steam to hot water converters, steam station and controls.
- The installed HVAC systems are from the 1970's and are very energy inefficient by today's standards and codes.
- The core equipment is past its ASHRAE useful life, indicating that replacement should be anticipated.

SouthWest

- This area includes ductwork, piping, terminal units, air devices and controls
- The terminal units are constant volume reheat type which are very inefficient and do not meet current codes.
- The piping serving the reheat coils is piped as a constant flow and does not take advantage of variable heating water flow requirements in the space.
- The perimeter of the building is provided with hot water fin-tube radiation under the windows. These units are not easily accessible for service and their operation can be compromised by placing furniture at the floor return.
- The air devices appear to need to be cleaned and air pattern controllers adjusted.

PLUMBING

East

- Duplex sump pump and associated piping look to be in fair condition and working fine. The equipment looks older and should be replace because of the life expectancy.
- Service sink with eyewash are in poor condition. They are old and stained with rust at the connection point of the sink and waste piping.

South

- The duplex sewage ejector and hot water generator are in fair condition. Both pieces of equipment are more than 10 years old and should be replace because of the life expectancy of each

ELECTRICAL

Southwest Quadrant

- The main service switchboard and the low voltage switchboard are original equipment, 40+ years old and should be replaced. Replacement parts for panels over 25 years of age can be difficult to find and if found, can be expensive.
- The 500kva transformer that serves the low voltage switchboard is original equipment, 40+ years

old and it should be replaced with a new energy efficient transformer, which can reduce electricity consumption and it also operates at lower temperatures, which in turn, reduces the amount of required cooling.

- Motor Control Center MCC00001 is original equipment, 40+ years old and should be replaced. It is missing several compartment covers. Due to it's age, replacement covers and parts for this MCC will be difficult to locate.
- Motor Control Center EMSS0005 is original equipment, 40+ years old and should be replaced. This MCC is in poor condition.
- Panelboards BLB and BPB are original equipment, 40+ years old and they should be replaced. Replacement parts and circuit breakers for panels over 25 years of age can be difficult to find and if found, can be expensive.
- The 50kva transformer that serves Panels BPB is original equipment, 40+ years old and it should be replaced with a new energy efficient transformer, which can reduce energy consumption and it also operates at lower temperatures, which in turn, reduces the amount of required cooling.
- Panelboards EB and EC are original equipment, 40+ years old and they should be replaced. Replacement parts and circuit breakers for panels over 25 years of age can be difficult to find and if found, can be expensive.
- The 30kva transformer that serves Panels EC is original equipment, 40+ years old and it should be replaced with a new energy efficient transformer, which can reduce energy consumption and it also operates at lower temperatures, which in turn, reduces the amount of required cooling.

Southeast Quadrant

- Motor Control Center BMSS is original equipment, 40+ years old. This MCC was inaccessible. NEC required clearances for electrical equipment must be maintained at all time. From visual inspection this MCC is in poor condition and it should be replaced.

Northeast Quadrant

- Panelboards BLA and BPA (sections 1, 2 & 3) are original equipment, 40+ years old and they should be replaced. Replacement parts and circuit breakers for panels over 25 years of age can be difficult to find and if found, can be expensive.
- The 50kva transformer that serves Panels BPA is original equipment, 40+ years old and it should be replaced with a new energy efficient transformer, which can reduce energy consumption and it also operates at lower temperatures, which in turn, reduces the amount of required cooling.

<u>FIRE SUPPRESSION</u>

Southeast Quadrant

- The print / copy area in the basement is protected by a Halon fire suppression system. This type of system is no longer recommended and it should be removed and replaced with a more appropriate system.

5.2.1 d TELECOMMUNICATIONS

Basement-West

- Main Telecom Room for Fiber – rack is filled to capacity with no available space for new equipment.
- No security / no access control to protect this room which contains critical network equipment and fiber.

5.2.2 Basement Conditions Reports

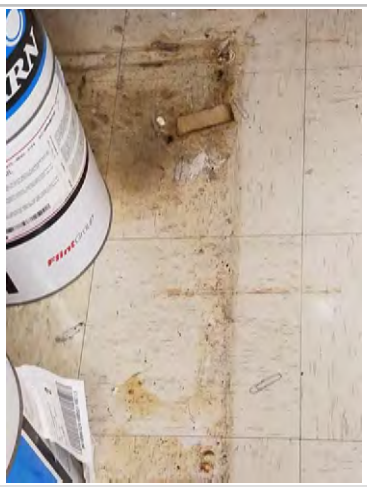
Click here to return to section directory....pg. 49

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-1
Room Identification:	B - 11 Print Shop	Condition:	Critical
Element Type:	Floors		
Element SubType:	N/A		

Photo Documentation



Typical ceiling condition

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

1. The floors throughout the print shop show extreme damage and wear. Damage appears to be a combination of significant wear in addition to damage from equipment and materials used for printing.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-2
Room Identification:	B - 11 Print Shop	Condition:	Critical
Element Type:	Walls		
Element SubType:	N/A		

Photo Documentation

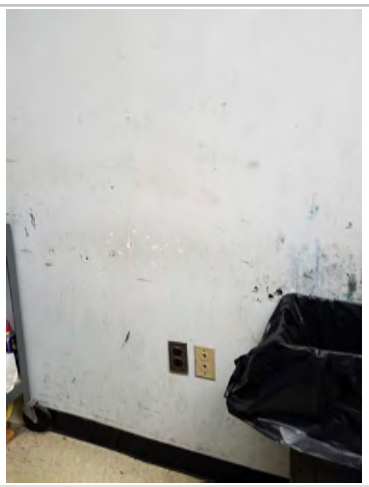


Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

1. While significant portions of the walls are in fair to poor condition, there are several areas which are severely damaged by use putting it in the critical condition category.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-3
Room Identification:	B - 11 Print Shop	Condition:	Critical
Element Type:	Ceiling		
Element SubType:	N/A		

Photo Documentation

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

1. While significant portions of the ceilings are in fair to poor condition, there are several areas which are severely damaged by use putting it in the critical condition category.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-4
Room Identification:	B - 11b Dark Room	Condition:	Critical
Element Type:	Walls		
Element SubType:	N/A		

Photo Documentation

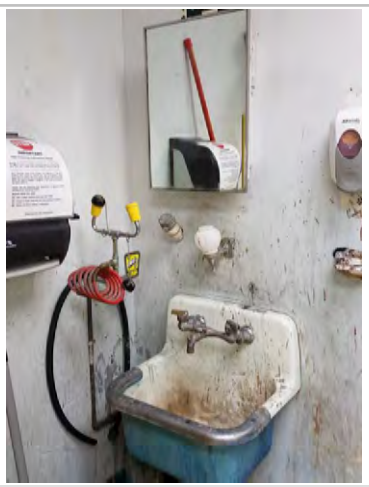


Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

1. The walls of the Dark Room are significantly damaged from use and materials.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-5
Room Identification:	B - 11b Dark Room	Condition:	Critical
Element Type:	Ceiling		
Element SubType:	N/A		

Photo Documentation

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

1. The ceiling of the Dark Room is significantly damaged due to age and use.
2. The ceiling appears to have water damage due to equipment concealed by the ceiling tiles.

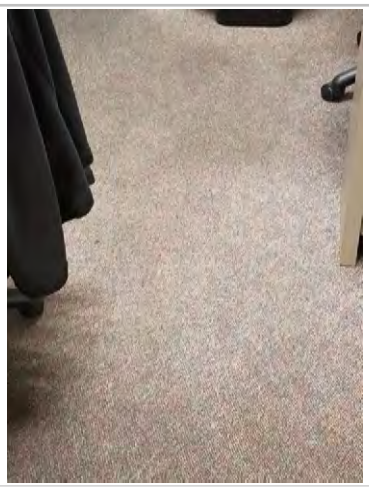
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-6
Room Identification:	B - 11c Print Counter	Condition:	Poor
Element Type:	Miscellaneous		
Element SubType:	Floors, Walls & Ceilings		

Photo Documentation



Typical floor in Print Counter

Figure 1 Clear Image 1

Typical ceiling damage

Figure 2 Clear Image 2

Element Description

1. The surface materials in B-11 c Print Counter are in poor condition
2. While areas of the ceiling are in fair condition, spot damage throughout puts it in Poor Condition.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-7
Room Identification:	B - 11c Print Counter	Condition:	Critical
Element Type:	Finishes / Details		
Element SubType:	Counter & Service door		

Photo Documentation

Ledge damage at Print Counter

Figure 1 Clear Image 1

Disused hardware in print counter

Figure 2 Clear Image 2

Element Description

1. The laminate at the print counter is missing at the corner.
2. The counter window is missing, with the hardware still in place.

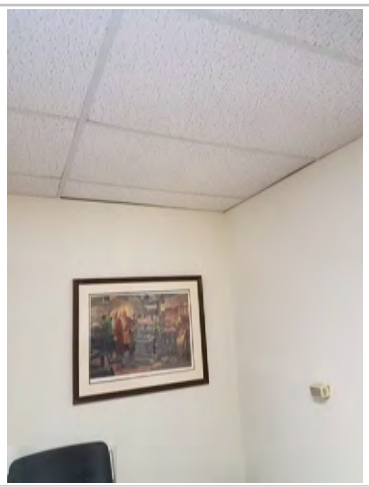
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

Condition / Element Report

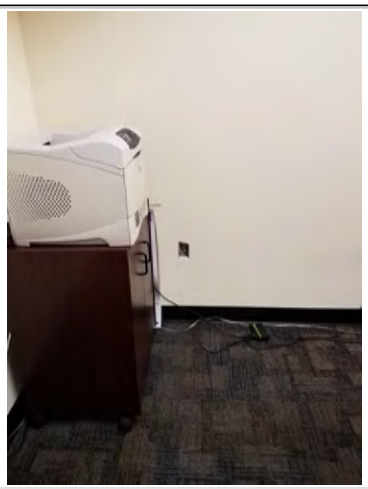
Discipline:	Architectural - Interiors	Report Number:	A-8
Room Identification:	B - 13 a,c,d Offices	Condition:	Good
Element Type:	Miscellaneous		
Element SubType:	Floors, Walls & Ceilings		

Photo Documentation



Typical Ceiling and Wall in Offices B-13 a,c,d

Figure 1 Clear Image 1



Typical Carpet, missing wall plate

Figure 2 Clear Image 2

Element Description

1. These offices appear to have been recently refinished so the surface materials in B-13 a,c,d Offices are in good to new condition.
2. Missing receptacle plates are typical.

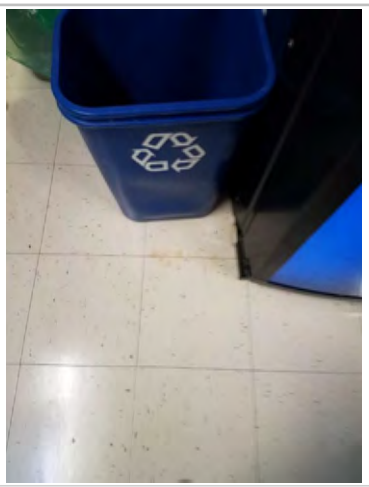
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

Condition / Element Report

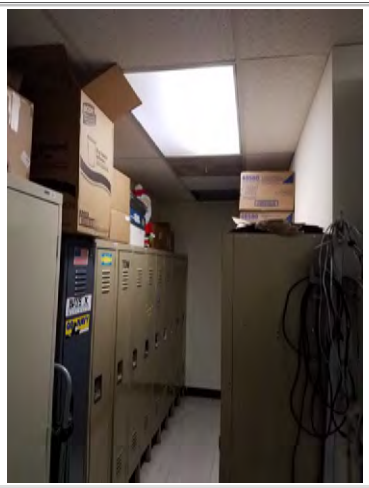
Discipline:	Architectural - Interiors	Report Number:	A-10
Room Identification:	B - 13 b Break Room	Condition:	Fair
Element Type:	Miscellaneous		
Element SubType:	Floors, Walls & Ceilings		

Photo Documentation



Typical floor in Break Room

Figure 1 Clear Image 1



Typical walls and ceilings in Break Room

Figure 2 Clear Image 2

Element Description

1. The floors of the Break Room are in fair condition showing average wear for use and age.
2. See sheet A-11 for issues with ADA non-compliance.

References: A-11 Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-11
Room Identification:	B - 13 b Break Room	Condition:	ADA Consideration
Element Type:	Miscellaneous		
Element SubType:	Sink		

Photo Documentation

Sink in B 13b Break Room

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

1. The sink in the Break Room does not meet the 2010 ADA Accessibility Requirements as follows:
   1a. The sink does not provide knee clearance per the requirements of 606.2.

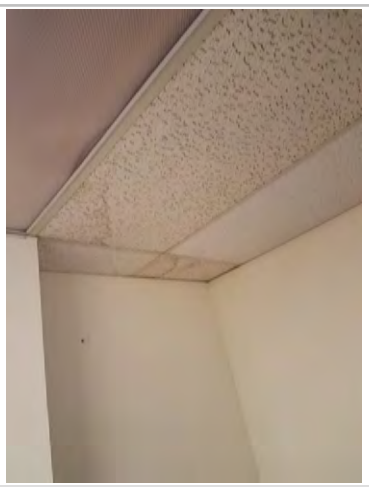
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	North

Condition / Element Report

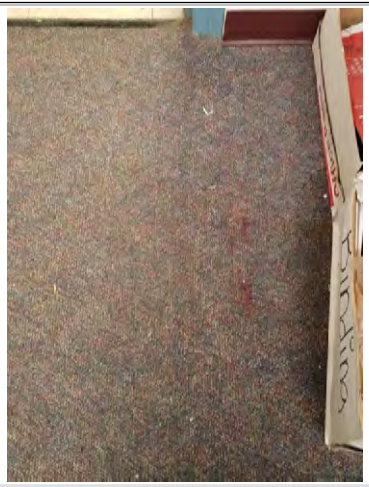
Discipline:	Architectural - Interiors	Report Number:	A-12
Room Identification:	B - 10 Office	Condition:	Poor
Element Type:	Miscellaneous		
Element SubType:	Walls, Ceilings & Floors		

Photo Documentation



Typical ceiling tiles with water damage

Figure 1 Clear Image 1



Typical carpet

Figure 2 Clear Image 2

Element Description

1. This office, located off of the North service corridor, appears to be used primarily for storage.
2. The ceiling tiles are in poor condition due to age, use, and apparent water damage from equipment concealed by tiles.
3. The carpet is in poor condition due to age and use.
4. The walls are generally in fair condition.

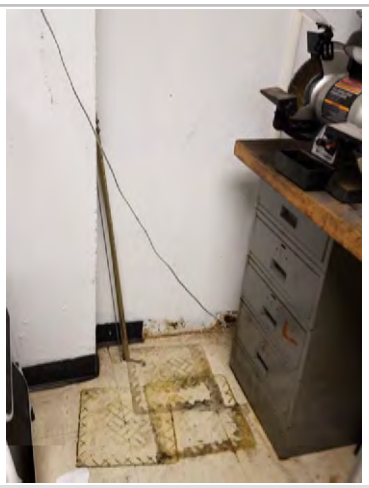
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	North

Condition / Element Report

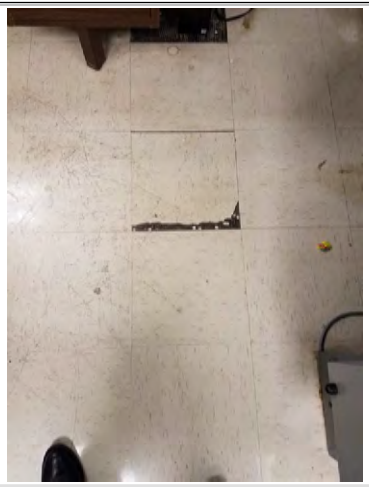
Discipline:	Architectural - Interiors	Report Number:	A-13
Room Identification:	B - 11 Print Shop	Condition:	Critical
Element Type:	Floors		
Element SubType:	N/A		

Photo Documentation



Typical ceiling tiles with water damage

Figure 1 Clear Image 1



Typical carpet

Figure 2 Clear Image 2

Element Description

1. The floor tiles are in critical condition due to a combination of heavy use, damage from equipment, and damage from materials.

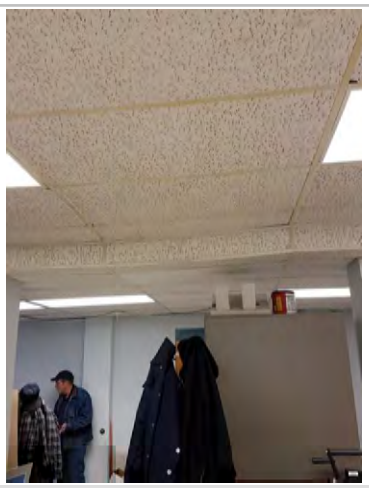
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	North

Condition / Element Report

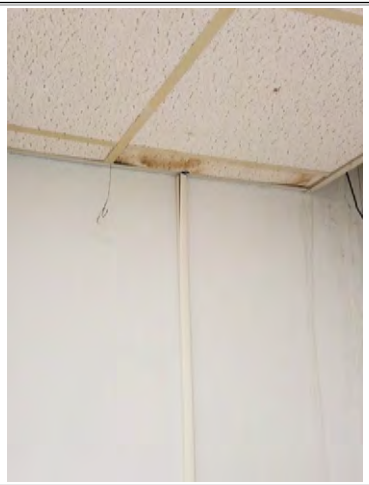
Discipline:	Architectural - Interiors	Report Number:	A-14
Room Identification:	B - 11 Print Shop	Condition:	Critical
Element Type:	Miscellaneous		
Element SubType:	Walls & Ceiling		

Photo Documentation



Ceiling tile sag at dropped ceiling

Figure 1 Clear Image 1



Water damage at ceilings and walls

Figure 2 Clear Image 2

Element Description

1. While the typical ceiling tiles are in fair or poor condition, this element as listed as "Critical" due to water damage at the perimeter and significant sagging at the transition to the dropped ceiling height.
2. The walls are in similar condition and thus listed as "Critical".

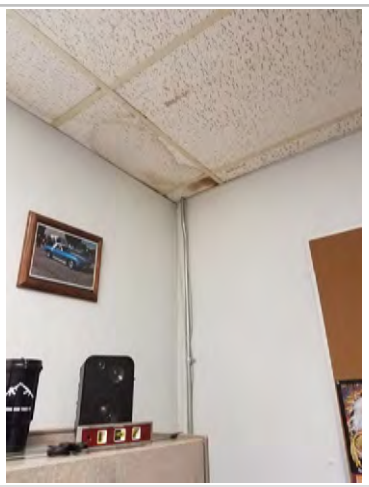
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	North

Condition / Element Report

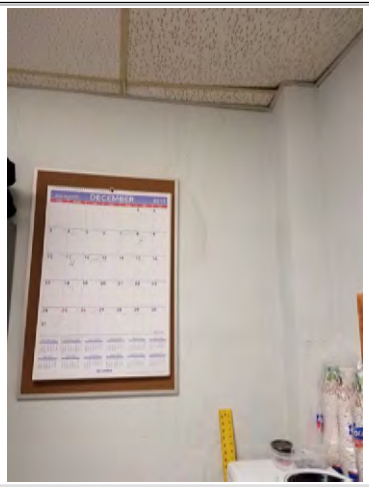
Discipline:	Architectural - Interiors	Report Number:	A-15
Room Identification:	B - 11 a Office	Condition:	Critical
Element Type:	Miscellaneous		
Element SubType:	Walls, Floor, and Ceiling		

Photo Documentation



Water damage at ceilings and walls

Figure 1 Clear Image 1



Water damage at ceilings and walls

Figure 2 Clear Image 2

Element Description

1. While the typical ceiling tiles are in fair or poor condition, this element as listed as "Critical" due to water damage at the perimeter. This water damage is consistent with the findings of other disciplines finding water infiltration along the north foundation wall.
2. The walls are in similar condition and thus listed as "Critical".
3. The floors are not shown but generally are in "Good" Condition as the carpet appears to have been recently installed.

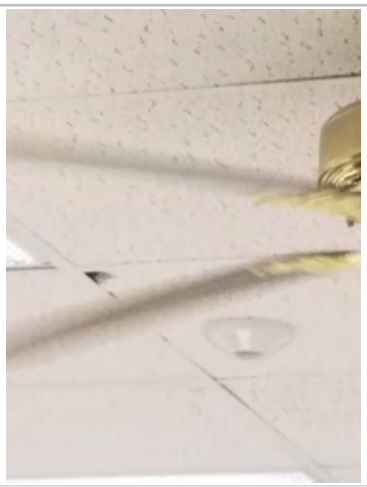
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	South

Condition / Element Report

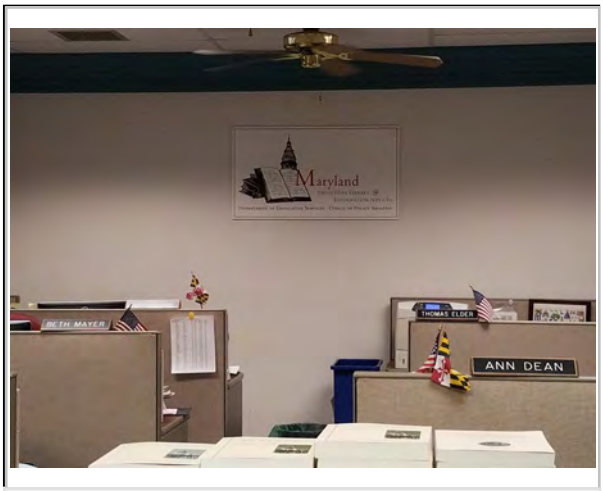
Discipline:	Architectural - Interiors	Report Number:	A-16
Room Identification:	B - 00 Leg. Info. Desk	Condition:	Fair
Element Type:	Miscellaneous		
Element SubType:	Walls, Floor, and Ceiling		

Photo Documentation



Spot damage at ceiling tiles

Figure 1 Clear Image 1



General view from the elevator lobby

Figure 2 Clear Image 2

Element Description

1. The surface materials at the Legislative Information Desk are in fair condition with only minimal sporadic damage to ceiling tiles.

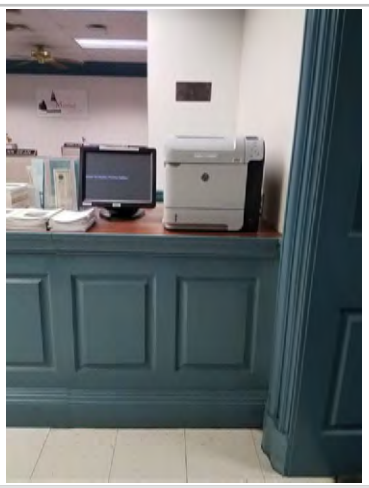
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	South

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-17
Room Identification:	B - 00 Leg. Info. Desk	Condition:	Good
Element Type:	Finishes / Details		
Element SubType:			

Photo Documentation



Legislative information desk

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

1. The wood paneling and surface veneer of the Information Desk are in "Good" condition; this is typical of the wood trim throughout the building.

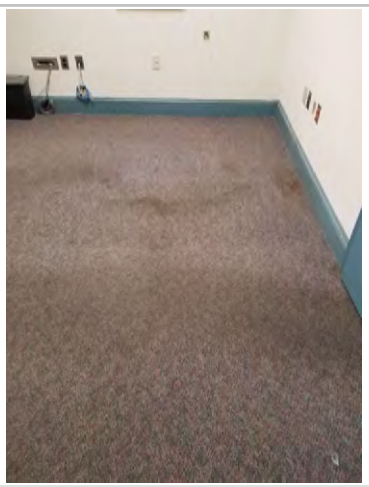
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	South

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-18
Room Identification:	B - 14 Office	Condition:	Poor
Element Type:	Miscellaneous		
Element SubType:	Walls and Ceiling		

Photo Documentation



Typical carpet condition

Figure 1 Clear Image 1

Typical wall damage and missing wall plate

Figure 2 Clear Image 2

Element Description

1. The carpet is in "Poor" condition showing significant wear due to age and use.
2. The wall is listed as "Poor" due to damage typical throughout and several missing wall plates.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	South

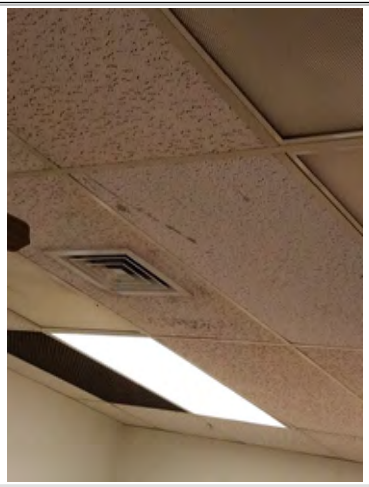
Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-19
Room Identification:	B - 14 Office	Condition:	Poor
Element Type:	Ceiling		
Element SubType:	N/A		

Photo Documentation

Typical ceiling tiles

Figure 1 Clear Image 1



Typical ceiling tiles

Figure 2 Clear Image 2

Element Description

1. The ceiling tiles are in "Poor" condition showing significant wear due to age and use.

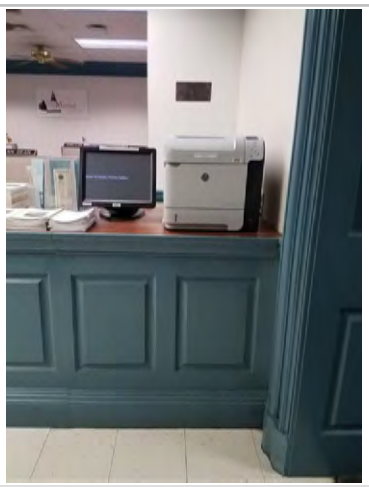
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	South

Condition / Element Report

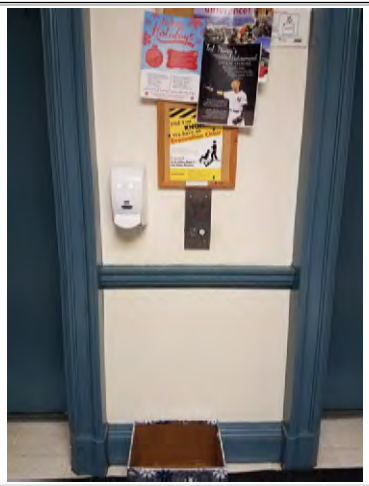
Discipline:	Architectural - Interiors	Report Number:	A-20
Room Identification:	B - Elevator Lobby	Condition:	Fair
Element Type:	Miscellaneous		
Element SubType:	Floors and Walls		

Photo Documentation



Typical floor

Figure 1 Clear Image 1



Typical wall

Figure 2 Clear Image 2

Element Description

1. The floors and walls in the elevator lobby are in "Fair" condition showing typical wear for age and use with no significant issues to report.

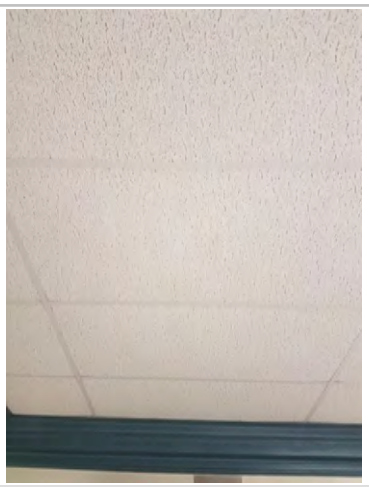
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	South

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-21
Room Identification:	B - Elevator Lobby	Condition:	Good
Element Type:	Ceiling		
Element SubType:	N/A		

Photo Documentation



Typical Ceiling tile

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

1. The ceiling tile in the Elevator Lobby is in "Good" condition

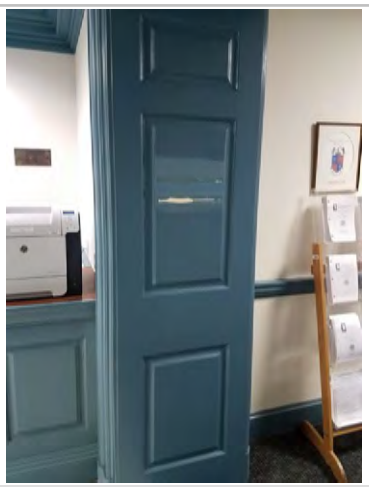
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	South

Condition / Element Report

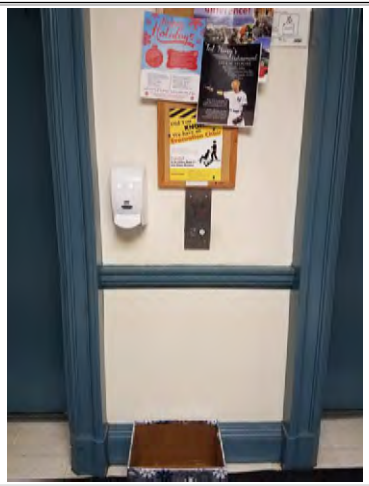
Discipline:	Architectural - Interiors	Report Number:	A-22
Room Identification:	B - 14 Office	Condition:	Poor
Element Type:	Finishes / Details		
Element SubType:			

Photo Documentation



Damage at cased opening

Figure 1 Clear Image 1



Typical trim throughout in "Fair" condition

Figure 2 Clear Image 2

Element Description

1. Although the majority of the wood paneling and trim throughout the Elevator Lobby is in "Good" Condition, which is similar to paneling and trim throughout the building, this element is listed in "Poor" condition due to significant damage at the panelling of the cased opening.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	South

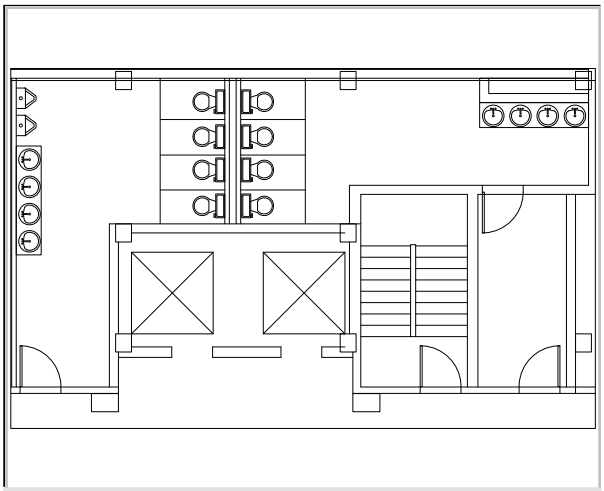
Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-24
Room Identification:	B - Restrooms	Condition:	ADA Consideration
Element Type:	Miscellaneous		
Element SubType:	fixtures		

Photo Documentation

No ADA stall

Figure 1 Clear Image 1



Plan diagram of existing conditions

Figure 2 Clear Image 2

Element Description

1. The bathrooms located in the basement do not meet ADA requirements.
   1a. 604.3.1 Size. Clearance around a water closet shall be 60 inches (1525 mm) minimum measured perpendicular from the side wall and 56 inches (1420 mm) minimum measured perpendicular from the rear wall.
   1b. The current layout of the bathroom stalls

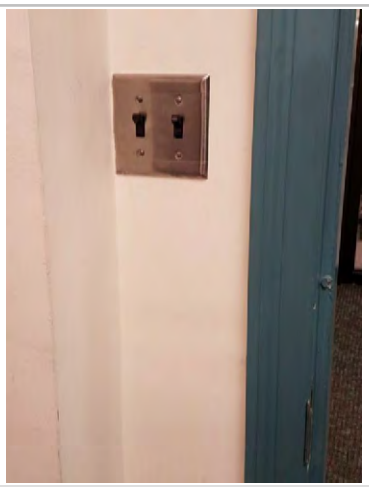
References: A-23 Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

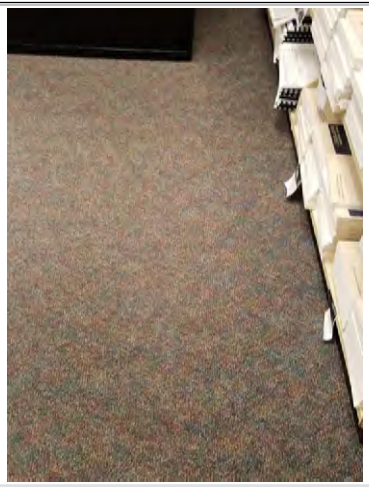
Discipline:	Architectural - Interiors	Report Number:	A-25
Room Identification:	B - 04-07 Offices	Condition:	Fair
Element Type:	Miscellaneous		
Element SubType:	Floors & Walls		

Photo Documentation



Typical wall

Figure 1 Clear Image 1



Typical carpet

Figure 2 Clear Image 2

Element Description

1. The walls and carpet of B-04-07 Offices are in "Fair" condition; showing typical wear for their age with no significant issues to report.

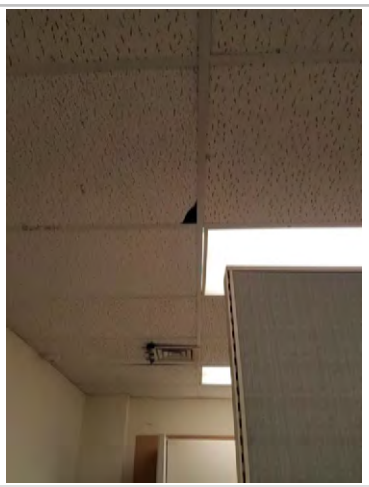
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

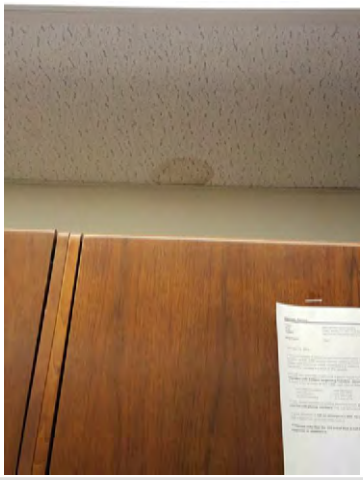
Discipline:	Architectural - Interiors	Report Number:	A-26
Room Identification:	B - 04-07 Offices	Condition:	Poor
Element Type:	Ceiling		
Element SubType:	N/A		

Photo Documentation



Ceiling tile damage

Figure 1 Clear Image 1



Water damage at ceiling tile

Figure 2 Clear Image 2

Element Description

1. The ceiling tile in these offices is listed in "Poor" condition due to multiple damaged tiles and several areas of water damage, possibly from concealed equipment.

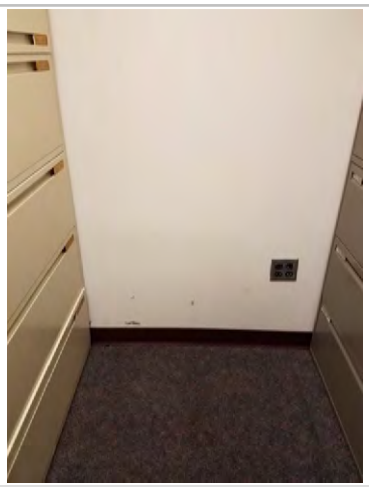
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

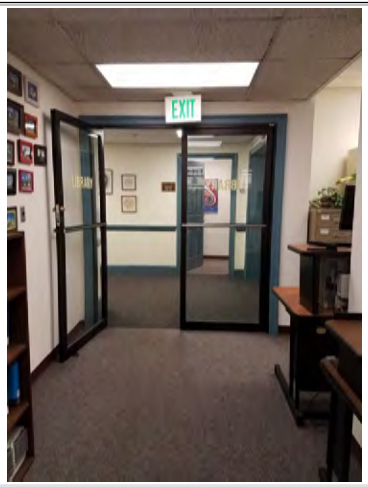
Discipline:	Architectural - Interiors	Report Number:	A-27
Room Identification:	B - Stacks	Condition:	Fair
Element Type:	Miscellaneous		
Element SubType:	Floors & Walls		

Photo Documentation



Typical minor wall damage throughout

Figure 1 Clear Image 1



Typical carpet condition

Figure 2 Clear Image 2

Element Description

1. The floors are typically in "Fair" condition showing typical wear for use and age.
2. The floors are typically in "Fair" condition, with several areas showing minor abrasive damage throughout.

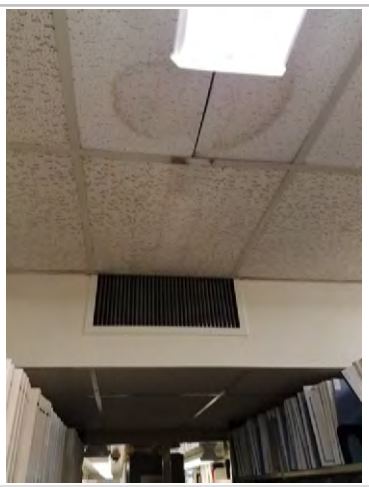
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-28
Room Identification:	B - Stacks	Condition:	Poor
Element Type:	Ceiling		
Element SubType:	N/A		

Photo Documentation



View looking East into Central Stacks

Figure 1 Clear Image 1

View looking West towards exterior wall

Figure 2 Clear Image 2

Element Description

1. While the majority of the ceiling tiles in the Stacks area are in "Fair" or even "Good" condition, this element is listed as "Poor" due to at least two areas of significant water damage. The damage along the West wall is particularly significant in that it is apparently due to a larger system issue with water infiltration along this portion of the building.

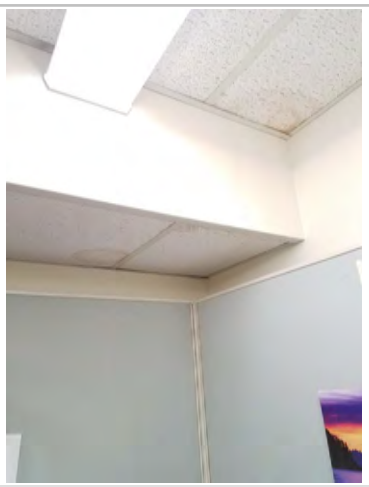
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-29
Room Identification:	B - 08a, 08b,08d Offices	Condition:	Poor
Element Type:	Ceiling		
Element SubType:	N/A		

Photo Documentation



View looking Northwest towards exterior wall

Figure 1 Clear Image 1

View looking West towards exterior wall

Figure 2 Clear Image 2

Element Description

1. While the majority of the ceiling tiles in this Office area are in "Fair" or even "Good" condition, this element is listed as "Poor" due to several areas of significant water damage.
2. The walls are in "Fair" condition.
3. The carpet is in "Fair" condition.

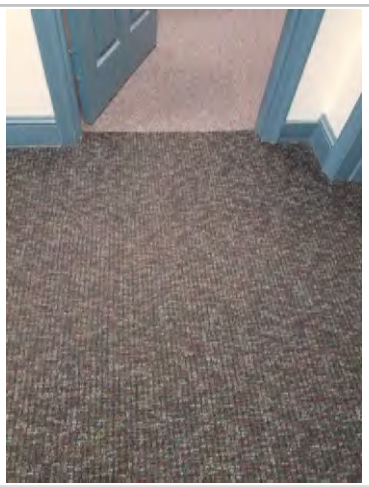
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

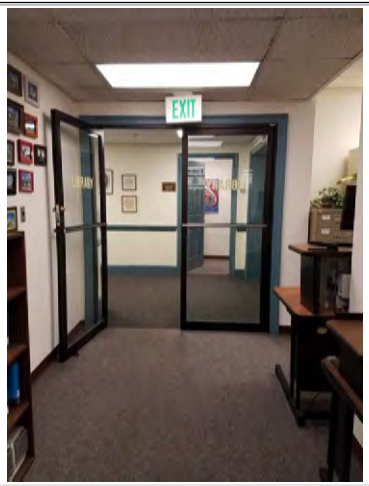
Discipline:	Architectural - Interiors	Report Number:	A-30
Room Identification:	B - Corridor SW	Condition:	Good
Element Type:	Select the element type		
Element SubType:	Floors, walls, ceiling		

Photo Documentation



Typical carpet condition

Figure 1 Clear Image 1



View through stacks to corridor

Figure 2 Clear Image 2

Element Description

1. The carpet in the SW Corridor is in "Good" condition, appearing to have been recently installed and to have significant life left.
2. The walls are also in "Fair" to "Good" condition.
3. The ceilings, not shown, are in "Good" condition, similar to the Basement Elevator Lobby.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-31
Room Identification:	B - Stair B	Condition:	Critical
Element Type:	Miscellaneous		
Element SubType:	Floors & Walls		

Photo Documentation

Treads at first run of Stair B

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

1. The typical treads are in "Poor" condition due to excessive wear, however this element is listed as "Critical" due to the severe damage at at least one tread where the surface material has been completely degraded.
2. The walls, not shown, are typically in "Good" condition.

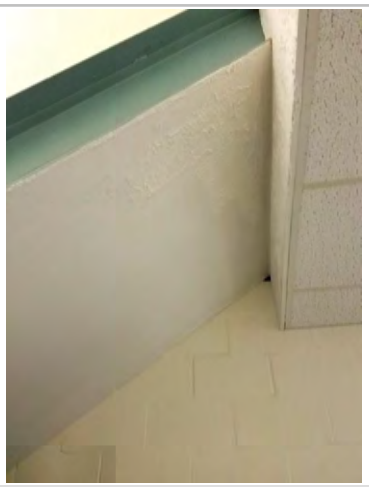
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-32
Room Identification:	B - Stair B	Condition:	Critical
Element Type:	Ceiling		
Element SubType:	N/A		

Photo Documentation



Underside of Stair B

Figure 1 Clear Image 1

Bulkhead of Stair B

Figure 2 Clear Image 2

Element Description

1. The ceiling of Stair B at the Basement Level is listed as "Critical" due to significant efflorescence both on the underside of the stair and at the bulkhead.
2. The ceiling tiles under the Ground floor level appear to be in "Good" condition.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	North

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-33
Room Identification:	B - Stair D	Condition:	Poor
Element Type:	Floors		
Element SubType:	N/A		

Photo Documentation

Treads at first run of Stair D

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

1. The typical treads are in "Poor" condition due to excessive wear.
2. The walls, not shown, are typically in "Good" condition.

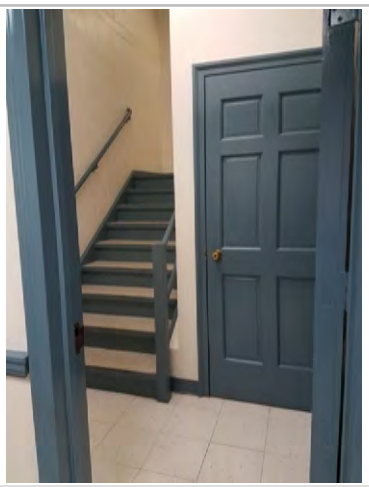
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	South

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-34
Room Identification:	B - Stair C	Condition:	Good
Element Type:	Select the element type		
Element SubType:	Floors, walls, ceiling		

Photo Documentation



Stair C

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

1. All surfaces of Stair C appear to be in "Good" condition.

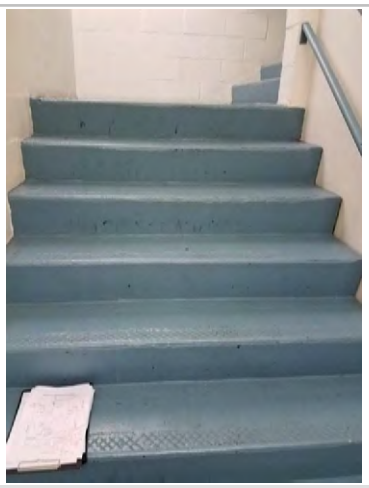
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-35
Room Identification:	B - Stair A	Condition:	Poor
Element Type:	Miscellaneous		
Element SubType:	Floors & Walls		

Photo Documentation



Treads at first run of Stair D

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

1. The typical treads are in "Poor" condition due to excessive wear.
2. The floor is also in "Poor" condition, with spot areas of severe damage.
2. The walls, not shown, are typically in "Good" condition.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-36
Room Identification:	B - 08	Condition:	Poor
Element Type:	Ceiling		
Element SubType:	N/A		

Photo Documentation

Figure 1 Clear Image 1

Approximate location of water-stained ceiling tiles

Figure 2 Clear Image 2

Element Description

Evidence of water infiltration was observed in ceiling tiles in the library on the basement level. Various ceiling tiles had water stains emanating from the exterior wall suggesting water infiltration; it was stated that other ceiling tiles in the library showing signs of water infiltration had previously been replaced.

Given the library's location below room G-01, we speculate that the water infiltration is due to the leak in the utility closet directly above, but recommend water testing to identify the leak source. Please see the G-01a report for information regarding condition of existing leak and potential source.

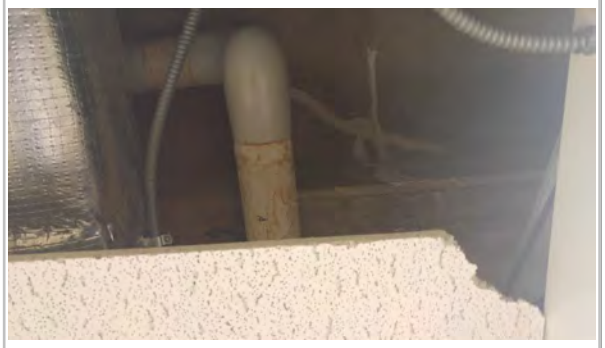
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

Condition / Element Report

Discipline:	Structural	Report Number:	S - 1
Room Identification:	B - 13d	Condition:	Good
Element Type:	Ceiling		
Element SubType:			

Photo Documentation



Underside of G-18a, observed from B-13d.

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

Shows the floor of G-18a, as viewed at ceiling of B-13d, near column U-27.
Some structural repairs are visible as white epoxy or caulking material. The repair was directed by others prior to the field investigation in December 2017. The crack pattern observed here is consistent with un-repaired cracks on the west side, viewed from room B-08.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

Discipline:	Structural	Report Number:	S - 2
Room Identification:	B - 08	Condition:	Poor
Element Type:	Ceiling		
Element SubType:			

Photo Documentation

Underside of G-08 floor joist flange, observed from B-08.

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

Shows a crack in the ground floor joist flange of G-08, as viewed at ceiling of B-08, near column A-9.
Cracks are visible in joist flanges where joists bear on exterior basement and retaining wall at line A. The crack pattern resembles cracks that have been repaired on the opposite side of the building, visible from Room B-13d.
This condition is estimated to be below and electrical closet viewed in Room G-01.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	Central

Condition / Element Report

Discipline:	MEP - Mechanical	Report Number:	1
Room Identification:	B - 12	Condition:	Poor
Element Type:	HVAC - Primary		
Element SubType:	Air Handlers		

Photo Documentation

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

The existing air handling units are older constant volume units and are inefficient by modern standards. The filtration provided is not up to current ASHRAE standards. The controls will not provide for optimum comfort. Due to age, 40 years, failure and capital replacement should be anticipated.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	Central

Condition / Element Report

Discipline:	MEP - Mechanical	Report Number:	2
Room Identification:	B - 12	Condition:	Poor
Element Type:	HVAC - Primary		
Element SubType:	Steam Conversion System		

Photo Documentation

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

The steam-to-hot-water conversion system is 40 years old. Steam and hot water pipe are the most susceptible to internal corrosion and reduction of wall thickness over time. It is also recommended that the pipe be inspected by a certified testing agency, if this hasn't been done recently, to verify condition. The insulation on the piping systems has deteriorated exposing the steam and condensate piping to external rust and corrosion. based on a visual inspection, piping failure should be anticipated.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	Central

Condition / Element Report

Discipline:	MEP - Mechanical	Report Number:	3
Room Identification:	B - 12	Condition:	Poor
Element Type:	HVAC - Primary		
Element SubType:	Chilled Water Piping		

Photo Documentation

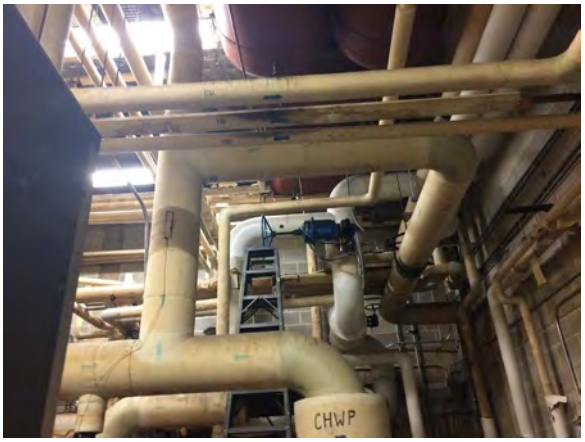


Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

The chilled water system is 40 years old. The piping scheme is not efficient by modern standards. It is also recommended that the pipe be inspected by a certified testing agency, if this hasn't been done recently, to verify its condition. It is recommended to replace the piping system due to age.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	Central

Condition / Element Report

Discipline:	MEP - Mechanical	Report Number:	4
Room Identification:	B - 12	Condition:	Fair
Element Type:	HVAC - Primary		
Element SubType:	Liebert Supplemental Unit		

Photo Documentation

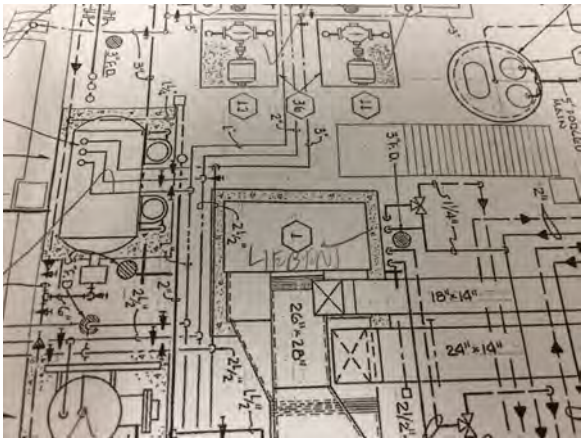
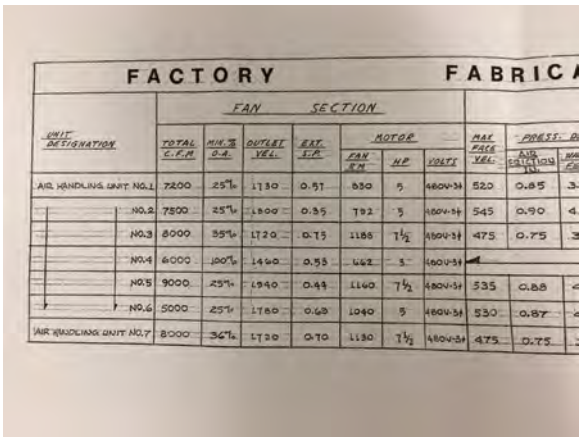


Figure 1 Clear Image 1



FACTORY FABRIC

UNIT DESIGNATION	FAN SECTION: TOTAL C.F.M.	MIN. % O.A.	OUTLET VEL.	EXT. S.P.	MOTOR: FAN R.P.M.	HP	VOLTS	MAX FACE VEL.	PRESS. D: AIR	
AIR HANDLING UNIT NO.1	7200	25%	1730	0.57	830	5	460V-3ϕ	520	0.85	3
NO.2	7500	25%	1800	0.35	792	5	460V-3ϕ	545	0.90	4
NO.3	8000	35%	1720	0.75	1185	7½	460V-3ϕ	475	0.75	3
NO.4	6000	100%	1460	0.53	662	5	460V-3ϕ			
NO.5	9000	25%	1940	0.49	1160	7½	460V-3ϕ	535	0.88	4
NO.6	5000	25%	1760	0.63	1040	5	460V-3ϕ	530	0.87	4
AIR HANDLING UNIT NO.7	8000	36%	1720	0.70	1130	7½	460V-3ϕ	475	0.75	3

Figure 2 Clear Image 2

Element Description

AHU-1, depicted by note 1 above, was replaced 10 years ago and is reported by current occupants to be functioning adequately. Mean service life listed by ASHRAE is 20 - 25 years for these type air handlers.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	North

Condition / Element Report

Discipline:	MEP - Mechanical	Report Number:	
Room Identification:	B - 21	Condition:	Poor
Element Type:	HVAC - Primary		
Element SubType:	Air Handlers		

Photo Documentation

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

Due to age, 1976, units should be replaced.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	North

Condition / Element Report

Discipline:	MEP - Mechanical	Report Number:	
Room Identification:	B - 21	Condition:	Poor
Element Type:	HVAC - Primary		
Element SubType:	Air Handlers		

Photo Documentation

Figure 1 Clear Image 1

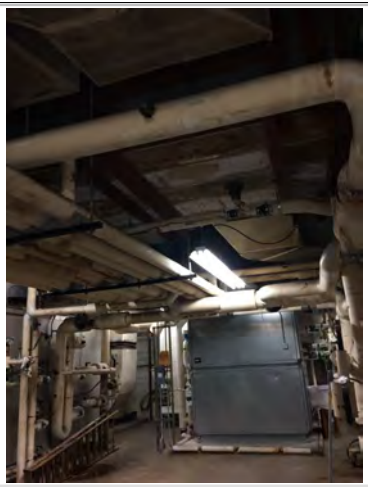


Figure 2 Clear Image 2

Element Description

The primary air handling units serve constant volume reheat terminals. This type of system is very energy inefficient by modern standards as compared to a VAV system, VRV system or low temperature system. The filtration provided does not meet current ASHRAE standards. The controls are not optimum for this occupancy. These units a from the mid 1970's and should be replaced.

References: Clear Text Box

Department of Legislative Services Building
90 State Circle, Annapolis, MD 21401

Key Plan Location: North

Condition / Element Report

Discipline:	MEP - Mechanical	Report Number:	M-6
Room Identification:	B - 21	Condition:	Poor
Element Type:	HVAC - Primary		
Element SubType:	Chilled Water		

Photo Documentation

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

The building chilled water systems is a constant flow system the pumps the same amount of chilled water regardless of the building load. This type of system is 40 years old very inefficient by modern standards. It appears that several pump motors have been replaced. As part of any system upgrades replacement should be considered.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	Central

Condition / Element Report

Discipline:	MEP - Mechanical	Report Number:	10
Room Identification:	B - 12	Condition:	Poor
Element Type:	HVAC - Primary		
Element SubType:	Heat Exchangers		

Photo Documentation

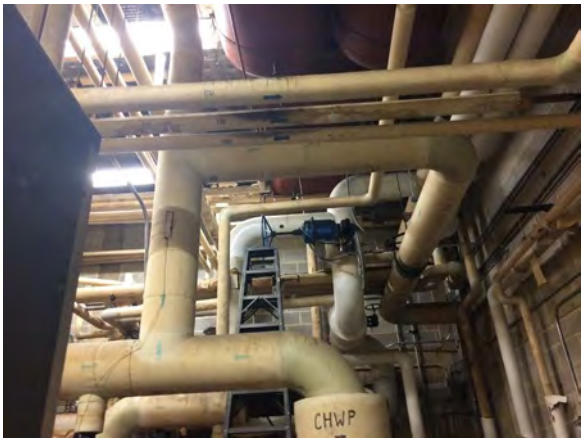


Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

The building utilizes district steam to provide heat. As part of this process steam-to-hot water heat exchangers are used to convert the steam to heating water. The type of equipment is subject to deterioration and corrosion from the inside. This current system is inefficient, over 40 years old and beyond their useful service life. Replacement should be anticipated.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	Central

Condition / Element Report

Discipline:	MEP - Mechanical	Report Number:	11
Room Identification:	B - 12	Condition:	Poor
Element Type:	HVAC - Primary		
Element SubType:	Expansion Tanks		

Photo Documentation

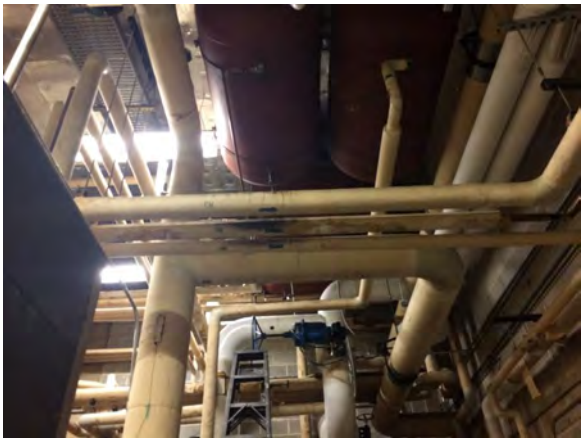


Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

The current system utilizes expansion tanks to account for the expansion of water when it is heated. These system do not appear to be membrane tanks and will allow air to be entrained in the the system, resulting in corrosion. These tanks are over 40 years old and beyond their useful service life. The expansion tanks should be replaced as part of an overall system upgrade.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	Central

Condition / Element Report

Discipline:	MEP - Mechanical	Report Number:	12
Room Identification:	B - 12	Condition:	Poor
Element Type:	HVAC - Primary		
Element SubType:	Steam PRVs		

Photo Documentation

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

The Pressure Reducing Station (PRV) is an integral part of the heating system as it takes the district steam, that is generated elsewhere, and reduces the pressure to that needed for the steam-to-hot-water conversion system. due to the duty of these devices they are susceptible to internal corrosion and reduction of operations over time. The controls for the PRV system in not optimized. The insulation has deteriorated exposing the systems to external rust and corrosion. Based on a visual inspection, failure should be anticipated. The steam pressure reducing stations are more than 40 years old and beyond their useful service life and should be replaced.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	Central

Condition / Element Report

Discipline:	MEP - Mechanical	Report Number:	13
Room Identification:	B - 12	Condition:	Poor
Element Type:	HVAC - Primary		
Element SubType:	Condensate Receivers		

Photo Documentation

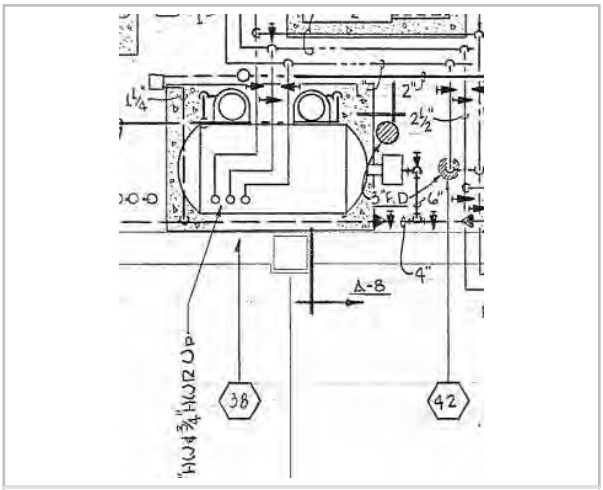


Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

The steam condensate receivers are more than 40 years old and beyond their useful service life. Steam condensate and pumping systems are the susceptible to internal corrosion. It appears that the condensate pumps have been recently replaced however the receiver appears to be original from the mid 1970's. The insulation on the condensate piping systems is missing where the pumps where replaced. Replacement should be considered.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	Central

Condition / Element Report

Discipline:	MEP - Mechanical	Report Number:	15
Room Identification:	B - 12	Condition:	Poor
Element Type:	HVAC - Primary		
Element SubType:	Control System		

Photo Documentation

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

The building is a mix of original pneumatic controls and some electronic upgrades. The controls do not allow for optimum occupant comfort or efficient system monitoring or trouble shooting resulting in increased maintenance costs. The system would benefit from an complete replacement to modern building management system with energy monitoring/metering. It is recommended to replace the control system with a multi-pont, zoned DDC system.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	Central

Condition / Element Report

Discipline:	MEP - Mechanical	Report Number:	16
Room Identification:	B - 12	Condition:	Poor
Element Type:	HVAC - Primary		
Element SubType:	Insulation		

Photo Documentation

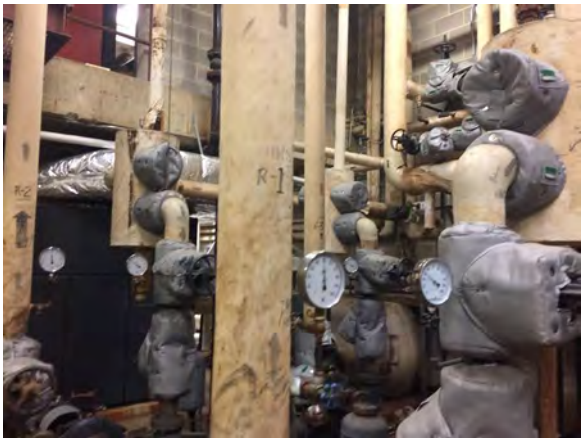


Figure 1 Clear Image 1

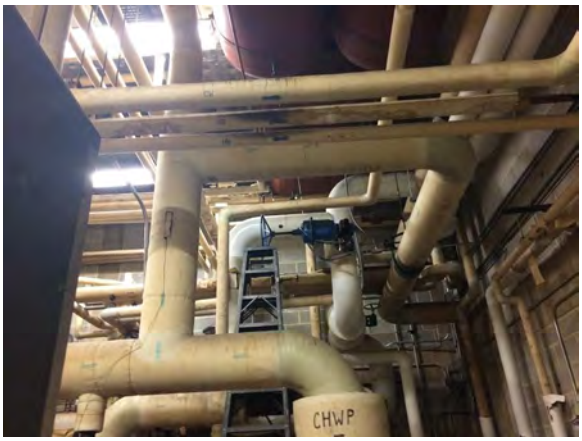


Figure 2 Clear Image 2

Element Description

The existing insulation is in a poor state of repair. We found instances of missing insulation, missing vapor barriers resulting in surface corrosion and energy loss. There have been some repairs done where piping components have been replaced. Insulation is beyond 40 years old, past it ASHAE useful life and in need of replacement.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	Central

Condition / Element Report

Discipline:	MEP - Electrical	Report Number:	1
Room Identification:	B - 12	Condition:	Poor
Element Type:	Electrical Service Distribution		
Element SubType:	Main Switchboard		

Photo Documentation

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

Main Switchboard - 480Y/277V, 3 Phase, 4-Wire, 2000 amps, is original equipment, 40+ years old and should be replaced. Parts are not readily available for this equipment and repairs can be costly and faulty switches/breakers that are not readily available can lead to extended periods of downtime on affected circuits.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	Central

Condition / Element Report

Discipline:	MEP - Electrical	Report Number:	2
Room Identification:	B - 12	Condition:	Poor
Element Type:	Electrical Service Distribution		
Element SubType:	LV Switchboard		

Photo Documentation

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

Low Voltage Switchboard - 208Y/120V, 3 Phase, 4-Wire, 1600 amps, is original equipment, 40+ years old and should be replaced. Parts are not readily available for this equipment and repairs can be costly and faulty switches/breakers that are not readily available can lead to extended periods of downtime on affected circuits.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	Central

Condition / Element Report

Discipline:	MEP - Electrical	Report Number:	3
Room Identification:	B - 12	Condition:	Poor
Element Type:	Electrical Service Distribution		
Element SubType:	Dry Type Transformer		

Photo Documentation

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

500kva Dry Type Transformer - 480/208/120 3 phase, 4-wire, is original equipment, 40+ years old and should be replaced with new energy efficient transformer to comply with the 2016 Department of Energy and Maryland High Performance Buildings Program requirements.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	Central

Condition / Element Report

Discipline:	MEP - Electrical	Report Number:	4
Room Identification:	B - 12	Condition:	Poor
Element Type:	Miscellaneous		
Element SubType:	Motor Control Center - 000		

Photo Documentation

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

Motor Control Center MCC00001 - 480/277 volt 3 phase, 4-wire, 300 amp, is original equipment, 40+ years old and should be replaced. Parts are not readily available for this equipment and repairs can be costly and faulty switches/breakers that are not readily available can lead to extended periods of downtime on affected circuits.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	Central

Condition / Element Report

Discipline:	MEP - Electrical	Report Number:	5
Room Identification:	B - 12	Condition:	Poor
Element Type:	Miscellaneous		
Element SubType:	Motor Starter SWBD - EMSS		

Photo Documentation

Figure 1 Clear Image 1

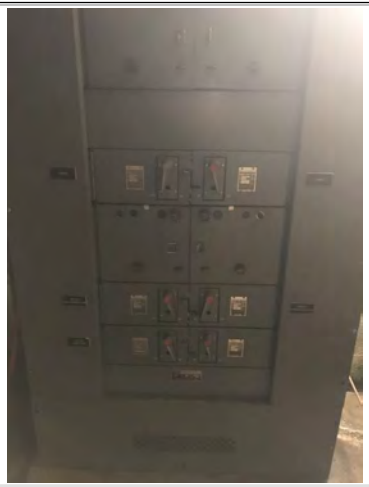


Figure 2 Clear Image 2

Element Description

Motor Starter Switchboard EMSS0005 - 480/277 volt 3 phase, 4-wire, 100 amp, is original equipment, 40+ years old and should be replaced.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	Central

Condition / Element Report

Discipline:	MEP - Electrical	Report Number:	6
Room Identification:	B - 12	Condition:	Poor
Element Type:	Miscellaneous		
Element SubType:	Motor Starter SWBD - BMSS		

Photo Documentation

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

Motor Starter Switchboard BMSS - 480/277 volt 3 phase, 4-wire, 100 amp, was inaccessible, however, it is original equipment, 40+ years old and should be replaced. Parts are not readily available for this equipment and repairs can be costly and faulty switches/breakers that are not readily available can lead to extended periods of downtime on affected circuits.
Code required clearances must be maintained at all times.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	Central

Condition / Element Report

Discipline:	MEP - Electrical	Report Number:	7
Room Identification:	B - 11	Condition:	Poor
Element Type:	Electrical Service Distribution		
Element SubType:	Panel BPA-1		

Photo Documentation

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

Panelboard BPA-1 - 120/208 volt 3 phase, 4-wire, 200 amp, is original equipment, 40+ years old and should be replaced. Parts are not readily available for this equipment and repairs can be costly and faulty switches/breakers that are not readily available can lead to extended periods of downtime on affected circuits.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	Central

Condition / Element Report

Discipline:	MEP - Electrical	Report Number:	8
Room Identification:	B - 11	Condition:	Poor
Element Type:	Electrical Service Distribution		
Element SubType:	Panel BPA-2		

Photo Documentation

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

Panelboard BPA-2 - 120/208 volt 3 phase, 4-wire, 200 amp, is original equipment. Work is in progress to replace Panelboard with a new panel. This work should be completed.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	Central

Condition / Element Report

Discipline:	MEP - Electrical	Report Number:	9
Room Identification:	B - 11	Condition:	Poor
Element Type:	Electrical Service Distribution		
Element SubType:	Panel BPA-3		

Photo Documentation

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

Panelboard BPA-3 - 120/208 volt 3 phase, 4-wire, 125 amp Main Circuit Breaker, is original equipment. Work is in progress to replace Panelboard with a new panel. This work should be completed.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	Central

Condition / Element Report

Discipline:	MEP - Electrical	Report Number:	10
Room Identification:	B - 11	Condition:	Poor
Element Type:	Electrical Service Distribution		
Element SubType:	Panel BLA		

Photo Documentation

Figure 1 Clear Image 1

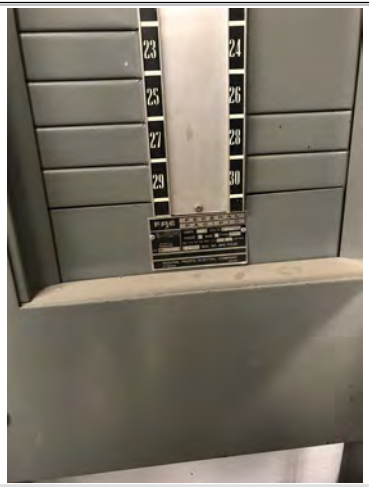


Figure 2 Clear Image 2

Element Description

Panelboard BLA - 277/480 volt 3 phase, 4-wire, 225 amp, is original equipment, 40+ years old and should be replaced. Parts are not readily available for this equipment and repairs can be costly and faulty switches/breakers that are not readily available can lead to extended periods of downtime on affected circuits.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	Central

Condition / Element Report

Discipline:	MEP - Electrical	Report Number:	11
Room Identification:	B - 11	Condition:	Poor
Element Type:	Electrical Service Distribution		
Element SubType:	Panel BPA		

Photo Documentation

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

Panelboard BPA - 120/208 volt 3 phase, 4-wire, 225 amp, is original equipment. A new panel has been installed to replace Panelboard BPA. All circuits from Panel BPA should be migrated to new panelboard and Panelboard BPA should be demolished/removed.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	Central

Condition / Element Report

Discipline:	MEP - Electrical	Report Number:	42
Room Identification:	B - 1	Condition:	Poor
Element Type:	Fire Suppression System		
Element SubType:	Halon		

Photo Documentation

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

Halon Fire Suppression System - The use of halon gas for fixed fire protection is no longer recommended because of its ozone depleting potential. In addition, production of new halon gas was banned on January 1, 1994 by the Clean Air Act, limiting replacement to purchase of reclaimed supplies. There are several clean agent alternatives to halon on the market, each with their own specific applications. A hazard assessment should be performed to determine which suppression system may be the most appropriate and the most cost effective replacement for the halon gas system.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	South

Condition / Element Report

Discipline:	MEP - Electrical	Report Number:	43
Room Identification:	B - 32	Condition:	Poor
Element Type:	Electrical Service Distribution		
Element SubType:	Panel BLB		

Photo Documentation

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

Panelboard BLB- 277/480 volt 3 phase, 4-wire, 225 amp, is original equipment, 40+ years old and should be replaced. Parts are not readily available for this equipment and repairs can be costly and faulty switches/breakers that are not readily available can lead to extended periods of downtime on affected circuits.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	South

Condition / Element Report

Discipline:	MEP - Electrical	Report Number:	44
Room Identification:	B - 32	Condition:	Poor
Element Type:	Electrical Service Distribution		
Element SubType:	Panel BPB		

Photo Documentation

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

Panelboard BPB- 120/208 volt 3 phase, 4-wire, 200 amp, is original equipment, 40+ years old and should be replaced. Parts are not readily available for this equipment and repairs can be costly and faulty switches/breakers that are not readily available can lead to extended periods of downtime on affected circuits.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	South

Condition / Element Report

Discipline:	MEP - Electrical	Report Number:	45
Room Identification:	B - 32	Condition:	Poor
Element Type:	Electrical Service Distribution		
Element SubType:	50kva Transformer		

Photo Documentation

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

50kva Dry Type Transformer - 480/208/120 3 phase, 4-wire, is original equipment, 40+ years old and should be replaced with new energy efficient transformer to comply with the 2016 Department of Energy and Maryland High Performance Buildings Program requirements.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	South

Condition / Element Report

Discipline:	MEP - Electrical	Report Number:	46
Room Identification:	B - 32	Condition:	Poor
Element Type:	Electrical Service Distribution		
Element SubType:	Panel EB		

Photo Documentation

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

Panelboard EB- 277/480 volt 3 phase, 4-wire, 100 amp, is original equipment, 40+ years old and should be replaced. Parts are not readily available for this equipment and repairs can be costly and faulty switches/breakers that are not readily available can lead to extended periods of downtime on affected circuits.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	South

Condition / Element Report

Discipline:	MEP - Electrical	Report Number:	47
Room Identification:	B - 32	Condition:	Poor
Element Type:	Electrical Service Distribution		
Element SubType:	Panel EC		

Photo Documentation

Figure 1 Clear Image 1

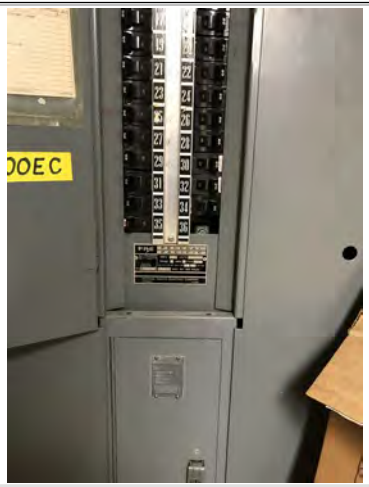


Figure 2 Clear Image 2

Element Description

Panelboard EC - 120/208 volt 3 phase, 4-wire, 100 amp, is original equipment, 40+ years old and should be replaced. Parts are not readily available for this equipment and repairs can be costly and faulty switches/breakers that are not readily available can lead to extended periods of downtime on affected circuits.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	South

Condition / Element Report

Discipline:	MEP - Electrical	Report Number:	48
Room Identification:	B - 32	Condition:	Poor
Element Type:	Electrical Service Distribution		
Element SubType:	30kva Transformer		

Photo Documentation

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

30kva Dry Type Transformer - 480/208/120 3 phase, 4-wire, is original equipment, 40+ years old and should be replaced with new energy efficient transformer to comply with the 2016 Department of Energy requirements.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	Central

Condition / Element Report

Discipline:	MEP - Plumbing	Report Number:	1
Room Identification:	B - 12	Condition:	Fair
Element Type:	Plumbing		
Element SubType:	Duplex Sewage Ejector		

Photo Documentation

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

Duplex sewage ejector and associated piping and pumps look to be in fair condition. Equipment seems to be working fine. There is no repair records, maintenance schedule or indication on the pumps of when they were installed. Most pump have a life expectancy of 10 - 15 years.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	Central

Condition / Element Report

Discipline:	MEP -Plumbing	Report Number:	2
Room Identification:	B - 12	Condition:	Fair
Element Type:	Plumbing		
Element SubType:	Duplex Sump Pump		

Photo Documentation

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

Duplex sump pump and associated piping look to be in fair condition. Equipment seems to be working fine. There is no repair records, maintenance schedule or indication on the pumps of when they were installed. Most pump have a life expectancy of 10 - 15 years.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	Central

Condition / Element Report

Discipline:	MEP - Plumbing	Report Number:	3
Room Identification:	B - 12	Condition:	Fair
Element Type:	Plumbing		
Element SubType:	Hot Water Generators		

Photo Documentation

Figure 1 Clear Image 1

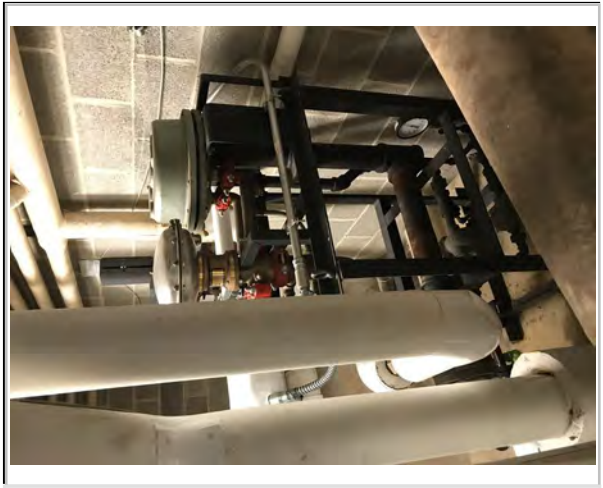


Figure 2 Clear Image 2

Element Description

Water heater generators appear to be in fair condition. Would recommend replacing with newer because of age. The water heater generators appear to have been installed in 2006. Water heater generators usually have a life expectancy of 15 - 20 years.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

Condition / Element Report

Discipline:	MEP -Plumbing	Report Number:	4
Room Identification:	B - 11	Condition:	Poor
Element Type:	Plumbing		
Element SubType:	Sink and Eyewash		

Photo Documentation

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

Service sink and associated eyewash appear to be very old and should be replaced. The sink is stained and has rust issues at the connections to the piping.

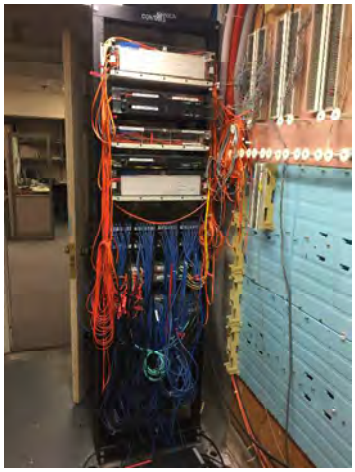
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

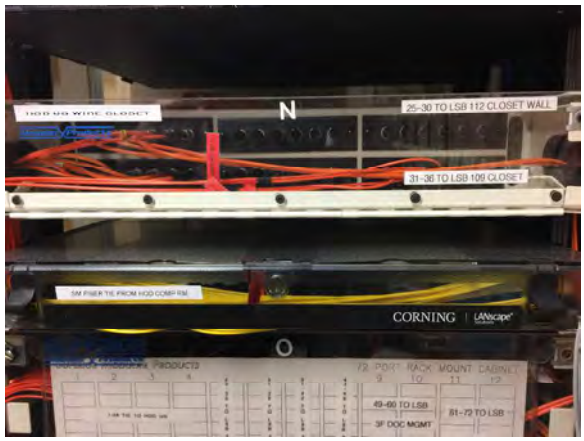
Discipline:	Low Voltage	Report Number:	T-1
Room Identification:	B - 02	Condition:	Poor
Element Type:	Low Voltage		
Element SubType:	Main Telecom Room		

Photo Documentation



Main Telecom Room - MDF Fiber Optic Rack

Figure 1



Fiber Optic Cabling going out to each Telecom Rack

Figure 2

Element Description

Basement Floor Main Telecom Room B-02 :

1. No Air Conditioning - excessive heat will shorten life of network equipment
2. No Fire Protection - best practices recommend the headend telecom equipment be protected from fire.
3. No Electronic Access Control - best practice recommend monitoring access to telecom spaces.
4. Debris and spare materials stored in this telephone room - dust shortens equipment life.
5. Limited space / No space for new equipment in Telecom MDF rack. - limited future growth
6. No telecom grounding and no bonding. - poor grounding can cause network problems
7. Limited to no fire-stopping - best practices recommend sealing penetrations to limit fire and smoke
8. No Generator and limited UPS power - network will not operate during long power outage.
9. Closet is too small for equipment and not sufficient space for future cabling.- limited future growth
10. Paging System for Print Shop is located in this room -
11. Limited cable management & horizontal cable support in ceiling space. Limited cable tray.

References:

5.3.1 Ground Level Assessment

Click here to return to section directory....pg. 49

5.3.1 GROUND FLOOR CONDITIONS ASSESSMENT

5.3.1 a ARCHITECTURAL

North

- The area occupied by these offices was originally the dining room for the building. They are typically in New condition, with several areas assessed in Fair condition due to specific instances of wear or damage.
- Stair D at this level is in Good condition in terms of finishes. The door handle is a lever which does meet ADA requirements, however, there is minimal clearance between the handle and the guardrail on the pull side making it non-compliant for maneuverability.
- The storage room G-11g, is in Poor condition. This area was originally the dishwashing area for the kitchen prior to converting the ground level to offices. The original finishes are still there, with Multiple instances of holes in the tile, and large portions of the wall and ceiling removed.
- The passageway, G-11 is in Fair condition; although there are no specific instances of damage or wear, the finishes appear to be the original finishes.
- The two single toilets are in Fair condition; the finishes do not have any specific issues however appear to be the original tile work. They are not ADA compliant in terms of fixtures or doors.

East

- These offices are typically in Good condition with carpet tiles and ceiling tiles appearing to have been recently installed. However, the majority of doors for the offices are non-compliant in terms of door hardware in that they are either knobs or finger pulls for pocket doors.
- The offices in the southeast corner, whose space was originally assigned to the Television room, are similar in that they are also typically in Good condition; however the doors are non-compliant in that they are either knobs or finger pulls for pocket doors.

South

- The elevator lobby floors and ceilings are in Poor condition. They both appear to be the original finishes, and are showing significant wear. The floor tiles are cracked throughout; the ceiling tiles are severely worn with multiple areas of damage, and are generally mismatched throughout.
- The Men's and Women's bathrooms are in Fair condition. While there are no specific areas of concern, the tile work appears to be the original finish. The fixtures do meet ADA requirements, however the clearance for maneuverability at the door is non-compliant.
- Bill Services G-01c, is serving in its original capacity. The finishes are in Fair condition, as they appear to have been updated at some point since the original installation. The room is non-compliant for ADA in several areas. The doors are equipped with either knobs, or in the case of the service window, finger pulls. The staff lockers do not meet floor clearance requirements.
- Stair C in generally in Good condition; the finishes appear to be the original finishes however the stair appears to be used infrequently. The door does not meet ADA requirements in that it has a door knob.

West

- The Bin & Fax service room is in the area originally dedicated to the Mail service; the Mail Service area has been converted at some point from the Office for the State Police. These areas are in Fair to Poor condition with floor tiles typically cracked and several floor tiles worn through to the substrate and multiple ceiling tiles damaged.
- Especially notable in this area is the water damage which appears in the electrical closet along the west wall. This damage is directly above the water damage seen in the basement level at ceiling of the office area within the library stacks.
- The area north of Stair A was originally used as the Kitchen for the building, accompanied by a dry storage area and space for compactors. These areas still have all the original finishes and are now being used as storage for the building. These areas are considered in Poor or even Critical conditions, with significant general wear throughout, and multiple instances of significant damage and areas where portions of finishes have been completely removed. In addition, there are open terminations of pipes exposed through the ceiling.

5.3.1 b STRUCTURAL

The Ground Floor structure, which is below grade, is conventionally reinforced concrete. Conventionally reinforced concrete beams support concrete joists at 36” on center. Typical beams are 30” deep, joists have a 3.5” flange and extend 10” below flanges, and flat slabs are 9” thick. Variations in select areas occur. Concrete beams are placed along the perimeter and typically along interior gridlines running north to south between columns. The center of the floor is open to below, beams switch directions north of the open area, to run east to west between columns; south of the open area is a conventionally reinforced flat slab.

East

- According to the facilities manager, water had accumulated on the floors and saturated the carpeting in G-18 office areas at the south east corner of the ground floor. Repairs were nearly complete during our field visit in December 2017 and had advanced to the point where finishes had been replaced to cover the structure. We were not able to observe the current state of walls or floors from the ground level.
- According to the facilities manager repairs were made in 2015 due to significant water infiltration. Finishes were removed and replaced along G-15 ground floor offices. This coincides with the exterior below grade wall along gridline U, including the wall which supports the side en-trance stairs facing State Street. We were unable to directly observe the current state of the walls or floors in this area.

West

- Room G-01a (Poor Condition) - Electrical duct bank penetrates the wall between the ground and first floors, estimated to be located above cracked floor joists observed from Room B-08. Occupants have observed water coming from this closet, and have placed a sump pump, bucket, and towels to keep water from flooding the office space.
- Room G-08 (Poor Condition) - Delaminations and cracks in the exterior concrete bearing and retaining wall parallel to line A. The wall is only exposed from ground floor to underside of first floor, and along line A from Line 3 to Line 9.
- Room G-08 (Poor Condition) - Corroded reinforcing and spalled concrete at exterior bearing and retaining wall, near column A-3.
- Room G-08 (Poor Condition) – Wall issues noted above were present in all areas where wall was exposed. It is likely to be in a similar condition along the entire west wall, but it was not possible to observe. Further investigation would be needed to determine if the cracks are full depth of wall, because outside is not visible. Differential settlement in footings could not be observed, but cracks observed are not consistent with settlement.

5.3.1 c MEP

HVAC

Center Core

- The center core contains the main mechanical equipment including the air handling units, chilled and hot water pumps, steam to hot water converters, steam station and controls.
- The installed HVAC systems are from the 1970's and are very energy inefficient by today's standards and codes.
- The core equipment is past its ASHRAE useful life, indicating that replacement should be anticipated.

North/South/ East and West

- This floor contains ductwork, piping, terminal units, air devices and controls
- The terminal units are constant volume reheat type which are very inefficient and do not meet current codes.
- The piping serving the reheat coils is piped as a constant flow and does not take advantage of variable heating water flow requirements in the space.
- The perimeter of the building is provided with hot water fin-tube radiation under the windows. These units are not easily accessible for service and their operation can be compromised by placing furniture at the floor return.
- The air devices appear to need to be cleaned and air pattern controllers adjusted.

Plumbing Ground Floor

West

- Mop sink is old and should be replaced due to stains and rust.
- Water meter is in good working order. It is located in an office where everyone has access. It should

be put in its own room with easy access and a floor drain.

Electrical

Southwest Quadrant

- Panelboards S at the rear of the Joint Hearing Room is equipment that has been added and the panel is in fair condition and it can remain.
- Dimming Panels at the rear of the Joint Hearing Room are in fair condition and it can remain, however there are missing trough and junction box covers that must be replaced.
- Panelboards GLB and GPB are original equipment, 40+ years old and they should be replaced. Replacement parts and circuit breakers for panels over 25 years of age can be difficult to find and if found, can be expensive.
- The 50kva transformer that serves Panels GPB is original equipment, 40+ years old and it should be replaced with a new energy efficient transformer, which can reduce energy consumption and it also operates at lower temperatures, which in turn, reduces the amount of required cooling.
- Panelboards EB and EC are original equipment, 40+ years old and they should be replaced.

Northeast Quadrant

- Panelboards GLA and GPA (sections 1, 2 & 3) are original equipment, 40+ years old and they should be replaced. Replacement parts and circuit breakers for panels over 25 years of age can be difficult to find and if found, can be expensive.
- The 50kva transformer that serves Panels GPA is original equipment, 40+ years old and it should be replaced with a new energy efficient transformer, which can reduce energy consumption and it also operates at lower temperatures, which in turn, reduces the amount of required cooling.

Fire Alarm

Southwest

- Fire Alarm control panels and system is original equipment. Although it is functioning, it has outlived it's life expectancy, it is antiquated technology and it is limited in function and expandability and it should be replaced.

5.3.1 d TELECOMMUNICATIONS

West

- Main location for incoming telecom and fiber services - No security / no access control to protect this room which contains critical network equipment and fiber.
- Lightning protection located away from point of entry which reduces lightning surge protection and increases risk of damage to cabling and equipment

East

- Telecom rack is filled to capacity with no available space for new equipment.
- No security / no access control to protect this room which contains critical network & cellular (DAS) equipment and fiber.

5.3.2 Ground Level Conditions Reports

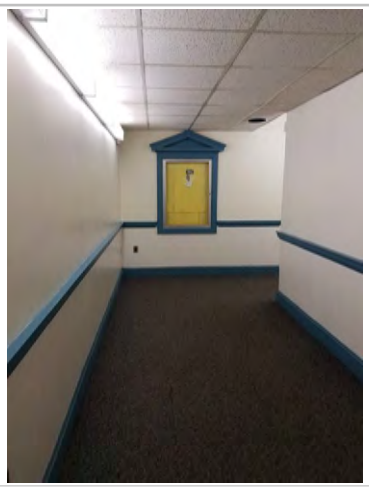
Click here to return to section directory....pg. 49

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	North

Condition / Element Report

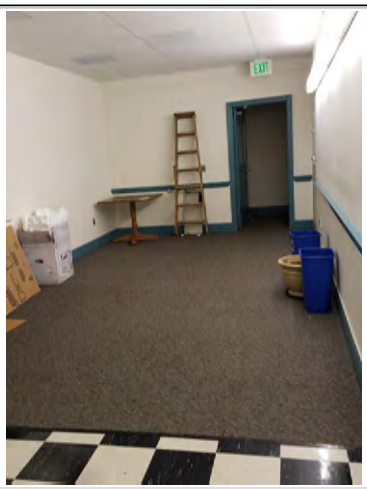
Discipline:	Architectural - Interiors	Report Number:	A-37
Room Identification:	G - Corridor North	Condition:	Poor
Element Type:	Floors		
Element SubType:	N/A		

Photo Documentation



Corridor north of Stair A

Figure 1 Clear Image 1



Corridor adjacent to G-12

Figure 2 Clear Image 2

Element Description

1. The carpet in these portions of the North corridor, in the areas just north of Stair A and in the area adjacent to G-12, is in "Poor" condition and is at the end of it's life span.

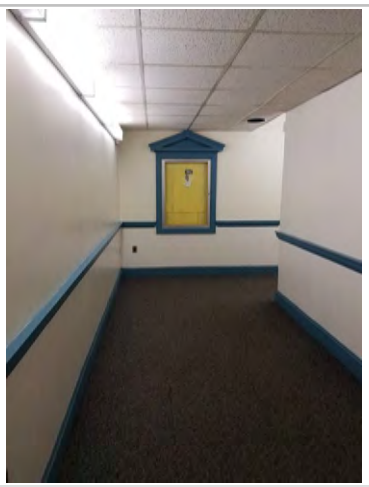
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	North

Condition / Element Report

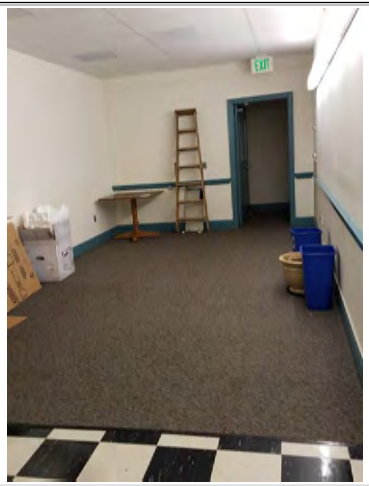
Discipline:	Architectural - Interiors	Report Number:	A-38
Room Identification:	G - 11 Passage&Storage	Condition:	Good
Element Type:	Miscellaneous		
Element SubType:	Walls & Ceilings		

Photo Documentation



Typical ceiling and walls

Figure 1 Clear Image 1



Typical ceiling and walls

Figure 2 Clear Image 2

Element Description

1. The typical wall and ceiling in these portions, in the areas just north of Stair A and in the area adjacent to G-12, are in good condition.

References: Clear Text Box

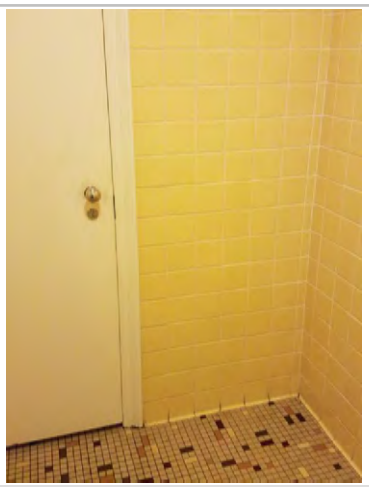
Department of Legislative Services Building
90 State Circle, Annapolis, MD 21401

Key Plan Location: North

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-39
Room Identification:	G - 10 Restrooms	Condition:	Fair
Element Type:	Miscellaneous		
Element SubType:	Floors and Walls		

Photo Documentation



Ceramic tile walls and floors

Figure 1 Clear Image 1

Ceramic tile walls and floors

Figure 2 Clear Image 2

Element Description

1. The floors and walls of both the Men's room and Women's room appear to be the original ceramic tile are are listed in "Fair" condition.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	South

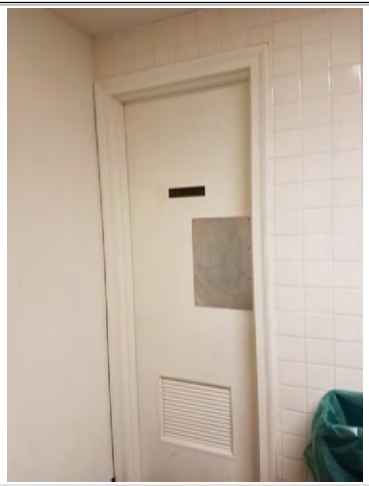
Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	
Room Identification:	B - Stair C	Condition:	Fair
Element Type:	Select the element type		
Element SubType:	Floors, walls, ceiling		

Photo Documentation

Women's Room

Figure 1 Clear Image 1



Door to Men's Room

Figure 2 Clear Image 2

Element Description

1. All surfaces and elements in these rooms are in "Fair" condition with typical wear for their age and use.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	North

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-41
Room Identification:	G - 11 Passage	Condition:	Fair
Element Type:	Miscellaneous		
Element SubType:	Floors,Walls & Ceilings		

Photo Documentation

Typical surfaces

Figure 1 Clear Image 1

Typical tile

Figure 2 Clear Image 2

Element Description

1. The typical finish floor and walls appear to be the original finish. The tile is in "Fair" condition; although it is the original finish this area appears to have little traffic and so does not have as much wear as other areas of the building.
2. The ceiling appears to be painted gypsum board and also is in "Fair" condition.

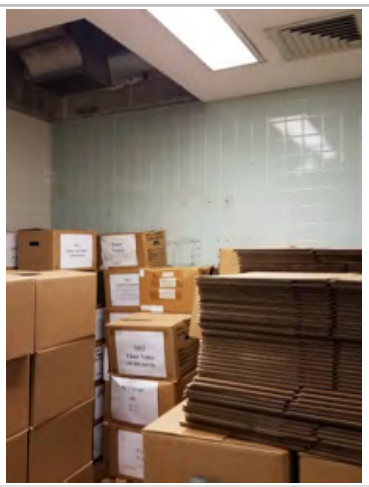
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	North

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-42
Room Identification:	G - 11g Storage	Condition:	Poor
Element Type:	Miscellaneous		
Element SubType:	Floors, walls, ceiling		

Photo Documentation



Storage

Figure 1 Clear Image 1

Storage

Figure 2 Clear Image 2

Element Description

1. This room was originally the dishwashing area for the kitchen and is now used as storage. This area is in "Poor" condition, with large portions of the finishes on the walls and ceiling missing.

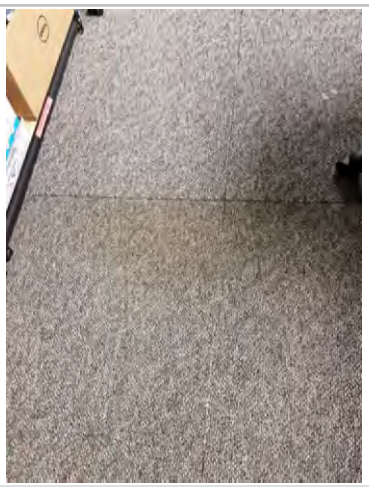
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	North

Condition / Element Report

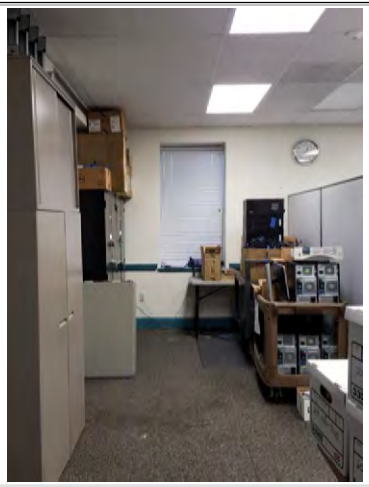
Discipline:	Architectural - Interiors	Report Number:	A-43
Room Identification:	G - 12 OIS Servers	Condition:	Fair
Element Type:	Miscellaneous		
Element SubType:	Floors and Walls		

Photo Documentation



Typical carpet tile

Figure 1 Clear Image 1



Areas of high traffic show significant wear

Figure 2 Clear Image 2

Element Description

1. The typical carpet tiles are in "Fair" condition, with typical wear for use and age. In areas of high traffic, the carpet tiles show significant wear.
2. The walls throughout are in "Fair" condition with no issues to report.

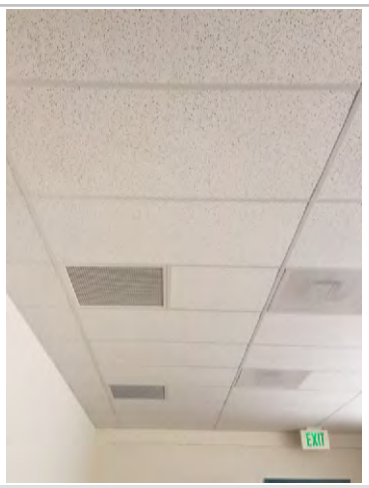
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	North

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-44
Room Identification:	G - 12 OIS Servers	Condition:	New
Element Type:	Ceiling		
Element SubType:	N/A		

Photo Documentation



Typical ceiling tile

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

1. The typical ceiling tiles appear to be in "New" condition.

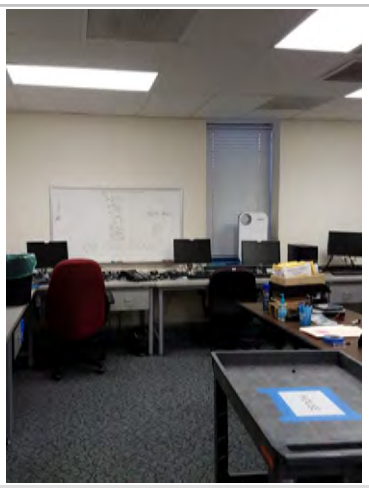
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	North

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-45
Room Identification:	G - 13 OIS Servers	Condition:	New
Element Type:	Miscellaneous		
Element SubType:	Floors and Ceilings		

Photo Documentation



Typical carpet and ceiling tile

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

1. Both the ceiling tiles and carpet seem to be in "New" condition.

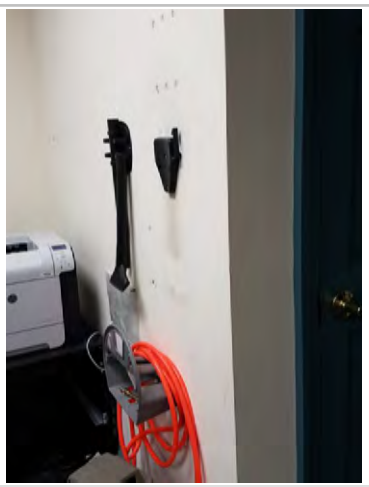
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	North

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-46
Room Identification:	G - 13 OIS Servers	Condition:	Fair
Element Type:	Walls		
Element SubType:	N/A		

Photo Documentation



Typical carpet and ceiling tile

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

1. The walls in the server room are listed in "Fair" condition due to surface damage throughout.

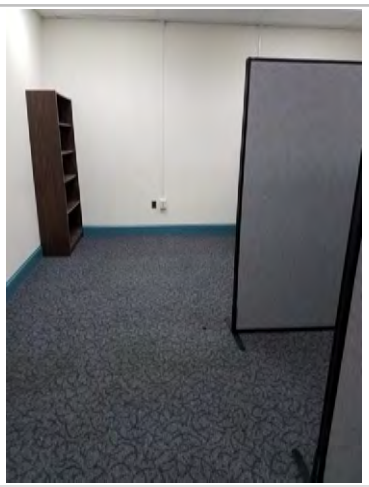
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	North

Condition / Element Report

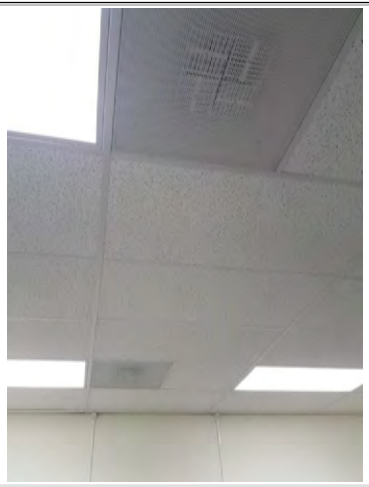
Discipline:	Architectural - Interiors	Report Number:	A-47
Room Identification:	G - 14 OIS Office	Condition:	New
Element Type:	Miscellaneous		
Element SubType:	Floors,Walls & Ceilings		

Photo Documentation



Typical carpet tiles

Figure 1 Clear Image 1



Typical ceiling and walls

Figure 2 Clear Image 2

Element Description

1. The typical finish floor is carpet tiles which are in "New" condition.
2. The walls and ceiling tiles are also in "New" condition.

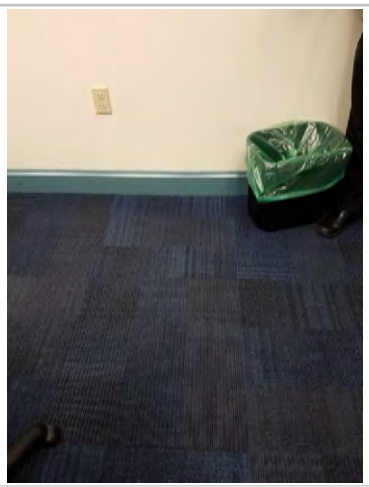
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-48
Room Identification:	G - 15 Offices	Condition:	Good
Element Type:	Miscellaneous		
Element SubType:	Floors,Walls & Ceilings		

Photo Documentation



Typical carpet tiles

Figure 1 Clear Image 1

Minor water damage

Figure 2 Clear Image 2

Element Description

1. The finish materials in these office appear to have been recently installed.
2. The typical finish floor material is carpet tile and is in "Good" condition throughout.
3. The ceiling tiles are also considered to be in "Good' condition, however there are several minor instances of water damage throughout.

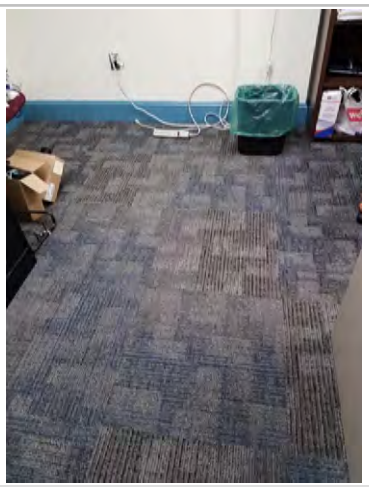
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

Condition / Element Report

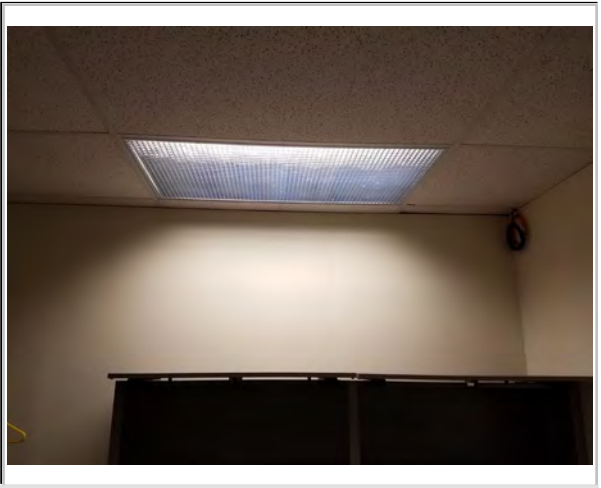
Discipline:	Architectural - Interiors	Report Number:	A-49
Room Identification:	G - 18a-d Offices	Condition:	Good
Element Type:	Miscellaneous		
Element SubType:	Floors,Walls & Ceilings		

Photo Documentation



Typical carpet tiles

Figure 1 Clear Image 1



Typical ceiling and walls

Figure 2 Clear Image 2

Element Description

1. The finishes in these offices appears to have been recently installed.
2. The typical finish floor is carpet tiles which are in "Good" condition.
3. The walls and ceiling tiles are also in "Good" condition.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	South

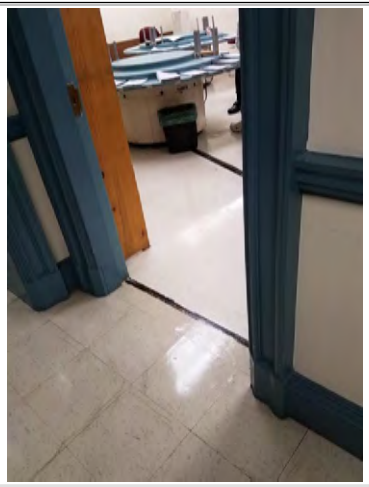
Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-50
Room Identification:	G - Elevator Lobby	Condition:	Poor
Element Type:	Floors		
Element SubType:	N/A		

Photo Documentation

Significant damage at tile

Figure 1 Clear Image 1



Typical tiles show cracking throughout

Figure 2 Clear Image 2

Element Description

1. The floor tiles in the Elevator Lobby are listed in poor condition due to at least one area of significant damage and for the cracking of tiles throughout.
2. The walls, not shown, are typically in "Fair" condition

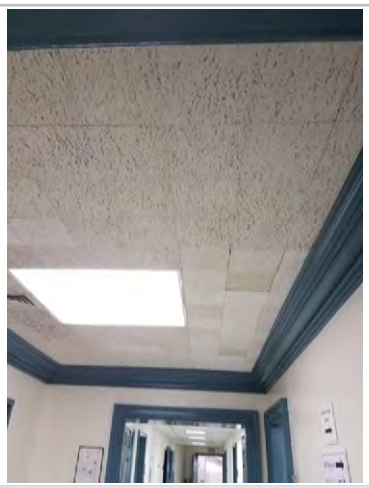
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	South

Condition / Element Report

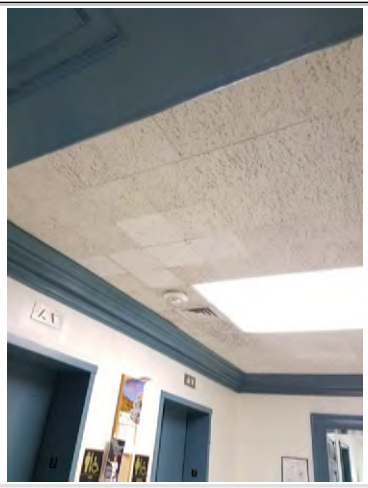
Discipline:	Architectural - Interiors	Report Number:	A-51
Room Identification:	G - Elevator Lobby	Condition:	Poor
Element Type:	Ceiling		
Element SubType:	N/A		

Photo Documentation



Ceiling tiles

Figure 1 Clear Image 1



Ceiling tiles

Figure 2 Clear Image 2

Element Description

1. The ceiling tile at the elevator lobby is listed in "Poor" condition due to signs of excessive wear and inconsistent replacement tiles.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	South

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-52
Room Identification:	G - 01c Bill Services	Condition:	Fair
Element Type:	Miscellaneous		
Element SubType:	Floors, walls and ceilings		

Photo Documentation

Typical ceiling tiles

Figure 1 Clear Image 1

Spot water damage

Figure 2 Clear Image 2

Element Description

1. The ceiling tiles in G-01c are typically in "Fair" condition; however there is at least one instance of water damage, apparently from concealed mechanical equipment.
2. The floors and walls are also typically in "Fair" condition.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	South

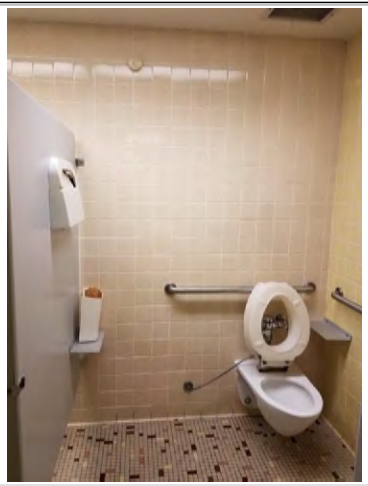
Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-53
Room Identification:	G - Restrooms	Condition:	Fair
Element Type:	Miscellaneous		
Element SubType:	Floors, walls and ceilings		

Photo Documentation

Typical floor tiles

Figure 1 Clear Image 1



Typical wall tiles

Figure 2 Clear Image 2

Element Description

1. The floor and wall finishes appear to be the original ceramic tile and appear to be in "Fair" condition with typical aging for use and wear.
2. These bathrooms are ADA compliant.

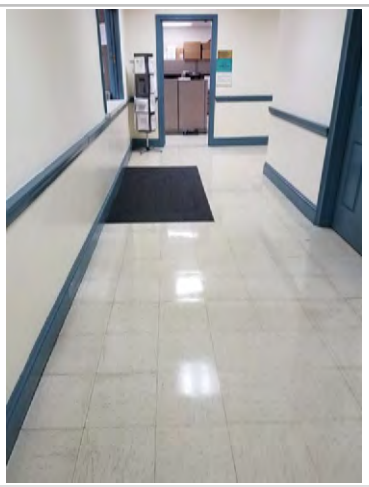
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-54
Room Identification:	G - Corridor SW	Condition:	Poor
Element Type:	Miscellaneous		
Element SubType:	Floors and ceilings		

Photo Documentation



Cracked floor tiles

Figure 1 Clear Image 1

Spot water damage

Figure 2 Clear Image 2

Element Description

1. The floor tiles throughout this portion of the corridor are cracked and extremely worn.
2. The ceiling tiles throughout this portion are also extremely worn with sporadic water damage apparently from concealed equipment in the ceiling.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-55
Room Identification:	G - Corridors W&SW	Condition:	Good
Element Type:	Walls		
Element SubType:			

Photo Documentation

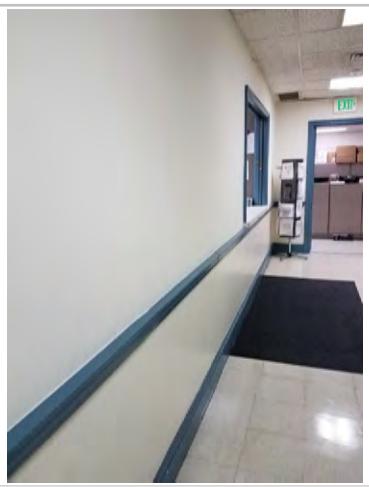


Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

1. The wall throughout the West and SouthWest Corridors are considered in "Good" condition.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-56
Room Identification:	G - 01a Mail Service	Condition:	Poor
Element Type:	Floors		
Element SubType:	N/A		

Photo Documentation

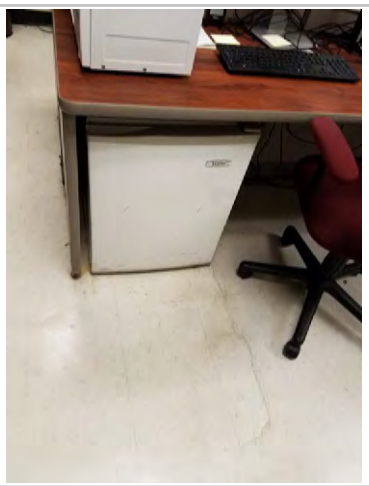


Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

1. The floors in the Mail Service room is in poor condition due to cracking throughout and several areas which are severely damaged either from equipment or severe wear.

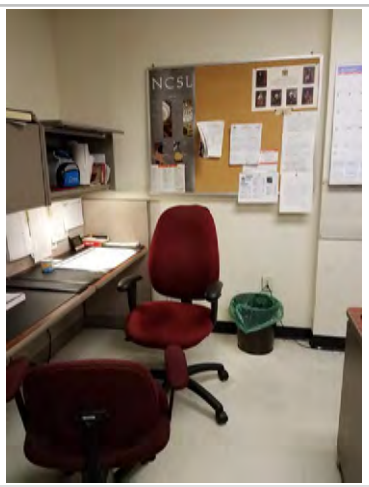
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

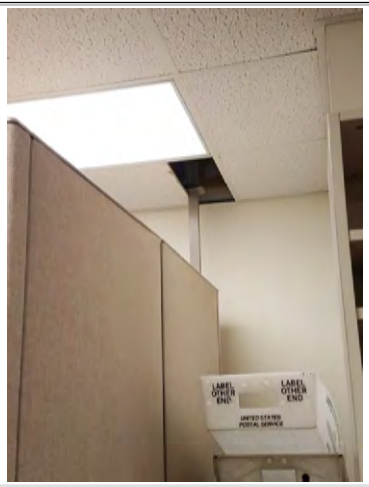
Discipline:	Architectural - Interiors	Report Number:	A-57
Room Identification:	G - 01a Mail Service	Condition:	Fair
Element Type:	Miscellaneous		
Element SubType:	Walls & Ceiling		

Photo Documentation



Typical wall

Figure 1 Clear Image 1



Typical wall and ceiling. Note partial missing tile.

Figure 2 Clear Image 2

Element Description

1. The walls of the Mail Service room are in "Fair" condition showing typical wear for their use and age. No significant issues were observed.
2. The ceiling is also in "Fair" condition; however there is at least one instance where the ceiling tile was partially removed to allow pass through of structure.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-59
Room Identification:	G - 01g Fax Service	Condition:	Fair
Element Type:	Miscellaneous		
Element SubType:	Floors, Walls & Ceiling		

Photo Documentation

Typical floor

Figure 1 Clear Image 1

Typical wall and ceiling.

Figure 2 Clear Image 2

Element Description

1. The floors and walls of the Mail Service room are in "Fair" condition showing typical wear for their use and age. No significant issues were observed.
2. The ceiling is also in "Fair" condition; however spot water damage apparently due to concealed mechanical equipment and sagging tiles are not atypical.

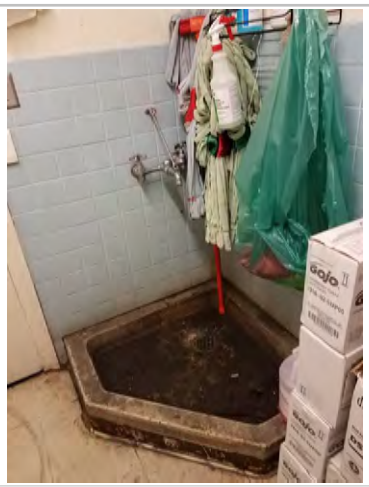
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

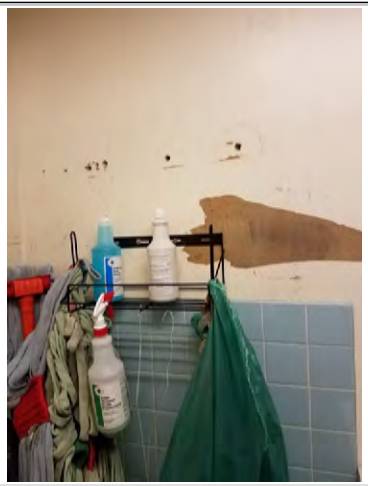
Discipline:	Architectural - Interiors	Report Number:	A-60
Room Identification:	G - Service	Condition:	Critical
Element Type:	Miscellaneous		
Element SubType:	Floors & Walls		

Photo Documentation



Typical floor damage and mop sink

Figure 1 Clear Image 1



Typical wall damage

Figure 2 Clear Image 2

Element Description

1. The floor is extremely worn damaged from daily use and also apparently from conditions resulting from the mop sink.
2. The walls are significantly damaged from use and removal of hardware.
3. The mop sink is in extremely poor condition showing excessive amounts of dirt and potential mold.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-61
Room Identification:	G - Service	Condition:	Critical
Element Type:	Ceiling		
Element SubType:	N/A		

Photo Documentation

Typical water damage

Figure 1 Clear Image 1

Typical water damage

Figure 2 Clear Image 2

Element Description

1. The ceiling tiles are damaged throughout by water damage apparently from concealed mechanical equipment.

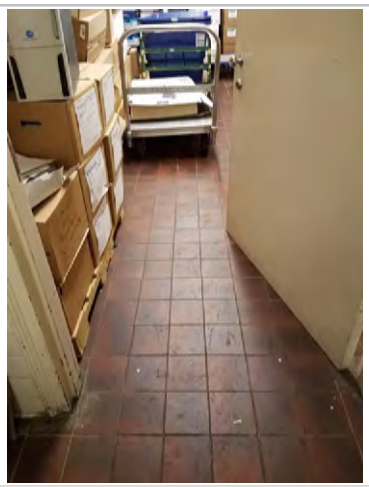
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-62
Room Identification:	G - 11d Old Kitchen	Condition:	Poor
Element Type:	Floors		
Element SubType:	N/A		

Photo Documentation



Typical floor condition throughout

Figure 1 Clear Image 1

Floor patch

Figure 2 Clear Image 2

Element Description

1. The floors throughout are in poor condition. There is one instance of floor patching with different materials.

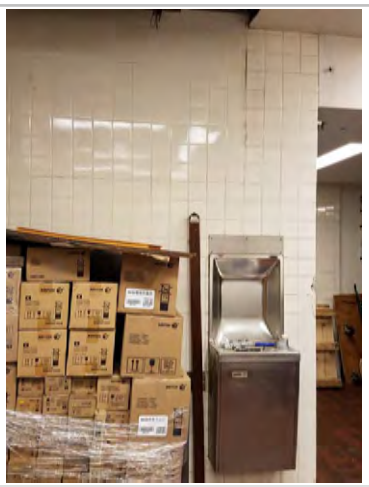
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

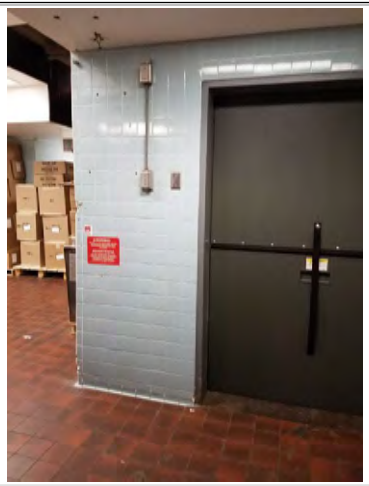
Discipline:	Architectural - Interiors	Report Number:	A-63
Room Identification:	G - 11d Old Kitchen	Condition:	Critical
Element Type:	Walls		
Element SubType:	N/A		

Photo Documentation



Typical wall condition throughout

Figure 1 Clear Image 1



Typical wall damage

Figure 2 Clear Image 2

Element Description

1. The walls appear to be the original ceramic tile, and while the condition throughout might be considered "Fair" or "Poor", this element is listed as "Critical" given that there are multiple locations with irreparable damage including holes in tiles, and chipped corner tiles.

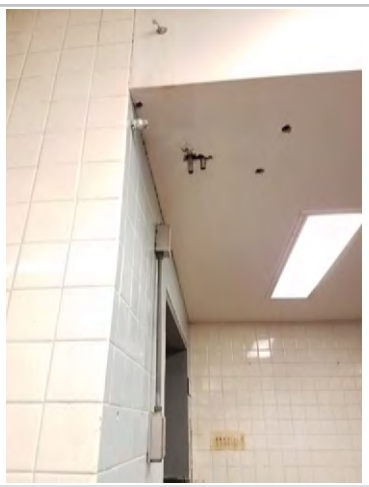
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-64
Room Identification:	G - 11d Old Kitchen	Condition:	Critical
Element Type:	Ceiling		
Element SubType:	N/A		

Photo Documentation



Typical ceiling penetration

Figure 1 Clear Image 1

Typical ceiling damage

Figure 2 Clear Image 2

Element Description

1. While parts of the ceiling are in either "Fair" or "Poor" condition, there are multiple locations with significant damage from various effects including water damage, penetrations through the finish material for equipment, or damage to the ceiling due to material failure therefore this element is listed as "Critical".

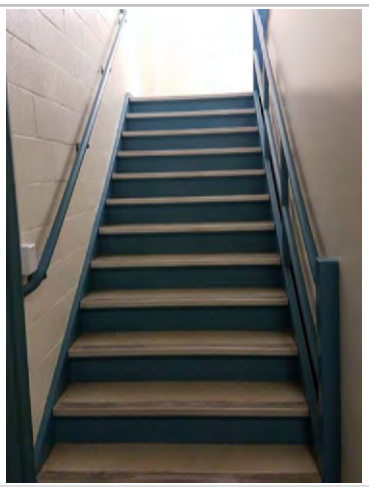
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

Condition / Element Report

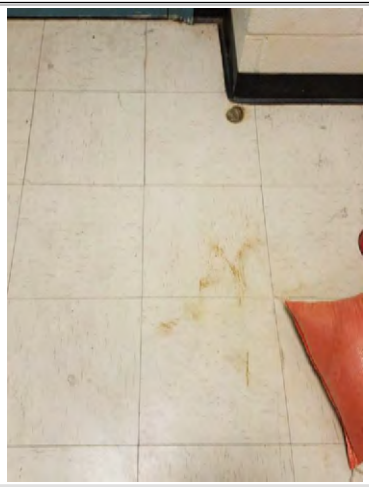
Discipline:	Architectural - Interiors	Report Number:	A-65
Room Identification:	G - Stair B	Condition:	Poor
Element Type:	Floors		
Element SubType:	N/A		

Photo Documentation



Typical treads

Figure 1 Clear Image 1



Typical floor damage

Figure 2 Clear Image 2

Element Description

1. The floors at the ground level of Stair B are in "Poor" condition. The treads themselves are in "Fair" condition, however the landing at this level has excessive wear and damage throughout.

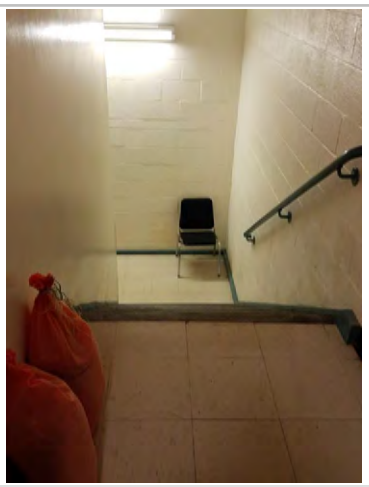
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

Condition / Element Report

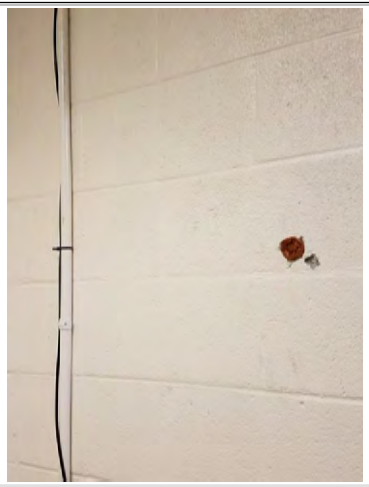
Discipline:	Architectural - Interiors	Report Number:	A-66
Room Identification:	G - Stair B	Condition:	Good
Element Type:	Walls		
Element SubType:	N/A		

Photo Documentation



Walls looking towards landing

Figure 1 Clear Image 1



Spot damage at wall

Figure 2 Clear Image 2

Element Description

1. The walls of Stair B are considered in "Good" condition both for areas with gypsum wall board finish and painted CMU. There is one instance of spot damage on the wall.

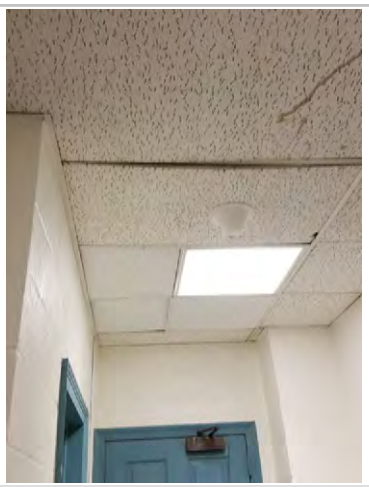
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

Condition / Element Report

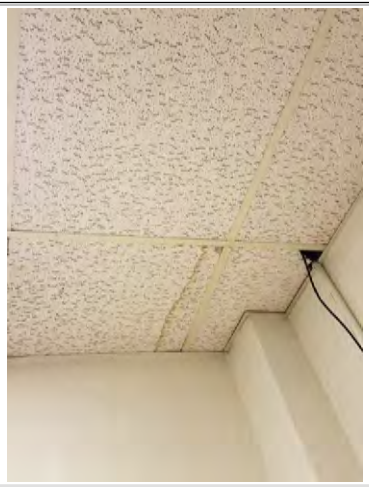
Discipline:	Architectural - Interiors	Report Number:	A-67
Room Identification:	G - Stair B	Condition:	Poor
Element Type:	Ceiling		
Element SubType:	N/A		

Photo Documentation



Typical ceiling tile

Figure 1 Clear Image 1



Water damage and puncture in ceiling tile

Figure 2 Clear Image 2

Element Description

1. The ceiling tile of the landing at Stair B are listed in "Poor" condition due to inconsistent tile replacement, sagging tiles, and water damage in the north east corner.

References: Clear Text Box

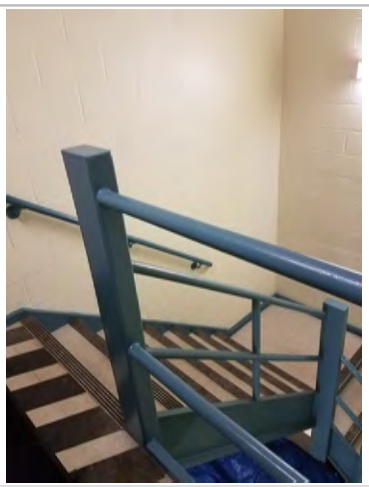
Department of Legislative Services Building
90 State Circle, Annapolis, MD 21401

Key Plan Location: North

Condition / Element Report

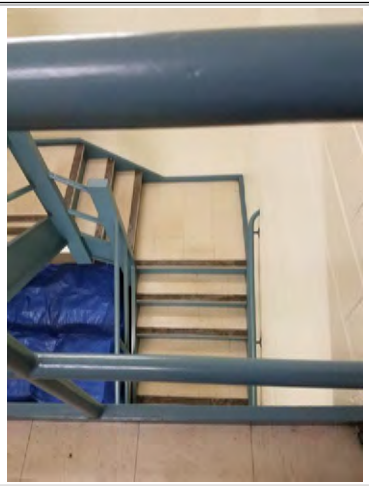
Discipline:	Architectural - Interiors	Report Number:	A-68
Room Identification:	G - Stair D	Condition:	Good
Element Type:	Miscellaneous		
Element SubType:	Floors, walls, ceiling		

Photo Documentation



Storage

Figure 1 Clear Image 1



Storage

Figure 2 Clear Image 2

Element Description

1. The surfaces of Stair D are all in "Good" condition.
2. See A-69 for issues with ADA non-compliance.

References: A-69

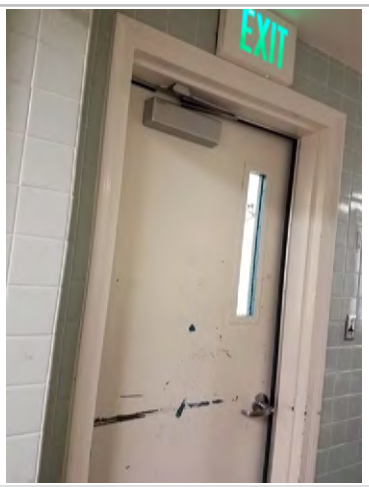
Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	North

Condition / Element Report

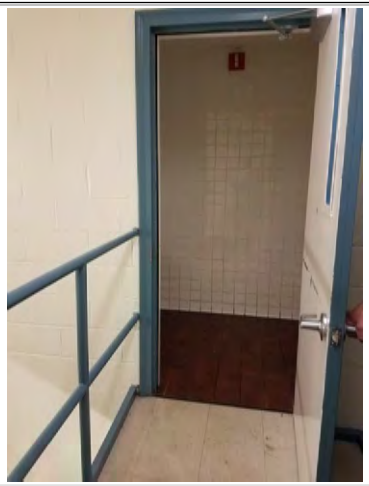
Discipline:	Architectural - Interiors	Report Number:	A-69
Room Identification:	G - Stair D	Condition:	ADA Consideration
Element Type:	Openings		
Element SubType:	N/A		

Photo Documentation



Door to Stair D on Ground Level

Figure 1 Clear Image 1



Door from Stair D to Ground Level

Figure 2 Clear Image 2

Element Description

1. The door to office Stair D does not meet the 2010 ADA Accessibility Requirements as follows:
   1a. There is insufficient clearance between the latch side door and the wall.
   404.2.4 Maneuvering Clearances. Minimum maneuvering clearances at doors and gates shall comply with 404.2.4. Maneuvering clearances shall extend the full width of the doorway and the required latch side or hinge side clearance.
   1b. 404.2.4.1 Approach Direction from front requires 18" clearance parallel to doorway. The door to Stair D is <6".

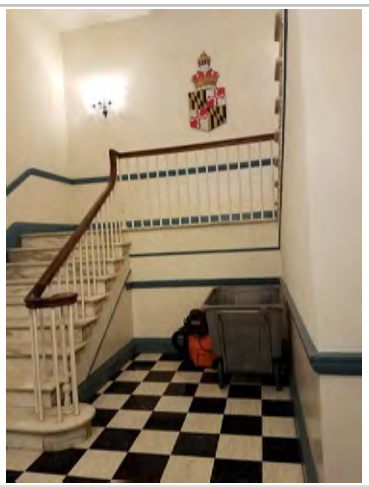
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-70
Room Identification:	G - Stair A	Condition:	Fair
Element Type:	Miscellaneous		
Element SubType:	Floors, walls, ceiling		

Photo Documentation



Stair A

Figure 1 Clear Image 1

Stair A

Figure 2 Clear Image 2

Element Description

1. The surfaces of Stair A are in "Fair" condition with typical wear for age and use.
2. See A-72 for issues with Code compliance and ADA compliance.

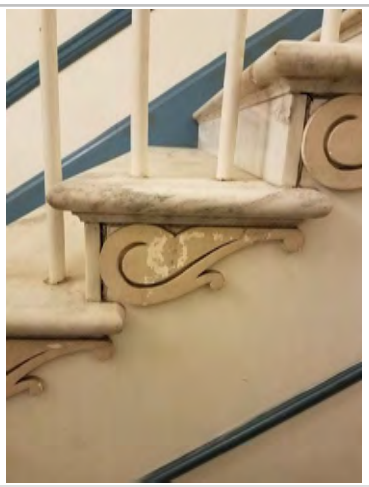
References: A-72 Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-71
Room Identification:	G - Stair A	Condition:	Poor
Element Type:	Finishes / Details		
Element SubType:	N/A		

Photo Documentation



Stair Trim

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

1. The trim at Stair A is in "Poor" condition. Chipped paint, chipped wood appear throughout.

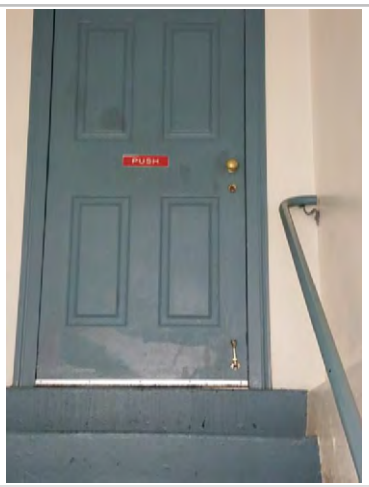
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

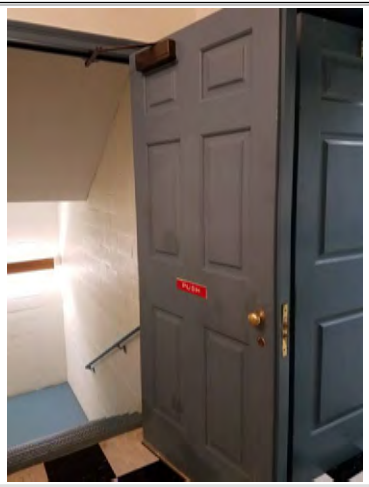
Discipline:	Architectural - Interiors	Report Number:	A-72
Room Identification:	Stair - A	Condition:	Code Consideration
Element Type:	Floors		
Element SubType:	N/A		

Photo Documentation



Looking up approaching the ground level egress door.

Figure 1 Clear Image 1



In the ground level corridor looking into Stair A.

Figure 2 Clear Image 2

Element Description

1. The absence of a landing at the ground level of Stair A violates IBC 2015 section 1011.6 Stairway Landings.

2. The manually keyed lock at the egress door at the ground level of Stair A violates IBC 2015 section 1010.1.9.4.

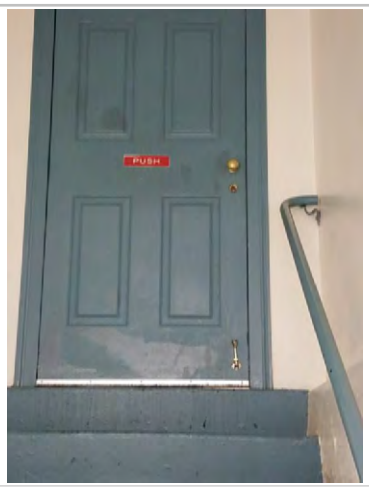
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

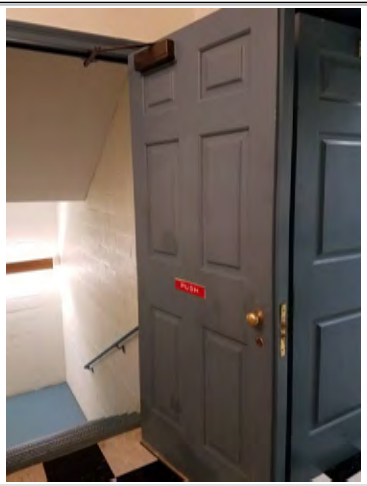
Discipline:	Architectural - Interiors	Report Number:	A-73
Room Identification:	Stair - A	Condition:	ADA Consideration
Element Type:	Openings		
Element SubType:	N/A		

Photo Documentation



Looking up approaching the ground level egress door.

Figure 1 Clear Image 1



In the ground level corridor looking into Stair A.

Figure 2 Clear Image 2

Element Description

1. The door to office Stair A does not meet the 2010 ADA Accessibility Requirements as follows:
   1a. There is insufficient clearance between the latch side door and the wall.
   404.2.4 Maneuvering Clearances. Minimum maneuvering clearances at doors and gates shall comply with 404.2.4. Maneuvering clearances shall extend the full width of the doorway and the required latch side or hinge side clearance.
   1b. 404.2.4.1 Approach Direction from front requires 18" clearance parallel to doorway. The door to Stair A is <12".

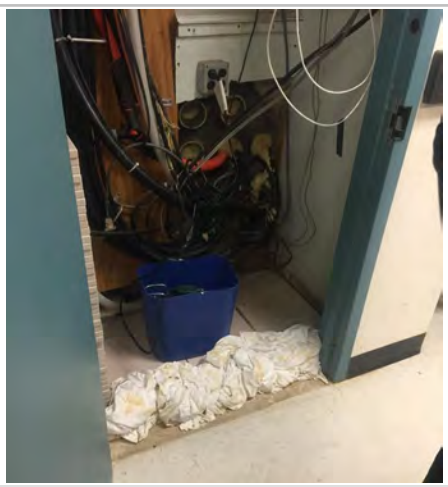
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	74a
Room Identification:	G - 01a	Condition:	Poor
Element Type:	Floors		
Element SubType:	N/A		

Photo Documentation



Utility closet prone to flooding

Figure 1 Clear Image 1

Approximate location of utility closet in mail room

Figure 2 Clear Image 2

Element Description

Attention was directed to a utility closet located in the mail room on the ground floor. It was stated that water leaks into this utility closet, as seen in Figure 1, so staff placed towels on the floor to reduce water migration.

Multiple conduit penetrations were located in the back wall of the closet, as seen in Figure 1, and the back wall of the closet is the exterior west well of the building, as seen in Figure 2. Water could be leaking in from the conduit penetrations, if the west wall's waterproofing is failing. Please see the Foundation Waterproofing report for information regarding condition of existing waterproofing. If moisture infiltration continues to occur at this location, foundation waterproofing should be inspected and any necessary repairs/replacement should be made.

The approximate location of this utility closet and the room it is located in is directly above B-08 on the basement level; B-08 is the library where water damaged ceiling tiles were observed and reports of issues pertaining to water infiltration were reported.

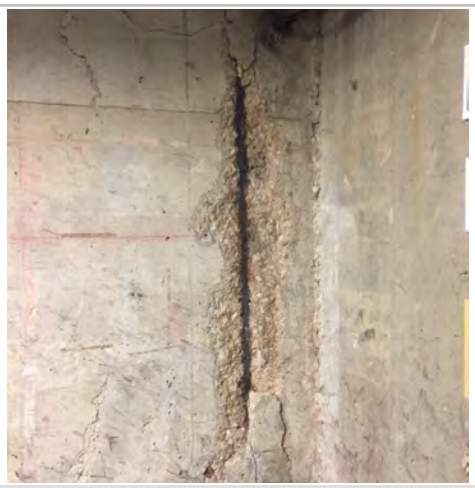
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	North

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	74b
Room Identification:	G - 08a	Condition:	Critical
Element Type:	Walls		
Element SubType:	N/A		

Photo Documentation



Exposed portion of wall reinforcing in NE corner

Figure 1 Clear Image 1

Approximate location of exposed reinforcing

Figure 2 Clear Image 2

Element Description

Evidence of water infiltration was observed on the walls and ceiling of G-08a on the basement level. Hairline cracks were observed throughout the ceiling and walls. On most of the walls in the room, efflorescence emanated from cracks at the top and traveled down nearly the entire length of the wall. In the Northeast corner of G-08a, a portion of the concrete wall was deteriorated to the point that a portion of wall reinforcing was exposed. This foundation wall sits directly next to the loading dock and loading dock elevator at Level G, at the exterior Northwest corner of the building.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	74c
Room Identification:	G - 15 i, j, k	Condition:	Poor
Element Type:	Ceiling		
Element SubType:	N/A		

Photo Documentation

Locations of affected offices

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

Ceiling tiles in various offices on the ground level, including G-18a, G-15i, G-15j, and G-15k, have stains indicating water infiltration during past rain events.

All of these offices are located on the eastern side of the building, directly below the East wall facade where previous waterproofing remediation took place. Given the location along the East edge of the building, we speculate that the water infiltration is due to ineffective repairs at the foundation waterproofing. Based on conversations with staff, recent foundation wall waterproofing repairs were installed on part of the wall, but not the full wall depth down to the footing. Thus, if moisture infiltration continues to occur at these offices, waterproofing repairs/replacement should be installed down to the footing, and drainage tile should be replaced/installed.

Water penetrating at the East staircase entrance may allow water to infiltrate down to the adjacent foundation walls, but likely would not leak into the interior of the building unless the foundation waterproofing below was failing. Please see reports AE-12 regarding condition of the staircase entrance marble steps.

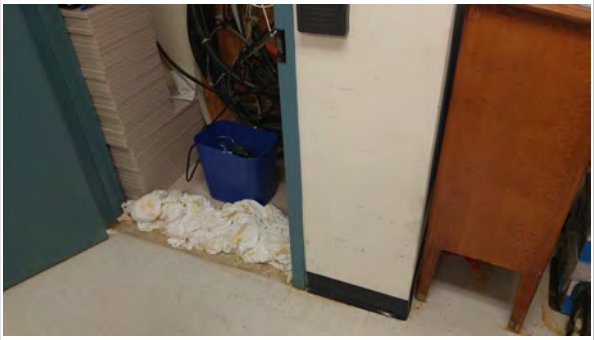
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

Discipline:	Structural	Report Number:	S - 3
Room Identification:	G - 01a	Condition:	Poor
Element Type:	Walls		
Element SubType:			

Photo Documentation



Electrical closet in G-01.

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

The structure is covered by finishes in this room, but it is estimated to be located above cracked floor joists observed from Room B-08. The photo shows a closet where an electrical duct bank penetrates the wall between the ground and first floors. Occupants have observed water coming from this closet, and have placed a sump pump, bucket, and towels to keep the water from flooding the office space.

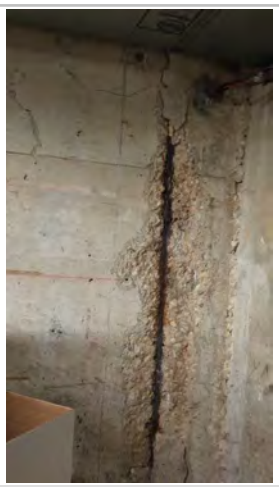
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

Discipline:	Structural	Report Number:	S - 4
Room Identification:	G - 08	Condition:	Poor
Element Type:	Walls		
Element SubType:	Water Infiltration		

Photo Documentation



Corroded reinforcing and spalled concrete.

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

Shows corroded reinforcing and spalled concrete at exterior bearing and retaining wall, near column A-3. Damage is visible from ground floor to underside of first floor. Wall is not exposed below the ground floor. Slab above cannot be observed due to duct work. South of the duct, there are delaminations and phosphorescence visible. Refer to Report S-4 Fig 1 for photo. Delaminations and phosphorescence are common signs of water and chloride infiltration into concrete.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

Discipline:	Structural	Report Number:	S - 5
Room Identification:	G - 08	Condition:	Poor
Element Type:	Walls		
Element SubType:			

Photo Documentation

Delaminations near column A-7.

Figure 1 Clear Image 1

Delaminations near column A-3.

Figure 2 Clear Image 2

Element Description

Typical delaminations and cracks in the exterior concrete bearing and retaining wall parallel to line A. The wall is only exposed from ground floor to underside of first floor, and along line A from Line 3 to Line 9. Delaminations and cracks are a common sign of water or chloride infiltration into concrete.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	Central

Condition / Element Report

Discipline:	MEP - Mechanical	Report Number:	17
Room Identification:	G - 37	Condition:	Poor
Element Type:	HVAC - Primary		
Element SubType:	Abandoned HVAC		

Photo Documentation

Figure 1 Clear Image 1

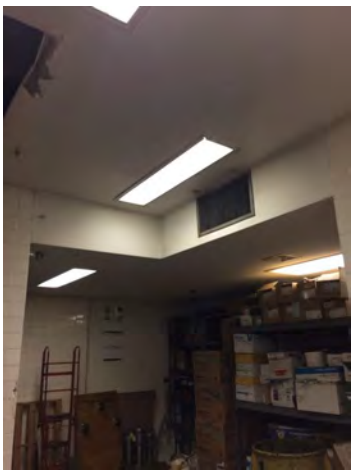


Figure 2 Clear Image 2

Element Description

There appears to be significant HVAC components that severed a prior kitchen that have been abandoned in place. It is suspected that these components have not been completed sealed and are allowing airflow into and out of the building. As part of an overall building modernization project, abandoned kitchen HVAC components can be removed and the space made usable again.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

Condition / Element Report

Discipline:	MEP - Electrical	Report Number:	12
Room Identification:	G - 11a Corridor	Condition:	Poor
Element Type:	Electrical Service Distribution		
Element SubType:	Panel KA		

Photo Documentation

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

Panelboard KA - 277/480 volt 3 phase, 4-wire, 200 amp, is original equipment and should be replaced. Parts are not readily available for this equipment and repairs can be costly and faulty switches/breakers that are not readily available can lead to extended periods of downtime on affected circuits.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

Condition / Element Report

Discipline:	MEP - Electrical	Report Number:	13
Room Identification:	G - 11d Corridor	Condition:	Poor
Element Type:	Electrical Service Distribution		
Element SubType:	Panel KB sec 1		

Photo Documentation

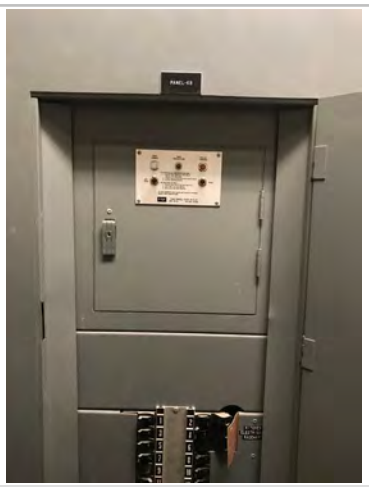


Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

Panelboard KB - 120/208 volt 3 phase, 4-wire, 400 amp, Main Circuit Breaker is original equipment and should be replaced. Parts are not readily available for this equipment and repairs can be costly and faulty switches/breakers that are not readily available can lead to extended periods of downtime on affected circuits.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

Condition / Element Report

Discipline:	MEP - Electrical	Report Number:	114
Room Identification:	G - 11d Corridor	Condition:	Poor
Element Type:	Electrical Service Distribution		
Element SubType:	Panel KB sec 2		

Photo Documentation

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

Panelboard KB sec 2 - 120/208 volt 3 phase, 4-wire, 400 amp, is original equipment and should be replaced. Parts are not readily available for this equipment and repairs can be costly and faulty switches/breakers that are not readily available can lead to extended periods of downtime on affected circuits.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

Condition / Element Report

Discipline:	MEP - Electrical	Report Number:	15
Room Identification:	G - 11d Corridor	Condition:	Poor
Element Type:	Electrical Service Distribution		
Element SubType:	Panel KB sec 3		

Photo Documentation

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

Panelboard KB - 120/208 volt 3 phase, 4-wire, 400 amp, Main Circuit Breaker is original equipment and should be replaced. Parts are not readily available for this equipment and repairs can be costly and faulty switches/breakers that are not readily available can lead to extended periods of downtime on affected circuits.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	South

Condition / Element Report

Discipline:	MEP - Electrical	Report Number:	41
Room Identification:	G - 15	Condition:	Poor
Element Type:	Fire Detection & Alarm		
Element SubType:	Fire Alarm System		

Photo Documentation

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

Fire Alarm - The existing fire alarm head end panel has exceeded it's life expectancy. The existing system is hardwired technology and is antiquated, making serviceability and expandability limited. It should be replaced with a new system to maintain sustainability, life safety and property protection.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	South

Condition / Element Report

Discipline:	MEP - Electrical	Report Number:	49
Room Identification:	G - 07a	Condition:	Poor
Element Type:	Electrical Service Distribution		
Element SubType:	Panel GLB		

Photo Documentation

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

Panelboard GLB - 277/480 volt 3 phase, 4-wire, 225 amp, is original equipment, 40+ years old and should be replaced. Parts are not readily available for this equipment and repairs can be costly and faulty switches/breakers that are not readily available can lead to extended periods of downtime on affected circuits.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	South

Condition / Element Report

Discipline:	MEP - Electrical	Report Number:	50
Room Identification:	G - 07a	Condition:	Poor
Element Type:	Electrical Service Distribution		
Element SubType:	Panel GPB		

Photo Documentation

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

Panelboard GPB - 277/480 volt 3 phase, 4-wire, 200 amp, is original equipment, 40+ years old and should be replaced. Parts are not readily available for this equipment and repairs can be costly and faulty switches/breakers that are not readily available can lead to extended periods of downtime on affected circuits.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	South

Condition / Element Report

Discipline:	MEP - Electrical	Report Number:	51
Room Identification:	G - 07a	Condition:	Poor
Element Type:	Electrical Service Distribution		
Element SubType:	50kva Transformer		

Photo Documentation

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

50kva Dry Type Transformer - 480/208/120 3 phase, 4-wire, is original equipment, 40+ years old and should be replaced with new energy efficient transformer to comply with the 2016 Department of Energy and Maryland High Performance Buildings Program requirements.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	North

Condition / Element Report

Discipline:	MEP - Electrical	Report Number:	52
Room Identification:	G - 12	Condition:	Poor
Element Type:	Electrical Service Distribution		
Element SubType:	Panel GLA		

Photo Documentation

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

Panelboard GLA - 277/480 volt 3 phase, 4-wire, 225 amp, is original equipment, 40+ years old and should be replaced. Parts are not readily available for this equipment and repairs can be costly and faulty switches/breakers that are not readily available can lead to extended periods of downtime on affected circuits.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	North

Condition / Element Report

Discipline:	MEP - Electrical	Report Number:	53
Room Identification:	G - 12	Condition:	Poor
Element Type:	Electrical Service Distribution		
Element SubType:	Panel GPA		

Photo Documentation

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

Panelboard GPA - 277/480 volt 3 phase, 4-wire, 200 amp, is original equipment, 40+ years old and should be replaced. Parts are not readily available for this equipment and repairs can be costly and faulty switches/breakers that are not readily available can lead to extended periods of downtime on affected circuits.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	South

Condition / Element Report

Discipline:	MEP - Electrical	Report Number:	54
Room Identification:	G - 12	Condition:	Poor
Element Type:	Electrical Service Distribution		
Element SubType:	50kva Transformer		

Photo Documentation

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

50kva Dry Type Transformer - 480/208/120 3 phase, 4-wire, is original equipment, 40+ years old and should be replaced with new energy efficient transformer to comply with the 2016 Department of Energy and Maryland High Performance Buildings Program requirements.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	Central

Condition / Element Report

Discipline:	MEP - Plumbing	Report Number:	1
Room Identification:	B - 12	Condition:	Fair
Element Type:	Plumbing		
Element SubType:	Duplex Sewage Ejector		

Photo Documentation

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

Duplex sewage ejector and associated piping and pumps look to be in fair condition. Equipment seems to be working fine. There is no repair records, maintenance schedule or indication on the pumps of when they were installed. Most pump have a life expectancy of 10 - 15 years.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	Central

Condition / Element Report

Discipline:	MEP - Plumbing	Report Number:	2
Room Identification:	B - 12	Condition:	Fair
Element Type:	Plumbing		
Element SubType:	Duplex Sump Pump		

Photo Documentation

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

Duplex sump pump and associated piping look to be in fair condition. Equipment seems to be working fine. There is no repair records, maintenance schedule or indication on the pumps of when they were installed. Most pump have a life expectancy of 10 - 15 years.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	Central

Condition / Element Report

Discipline:	MEP - Plumbing	Report Number:	3
Room Identification:	B - 12	Condition:	Fair
Element Type:	Plumbing		
Element SubType:	Hot Water Generators		

Photo Documentation

Figure 1 Clear Image 1

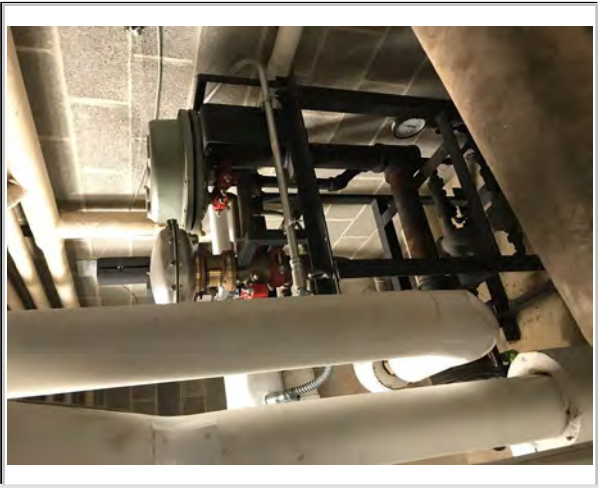


Figure 2 Clear Image 2

Element Description

Water heater generators appear to be in fair condition. Would recommend replacing with newer because of age. The water heater generators appear to have been installed in 2006. Water heater generators usually have a life expectancy of 15 - 20 years.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

Condition / Element Report

Discipline:	MEP - Plumbing	Report Number:	4
Room Identification:	B - 11	Condition:	Poor
Element Type:	Plumbing		
Element SubType:	Sink and Eyewash		

Photo Documentation

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

Service sink and associated eyewash appear to be very old and should be replaced. The sink is stained and has rust issues at the connections to the piping.

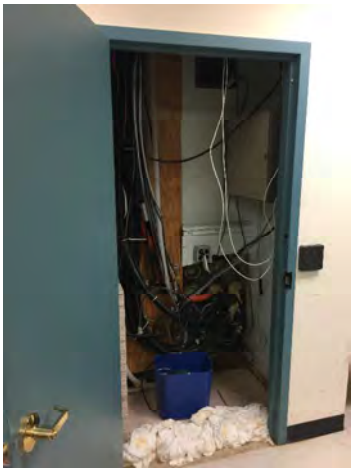
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

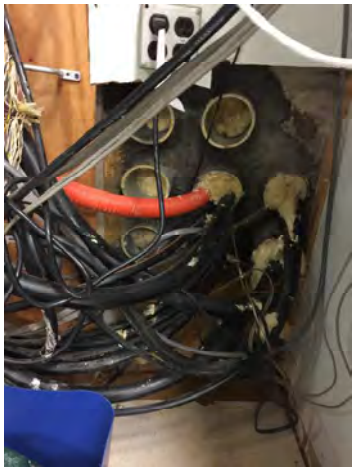
Discipline:	Low Voltage	Report Number:	
Room Identification:	G - 01a	Condition:	Poor
Element Type:	Low Voltage		
Element SubType:	Telecom CLoset		

Photo Documentation



Telecom CLoset -incoming telecom cabling from Manhole

Figure 1



Telephone and Fiber Optic Cabling going out to Manhole

Figure 2

Element Description

Ground Floor Mail Room Telecom Closet Room G-01a :
1. No building entry panels providing surge protection / lightning protections for incoming telephone lines. These telephone lines surge protection units are not located at the point of entry for the telephone cables in Mail Room Closet G-01a, but in Telephone Room G-07A. - This allows for lightning surges to enter the building and cause damage. - does not comply with EIA/TIA standards.
2. Limited to no labeling on most cabling. So identification of what each cable serves is not possible without tracing out lines. - making adds/moves/changes and troubleshooting difficult. - not best practice.
3. Closet serves multiple building systems including Security Panels and Energy Management Panels - making this a critial infrastructure space - best practices recommend dedicated equipment spaces.
4. Debris and spare materials stored in this telephone room. - not best practices
5. Water Leaks / previous water infiltration water marks observed - water can damage and shorten cable and equipment life.
6. No telecom grounding and no bonding. - poor grounding can cause network problems
7. Limited to no fire-stopping - best practices recommend sealing penetrations to limit fire and smoke
8. No Generator and limited UPS power - network will not operate during long power outage.
9. Closet is too small for equipment and not sufficient space for future cabling.- limited future growth

References:

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

Discipline:	Low Voltage	Report Number:	
Room Identification:	G - 07a	Condition:	Assessment
Element Type:	Low Voltage		
Element SubType:	N/A		

Photo Documentation

Telephone Lightning Protection Enclosures Not close to Point

Figure 1

Floor Penetration filled to capacity

Figure 2

Element Description

Ground Floor Telephone Room G-07a :
1. No network equipment present, only telephone terminations including telephone line building entry panels providing surge protection / lightning protections for incoming telephone lines. These telephone lines surge protection units are not located at the point of entry for the telephone cables in Mail Room Closet G-01a. This allows for lightning surges to enter the building and cause damage. - does not comply with EIA/TIA standards.
2. Limited to no labeling on most cabling. So identification of what each cable serves is not possible without tracing out lines.- making adds/moves/changes and troubleshooting difficult. - not best practice.
3. Numerous abandoned and cut cables are present. National Electrical Code requires abandon cabling to be removed to reduce combustible material / reduce fuel for fire and smoke propagation in building.
4. Debris and spare materials stored in this telephone room.- not best practices
5. No air conditioning.- excessive heat will shorten life of network equipment
6. No telecom grounding and no bonding. - poor grounding can cause network problems
7. Limited to no fire-stopping - best practices recommend sealing penetrations to limit fire and smoke
8. No Generator and limited UPS power - network will not operate during long power outage.

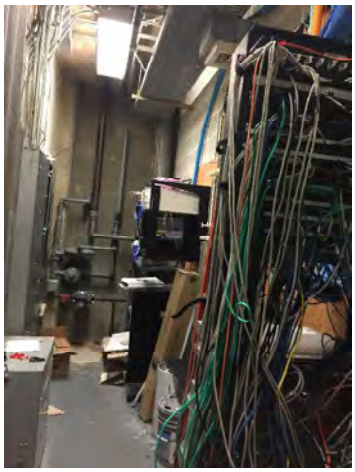
References:

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

Condition / Element Report

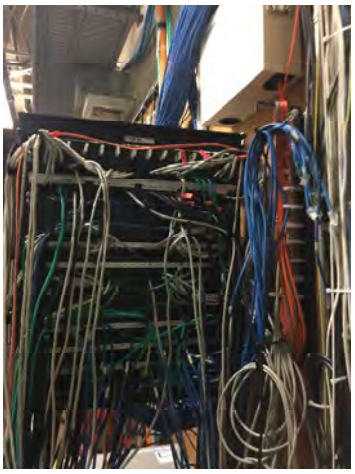
Discipline:	Low Voltage	Report Number:	
Room Identification:	G - 15	Condition:	Poor
Element Type:	Low Voltage		
Element SubType:	Wire Closet / Mech Rm		

Photo Documentation



Electric Panels , Gas Meter , DAS Rack, and IDF Rack

Figure 1



Telecom Rack with limited space for future additions

Figure 2

Element Description

Ground Floor IDF Wire CLoset / Mech Room (Gas Meter) Room G-15 :
1. No Air Conditioning - excessive heat will shorten life of network equipment
2. No Fire Protection - best practices recommend the telecom equipment be protected from fire.
3. No Electronic Access Control - best practice recommend monitoring access to telecom spaces.
4. Debris and spare materials stored in this telephone room. - dust shortens equipment life.
5. Limited space / No space for new equipment in Telecom rack.- limited future growth
6. No telecom grounding and no bonding. - poor grounding can cause network problems
7. Limited to no fire-stopping - best practices recommend sealing penetrations to limit fire and smoke
8. No Generator and limited UPS power - network will not operate during long power outage.
9. Closet is too small for equipment and not sufficient space for future cabling.- limited future growth
10. Verizon Distributed Antenna System (DAS) is located in this room - making this a critical room to protect
11. Limited cable management & horizontal cable support in ceiling space. Limited cable tray.
12. Floor Penetrations are filled to capacity.- limited future growth
13. Telecom room is shared by electrical panels and with gas service meter. - not best practice. Dedicated room for telecom is best practice.

References:

5.4.1 First Floor Assessment

Click here to return to section directory....pg. 49

5.4.1 FIRST FLOOR CONDITIONS ASSESSMENT

5.4.1 a ARCHITECTURAL

Central

- The central portion of the First Floor is the Joint Hearing Room. In general, the Joint Hearing Room is in Fair or Good condition. The wall paneling, in particular, appears to be the original and has been well maintained. The carpeting appears to be 10 – 15 years old, and due to the high traffic nature of the room, shows some wear along paths of foot traffic. The wood transition steps also show significant wear due to the high traffic they experience. The ceiling is in Fair condition, however there is one instance of spot water damage, likely from concealed mechanical equipment.
- The Joint Hearing Room is ADA non-compliant in several instances. Both pairs of doors along the North and South wall use knobs. Most significantly, the ramp employed as a means of egress from the main floor to the egress doors along the South Wall leading to the South Entrance has a slope which exceeds 18% with no handrails; the maximum allowable slope with handrails is 1:12 or 8.33%.

North

- The west half of the north portion is occupied by Office 1-10 Office of Policy Analysis, which was originally designated as the Library. Cubicles and open office desks have been placed within the original footprint. This area is in Poor condition due to several factors; the floor is substantially worn in areas of high traffic; ceiling tiles show an assortment of conditions with some tiles appearing in Good condition while others show significant damage. The walls appear not to have been well maintained.
- There is an alcove at the south west corner of the office housing lateral file cabinets which is not ADA accessible in terms of required width; this is also true for an area which has been dedicated as an office break area.
- The east half, which was originally the Bill Drafting room, is now split between a bank of individual offices and the Warren G. Deschenaux Conference Room. The individual offices are in Fair to Good condition. The carpet appears to be in an area with little foot traffic and so shows few signs of wear, however it appears to be approximately 10 – 15 years old and is therefore in Fair condition; the walls and ceiling are in Good condition and show little wear or use.
- The conference room has similar conditions as the individual offices however appears to have heavier use and so the materials are showing more wear and tear. This room is in Fair condition throughout. In addition, the handles to the closet doors are not ADA compliant.

East

- The layout of the offices in the eastern portion of the building are for the most part in the configuration of the original building with the exception of the shared office space in 1-16, which has removed the original partitions to create a large shared space accommodating reference volumes.
- The carpet throughout these offices appears to be approximately 10 – 15 years old; there are no significant points of concern but it shows typical wear for a carpet of that age.
- The walls are similar however there are significant portions, particularly in 1-20, where the ceiling

tile appears to be the original tile and is in Poor condition due to extensive discoloration and mismatched tiles. The majority of those offices are ADA non-compliant regarding door hardware, and several do not meet the requirements for maneuverability at door openings.

South

- The south portion of the building, as with the other floors, contains the elevator lobby, men's and women's bathrooms, offices, along with the South Entrance, which serves as the primary entrance to the building off of Lawyer's Mall.
- The bathrooms are typical of the building, with what appears to be the original finishes in Fair condition; neither room is ADA compliant in terms of fixtures or door hardware.
- The Elevator Lobby and South Entrance are generally in Fair condition, especially considering the high traffic of that area. The carpet in the lobby appears to be newer than the carpet typical of the offices throughout this floor and is in Fair condition; the flooring in the South Entrance, however, appears
- to be the original tile flooring and due to the high traffic of this area is in Poor condition. The ceiling throughout the entry and lobby is in Poor condition; it appears to be the original tile and is mismatched, discolored, and damaged in several instances. It should be noted that the trim in this area has been well maintained and is in Good condition.
- The offices on either side of the entrance are in similar condition, with carpet 10 – 15 years old and showing typical wear. The State Police Office has significant wear throughout.

West

- The West portion of the building is primarily offices on either side of Stair A. The offices typically are furnished with carpet that appears to be 10 - 15 years old and is in Fair condition. The ceilings appear to be of relatively recent installation and are in Fair to Good condition with several areas of spot water damage. The walls are typically in Fair condition except for a few minor areas that have experienced superficial damage from furniture or equipment.
- Stair A is generally in Fair condition and seems to have been well maintained. The marble stairs are in Fair condition, however the trim shows significant wear in some spots where the paint has deteriorated to the point of exposing the wood underneath.

5.4.1 b STRUCTURAL

- First floor, elevated above grade: conventionally reinforced concrete
- Floor is accessed by exterior stairs at entrances.
- Conventionally reinforced concrete beams support concrete joists at 36” on center. Typical beams are 30” deep, joists have a 3.5” flange and extend 10” below flanges, and flat slabs are 9” thick. Variations in select areas occur.
- Concrete beams are placed along the perimeter and typically along interior gridlines running north to south between columns
- Elevation varies at center of the floor (Joint Hearing Room). Conventionally reinforced concrete slab is steppped and sloped up to second floor
- Beams switch directions north of the Joint Hearing Room, to run east to west between columns; south of the Joint Hearing Room is a conventionally reinforced flat slab

5.4.1 c MEP

HVAC

North/South/ East and West

- This floor contains ductwork, piping, terminal units, air devices and controls
- The terminal units are constant volume reheat type which are very inefficient and do not meet current codes.
- The piping serving the reheat coils is piped as a constant flow and does not take advantage of variable heating water flow requirements in the space.
- The perimeter of the building is provided with hot water fin-tube radiation under the windows. These units are not easily accessible for service and their operation can be compromised by placing furniture at the floor return.
- The air devices appear to need to be cleaned and air pattern controllers adjusted.

Electrical

Northeast Quadrant

- Panelboards 1LA and 1PA are original equipment, 40+ years old and they should be replaced. Replacement parts and circuit breakers for panels over 25 years of age can be difficult to find and if found, can be expensive.
- The 50kva transformer that serves Panels 1PA is original equipment, 40+ years old and it should be replaced with a new energy efficient transformer, which can reduce energy consumption and it also operates at lower temperatures, which in turn, reduces the amount of required cooling.

Southwest Quadrant

- Panelboards 1LB and 1PB are original equipment, 40+ years old and they should be replaced. Replacement parts and circuit breakers for panels over 25 years of age can be difficult to find and if found, can be expensive.
- The 50kva transformer that serves Panels 1PB is original equipment, 40+ years old and it should be replaced with a new energy efficient transformer, which can reduce energy consumption and it also operates at lower temperatures, which in turn, reduces the amount of required cooling.

5.4.1 d TELECOMMUNICATIONS

East

- Telecom room is too small and shared with other building systems
- Telecom rack is filled to capacity with no available space for new equipment.
- No security / no access control to protect this room

5.4.2 First Floor Conditions Reports

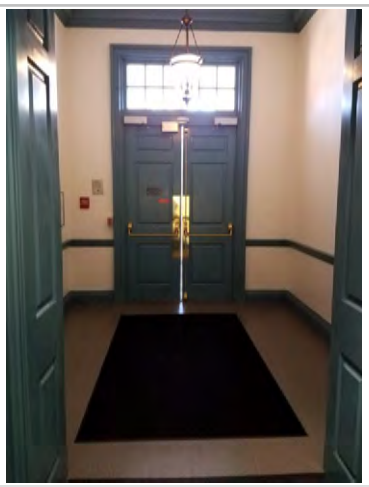
Click here to return to section directory....pg. 49

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

Condition / Element Report

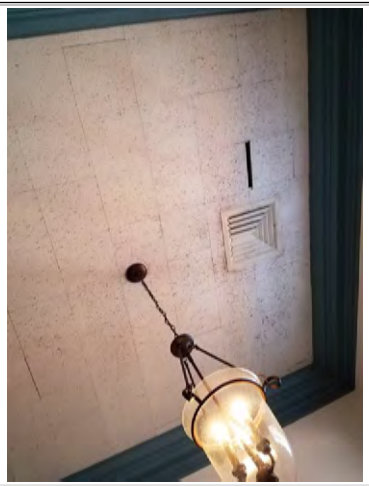
Discipline:	Architectural - Interiors	Report Number:	A-100
Room Identification:	1 - East Entry	Condition:	Poor
Element Type:	Miscellaneous		
Element SubType:	floors & ceilings		

Photo Documentation



General view of the East Entry

Figure 1 Clear Image 1



Ceiling tiles in the East Entry

Figure 2 Clear Image 2

Element Description

1. The floor in the East Entry appears to be the original floor, and while there are no specific issues to report, the floor appears to at the end of its life cycle and so is assessed in "Poor" condition.

2. The ceiling tiles are in "Poor" condition showing significant wear for its use and age.

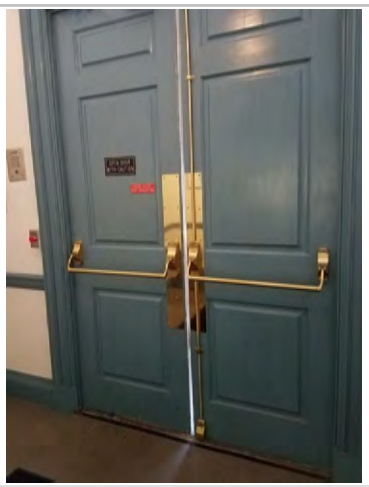
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A,101
Room Identification:	1 - East Entry	Condition:	Fair
Element Type:	Openings		
Element SubType:	N/A		

Photo Documentation



Exterior doors of the East Entry

Figure 1 Clear Image 1

Cased opening in the East Entry

Figure 2 Clear Image 2

Element Description

1. The surface conditions of both the exterior door and the trim at the cased entry are in "Fair" condition, with typical wear for age and use.

2. The exterior doors, however, are clearly not weather proof with significant air space between the two leaves.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-102
Room Identification:	1 - Staff Breakroom	Condition:	Poor
Element Type:	Miscellaneous		
Element SubType:	floors, walls and ceilings		

Photo Documentation

Figure 1 Clear Image 1

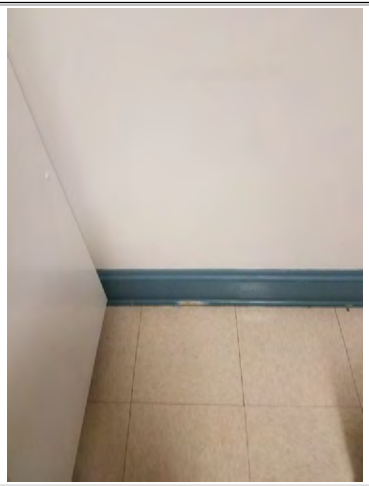


Figure 2 Clear Image 2

Element Description

1. The surfaces in the Breakroom are assessed in "Poor" condition.
2. The ceilings are assessed "Poor" due to discoloration and damaged tiles throughout.
3. The floors and assessed "Poor" due to excessive wear and several areas of damage.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	North

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-103
Room Identification:	1 - Breakroom	Condition:	ADA Consideration
Element Type:	Miscellaneous		
Element SubType:	Sink		

Photo Documentation

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

1. The sink on the first floor breakroom does not meet ADA requirements as follows:
   - 1a. 212.3 Sinks. Where sinks are provided, at least 5 percent, but no fewer than one, of each type provided in each accessible room or space shall comply with 606.
   - 1b. 606.2 Clear Floor Space. A clear floor space complying with 305, positioned for a forward approach, and knee and toe clearance complying with 306 shall be provided.
   - 1c. The existing sink does not provide any knee or toe space clearance.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	South

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-106
Room Identification:	1 - 02-03 Police Office	Condition:	Poor
Element Type:	Miscellaneous		
Element SubType:	N/A		

Photo Documentation

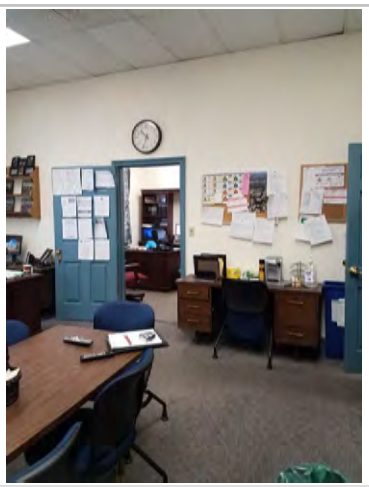


Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

1. The carpet is in "Poor" condition.
2. The walls are in "Poor" condition with damage in several areas.
3. The ceiling is in "Poor" condition with tiles typically damaged and discolored.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	South

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-107
Room Identification:	1 - 02-03 Police Office	Condition:	Poor
Element Type:	Openings		
Element SubType:	Windows		

Photo Documentation

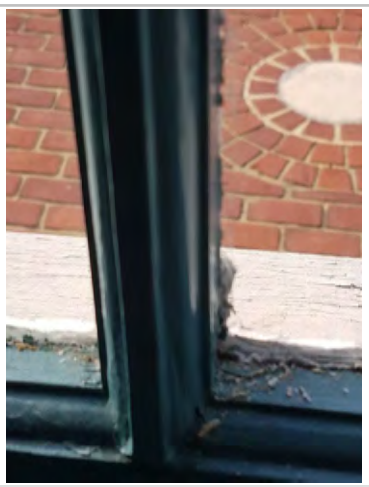


Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

1. The windows are in "Poor" condition with significant paint damage throughout.

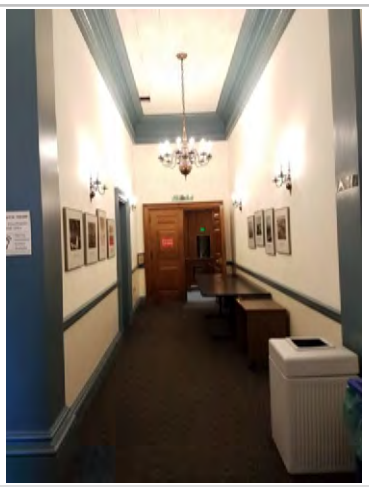
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	South

Condition / Element Report

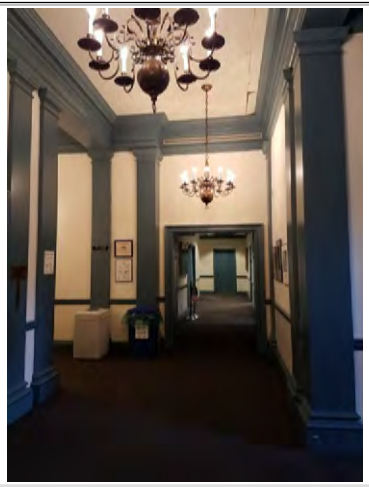
Discipline:	Architectural - Interiors	Report Number:	A-108
Room Identification:	1 - Elevator Lobby	Condition:	Fair
Element Type:	Miscellaneous		
Element SubType:	N/A		

Photo Documentation



View from elevator lobby North to Joint Hearing Room

Figure 1 Clear Image 1



View from Elevator Lobby looking East

Figure 2 Clear Image 2

Element Description

1. The floors and walls of the Elevator lobby are in "Fair" condition with typical wear for age and use.

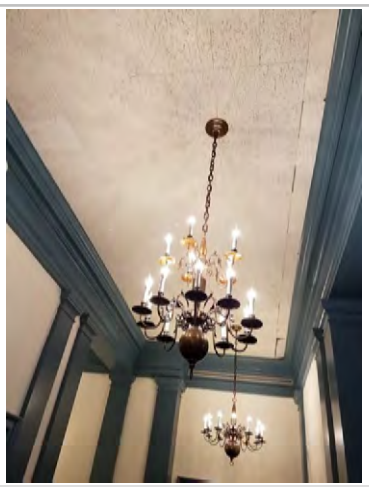
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	South

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-109
Room Identification:	1 - Elevator Lobby	Condition:	Poor
Element Type:	Ceiling		
Element SubType:	N/A		

Photo Documentation



Ceiling tile

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

1. The ceiling in the Elevator Lobby is in Poor Condition, with what appears to be the original ceiling tile which is at the end of it's life span.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	South

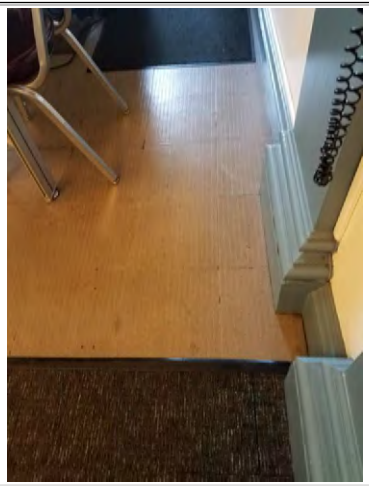
Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-110
Room Identification:	1 - Elevator Lobby	Condition:	Poor
Element Type:	Miscellaneous		
Element SubType:	Floors, Walls, Ceiling		

Photo Documentation

Room view of Entry South

Figure 1 Clear Image 1



Floor in Entry South

Figure 2 Clear Image 2

Element Description

1. The floors and ceiling are in "Poor" condition. They appear to be the original finishes and are at the end of their life span with the floor in particular showing significant wear.
2. The walls are in "Fair" condition.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	South

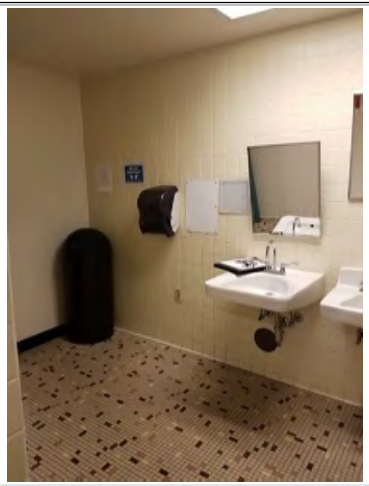
Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-111
Room Identification:	1 - Womens+Mens Rm	Condition:	Fair
Element Type:	Miscellaneous		
Element SubType:	Floors, Walls, Ceiling		

Photo Documentation

Room view of Entry South

Figure 1 Clear Image 1



Floor in Entry South

Figure 2 Clear Image 2

Element Description

1. The surfaces of the floors, walls, and ceiling in each of the Men's Room and Women's Room are all in "Fair" condition with typical wear for age and use.

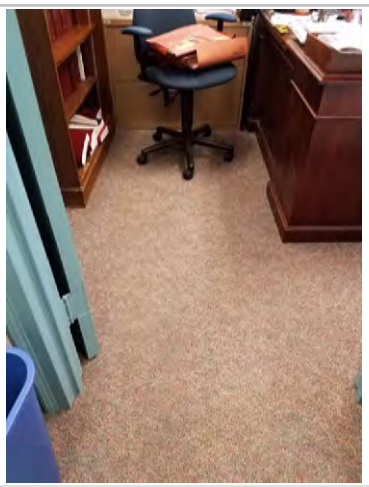
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

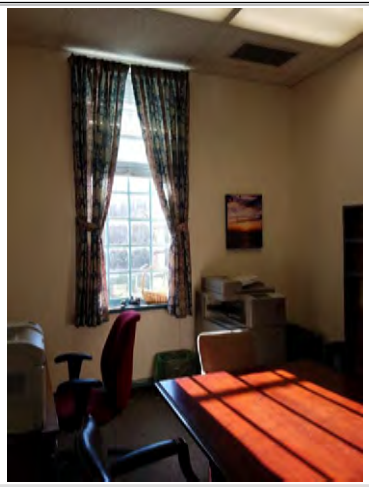
Discipline:	Architectural - Interiors	Report Number:	A-113
Room Identification:	1 - 04 a-d Offices	Condition:	Fair
Element Type:	Miscellaneous		
Element SubType:	Floors and walls		

Photo Documentation



Typical carpet condition

Figure 1 Clear Image 1



Typical wall condition

Figure 2 Clear Image 2

Element Description

1. The condition of the walls and carpet are in "Fair" condition with no significant issues to report.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-114
Room Identification:	1 - 04 a-d Offices	Condition:	Poor
Element Type:	Ceiling		
Element SubType:	N/A		

Photo Documentation

Typical ceiling tile

Figure 1 Clear Image 1

Typical ceiling tile

Figure 2 Clear Image 2

Element Description

1. The condition of the ceiling in 1-04 a-d offices is in "Poor" condition due to significant discoloration of tiles, damaged tiles, poorly placed tiles, and damaged tiles throughout.

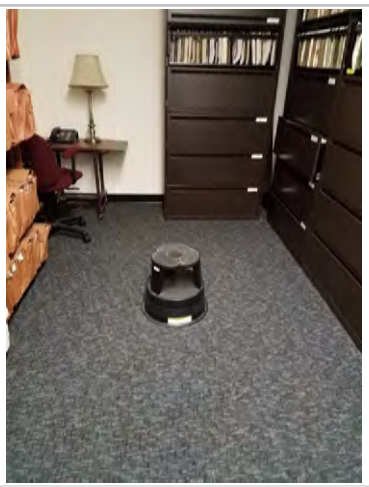
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

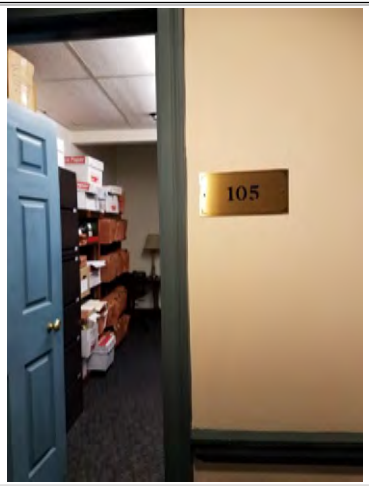
Discipline:	Architectural - Interiors	Report Number:	A-115
Room Identification:	1 - 05 Office	Condition:	Good
Element Type:	Miscellaneous		
Element SubType:	Floors, walls, and ceilings		

Photo Documentation



Typical carpet tile

Figure 1 Clear Image 1



View of office from corridor

Figure 2 Clear Image 2

Element Description

1. The condition of the walls and carpet are in "Good" condition with no significant issues to report.
2. The condition of the ceiling tiles is also in "Good" condition, however, at least one tile has minor damage.

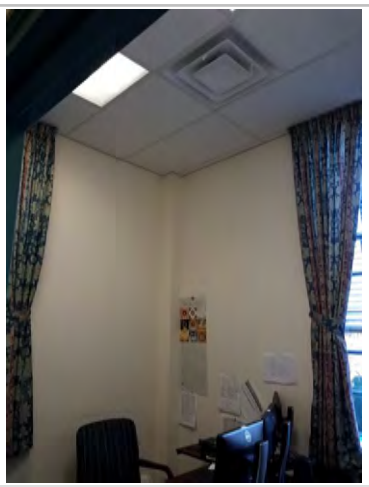
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

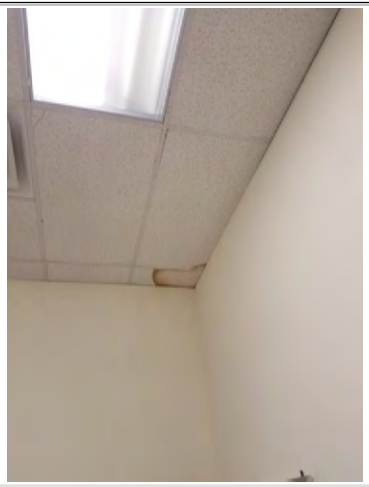
Discipline:	Architectural - Interiors	Report Number:	A-116
Room Identification:	1 - 07,08e-h,09 offices	Condition:	Fair
Element Type:	Miscellaneous		
Element SubType:	Floor and walls and ceilings		

Photo Documentation



Typical office condition

Figure 1 Clear Image 1



Spot water damage in 1-08

Figure 2 Clear Image 2

Element Description

1. All surfaces in this office are in "Fair" condition.

2. There is water damage in office 1-08.

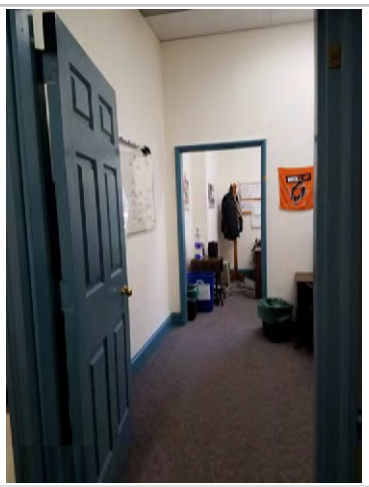
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-117
Room Identification:	1 - 08 c-d Offices	Condition:	Fair
Element Type:	Miscellaneous		
Element SubType:	Walls, Floors and Ceilings		

Photo Documentation



View from corridor looking west

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

1. All surfaces in these offices are in "Fair" condition with typical wear for their age and use.

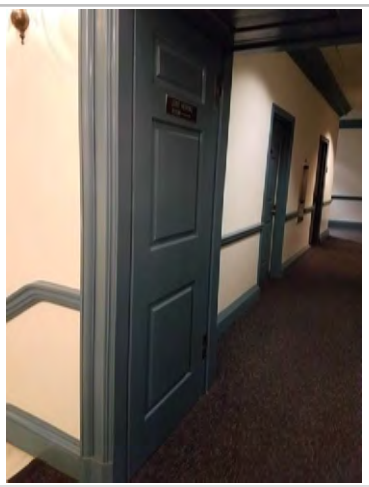
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

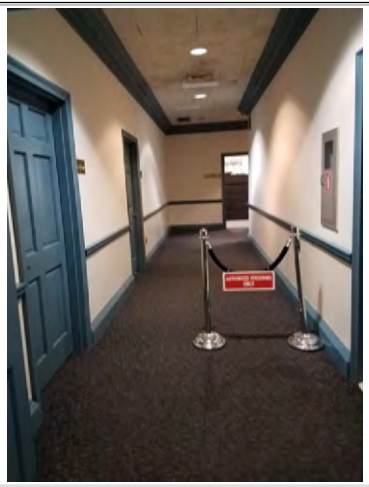
Discipline:	Architectural - Interiors	Report Number:	A-118
Room Identification:	1 - Corridor W	Condition:	Good
Element Type:	Miscellaneous		
Element SubType:	Floor and walls		

Photo Documentation



Corridor looking South

Figure 1 Clear Image 1



SW Corridor looking West

Figure 2 Clear Image 2

Element Description

1. The carpets appear to have been recently installed and are in Good condition.
2. The walls have been well maintained and are in Good condition.

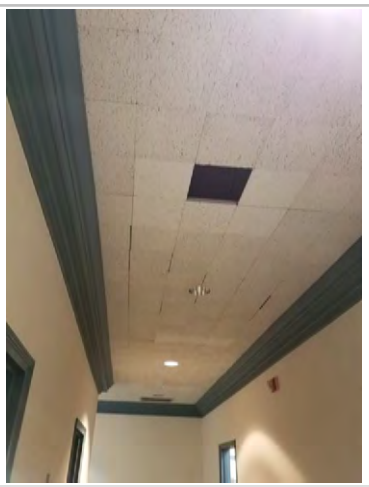
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-119
Room Identification:	1 - Corridor W	Condition:	Poor
Element Type:	Ceiling		
Element SubType:	N/A		

Photo Documentation



Typical ceiling condition

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

1. The ceilings are in poor condition. They appear to be the original tiles and are significantly worn, damaged, or missing.

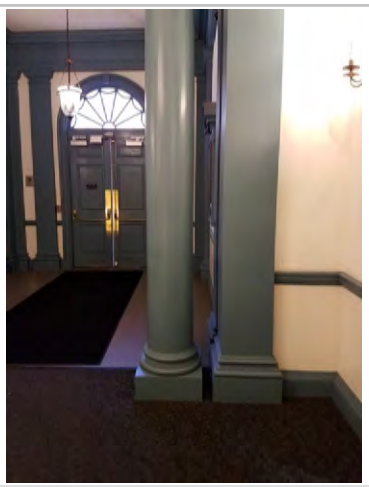
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-120
Room Identification:	1 - Entry	Condition:	Fair
Element Type:	Miscellaneous		
Element SubType:	Floors and walls		

Photo Documentation



General view of West Entry

Figure 1 Clear Image 1

Typical wall condition

Figure 2 Clear Image 2

Element Description

1. The condition of the walls and floor are in "Fair" condition with no significant issues to report.

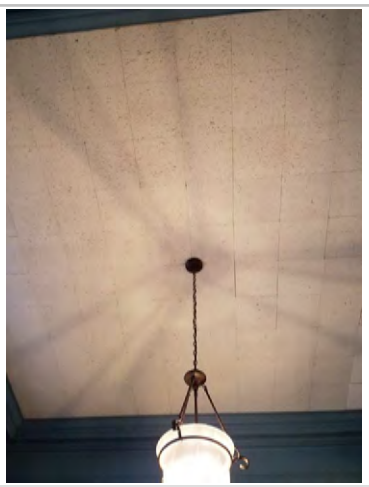
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-121
Room Identification:	1 - Entry	Condition:	Poor
Element Type:	Ceiling		
Element SubType:	N/A		

Photo Documentation



Typical ceiling tile

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

1. The condition of the ceiling is assessed in "Poor" condition due to excessive wear for its age and use.

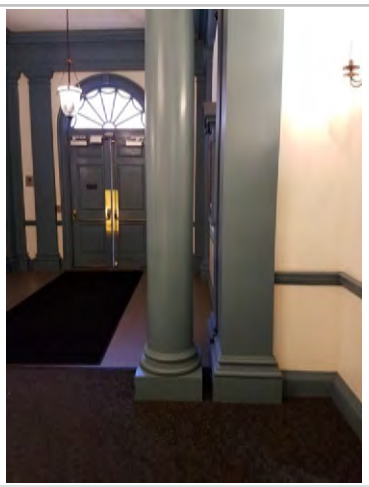
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-122
Room Identification:	1 - Entry West	Condition:	Good
Element Type:	Finishes / Details		
Element SubType:	N/A		

Photo Documentation



Room view of Entry South

Figure 1 Clear Image 1

Floor in Entry South

Figure 2 Clear Image 2

Element Description

1. The ceiling at the West Entry is in "Poor" condition. It appears to be the original tile and at the end of its life span.

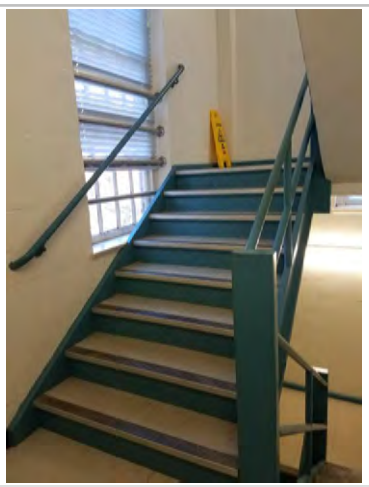
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

Condition / Element Report

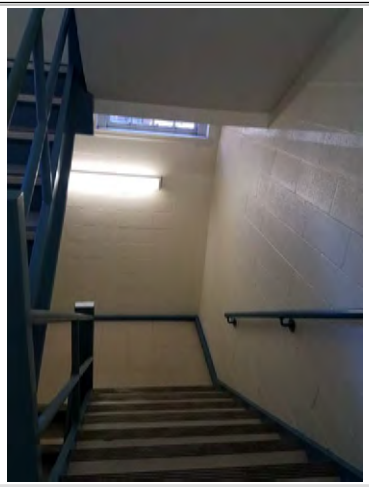
Discipline:	Architectural - Interiors	Report Number:	A-123
Room Identification:	1 - Stair B	Condition:	Good
Element Type:	Miscellaneous		
Element SubType:	floors, walls and ceilings		

Photo Documentation



Stair B looking up

Figure 1 Clear Image 1



Stair B looking down

Figure 2 Clear Image 2

Element Description

1. The surfaces in Stair B are in "Good" condition and appear to be well maintained.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-124
Room Identification:	1 - Stair B	Condition:	Poor
Element Type:	Openings		
Element SubType:	Window		

Photo Documentation

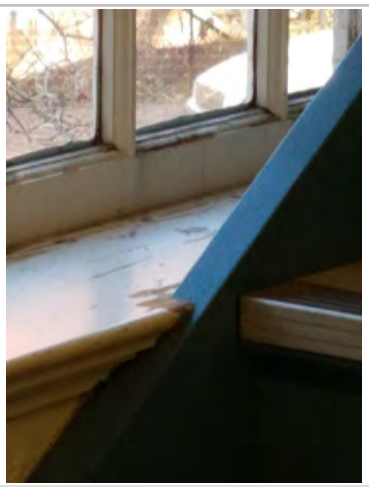


Figure 1 Clear Image 1

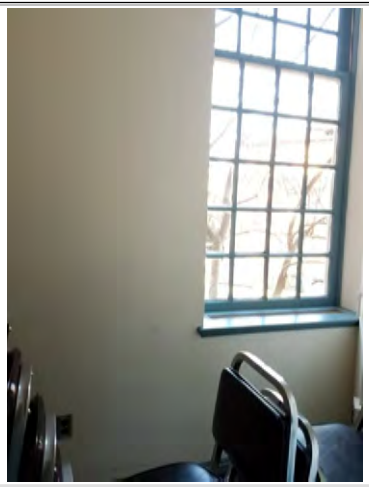


Figure 2 Clear Image 2

Element Description

1. The trim on the window of the North wall, including the sill, sash and mullions, is severely damaged and is assessed in "Poor" condition.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

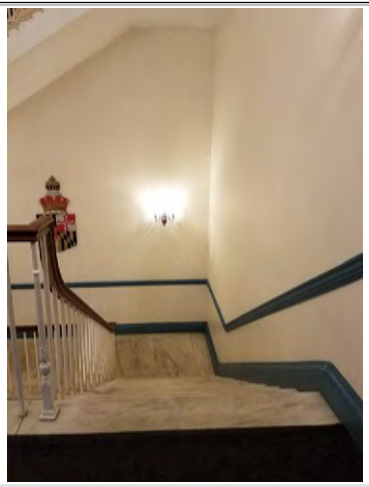
Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-125
Room Identification:	1 - Stair A	Condition:	Fair
Element Type:	Miscellaneous		
Element SubType:	Floor and walls		

Photo Documentation

Corridor looking South

Figure 1 Clear Image 1



SW Corridor looking West

Figure 2 Clear Image 2

Element Description

1. The stair treads are the original marble treads and are in Fair condition.
2. The walls are in Fair condition.

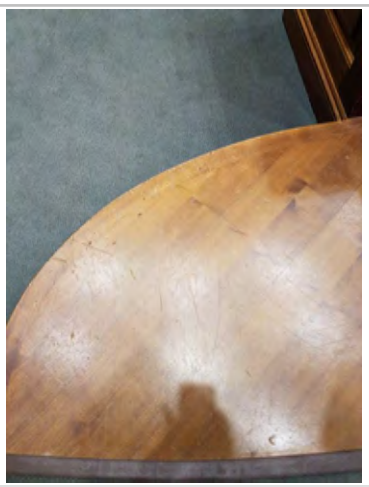
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	Central

Condition / Element Report

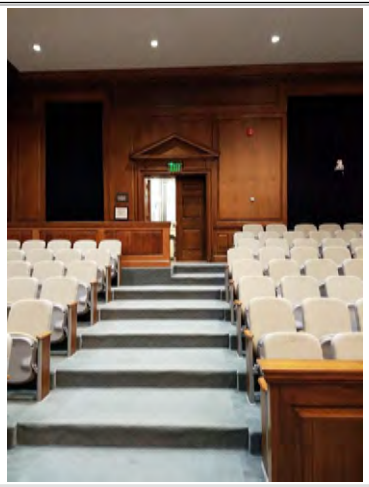
Discipline:	Architectural - Interiors	Report Number:	A-75
Room Identification:	1 - Joint Hearing Room	Condition:	Fair
Element Type:	Floors		
Element SubType:	N/A		

Photo Documentation



Wood step at north entry

Figure 1 Clear Image 1



Carpeted stairs (looking south)

Figure 2 Clear Image 2

Element Description

1. The wood flooring at the step shows excessive wear for it's age likely due to it's placement in a high traffic area. The damage appears to be superficial.

2. The carpeting throughout the Joint Hearing Room appears to be in "Fair" condition with average wear for use and age and no significant issues to report.

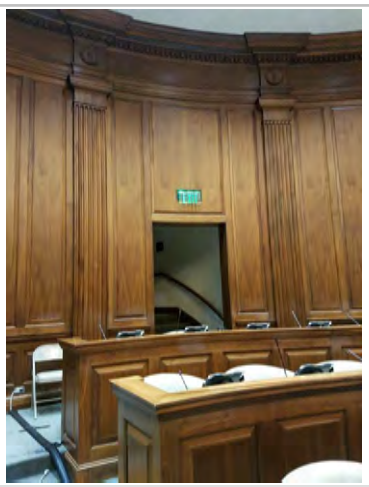
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	Central

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-76
Room Identification:	1 - Joint Hearing Room	Condition:	Good
Element Type:	Walls		
Element SubType:	N/A		

Photo Documentation



Wood panelling at north entry

Figure 1 Clear Image 1

Wood panelling in Joint Hearing Room

Figure 2 Clear Image 2

Element Description

1. In general the wood panelling that covers all wall surfaces in the Joint Hearing Room is in very good condition. This assessment applies also to the wood panelling throughout the seating area.

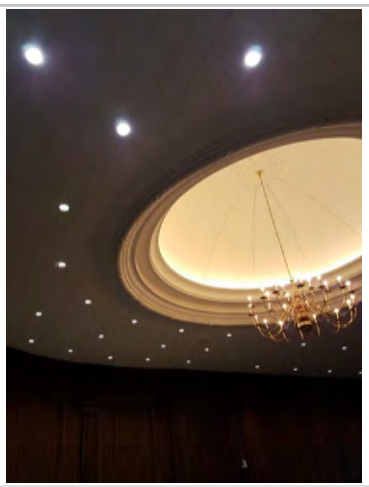
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	Central

Condition / Element Report

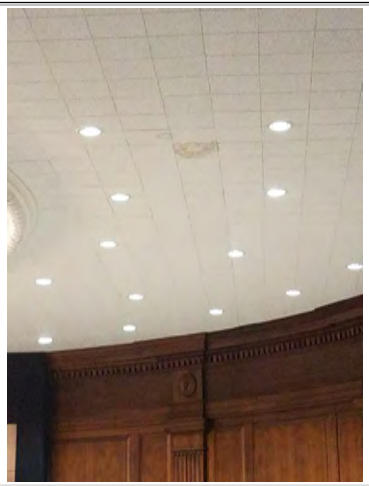
Discipline:	Architectural - Interiors	Report Number:	A-77
Room Identification:	1 - Joint Hearing Room	Condition:	Fair
Element Type:	Ceiling		
Element SubType:	N/A		

Photo Documentation



View of ceiling

Figure 1 Clear Image 1



Spot water damage

Figure 2 Clear Image 2

Element Description

1. The acoustic ceiling tiles appear to be in "Fair" condition with average wear for use and age.
2. There is one instance of apparent water damage possibly due to concealed mechanical equipment.
3. The panel portion and trim of the ceiling also appear to be in "Fair" condition.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	Central

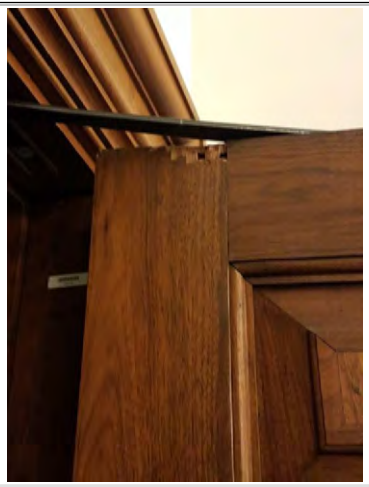
Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-78
Room Identification:	1 - Joint Hearing Room	Condition:	Poor
Element Type:	Openings		
Element SubType:	Doors		

Photo Documentation

Typical door with surface damage

Figure 1 Clear Image 1



Significant damage at closer arm

Figure 2 Clear Image 2

Element Description

1. The doors into the Joint Hearing Room are in "Poor" condition showing excessive wear and apparently superficial damage.
2. There is at least one instance of significant damage at the top of the door due to misalignment of the closer arm.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	Central

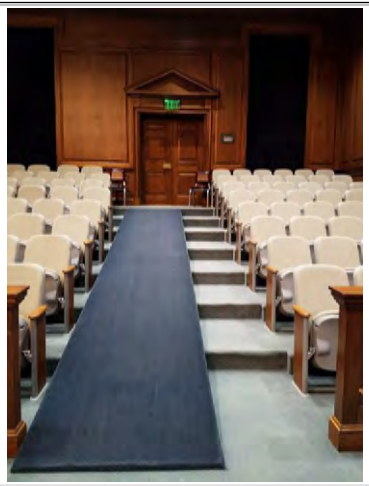
Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-79
Room Identification:	1 - Joint Hearing Room	Condition:	ADA Consideration
Element Type:	Miscellaneous		
Element SubType:	ADA compliance		

Photo Documentation

Knobs at all entry doors

Figure 1 Clear Image 1



Ramp from South entry

Figure 2 Clear Image 2

Element Description

1. Knobs on doorways do not comply with ADA regulation 309.4.

2. The allowable slope for an ADA accessible ramp is 1" per 12" or 8%.
   The slope of the ramp is 49" rise per 264" run, which is a slope of 18.5% which exceeds the allowable by 10.5%.

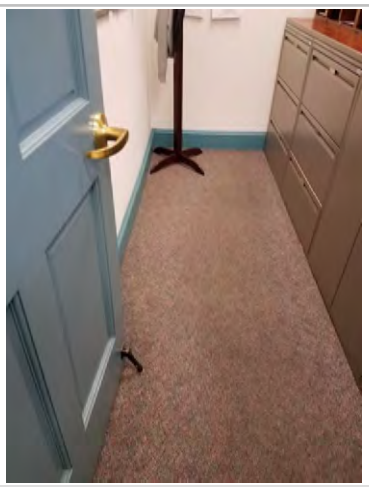
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	North

Condition / Element Report

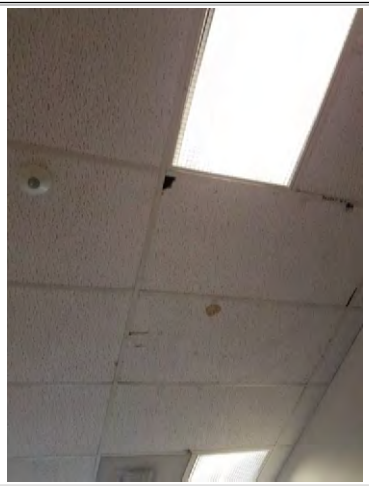
Discipline:	Architectural - Interiors	Report Number:	A-80
Room Identification:	1 - 10 Shared Office	Condition:	Poor
Element Type:	Miscellaneous		
Element SubType:	Floors, walls and ceiling		

Photo Documentation



Typical carpet

Figure 1 Clear Image 1



Typical ceiling condition

Figure 2 Clear Image 2

Element Description

1. The floor in this area is assessed as "Poor" due to excessive wear throughout the office, especially in high traffic areas.
2. The ceiling tiles are assessed in "Poor" condition due to damaged and discolored tiles throughout.
3. The walls, no shown, vary between "Fair" in less used areas to "Poor" in high traffic areas.

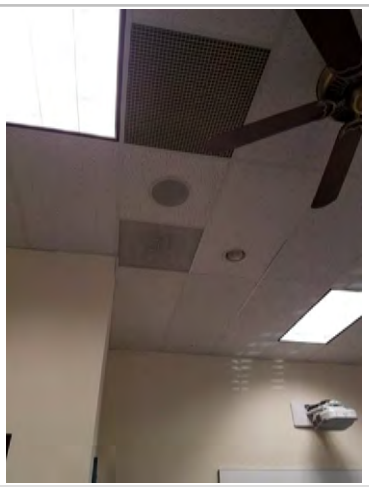
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	North

Condition / Element Report

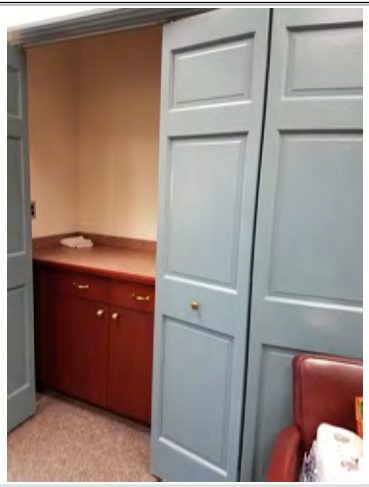
Discipline:	Architectural - Interiors	Report Number:	A-82
Room Identification:	1 - 11 Conference Rm	Condition:	Fair
Element Type:	Miscellaneous		
Element SubType:	Floors, walls and ceiling		

Photo Documentation



Access corridor from Corridor to Offices

Figure 1 Clear Image 1



Typical carpet condition

Figure 2 Clear Image 2

Element Description

1. The surfaces in the Conference Room are all in "Fair" condition with no issues to report.

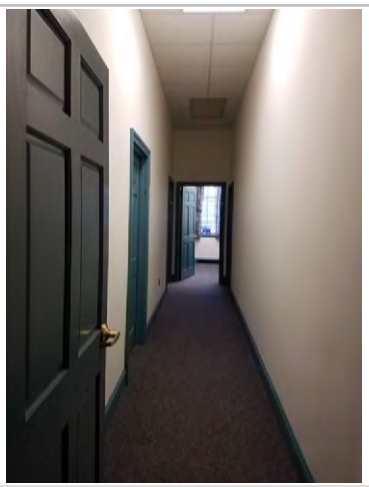
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	North

Condition / Element Report

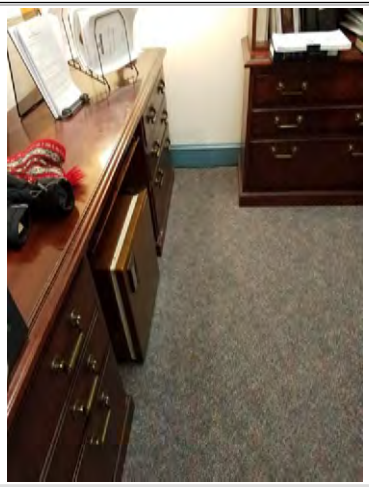
Discipline:	Architectural - Interiors	Report Number:	A-83
Room Identification:	1 - 11 a-c Offices	Condition:	Fair
Element Type:	Miscellaneous		
Element SubType:	Floors, walls and ceiling		

Photo Documentation



Access corridor from Corridor to Offices

Figure 1 Clear Image 1



Typical carpet condition

Figure 2 Clear Image 2

Element Description

1. The surfaces in this office area are all in "Fair" condition with no issues to report.

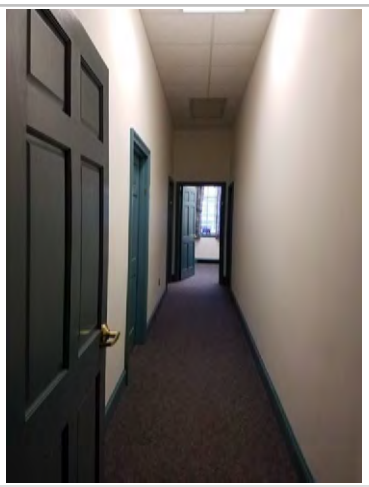
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	North

Condition / Element Report

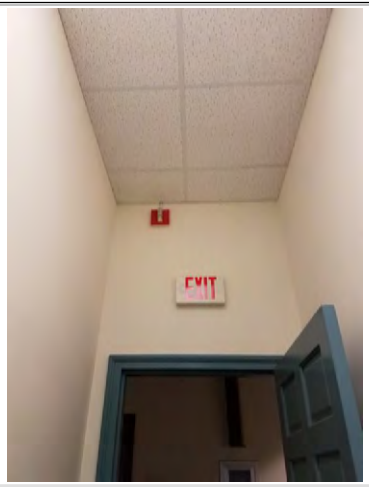
Discipline:	Architectural - Interiors	Report Number:	A-84
Room Identification:	1 - 11	Condition:	ADA Consideration
Element Type:	Openings		
Element SubType:	N/A		

Photo Documentation



Door into Suite 1-11 from hallway

Figure 1 Clear Image 1



Door from Suite 1-11 into hallway

Figure 2 Clear Image 2

Element Description

1. The door to office suite 1-11 does not meet the 2010 ADA Accessibility Requirements as follows:
   1a. There is insufficient clearance between the latch side door and the wall.
   404.2.4 Maneuvering Clearances. Minimum maneuvering clearances at doors and gates shall comply with 404.2.4. Maneuvering clearances shall extend the full width of the doorway and the required latch side or hinge side clearance.
   1b. 404.2.4.1 Approach Direction from front pull side requires 18" clearance parallel to doorway. The door to office suite 1-11 is <12".

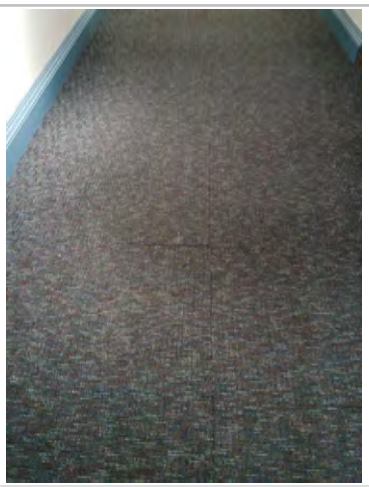
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	North

Condition / Element Report

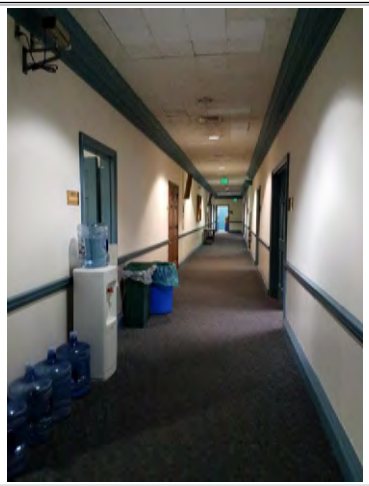
Discipline:	Architectural - Interiors	Report Number:	A-85
Room Identification:	1 - Corridor	Condition:	Good
Element Type:	Miscellaneous		
Element SubType:	Floor & Walls		

Photo Documentation



Carpet tile in corridor

Figure 1 Clear Image 1



General view looking west

Figure 2 Clear Image 2

Element Description

1. The condition of the carpet and walls in the North Corridors are in "Good" condition.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	North

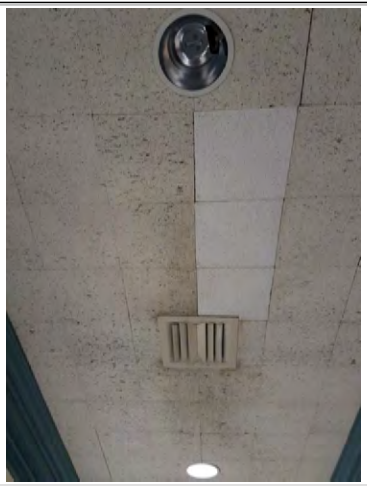
Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-86
Room Identification:	1 - Corridor	Condition:	Poor
Element Type:	Ceiling		
Element SubType:	N/A		

Photo Documentation

Typical ceiling tile

Figure 1 Clear Image 1



Typical ceiling tile

Figure 2 Clear Image 2

Element Description

1. The condition of the ceiling in the North Corridor is in "Poor" condition due to significant discoloration of tiles, damaged tiles, poorly placed tiles, and damaged tiles throughout.

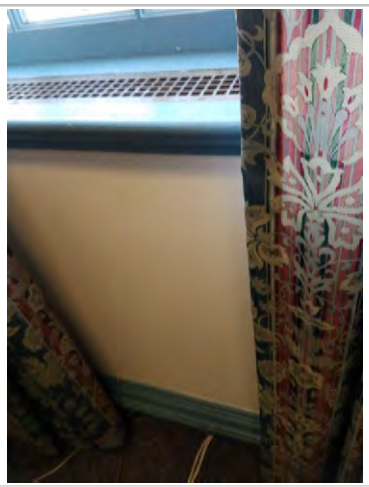
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

Condition / Element Report

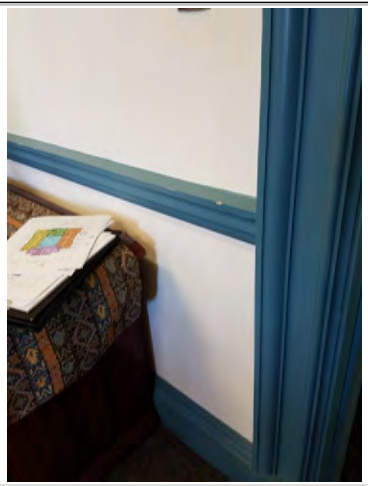
Discipline:	Architectural - Interiors	Report Number:	A-87
Room Identification:	1 - 12 Office	Condition:	Fair
Element Type:	Miscellaneous		
Element SubType:	floors and walls		

Photo Documentation



Typical wall condition and window sill

Figure 1 Clear Image 1



Minor damage at trim

Figure 2 Clear Image 2

Element Description

1. The walls are in "Fair" condition with no significant issues.
2. The floors are in "Fair" condition with no significant issues.
3. The trim is also in "Fair" condition, however, there are several instances of minor damage at the chair rail.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-88
Room Identification:	1 - 12 Office	Condition:	Poor
Element Type:	Ceiling		
Element SubType:	N/A		

Photo Documentation

Ceiling tile - water damage adjacent to light fixture

Figure 1 Clear Image 1

General ceiling condition

Figure 2 Clear Image 2

Element Description

1. The ceiling in 1-12 Office is in poor condition and is likely close to the end of its life cycle. There appears to be water damage possibly from concealed mechanical equipment.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

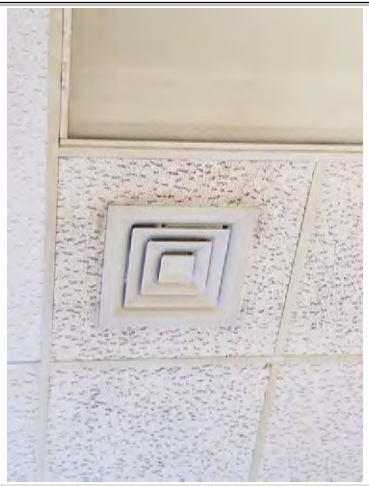
Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-89
Room Identification:	1 - 13-15 Offices	Condition:	Fair
Element Type:	Miscellaneous		
Element SubType:	floors, walls & ceiling		

Photo Documentation

Typical carpet

Figure 1 Clear Image 1



Minor discoloration at ceiling tile

Figure 2 Clear Image 2

Element Description

1. The floors are in "Fair" condition with no significant issues.
2. The ceilings are in "Fair" condition, however, there are several instances of tile discoloration adjacent to diffusers.
3. The walls, not shown, are in "Fair" or "Good" condition.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-90
Room Identification:	1 - 13-15 Offices	Condition:	Fair
Element Type:	Openings		
Element SubType:	N/A		

Photo Documentation

Typical wall condition and window sill

Figure 1 Clear Image 1

Minor damage at trim

Figure 2 Clear Image 2

Element Description

1. The doors are typically in "Fair" or even "Good" condition, but have been assessed as "Fair" due to spot damage at several door jambs.
2. The windows and trim in these offices are in "Fair" condition.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-91
Room Identification:	1 - 16 a-f offices	Condition:	Fair
Element Type:	Miscellaneous		
Element SubType:	Floor and walls and ceilings		

Photo Documentation

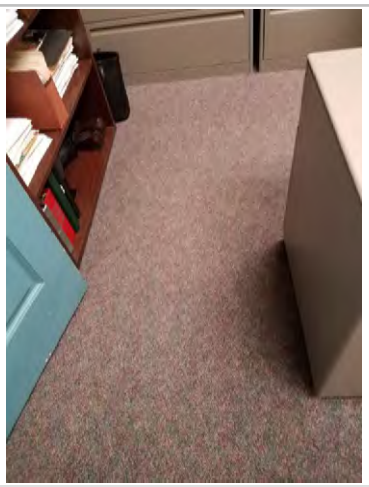


Figure 1 Clear Image 1

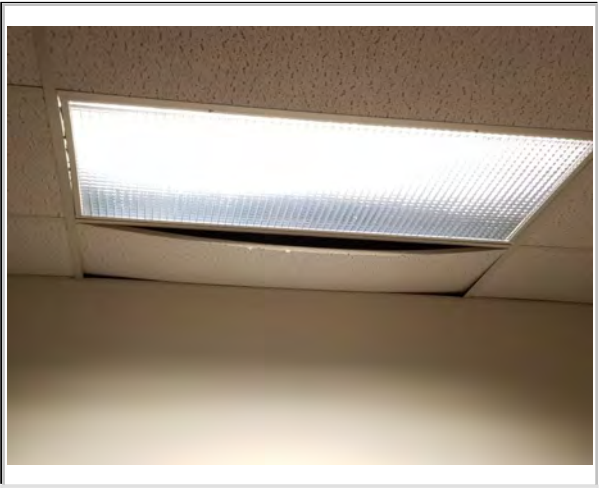


Figure 2 Clear Image 2

Element Description

1. All surfaces in this office are in "Fair" condition.
2. There are damaged or cracked ceiling tiles in multiple locations.

References: Clear Text Box

Department of Legislative Services Building 90 State Circle, Annapolis, MD 21401	Key Plan Location: East

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-92
Room Identification:	1 - 16	Condition:	Fair
Element Type:	Miscellaneous		
Element SubType:	Floor and walls and ceilings		

Photo Documentation

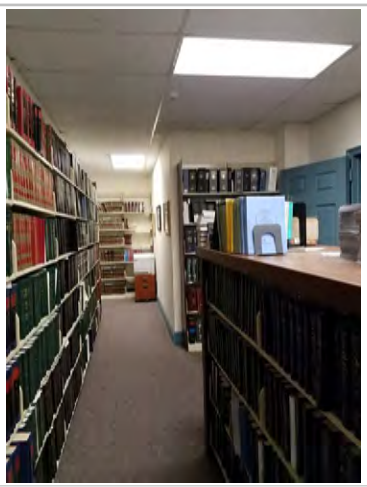


Figure 1 Clear Image 1

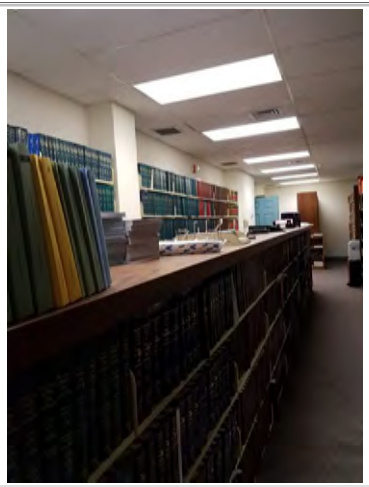


Figure 2 Clear Image 2

Element Description

1. All surfaces in this office are in "Fair" condition.

2. There are damaged or cracked ceiling tiles in multiple locations.

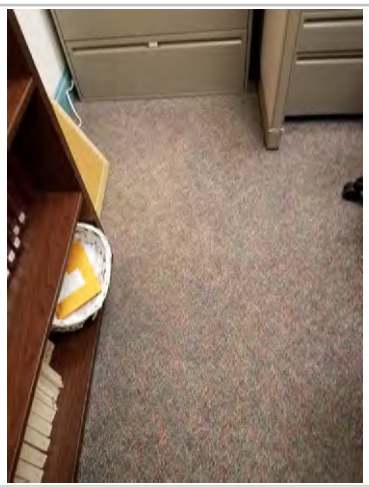
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

Condition / Element Report

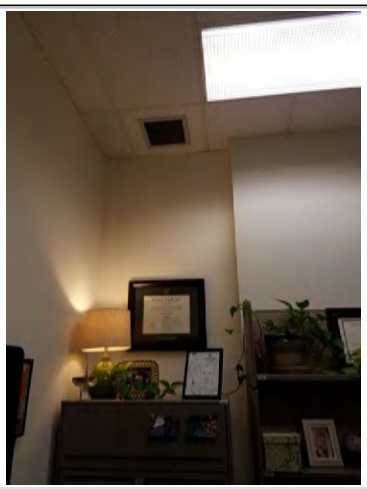
Discipline:	Architectural - Interiors	Report Number:	A-93
Room Identification:	1 - Office 17-19	Condition:	Fair
Element Type:	Miscellaneous		
Element SubType:	Floor and walls		

Photo Documentation



Typical carpet in Offices 17-19

Figure 1 Clear Image 1



Typical wall surface in Offices 17-19

Figure 2 Clear Image 2

Element Description

1. The carpet and walls in these offices are in "Fair" condition, with typical wear from age and use.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-94
Room Identification:	1 - Office 17-19	Condition:	Poor
Element Type:	Ceiling		
Element SubType:	N/A		

Photo Documentation

Typical ceiling tiles in Offices 17-19

Figure 1 Clear Image 1

Typical ceiling tiles in Offices 17-19

Figure 2 Clear Image 2

Element Description

1. The ceiling tiles in these offices are assessed in "Poor" condition and appear to be at the end of their life cycle. There is discoloration throughout, and several instances of cracked or damaged tiles.

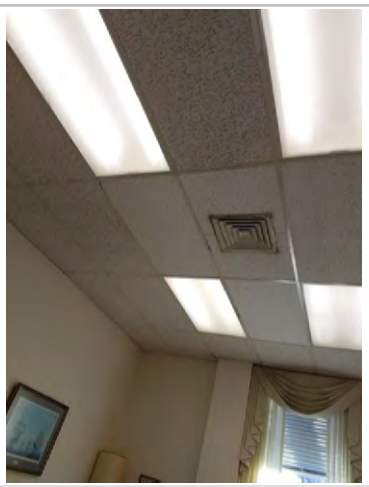
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

Condition / Element Report

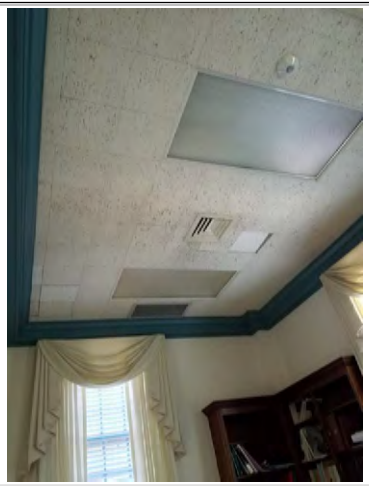
Discipline:	Architectural - Interiors	Report Number:	A-96
Room Identification:	1 - 20 & 20a Offices	Condition:	Poor
Element Type:	Ceiling		
Element SubType:	N/A		

Photo Documentation



Ceiling tile in Office 1-20

Figure 1 Clear Image 1



Ceiling tile in Office 1-20a

Figure 2 Clear Image 2

Element Description

1. The ceiling tiles in these offices are assessed in "Poor" condition and appear to be at the end of their life cycle. Tiles are discolored and mismatched throughout, with several damaged tiles.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-97
Room Identification:	1 - 20-21 offices	Condition:	Fair
Element Type:	Miscellaneous		
Element SubType:	Floor and walls and ceilings		

Photo Documentation

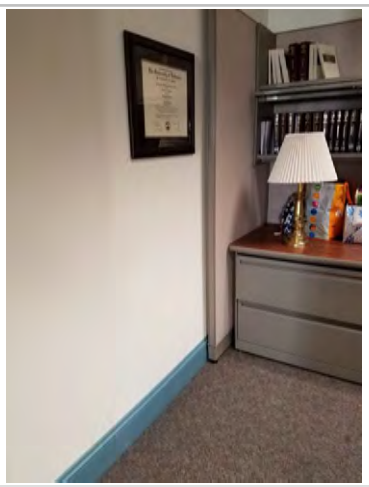


Figure 1 Clear Image 1

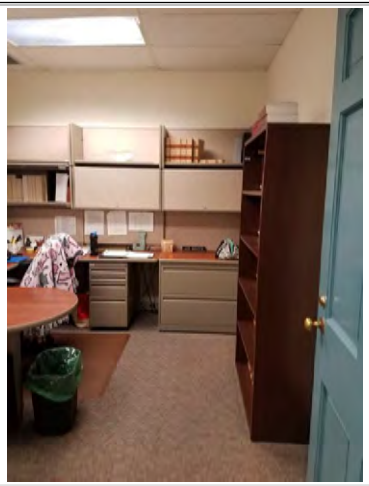


Figure 2 Clear Image 2

Element Description

1. All surfaces in this office are in "Fair" condition.
2. There are damaged or cracked ceiling tiles in multiple locations.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-98
Room Identification:	1 - Corridor	Condition:	Fair
Element Type:	Miscellaneous		
Element SubType:	Floor and walls		

Photo Documentation

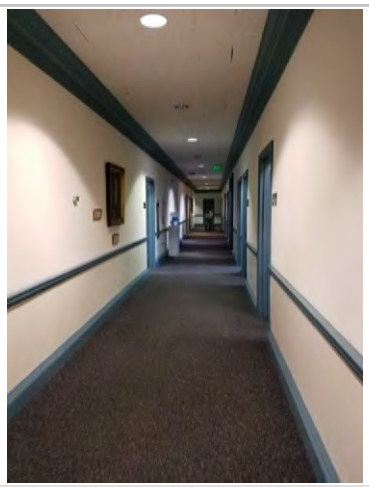


Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

1. The carpet and walls in Corridor E and Corridor SE are in "Fair" condition.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-99
Room Identification:	1 - Corridor	Condition:	Poor
Element Type:	Ceiling		
Element SubType:	N/A		

Photo Documentation

Figure 1 Clear Image 1

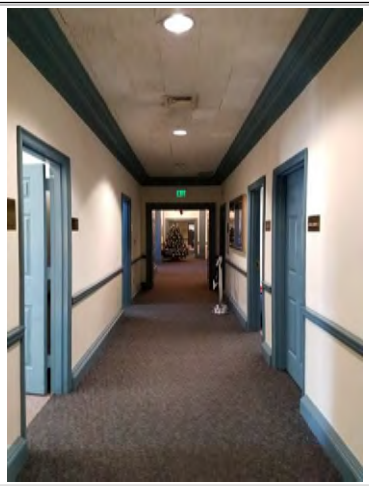


Figure 2 Clear Image 2

Element Description

1. The ceilings in the East Corridor are assessed in "Poor" condition due to discoloration, damaged tiles, and mismatched tiles throughout.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	Central

Condition / Element Report

Discipline:	MEP - Mechanical	Report Number:	7
Room Identification:	N/A - all occupied	Condition:	Poor
Element Type:	HVAC - Primary		
Element SubType:	Terminal Reheat Units		

Photo Documentation

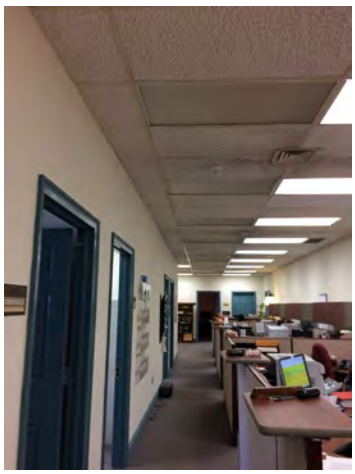


Figure 1 Clear Image 1

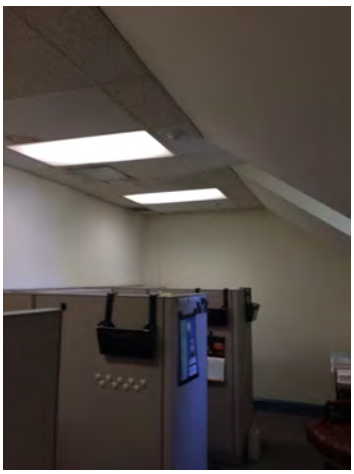


Figure 2 Clear Image 2

Element Description

Terminal reheat boxes are located above the ceilings in occupied spaces. These units serve to throttle the primary air and reheat a constant volume of air as required to condition a single zone. One terminal reheat box typically serves one to two offices on the perimeter as well as interior of the occupied areas. There is no means for individual / variable temperature control by the occupants as provided by a modern system. The use of terminal reheat is very inefficient and in violation of energy codes. These units are over 40 years old and are beyond their useful service life. Replacement is recommended.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	Central

Condition / Element Report

Discipline:	MEP - Mechanical	Report Number:	8
Room Identification:	N/A - all occupied	Condition:	Poor
Element Type:	HVAC - Primary		
Element SubType:	Perimeter Radiaiton		

Photo Documentation

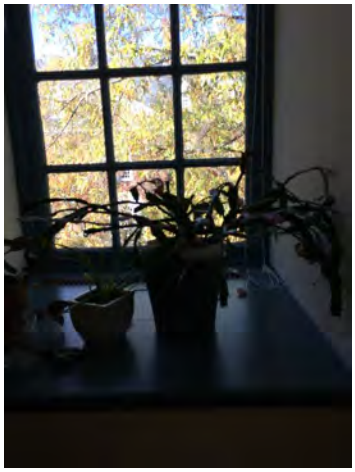


Figure 1 Clear Image 1

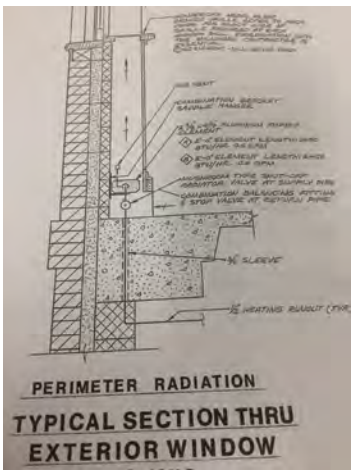


Figure 2 Clear Image 2

Element Description

Fin tube radiation is installed along the perimeter below the exterior windows. The fin tube system includes copper piping with aluminum fins. The fin tube is enclosed making inspection and service difficult. Also if furniture is placed near the enclosure, the operation of the system is compromised. These units are over 40 years old and are beyond their useful service life. Replacement is recommended.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	North

Condition / Element Report

Discipline:	MEP - Electrical	Report Number:	16
Room Identification:	1 - Stair B Elec Closet	Condition:	Poor
Element Type:	Electrical Service Distribution		
Element SubType:	Panel 1LA		

Photo Documentation

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

Panelboard 1LA - 277/480 volt 3 phase, 4-wire, 225 amp, is original equipment, 40+ years old and should be replaced. Parts are not readily available for this equipment and repairs can be costly and faulty switches/breakers that are not readily available can lead to extended periods of downtime on affected circuits.

References: Clear Text Box

Department of Legislative Services Building
90 State Circle, Annapolis, MD 21401

Key Plan Location: North

Condition / Element Report

Discipline:	MEP - Electrical	Report Number:	17
Room Identification:	1 - Stair B Elec Closet	Condition:	Poor
Element Type:	Electrical Service Distribution		
Element SubType:	Panel 1PA		

Photo Documentation

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

Panelboard 1PA - 277/480 volt 3 phase, 4-wire, 200 amp, is original equipment, 40+ years old and should be replaced. Parts are not readily available for this equipment and repairs can be costly and faulty switches/breakers that are not readily available can lead to extended periods of downtime on affected circuits.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	North

Condition / Element Report

Discipline:	MEP - Electrical	Report Number:	18
Room Identification:	1 - Stair B Elec Closet	Condition:	Poor
Element Type:	Electrical Service Distribution		
Element SubType:	50kva Transformer		

Photo Documentation

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

50kva Dry Type Transformer - 480/208/120 3 phase, 4-wire, is original equipment, 40+ years old and should be replaced with new energy efficient transformer to comply with the 2016 Department of Energy and Maryland High Performance Buildings Program requirements.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	Central

Condition / Element Report

Discipline:	MEP - Electrical	Report Number:	19
Room Identification:	1 - 43	Condition:	Good
Element Type:	Electrical Service Distribution		
Element SubType:	Panel S		

Photo Documentation

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

Panelboard S - 120/208 volt 3 phase, 4-wire, 225 amp, is original equipment. This panel is in fair condition and can remain.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	Central

Condition / Element Report

Discipline:	MEP - Electrical	Report Number:	20
Room Identification:	1 - 43	Condition:	Good
Element Type:	Electrical Service Distribution		
Element SubType:	Dimming Panels		

Photo Documentation

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

The Joint Hearing Room Dimming Panels are in fair condition and can remain. All missing junction box and wireway covers need to be replaced/installed.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	South

Condition / Element Report

Discipline:	MEP - Electrical	Report Number:	21
Room Identification:	1 - 76	Condition:	Poor
Element Type:	Electrical Service Distribution		
Element SubType:	Panel 1LB		

Photo Documentation

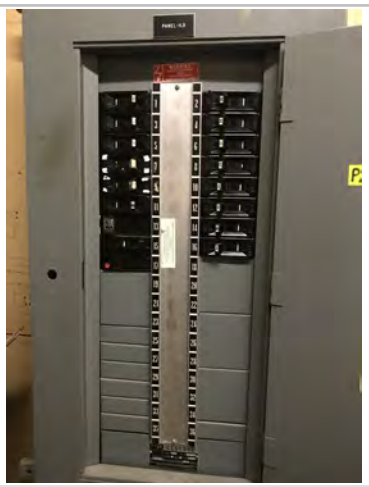


Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

Panelboard 1LB- 277/480 volt 3 phase, 4-wire, 225 amp, is original equipment, 40+ years old and should be replaced. Parts are not readily available for this equipment and repairs can be costly and faulty switches/breakers that are not readily available can lead to extended periods of downtime on affected circuits.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	South

Condition / Element Report

Discipline:	MEP - Electrical	Report Number:	22
Room Identification:	1 - 76	Condition:	Poor
Element Type:	Electrical Service Distribution		
Element SubType:	Panel 1PB		

Photo Documentation

Figure 1 Clear Image 1

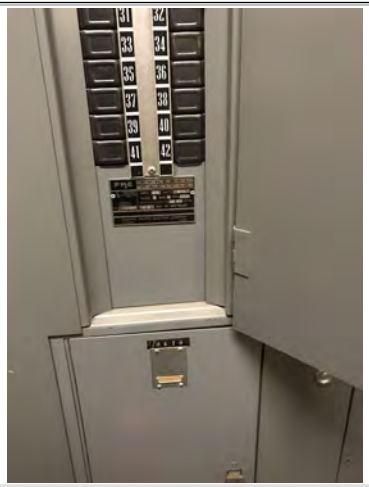


Figure 2 Clear Image 2

Element Description

Panelboard 1PB- 120/208 volt, 3 phase, 4-wire, 200 amp, is original equipment, 40+ years old and should be replaced. Parts are not readily available for this equipment and repairs can be costly and faulty switches/breakers that are not readily available can lead to extended periods of downtime on affected circuits.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	South

Condition / Element Report

Discipline:	MEP - Electrical	Report Number:	23
Room Identification:	1 - 76	Condition:	Poor
Element Type:	Electrical Service Distribution		
Element SubType:	50kva Transformer		

Photo Documentation

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

50kva Dry Type Transformer - 480/208/120 3 phase, 4-wire, is original equipment, 40+ years old and should be replaced with new energy efficient transformer to comply with the 2016 Department of Energy and Maryland High Performance Buildings Program requirements.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	Central

Condition / Element Report

Discipline:	MEP - Plumbing	Report Number:	7
Room Identification:	N/A -	Condition:	Fair
Element Type:	Plumbing		
Element SubType:	Water Fountains		

Photo Documentation

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

Water fountains look to be in fair condition. Fountains should be replaced with with handicapped accessible type.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	Central

Condition / Element Report

Discipline:	MEP - Plumbing	Report Number:	8
Room Identification:	N/A -	Condition:	Fair
Element Type:	Plumbing		
Element SubType:	Restroom Fixtures		

Photo Documentation

Figure 1 Clear Image 1

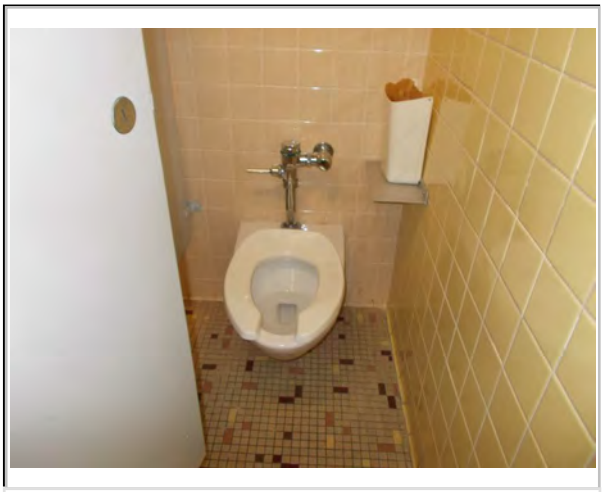


Figure 2 Clear Image 2

Element Description

Restroom fixtures all look to be in fair condition. Hot and cold water work at the lavatory sinks and toilets and urinals all flush without any problems.

References: Clear Text Box

5.5.1 Second Floor Assessment

Click here to return to section directory....pg. 49

5.5.1 SECOND FLOOR CONDITIONS ASSESSMENT

5.5.1 a ARCHITECTURAL

- The second floor is primarily single occupant office space, with the only change from the original layout being some infill to divide offices to create double occupancies. Unlike the Basement, Ground and First Floor levels, which had assessments which varied depending on location and use, the conditions throughout the Second and Third Floors are relatively consistent.
- The Central portion is open to below to the Joint Hearing Room.
- Most offices on these floors have carpet which is in Fair condition, appearing to be approximately 10–15 years old. The carpet throughout does not have any particular areas of damage, but shows wear typical for a carpet of that age and use.
- The ceilings are typically in Poor condition throughout. Spot water damage, possibly from concealed mechanical equipment is common; also common are damaged tiles, tiles discolored from age, and mismatched tiles.
- The walls, while maintained to a certain degree throughout, have multiple instances of missing wall plates and spot damage, possibly from furniture or equipment striking the wall.
- The Elevator Lobby's walls and ceilings are in Fair condition; however the vinyl tile of the floor is in Poor condition, with significant cracking throughout. The trim, as is typical of the building, appears to be well maintained and in Good condition.
- The doors throughout both floors are ADA non-compliant in that the majority of doors are equipped with either knobs or finger pulls for pocket doors.
- Throughout, the window mullions and sills are in Poor condition in that the paint is peeling extensively, damage to the base wood appears in several instances, and in at least one instance the glass pane is cracked.
- Stair B, as is typical of other floors, in good condition. Also typical is the knob on each side of the door, which is not ADA compliant.
- Stair A does not meet code requirements. The door leaf is 21", deficient of the required 32" for one leaf (report A-191).
- The handrails of Stair A do not meet the required height of 42", violating code requirements (report A190).

5.5.1 b STRUCTURAL

The second floor structure is conventionally reinforced concrete. Conventionally reinforced concrete beams support concrete joists at 36” on center. Typical beams are 30” deep, joists have a 3.5” flange and extend 10” below flanges, and flat slabs are 9” thick. Variations in select areas occur.
Concrete beams are placed along the perimeter and typically along interior gridlines running north to south between columns.

- Beams switch directions north of the Joint Hearing Room, to run east to west between columns; south of the Joint Hearing Room is a conventionally reinforced flat slab.

5.5.1 c MEP

HVAC

North/South/ East and West

- This floor contains ductwork, piping, terminal units, air devices and controls
- The terminal units are constant volume reheat type which are very inefficient and do not meet current codes.
- The piping serving the reheat coils is piped as a constant flow and does not take advantage of variable heating water flow requirements in the space.
- The perimeter of the building is provided with hot water fin-tube radiation under the windows. These units are not easily accessible for service and their operation can be compromised by placing furniture at the floor return.
- The air devices appear to need to be cleaned and air pattern controllers adjusted.

Plumbing

West

- Mop sink is old and should be replaced due to stains and rust.

East

- Water fountain is out dated and does not work. It should be replaced.

Electrical

Northeast Quadrant

- Panelboards 2LA and 2PA are original equipment, 40+ years old and they should be replaced. Replacement parts and circuit breakers for panels over 25 years of age can be difficult to find and if found, can be expensive.

- The 50kva transformer that serves Panels 2PA is original equipment, 40+ years old and it should be replaced with a new energy efficient transformer, which can reduce energy consumption and it also operates at lower temperatures, which in turn, reduces the amount of required cooling.

Southwest Quadrant

- Panelboards 2LB and 2PB are original equipment, 40+ years old and they should be replaced. Replacement parts and circuit breakers for panels over 25 years of age can be difficult to find and if found, can be expensive.
- The 50kva transformer that serves Panels 2PB is original equipment, 40+ years old and it should be replaced with a new energy efficient transformer, which can reduce energy consumption and it also operates at lower temperatures, which in turn, reduces the amount of required cooling.

5.5.1 d TELECOMMUNICATIONS

West

- Telecom room is too small and shared with other building systems
- Telecom wall mounted equipment is filled to capacity with no available space for new equipment.
- No security / no access control to protect this room

North

- Telecom floor penetrations are filled to capacity leaving no room for additional cabling without adding new floor penetrations.
- No air conditioning to maintain temperature and humidity to prolong life of equipment.
- No generator power to maintain computer / network operations during power outage.

West

- No security / no access control to protect this room.
- No air conditioning to maintain temperature and humidity to prolong life of equipment.
- No generator power to maintain computer / network operations during power outage.

5.5.2 Second Floor Conditions Reports

Click here to return to section directory....pg. 49

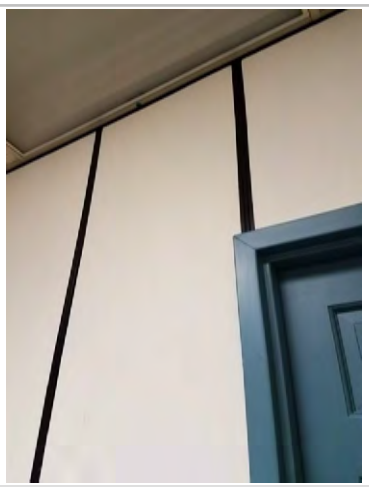
Department of Legislative Services Building
90 State Circle, Annapolis, MD 21401

Key Plan Location: North

Condition / Element Report

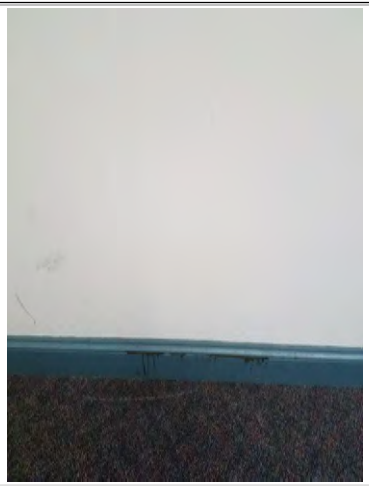
Discipline:	Architectural - Interiors	Report Number:	A-132
Room Identification:	2 - 15,17,19,21,23 office	Condition:	Fair
Element Type:	Miscellaneous		
Element SubType:	Floors + Walls		

Photo Documentation



Typical wall panel partition

Figure 1 Clear Image 1



Typical surface damage at base trim

Figure 2 Clear Image 2

Element Description

1. The partitions between the offices adjacent to the corridor and those along the exterior wall are comprised of panels and appear to be in "Fair" condition with typical wear for age and use.
2. The typical wall and trim throughout are in "Fair" condition, with minor surface damage not atypical.
3. The carpet throughout is in "Fair" condition, with no significant issues to report.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	North

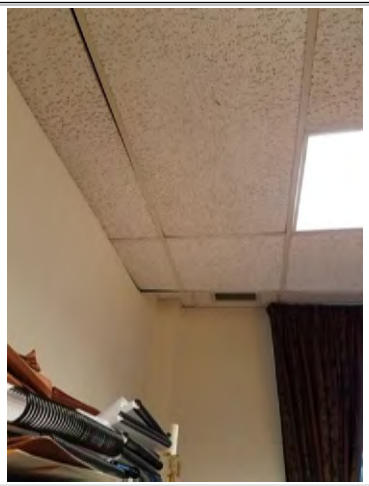
Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-133
Room Identification:	2 - 15,17,19,21,23 office	Condition:	Poor
Element Type:	Ceiling		
Element SubType:	N/A		

Photo Documentation

Water damage in 219

Figure 1 Clear Image 1



Typical ceiling tiles with minor damage

Figure 2 Clear Image 2

Element Description

1. A large portion of the ceiling tiles in these offices is in "Fair" condition, however, there are numerous instances of bowed and damaged tile and at least one instance of significant water damage possibly due to concealed mechanical equipment.

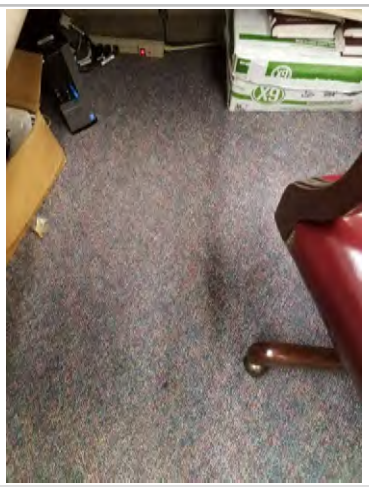
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	North

Condition / Element Report

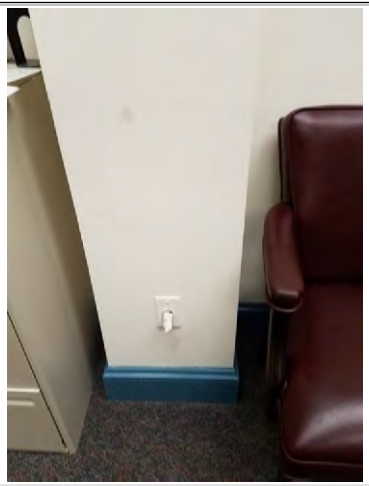
Discipline:	Architectural - Interiors	Report Number:	A-134
Room Identification:	2 - 16,18,20,22 Offices	Condition:	Fair
Element Type:	Miscellaneous		
Element SubType:	Floors & Walls		

Photo Documentation



Typical carpet

Figure 1 Clear Image 1



Exposed wires in 220

Figure 2 Clear Image 2

Element Description

1. The carpet throughout these offices is in "Fair" condition with typical wear for age and use.
2. The wall is typically in "Fair" condition, however, exposed wires are not atypical.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	North

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-135
Room Identification:	2 - 16,18,20,22 Offices	Condition:	Poor
Element Type:	Ceiling		
Element SubType:	N/A		

Photo Documentation

Typical ceiling tiles

Figure 1 Clear Image 1

Water damage in 216

Figure 2 Clear Image 2

Element Description

1. The ceiling tiles throughout these offices are in "Poor" condition.
2. The tiles are mismatched and discolored throughout.
3. Water damage possibly from concealed mechanical equipment is not atypical.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	North

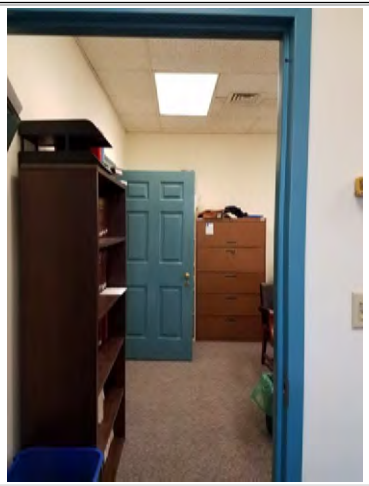
Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-136
Room Identification:	2 - 24 a,b Offices	Condition:	Fair
Element Type:	Miscellaneous		
Element SubType:	Floors, Walls & Ceilings		

Photo Documentation

Typical ceiling tile

Figure 1 Clear Image 1



Typical wall and floor condition

Figure 2 Clear Image 2

Element Description

1. The ceiling tiles are in "Fair" to "Poor" condition. Mismatched and discolored tiles are common.
2. The carpet throughout these offices is in "Fair" condition with typical wear for age and use.
2. The walls throughout these offices are in "Fair" condition with typical wear for age and use.

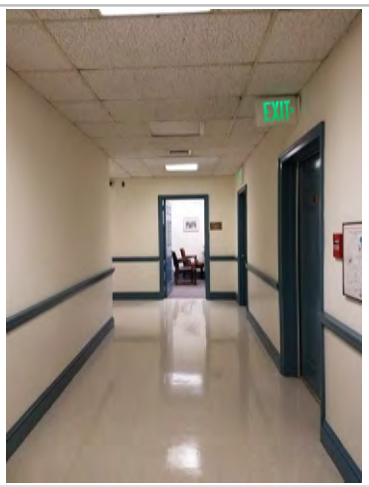
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	North

Condition / Element Report

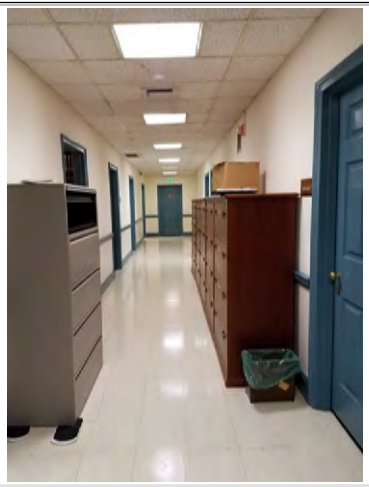
Discipline:	Architectural - Interiors	Report Number:	A-137
Room Identification:	2 - Corridor North	Condition:	Fair
Element Type:	Miscellaneous		
Element SubType:	Floors + Walls		

Photo Documentation



Corridor looking North

Figure 1 Clear Image 1



Corridor looking East

Figure 2 Clear Image 2

Element Description

1. The floor tiles are in "Fair" condition throughout.
2. The walls are "Fair" condition throughout.

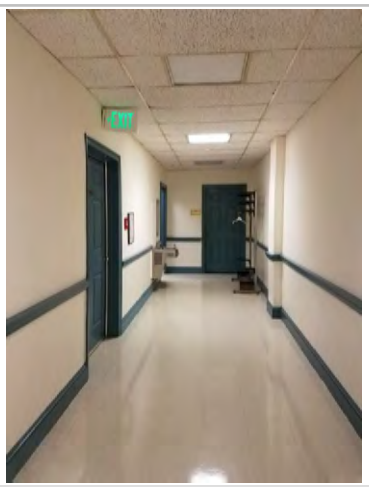
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	North

Condition / Element Report

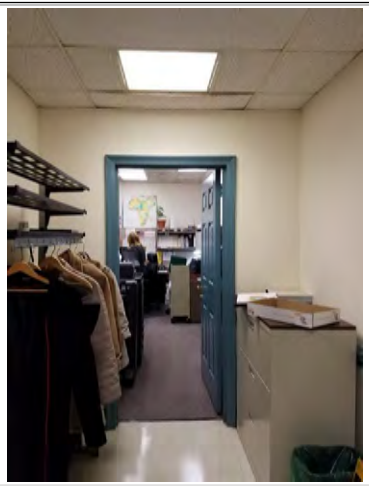
Discipline:	Architectural - Interiors	Report Number:	A-138
Room Identification:	2 - Corridor North	Condition:	Poor
Element Type:	Ceiling		
Element SubType:	N/A		

Photo Documentation



Typical ceiling tile

Figure 1 Clear Image 1



Typical ceiling tile

Figure 2 Clear Image 2

Element Description

1. The ceiling tiles are assessed in "Poor" condition. They appear to be at the end of their lifespan, and there are multiple instances of bowed or damaged tiles.

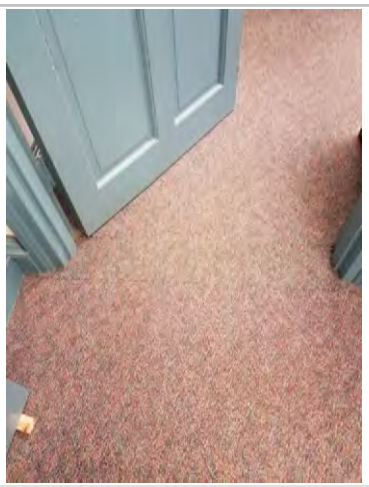
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

Condition / Element Report

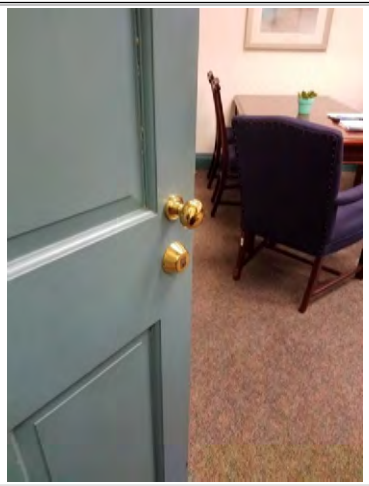
Discipline:	Architectural - Interiors	Report Number:	A-139
Room Identification:	2 - 00 a-b Offices	Condition:	Poor
Element Type:	Floors		
Element SubType:	N/A		

Photo Documentation



High traffic area shows excessive wear

Figure 1 Clear Image 1



Typical carpet condition

Figure 2 Clear Image 2

Element Description

1. The carpet is assessed in "Poor" condition, with excessive wear especially in areas of high traffic.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

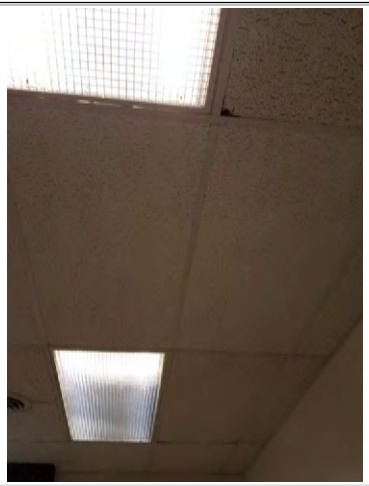
Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-140
Room Identification:	2 - 00 a-b Offices	Condition:	Fair
Element Type:	Ceiling		
Element SubType:	N/A		

Photo Documentation

Typical ceiling tile

Figure 1 Clear Image 1



Slightly damaged ceiling tile

Figure 2 Clear Image 2

Element Description

1. The ceiling tiles are in fair condition showing average wear for age and use.
2. There is a single tile with minor damage.

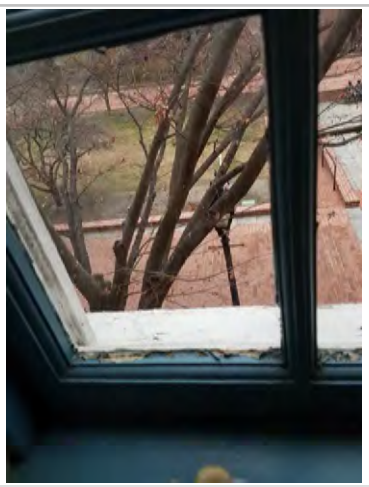
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

Condition / Element Report

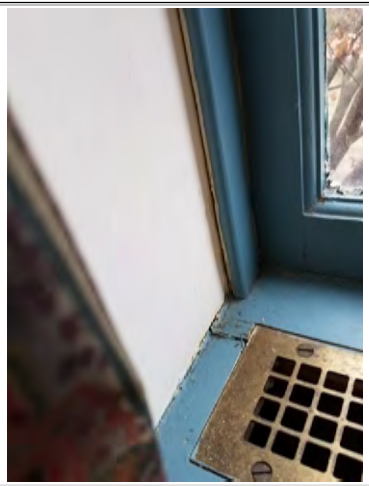
Discipline:	Architectural - Interiors	Report Number:	A-141
Room Identification:	2 - 00 a-b Offices	Condition:	Poor
Element Type:	Openings		
Element SubType:	Windows		

Photo Documentation



Window mullions and sash

Figure 1 Clear Image 1



Window sill

Figure 2 Clear Image 2

Element Description

1. The condition of the window trim, including sash, mullions and sill, is in poor condition with significant peeling of paint throughout and cracked wood at the sill.

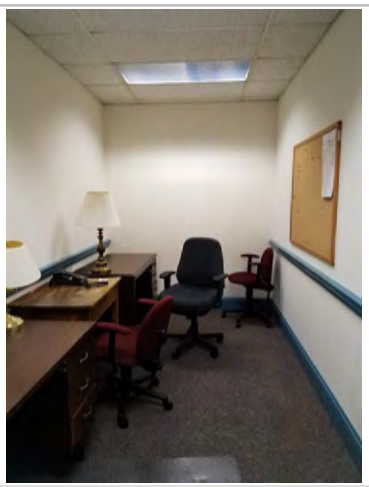
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

Condition / Element Report

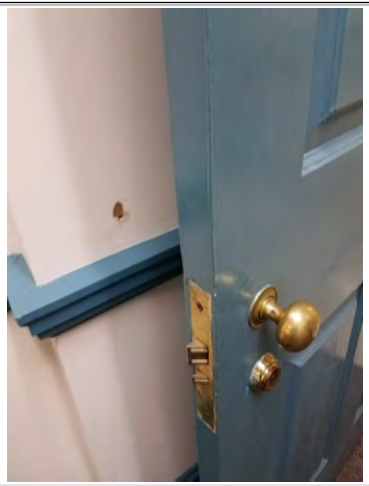
Discipline:	Architectural - Interiors	Report Number:	A-142
Room Identification:	2 - 25 Office	Condition:	Fair
Element Type:	Miscellaneous		
Element SubType:	Floor, Walls, & Ceiling		

Photo Documentation



View of office

Figure 1 Clear Image 1



Spot damage at wall

Figure 2 Clear Image 2

Element Description

1. This office is generally in "Fair" condition, with typical wear for age and use.
2. There is a single area of spot damage on the wall from the door knob.

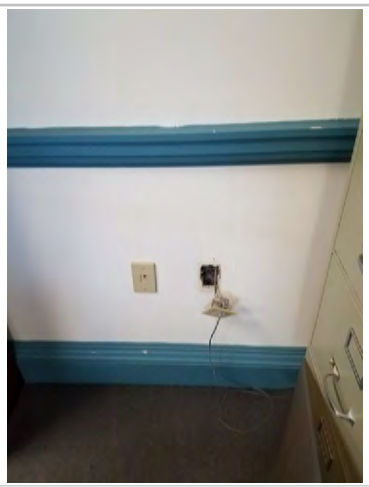
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-143
Room Identification:	2 - 26a Office	Condition:	Poor
Element Type:	Walls		
Element SubType:	N/A		

Photo Documentation



Damaged wall plate

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

1. The walls are in large part in "Fair" condition regarding paint condition.
2. The walls, however, are assessed in "Poor" condition due to a damaged wall plate with exposed wiring.
3. The trim is also in "Poor" condition with multiple areas of paint damage.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

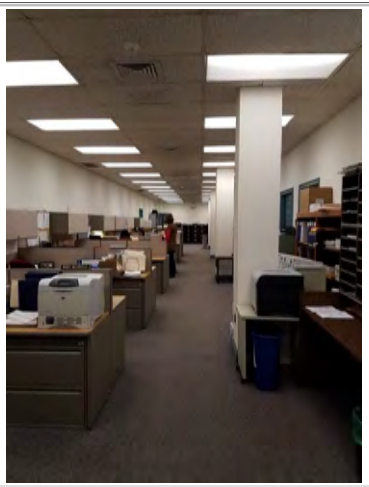
Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-156
Room Identification:	2 - 26 Shared Office	Condition:	Poor
Element Type:	Ceiling		
Element SubType:	N/A		

Photo Documentation

Typical ceiling tile

Figure 1 Clear Image 1



Typical ceiling tile

Figure 2 Clear Image 2

Element Description

1. The ceiling tiles are assessed in "Poor" condition appearing to be at the end of their life cycle, with discoloration throughout and spot damage typical.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

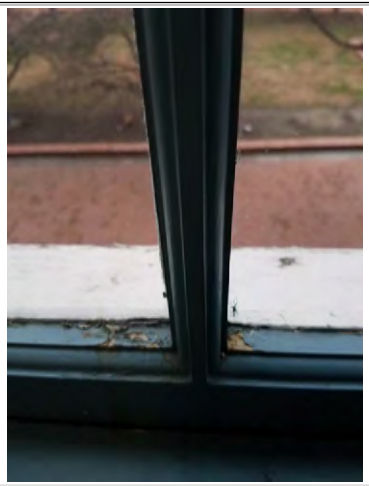
Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-145
Room Identification:	2 - 26a Office	Condition:	Poor
Element Type:	Openings		
Element SubType:	Doors & Windows		

Photo Documentation

Damaged door jamb

Figure 1 Clear Image 1



Damaged window trim

Figure 2 Clear Image 2

Element Description

1. The door is assessed in "Poor" condition due to excessive wear and damage to the jamb.
2. The window is assess in "Poor" condition due to excessive wear to all elements of the window trim.

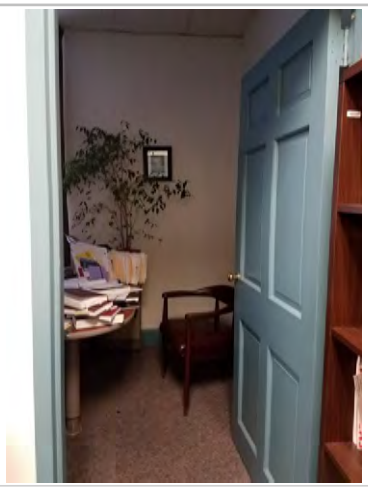
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

Condition / Element Report

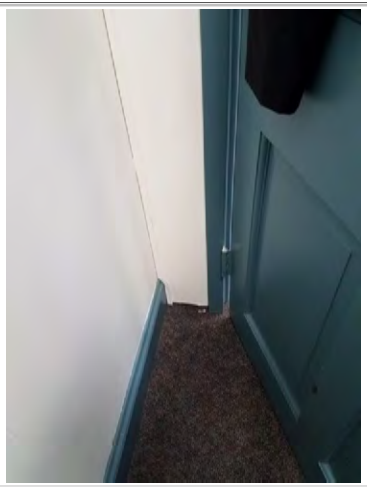
Discipline:	Architectural - Interiors	Report Number:	A-146
Room Identification:	2 - 26 b-e Offices	Condition:	Fair
Element Type:	Floors		
Element SubType:	N/A		

Photo Documentation



Typical carpet

Figure 1 Clear Image 1



Typical carpet

Figure 2 Clear Image 2

Element Description

1. The floors are assessed in "Fair" condition with typical wear for age and use.

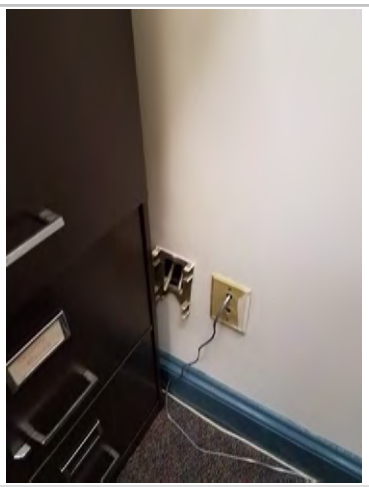
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

Condition / Element Report

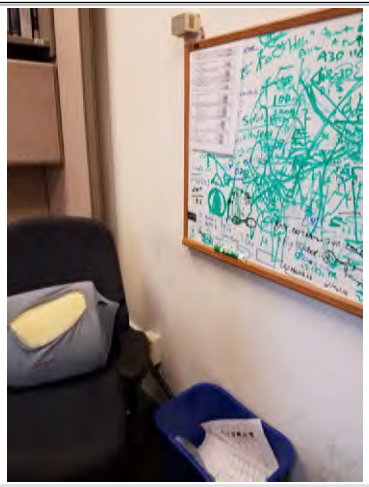
Discipline:	Architectural - Interiors	Report Number:	A-147
Room Identification:	2 - 26 b-e Offices	Condition:	Poor
Element Type:	Walls		
Element SubType:	N/A		

Photo Documentation



Exposed wiring

Figure 1 Clear Image 1



Surface damage at wall

Figure 2 Clear Image 2

Element Description

1. The walls are assessed in "Poor" condition. Exposed wiring is typical, as is surface damage on the walls throughout.

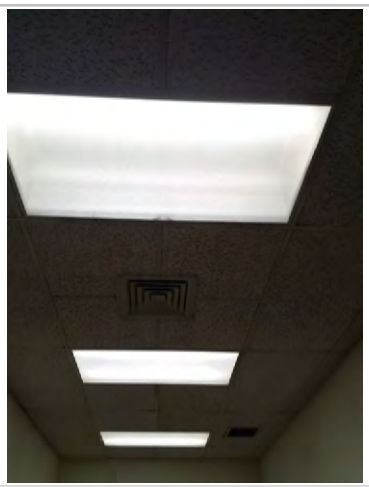
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-148
Room Identification:	2 - 26 b-e Offices	Condition:	Poor
Element Type:	Ceiling		
Element SubType:	N/A		

Photo Documentation



Typical ceiling tile

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

1. The ceiling is assessed in "Poor" condition with excessive wear for age and use. Mismatched tiles are typical.

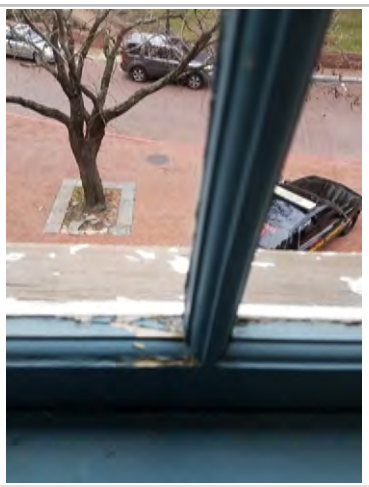
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-149
Room Identification:	2 - 26 b-e Offices	Condition:	Poor
Element Type:	Openings		
Element SubType:	Windows & Doors		

Photo Documentation



Typical window trim

Figure 1 Clear Image 1

Typical door

Figure 2 Clear Image 2

Element Description

1. The openings in these offices are in "Poor" condition.
2. The trim on the windows is severely damaged throughout.
3. The paint on the doors of each of these offices has excessive wear to the paint.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-150
Room Identification:	2 - 26 f-j Offices	Condition:	Fair
Element Type:	Floors		
Element SubType:	N/A		

Photo Documentation

Typical carpet

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

1. The floors are assessed in "Fair" condition with typical wear for age and use.

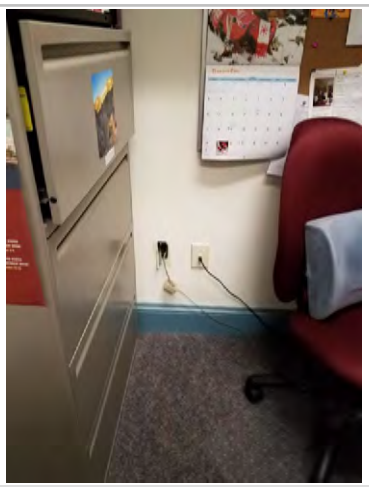
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-151
Room Identification:	2 - 26 f-j Offices	Condition:	Poor
Element Type:	Walls		
Element SubType:	N/A		

Photo Documentation



Typical condition of exposed wiring

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

1. The walls are assessed in "Poor" condition due to multiple instances of exposed wiring.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-152
Room Identification:	2 - 26 f-j Offices	Condition:	Poor
Element Type:	Ceiling		
Element SubType:	N/A		

Photo Documentation

Figure 1 Clear Image 1

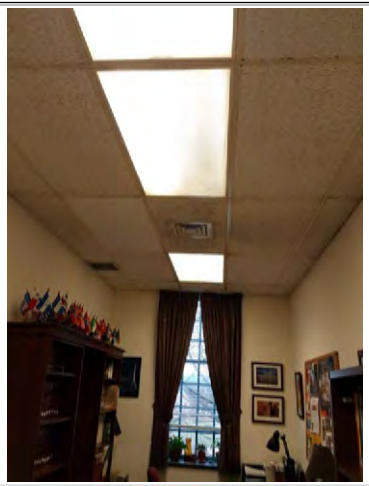


Figure 2 Clear Image 2

Element Description

1. The ceilings are assessed in "Poor" condition with excessive wear for age and use. Mismatched tiles are typical, as is discoloration throughout.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-153
Room Identification:	2 - 26 f-j Offices	Condition:	Poor
Element Type:	Openings		
Element SubType:	N/A		

Photo Documentation

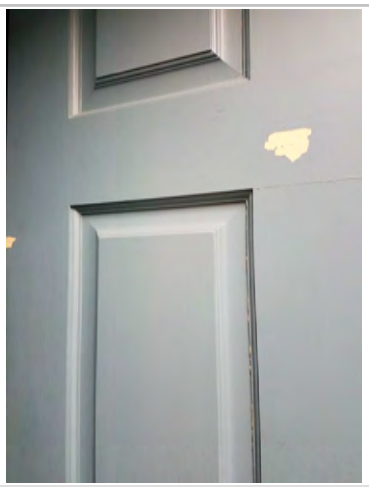


Figure 1 Clear Image 1

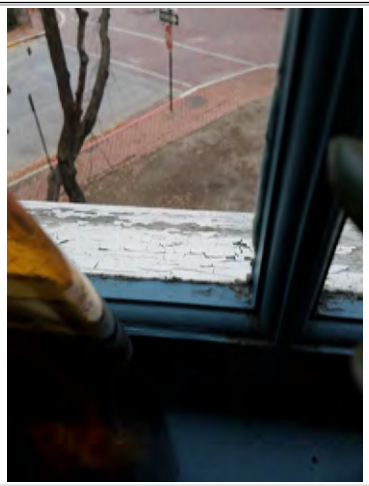


Figure 2 Clear Image 2

Element Description

1. The openings for these offices are assessed in "Poor" condition.
2. All elements of the windows have excessive damage throughout.
3. The doors typically have surface damage.

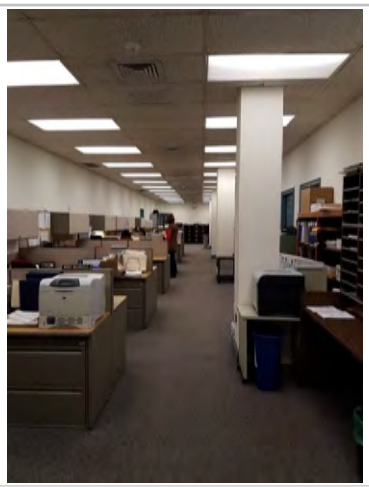
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-154
Room Identification:	2 - 26 Shared Office	Condition:	Fair
Element Type:	Walls		
Element SubType:	N/A		

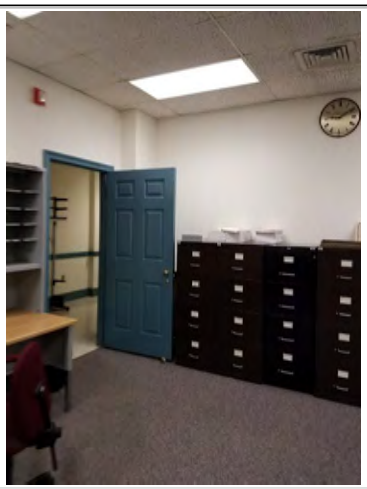
Photo Documentation



Typical carpet in shared office

Figure 1

Clear Image 1



Typical carpet in shared office

Figure 2

Clear Image 2

Element Description

1. The floors are assessed in "Fair" condition with typical wear for age and use.

References:

Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-155
Room Identification:	2 - 26 Shared Office	Condition:	Poor
Element Type:	Walls		
Element SubType:	N/A		

Photo Documentation

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

1. While large portions of the wall are considered to be in "Fair" condition with typical wear for age and use, the walls are determined to be in "Poor" condition due to excessive surface damage in high traffic areas and missing wall plates throughout.

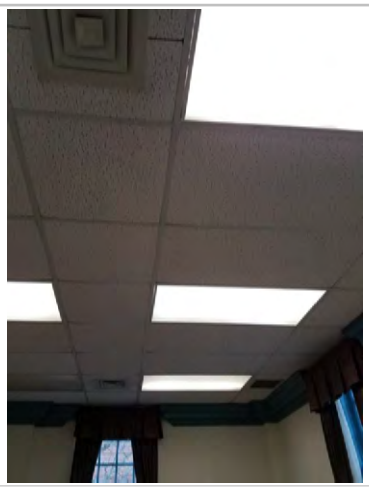
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-144
Room Identification:	2 - 26a Office	Condition:	Fair
Element Type:	Ceiling		
Element SubType:	N/A		

Photo Documentation



Typical ceiling tile

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

1. The ceiling is assessed in "Fair" condition with wear typical for age and use.

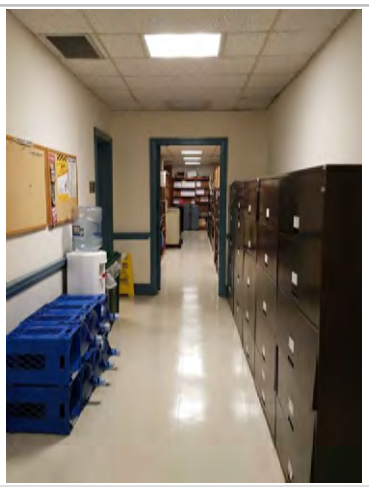
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

Condition / Element Report

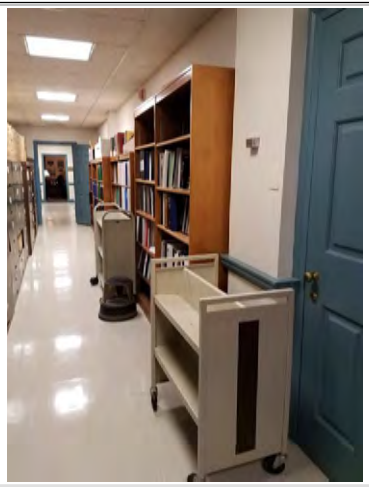
Discipline:	Architectural - Interiors	Report Number:	A-157
Room Identification:	2 - 27 Corridor	Condition:	Fair
Element Type:	Miscellaneous		
Element SubType:	Floors, walls, ceilings		

Photo Documentation



Corridor looking north

Figure 1 Clear Image 1



Corridor looking south

Figure 2 Clear Image 2

Element Description

1. All elements of the corridor are assessed in "Fair" condition with no significant damage and typical wear for age and use.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-158
Room Identification:	2 - East Corridor	Condition:	Code Consideration
Element Type:	Miscellaneous		
Element SubType:	Exit Sign		

Photo Documentation

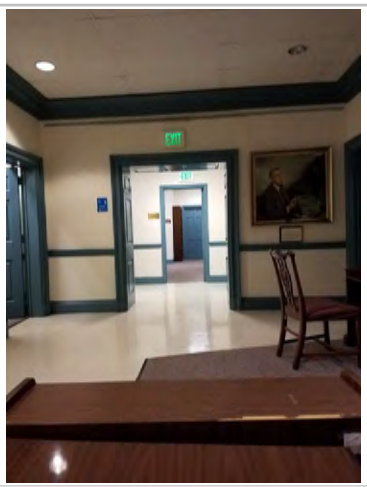


Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

1. The exit sign which is located in the corridor between the elevator lobby and office suite 2-26 indicates that the direction of egress is north along this corridor, which terminates at office 2-27.
   This sign should be removed and replaced with one which directs occupants in the direction of egress.

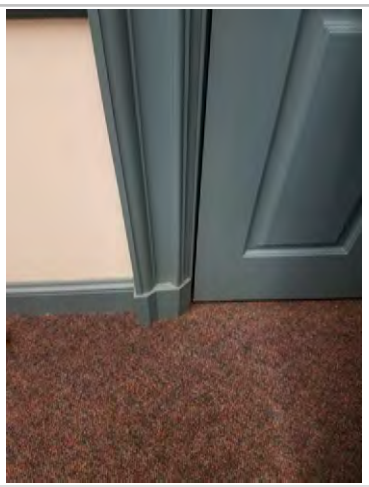
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	South

Condition / Element Report

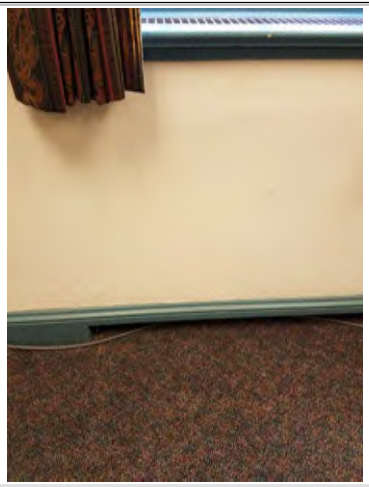
Discipline:	Architectural - Interiors	Report Number:	A-159
Room Identification:	2 - 00 a,d Offices	Condition:	Fair
Element Type:	Miscellaneous		
Element SubType:	Floors & Walls		

Photo Documentation



Typical carpet, trim, and wall condition

Figure 1 Clear Image 1



Typical carpet, trim, and wall condition

Figure 2 Clear Image 2

Element Description

1. The carpet and walls in these offices are all in "Fair" condition with no significant issues to report.

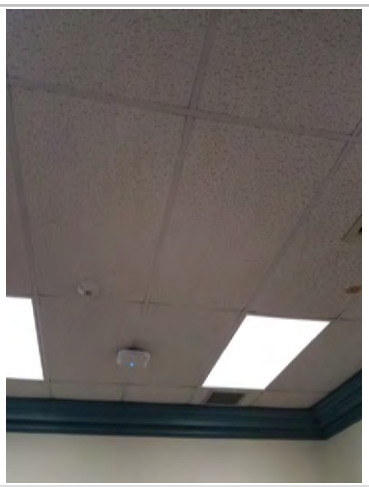
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	South

Condition / Element Report

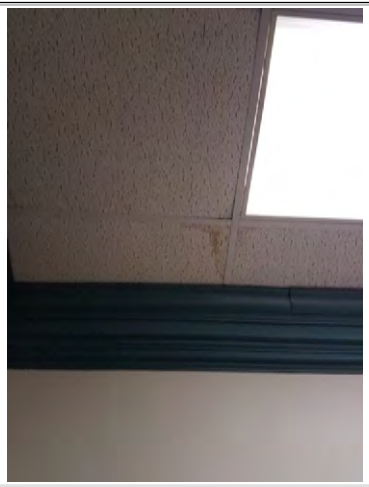
Discipline:	Architectural - Interiors	Report Number:	A-160
Room Identification:	2 - 00 a,d Offices	Condition:	Fair
Element Type:	Ceiling		
Element SubType:	N/A		

Photo Documentation



Typical tiles, with instance water damage

Figure 1 Clear Image 1



Typical tiles, with instance water damage

Figure 2 Clear Image 2

Element Description

1. The majority of the ceiling tiles in these offices are in "Fair" condition with typical wear for age and use; however, there are a small number of instances showing water damage, possibly from concealed mechanical equipment.

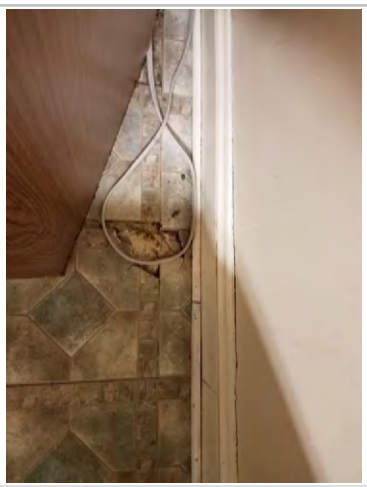
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	South

Condition / Element Report

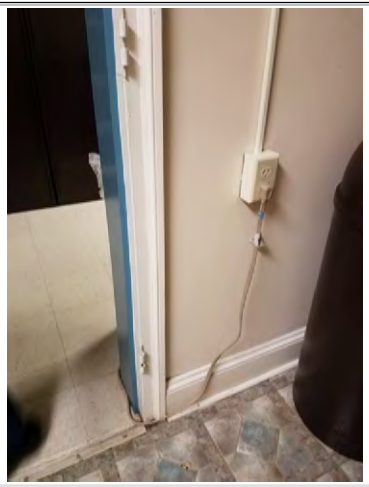
Discipline:	Architectural - Interiors	Report Number:	A-162
Room Identification:	2 - 01 Staff Kitchen	Condition:	Poor
Element Type:	Miscellaneous		
Element SubType:	Floor, Walls & Ceiling		

Photo Documentation



Typical damage at floor tiles

Figure 1 Clear Image 1



General wall and floor conditions

Figure 2 Clear Image 2

Element Description

1. The floor tiles are significantly damaged throughout and are assessed in "Poor" condition.
2. The walls and ceiling are also in "Poor" condition with significant wear, and apparently at the end of their life cycle.
3. See Report Number A-163 for issues with ADA non-compliance.

References: A-163 Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	South

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-163
Room Identification:	2 - 01 Kitchenette	Condition:	ADA Consideration
Element Type:	Miscellaneous		
Element SubType:	Sink		

Photo Documentation

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

1. The sink on the second floor breakroom does not meet ADA requirements as follows:
   - 1a. 212.3 Sinks. Where sinks are provided, at least 5 percent, but no fewer than one, of each type provided in each accessible room or space shall comply with 606.
   - 1b. 606.2 Clear Floor Space. A clear floor space complying with 305, positioned for a forward approach, and knee and toe clearance complying with 306 shall be provided.
   - 1c. The existing sink does not provide any knee or toe space clearance.

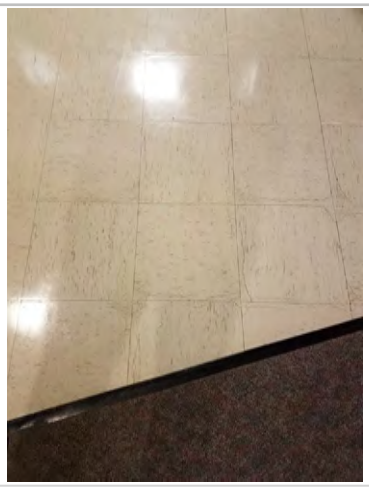
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	South

Condition / Element Report

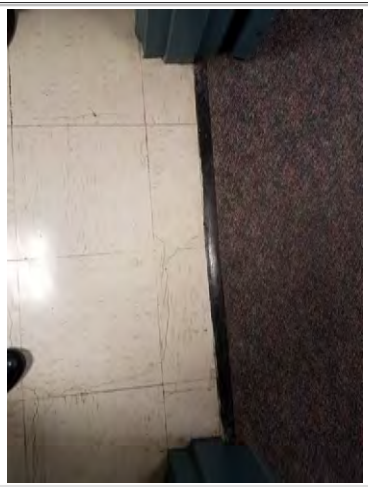
Discipline:	Architectural - Interiors	Report Number:	A-164
Room Identification:	2 - Elevator Lobby	Condition:	Poor
Element Type:	Floors		
Element SubType:	N/A		

Photo Documentation



Typical cracked floor tiles

Figure 1 Clear Image 1



Typical cracked floor tiles

Figure 2 Clear Image 2

Element Description

1. The floor tiles are assessed in "Poor" condition due to cracking and damage throughout.

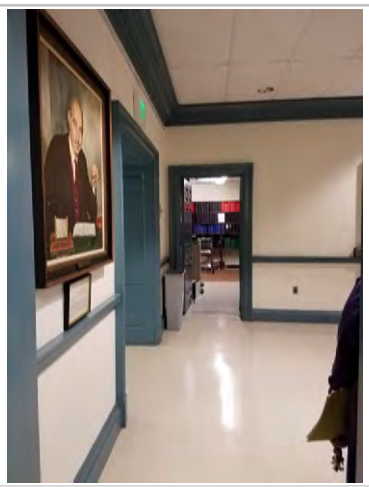
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	South

Condition / Element Report

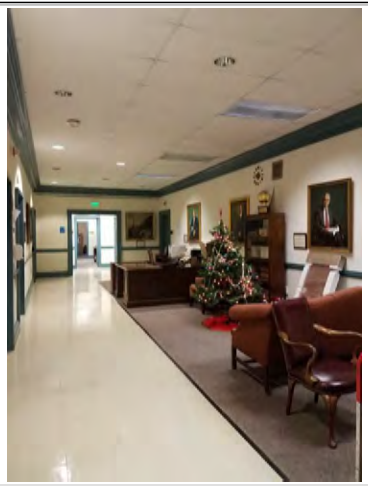
Discipline:	Architectural - Interiors	Report Number:	A-165
Room Identification:	2 - Elevator Lobby	Condition:	Fair
Element Type:	Miscellaneous		
Element SubType:	Walls & Ceilings		

Photo Documentation



Typical wall and ceiling condition

Figure 1 Clear Image 1



Elevator lobby looking East

Figure 2 Clear Image 2

Element Description

1. The walls are assessed in "Fair" condition with no significant issues to report.
2. The ceiling tiles are assessed in "Fair" condition with no significant issues to report.

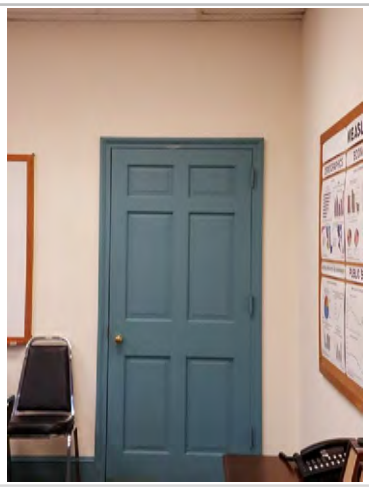
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

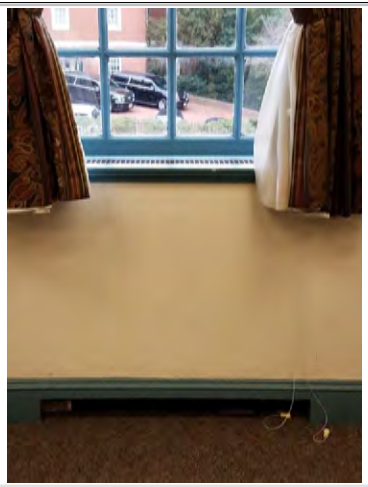
Discipline:	Architectural - Interiors	Report Number:	A-168
Room Identification:	2 - 06 Conference	Condition:	Fair
Element Type:	Miscellaneous		
Element SubType:	Floors & Walls		

Photo Documentation



Typical wall condition

Figure 1 Clear Image 1



Typical wall and carpet

Figure 2 Clear Image 2

Element Description

1. The floors of the conference room are typically in "Fair" condition with no issues to report.
2. The walls of the conference room are typically in "Fair" condition with no issues to report.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

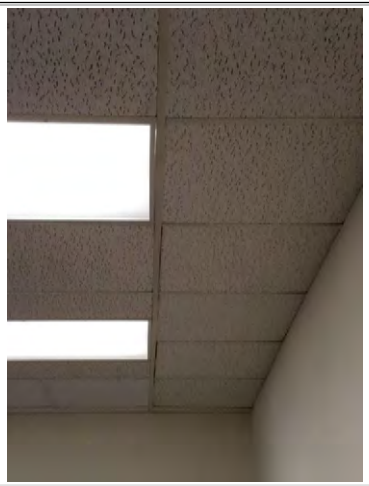
Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-169
Room Identification:	2 - 06 Conference	Condition:	Poor
Element Type:	Ceiling		
Element SubType:	N/A		

Photo Documentation

Typical wall and ceiling condition

Figure 1 Clear Image 1



Elevator lobby looking East

Figure 2 Clear Image 2

Element Description

1. The ceiling tiles are assessed in "Poor" condition. Tiles are mismatched throughout with bowed tiles being common and at least one instance of water damage, possibly from concealed mechanical equipment.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-170
Room Identification:	2 - 06 Conference	Condition:	Critical
Element Type:	Openings		
Element SubType:	Windows		

Photo Documentation

Cracked window pane

Figure 1 Clear Image 1

Damaged window elements

Figure 2 Clear Image 2

Element Description

1. There is at least one instance of a cracked window pane.
2. All elements of the window trim are in poor condition with significant wear and damage.

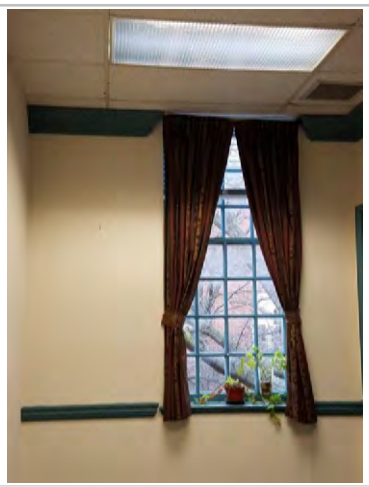
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-171
Room Identification:	2 - 07 a-d	Condition:	Fair
Element Type:	Miscellaneous		
Element SubType:	Floors + Walls		

Photo Documentation



Typical wall condition

Figure 1 Clear Image 1

Typical wall and floor condition

Figure 2 Clear Image 2

Element Description

1. The floors throughout these offices are assessed in "Fair" condition with no issues to report.
2. The walls throughout these offices are assessed in "Fair" condition with no issues to report.

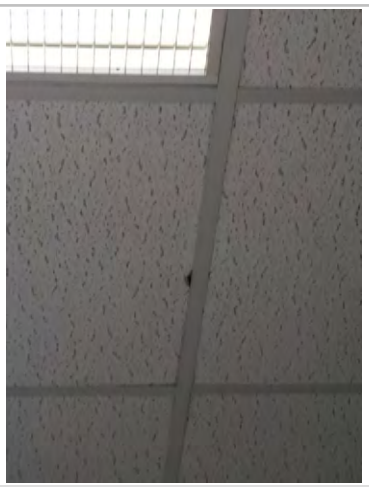
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-172
Room Identification:	2 - 07 a-d	Condition:	Fair
Element Type:	Ceiling		
Element SubType:	N/A		

Photo Documentation



Minor damage in tile

Figure 1 Clear Image 1

Cracked tiles

Figure 2 Clear Image 2

Element Description

1. The ceiling tiles are typically in "Fair" condition. There are several instances, however, of minor damage to single tiles.

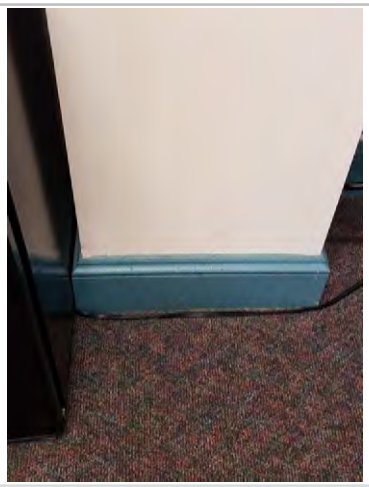
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

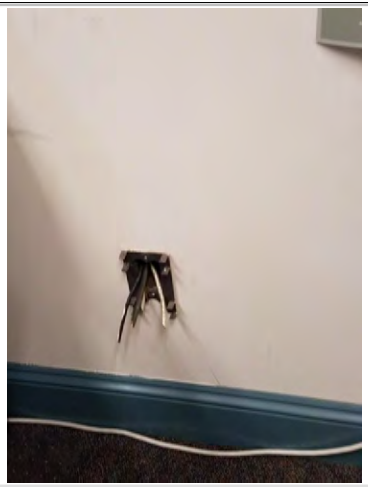
Discipline:	Architectural - Interiors	Report Number:	A-173
Room Identification:	2 - 08-12 Offices	Condition:	Fair
Element Type:	Miscellaneous		
Element SubType:	Floors & Walls		

Photo Documentation



Typical wall, trim, and carpet condition

Figure 1 Clear Image 1



Exposed wires in 209

Figure 2 Clear Image 2

Element Description

1. The floors are typically in "Fair" condition with normal wear for age and use.
2. The walls are typically in "Fair" condition, however, there is at least one instance of exposed wires.

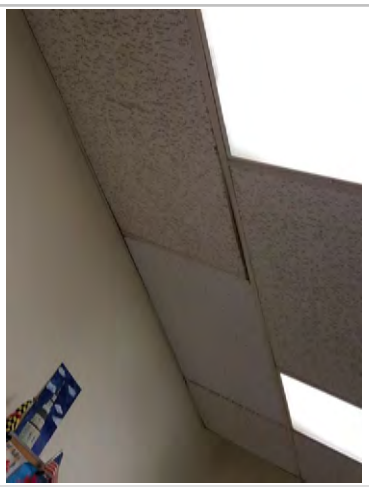
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-174
Room Identification:	2 - 08-12 Offices	Condition:	Poor
Element Type:	Ceiling		
Element SubType:	N/A		

Photo Documentation



Typical ceiling tile

Figure 1 Clear Image 1

Water damage in ceiling tile

Figure 2 Clear Image 2

Element Description

1. The ceiling tiles are typically in "Poor" condition. Mismatched tiles are common throughout, as are bowed tiles and several areas of spot water damage possibly due to concealed mechanical equipment.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

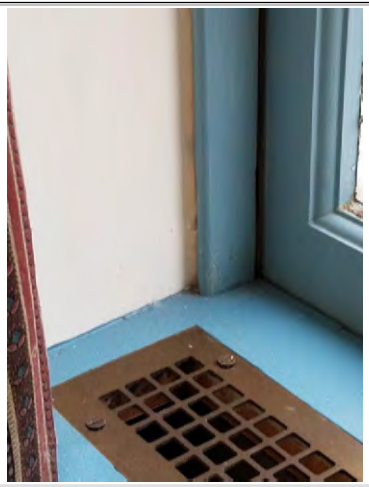
Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-175
Room Identification:	2 - 08-12 Offices	Condition:	Poor
Element Type:	Openings		
Element SubType:	Windows		

Photo Documentation

Damage at window sill and trim

Figure 1 Clear Image 1



Typical window trim

Figure 2 Clear Image 2

Element Description

1. The window trim throughout these offices is in "Poor" condition with significant wear and damage to all elements.

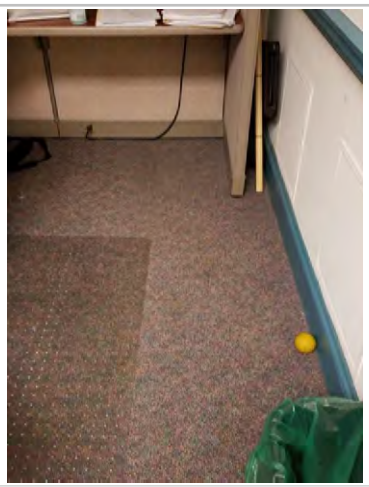
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-176
Room Identification:	2 - 13 Office	Condition:	Fair
Element Type:	Floors		
Element SubType:	N/A		

Photo Documentation



Typical carpet

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

1. The carpet is in "Fair" condition.

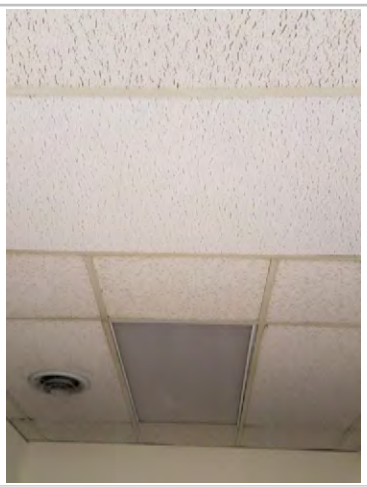
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-177
Room Identification:	2 - 13 Office	Condition:	Poor
Element Type:	Miscellaneous		
Element SubType:	Walls & Ceiling		

Photo Documentation



Ceiling tile

Figure 1 Clear Image 1

Typical wall condition

Figure 2 Clear Image 2

Element Description

1. The ceiling tile in this office is assessed in "Poor" condition with discoloration and mismatched tiles throughout.
2. The walls are in "Poor" condition with superficial damage throughout and exposed wiring.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-178
Room Identification:	2 - 14 b-d Offices	Condition:	Fair
Element Type:	Floors		
Element SubType:	N/A		

Photo Documentation

Typical carpet

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

1. The carpet in these offices is assessed in "Fair" condition showing typical wear for use and age.

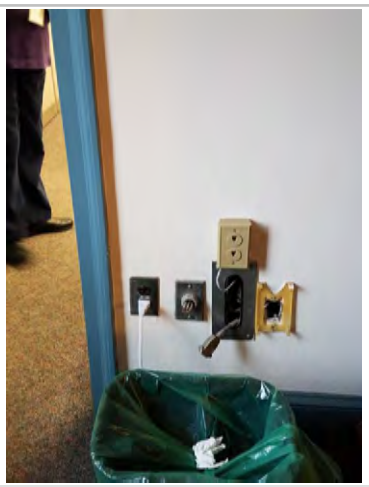
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

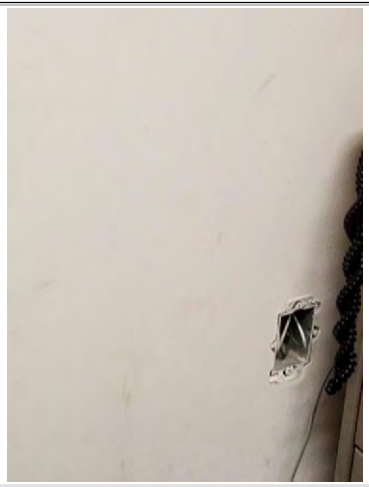
Discipline:	Architectural - Interiors	Report Number:	A-179
Room Identification:	2 - 14 b-d Offices	Condition:	Poor
Element Type:	Walls		
Element SubType:	N/A		

Photo Documentation



Typical wall condition with exposed wiring

Figure 1 Clear Image 1



Typical wall condition with missing wall plate

Figure 2 Clear Image 2

Element Description

1. The walls are assessed in "Poor" condition due to multiple instances of exposed wiring and missing wall plates.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

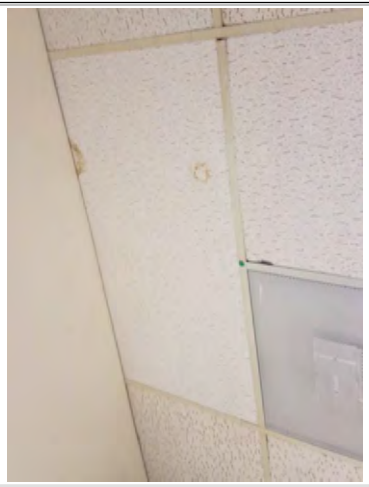
Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-180
Room Identification:	2 - 14 b-d Offices	Condition:	Fair
Element Type:	Ceiling		
Element SubType:	N/A		

Photo Documentation

Typical ceiling tile

Figure 1 Clear Image 1



Spot damage in 214c

Figure 2 Clear Image 2

Element Description

1. The ceiling tile is typically in "Fair" condition, however, there are multiple instances of spot water damage possibly due to concealed mechanical equipment.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

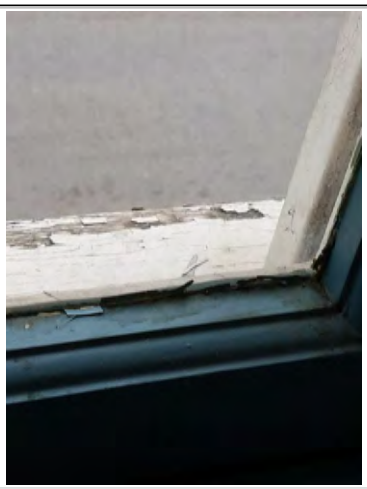
Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-181
Room Identification:	2 - 14 b-d Offices	Condition:	Poor
Element Type:	Openings		
Element SubType:	Windows		

Photo Documentation

Typical window

Figure 1 Clear Image 1



Typical window

Figure 2 Clear Image 2

Element Description

1. The windows are in "Poor" condition with damage and excessive wear on all elements of the window.

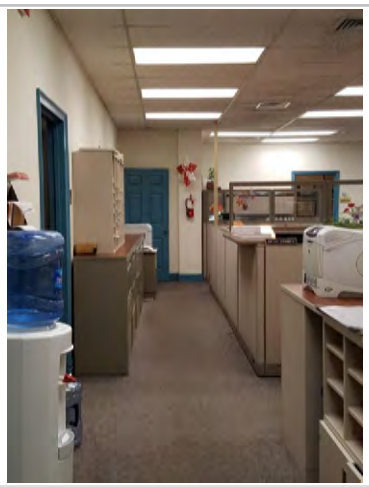
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-182
Room Identification:	2 - 14 Shared Office	Condition:	Poor
Element Type:	Floors		
Element SubType:	N/A		

Photo Documentation



Typical carpet

Figure 1 Clear Image 1

Typical carpet

Figure 2 Clear Image 2

Element Description

1. The carpet is assessed in "Poor" condition, showing excessive wear for its age due to high traffic.

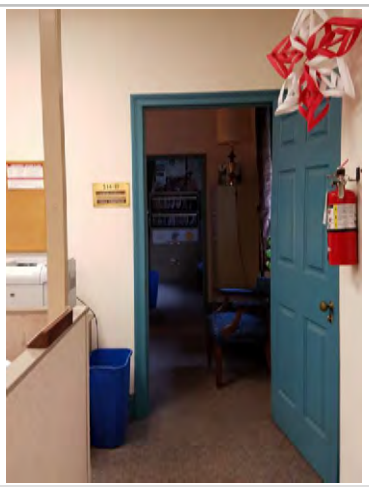
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

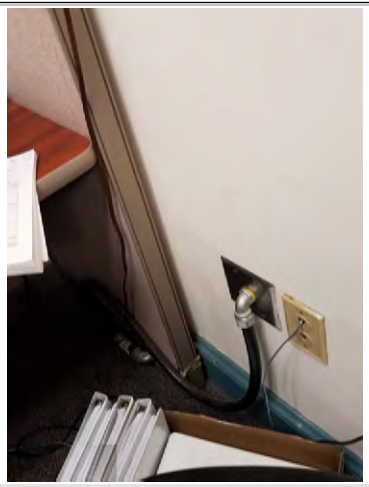
Discipline:	Architectural - Interiors	Report Number:	A-183
Room Identification:	2 - 14 Shared Office	Condition:	Fair
Element Type:	Walls		
Element SubType:	N/A		

Photo Documentation



Typical carpet

Figure 1 Clear Image 1



Typical carpet

Figure 2 Clear Image 2

Element Description

1. The walls in this office are in "Fair" condition with no issues to report.

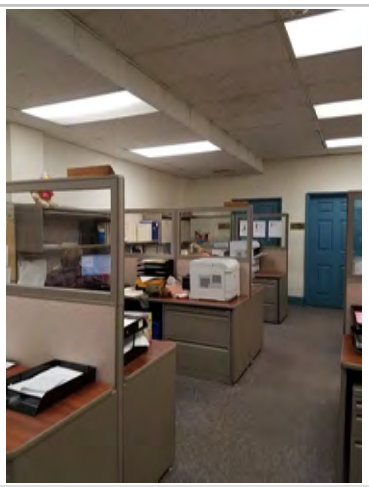
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

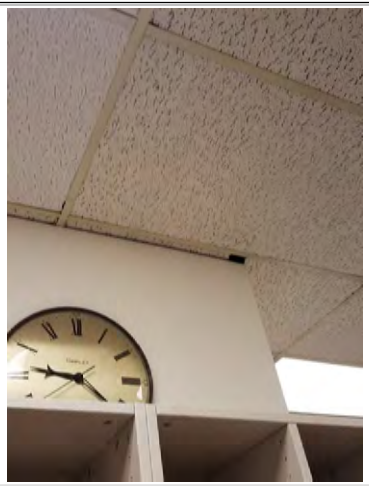
Discipline:	Architectural - Interiors	Report Number:	A-184
Room Identification:	2 - 14 Shared Office	Condition:	Poor
Element Type:	Ceiling		
Element SubType:	N/A		

Photo Documentation



Typical ceiling tile

Figure 1 Clear Image 1



Typical ceiling tile

Figure 2 Clear Image 2

Element Description

1. The ceiling tiles are assessed in "Poor" condition with significant discoloration throughout and minor damage to various tiles.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

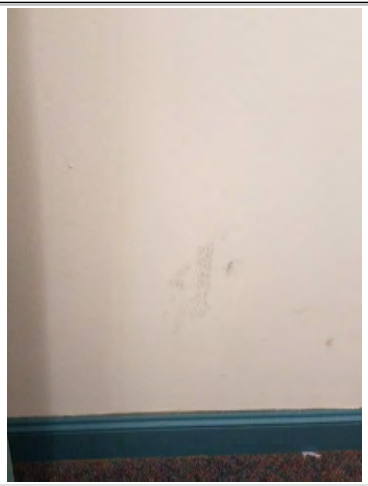
Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-185
Room Identification:	2 - 14 f-g	Condition:	Poor
Element Type:	Miscellaneous		
Element SubType:	Floors, walls, ceiling		

Photo Documentation

Damaged ceiling tile

Figure 1 Clear Image 1



Damaged wall board

Figure 2 Clear Image 2

Element Description

1. The ceiling tile in these offices is in "Poor" condition, with damage and mismatched tiles typical.
2. The walls are in "Poor" condition, with surface damage typical throughout.

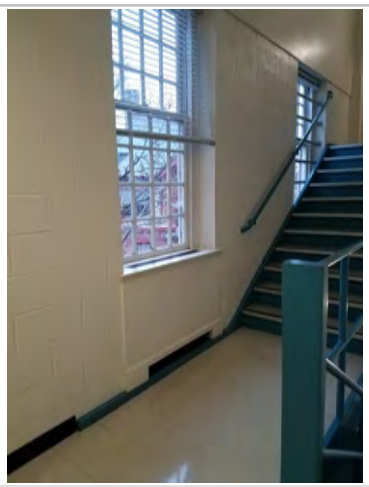
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

Condition / Element Report

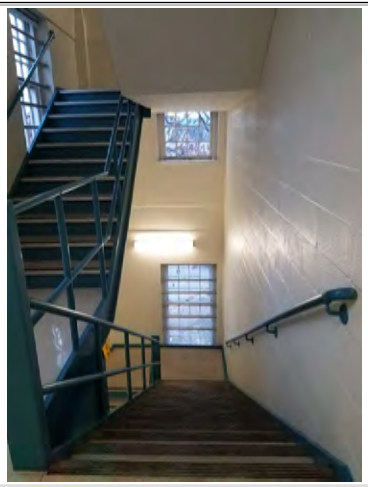
Discipline:	Architectural - Interiors	Report Number:	A-188
Room Identification:	2 - Stair B	Condition:	Good
Element Type:	Miscellaneous		
Element SubType:	Floors, walls, ceilings		

Photo Documentation



Corridor looking north

Figure 1 Clear Image 1



Corridor looking south

Figure 2 Clear Image 2

Element Description

1. All surface elements of Stair B are in "Good" condition.

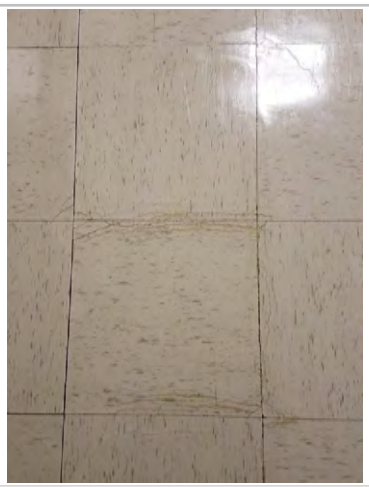
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

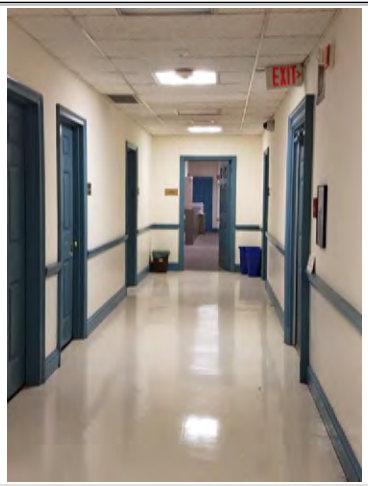
Discipline:	Architectural - Interiors	Report Number:	A-186
Room Identification:	2 - Corridor	Condition:	Poor
Element Type:	Floors		
Element SubType:	N/A		

Photo Documentation



Typical floor tile

Figure 1 Clear Image 1



View of corridor looking North

Figure 2 Clear Image 2

Element Description

1. The floor is assessed in "Poor" condition with cracking and damage consistent throughout.

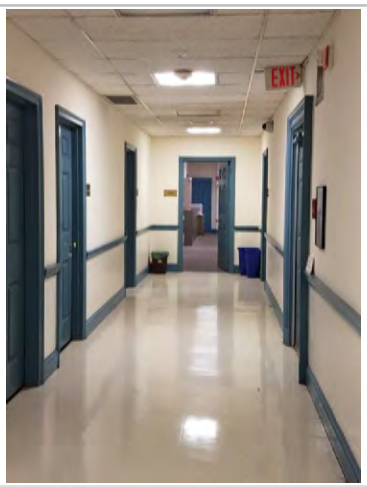
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-187
Room Identification:	2 - Corridor	Condition:	Fair
Element Type:	Miscellaneous		
Element SubType:	Walls & Ceiling		

Photo Documentation



View of corridor looking North

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

1. The walls and ceilings in the West Corridor are in "Fair" condition with no significant issues to report.

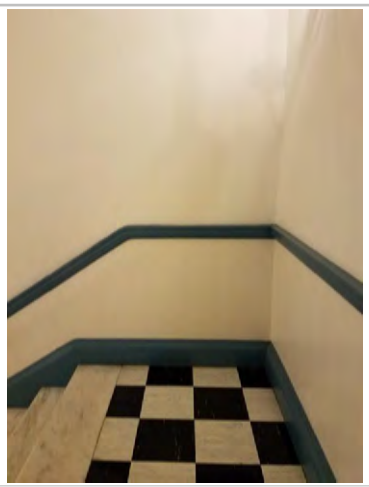
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-189
Room Identification:	2 - Stair A	Condition:	Fair
Element Type:	Miscellaneous		
Element SubType:	Floors & Walls		

Photo Documentation



Landing at Stair A

Figure 1 Clear Image 1

Landing at Stair A

Figure 2 Clear Image 2

Element Description

1. The walls and ceilings in Stair A at the second floor are in "Fair" condition.

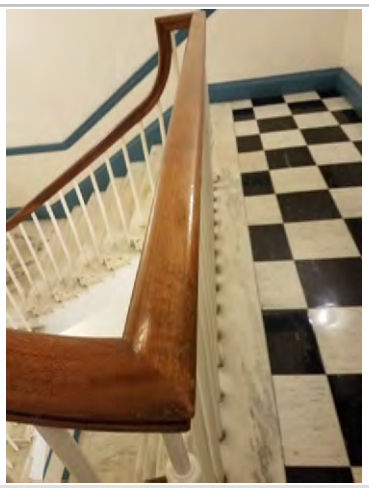
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-190
Room Identification:	2 - Stair A	Condition:	Code Consideration
Element Type:	Miscellaneous		
Element SubType:	Handrails		

Photo Documentation



(third floor handrail similar to second floor, shown)

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

1. The height of the handrail is 32" and does not meet IBC 2015 requirements as follows:
1a. IBC 2015 1014.2 Handrail height ...shall be uniform, not less than 34" and not more than 38".
1b. IBC 2015 1015.2 Guards shall be located along open-sided walking surfaces, including...stairs.
1015.3 Height. Required guards shall be not less than 42" high.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-191
Room Identification:	2 - Stair A	Condition:	Code Consideration
Element Type:	Openings		
Element SubType:	Doors		

Photo Documentation

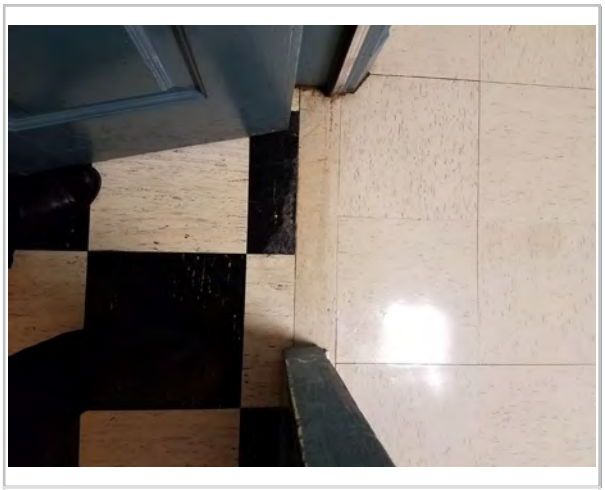


Figure 1 Clear Image 1

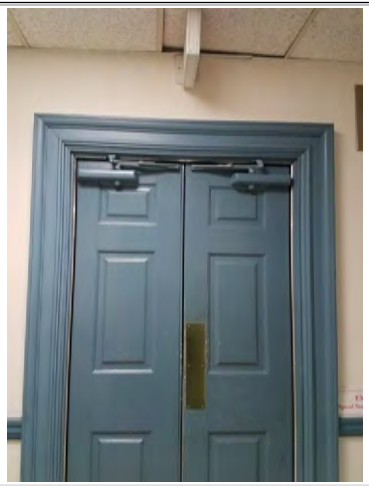


Figure 2 Clear Image 2

Element Description

1. The width of each door leaf in the opening to Stair A is 21"; for a total door opening width of 42". This does not meet IBC 2015 regulations as follows:

1a. IBC 2015 1010.1.1 The required capacity of each door opening ...shall provide a minimum clear width of 32". Where...a door opening includes two leaves without a mullion, one leaf shall provide a clear opening width of 32"

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

Condition / Element Report

Discipline:	MEP -Mechanical	Report Number:	14
Room Identification:	2 - 26	Condition:	Poor
Element Type:	HVAC - Primary		
Element SubType:	Air Diffusers		

Photo Documentation

Figure 1 Clear Image 1

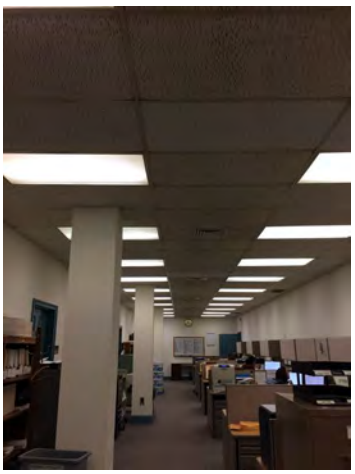


Figure 2 Clear Image 2

Element Description

The air diffusers are often integral to the terminal reheat boxes located above the ceilings in occupied spaces. The air diffusers are aged and degraded in appearance. It appears that they need cleaned and airflow redirected to meet occupant comfort. There is no means for individual / variable temperature control by the occupants as provided by a modern system. Replacement is recommended as part of any system upgrade.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	North

Condition / Element Report

Discipline:	MEP - Electrical	Report Number:	24
Room Identification:	2 - 57	Condition:	Poor
Element Type:	Electrical Service Distribution		
Element SubType:	Panel 2LA		

Photo Documentation

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

Panelboard 2LA - 277/480 volt 3 phase, 4-wire, 225 amp, is inaccessible, however, it is original equipment, 40+ years old and should be replaced. Parts are not readily available for this equipment and repairs can be costly and faulty switches/breakers that are not readily available can lead to extended periods of downtime on affected circuits.
Code required clearances must be maintained at all times.

References: Clear Text Box

Department of Legislative Services Building
90 State Circle, Annapolis, MD 21401

Key Plan Location: North

Condition / Element Report

Discipline:	MEP - Electrical	Report Number:	25
Room Identification:	2 - 57	Condition:	Poor
Element Type:	Electrical Service Distribution		
Element SubType:	Panel 2PA		

Photo Documentation

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

Panelboard 2PA - 277/480 volt 3 phase, 4-wire, 200 amp, is inaccessible, however, it is original equipment, 40+ years old and should be replaced. Parts are not readily available for this equipment and repairs can be costly and faulty switches/breakers that are not readily available can lead to extended periods of downtime on affected circuits.
Code required clearances must be maintained at all times.

References: Clear Text Box

Department of Legislative Services Building
90 State Circle, Annapolis, MD 21401

Key Plan Location: North

Condition / Element Report

Discipline:	MEP - Electrical	Report Number:	26
Room Identification:	2 - 57	Condition:	Poor
Element Type:	Electrical Service Distribution		
Element SubType:	50kva Transformer		

Photo Documentation

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

50kva Dry Type Transformer - 480/208/120 3 phase, 4-wire, is inaccessible, however, it is original equipment, 40+ years old and should be replaced with new energy efficient transformer to comply with the 2016 Department of Energy and Maryland High Performance Buildings Program requirements.
Code required clearances must be maintained at all times.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	South

Condition / Element Report

Discipline:	MEP - Electrical	Report Number:	27
Room Identification:	2 - 58	Condition:	Poor
Element Type:	Electrical Service Distribution		
Element SubType:	Panel 2LB		

Photo Documentation

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

Panelboard 2LB - 277/480 volt 3 phase, 4-wire, 225 amp, is original equipment, 40+ years old and should be replaced. Parts are not readily available for this equipment and repairs can be costly and faulty switches/breakers that are not readily available can lead to extended periods of downtime on affected circuits.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	South

Condition / Element Report

Discipline:	MEP - Electrical	Report Number:	28
Room Identification:	2 - 58	Condition:	Poor
Element Type:	Electrical Service Distribution		
Element SubType:	Panel 2PB		

Photo Documentation

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

Panelboard 2PB - 277/480 volt 3 phase, 4-wire, 200 amp, is original equipment, 40+ years old and should be replaced. Parts are not readily available for this equipment and repairs can be costly and faulty switches/breakers that are not readily available can lead to extended periods of downtime on affected circuits.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	South

Condition / Element Report

Discipline:	MEP - Electrical	Report Number:	29
Room Identification:	2 - 58	Condition:	Poor
Element Type:	Electrical Service Distribution		
Element SubType:	50kva Transformer		

Photo Documentation

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

50kva Dry Type Transformer - 480/208/120 3 phase, 4-wire, is original equipment, 40+ years old and should be replaced with with new energy efficient transformer to comply with the 2016 Department of Energy and Maryland High Performance Buildings Program requirements.

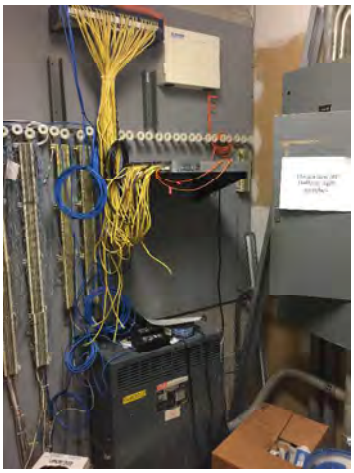
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

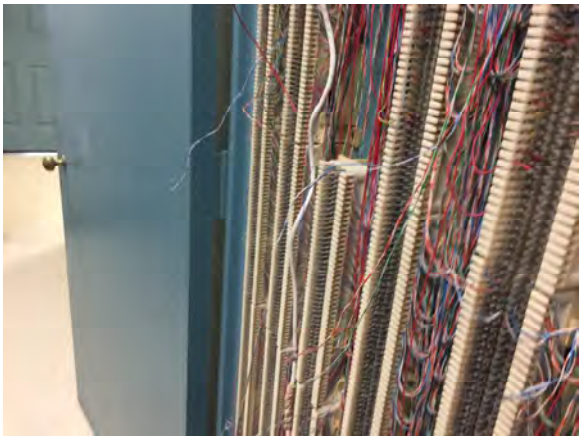
Discipline:	Low Voltage	Report Number:	
Room Identification:	2 - 05a Wiring CLoset	Condition:	Poor
Element Type:	Low Voltage		
Element SubType:	Wire Closet / Electric Rm		

Photo Documentation



Telephone & IDF Wall Rack & Electric Equipment

Figure 1



Abandon Telephone Terminations

Figure 2

Element Description

Second Floor IDF Room 2-05a West Wiring Closet :

1. No Air Conditioning - excessive heat will shorten life of network equipment
2. No Fire Protection - best practices recommend the headend telecom equipment be protected from fire.
3. No Electronic Access Control - best practice recommend monitoring access to telecom spaces.
4. Debris and spare materials stored in this telephone room - dust shortens equipment life.
5. Rack located on wall over transformer. Too close to transformer to provide recommended separation to reduce EMI/RFI interference and maintain working clearance per EIA/TIA standards.
6. No telecom grounding and no bonding. - poor grounding can cause network problems
7. Limited to no fire-stopping - best practices recommend sealing penetrations to limit fire and smoke
8. No Generator and limited UPS power - network will not operate during long power outage.
9. Closet is too small for equipment and not sufficient space for future cabling.- limited future growth
10. Limited cable management & horizontal cable support in ceiling space. Limited cable tray. - limited future growth

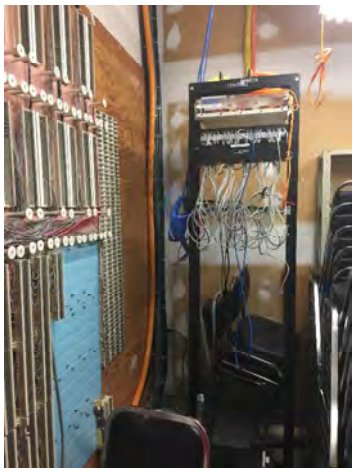
References:

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	North

Condition / Element Report

Discipline:	Low Voltage	Report Number:	
Room Identification:	2 - 24 Wiring CLoset	Condition:	Poor
Element Type:	Low Voltage		
Element SubType:	Wire Closet / Elec Rm		

Photo Documentation



Telephone Terminations & IDF Rack & Misc Storage

Figure 1

Floor Penetrations - No Fire Stopping , No Spare Capacity

Figure 2

Element Description

Second Floor IDF Room 2-24Wiring Closet :

1. No Air Conditioning - excessive heat will shorten life of network equipment
2. No Fire Protection - best practices recommend the headend telecom equipment be protected from fire.
3. No Electronic Access Control - best practice recommend monitoring access to telecom spaces.
4. Debris and spare materials stored in this telephone room - dust shortens equipment life.
5. Rack located too close to wall to provide recommended 3 foot working clearance per EIA/TIA standards.
6. No telecom grounding and no bonding. - poor grounding can cause network problems
7. Limited to no fire-stopping - best practices recommend sealing penetrations to limit fire and smoke
8. No Generator and limited UPS power - network will not operate during long power outage.
9. Closet is too small for equipment and not sufficient space for future cabling.- limited future growth
10. Limited cable management & horizontal cable support in ceiling space. Limited cable tray. - limits future growth.
11. Floor Penetrations are filled to capacity.- limited future growth

References:

5.6.1. Third Floor Conditions Assessment

Click here to return to section directory....pg. 49

5.6.1 THIRD FLOOR CONDITIONS ASSESSMENT

5.6.1 a ARCHITECTURAL

- The third floors is almost exclusively office space, with the only change from the original layout being some infill to divide offices to create double occupancies. Unlike the Basement, Ground and First Floor levels, which had assessments which varied depending on location and use, the conditions throughout the Second and Third Floors are relatively consistent.
- Most offices on these floors have carpet which is in Fair condition, appearing to be approximately 10-15 years old. The carpet throughout does not have any particular areas of damage, but shows wear typical for a carpet of that age and use.
- The ceilings are typically in Poor condition throughout. Spot water damage, possibly from concealed mechanical equipment is common; also common are damaged tiles, tiles discolored from age, and mismatched tiles.
- There are several areas of significant water damage in the ceiling. There are multiple tiles in the south west corner of the shared office 3-09 which are sagging and deteriorating due to what appears to be long term water damage.
- The walls, while maintained to a certain degree throughout, have multiple instances of missing wall plates and spot damage, possibly from furniture or equipment striking the wall.
- The Elevator Lobby's walls and ceilings are in Fair condition; however the vinyl tile of the floor is in Poor condition, with significant cracking throughout. The trim, as is typical of the building, appears to be well maintained and in Good condition.
- The doors throughout both floors are ADA non-compliant in that the majority of doors are either knobs or finger pulls for pocket doors.
- Throughout, the window mullions and sills are in Poor condition in that the paint is peeling extensively, damage to the base wood appears in several instances, and in at least one instance the glass pane is cracked.
- Stairs A and B are the two egress stairs serving these floors.
- Stair B, as is typical of other floors, in good condition regaring the surface condition.
- Stair B does not meet ADA requirements for door clearance or maneuvering clearances. (report A-239) Also typical is the knob on each side of the door, which is not ADA compliant.
- Stair A does not meet code requirements. The door leaf is 21", deficient of the required 32" for one leaf (report A-241).
- The handrails of Stair A do not meet the required height of 42", violating code requirements.

5.6.1 b STRUCTURAL

Third Floor: combination of conventionally reinforced concrete and steel beams with open metal bar grating

- Conventionally reinforced concrete beams support concrete joists at 36” on center. Typical beams are 30” deep, joists have a 3.5” flange and extend 10” below flanges, and flat slabs are 9” thick. Variations in select areas occur.
- Concrete beams are placed along the perimeter and typically along interior gridlines running north to south between columns
- Center of the floor serves as a mechanical room, supported by two steel plate girders spanning span 53’-0” east to west, from columns at line G to columns at line O.
- Mechanical room plate girders located at third points to divide it into three sections:
    - middle section consists of 8” thick two-way flat slabs, conventionally reinforced and supported on steel beams oriented north to south between plate girders.
    - north and south sections consist of 8” thick two-way slabs, supported on concrete beams which frame into the steel plate girders and concrete columns on the other end.
- Catwalks hang from the third floor mechanical room framing, consisting of steel beams topped by metal bar grating.
- Raised mezzanine is supported on the third floor mechanical room, consisting of steel beams topped by metal bar grating. Access mezzanine by steel ships ladders.

5.6.1 c MEP

HVAC

Center Core

- The center core contains the main high-pressure air handling units, outside air and exhaust functions and controls.
- The installed HVAC systems are from the 1970’s and are very energy inefficient by today’s standards and codes.
- The core equipment is past its ASHRAE useful life, indicating that replacement should be anticipated.

North/South/ East and West

- This floor contains ductwork, piping, terminal units, air devices and controls
- The terminal units are constant volume reheat type which are very inefficient and do not meet current codes.
- The piping serving the reheat coils is piped as a constant flow and does not take advantage of variable heating water flow requirements in the space.

- The perimeter of the building is provided with hot water fin-tube radiation under the windows. These units are not easily accessible for service and their operation can be compromised by placing furniture at the floor return.
- The air devices appear to need to be cleaned and air pattern controllers adjusted.

Plumbing

West

- Mop sink is old and should be replaced due to stains and rust.

Electrical

- The main components and equipment of the electrical service and distribution system are in working in order and in fair condition, however the overall age of the majority of the equipment makes replacement prudent.

Northeast Quadrant

- Panelboards 3LA and 3PA are original equipment, 40+ years old and they should be replaced. Replacement parts and circuit breakers for panels over 25 years of age can be difficult to find and if found, can be expensive.
- The 50kva transformer that serves Panels 3PA is original equipment, 40+ years old and it should be replaced with a new energy efficient transformer, which can reduce energy consumption and it also operates at lower temperatures, which in turn, reduces the amount of required cooling.

Southwest Quadrant

- Panelboards 3LB and 3PB are original equipment, 40+ years old and they should be replaced. Replacement parts and circuit breakers for panels over 25 years of age can be difficult to find and if found, can be expensive.
- The 50kva transformer that serves Panels 3PB is original equipment, 40+ years old and it should be replaced with a new energy efficient transformer, which can reduce energy consumption and it also operates at lower temperatures, which in turn, reduces the amount of required cooling.
- Motor Control Center MCC2 has recently been replaced, it is in good condition and it can remain.
- The Life Safety Generator is original equipment, 40+ years. The generator should be replaced along with the associated Automatic Transfer Switch and emergency distribution panels and transformer.
- Motor Control Center 3MSS is original equipment, 40+ years old and should be replaced. Due to it's age, replacement parts for this MCC will be difficult to locate.

5.6.1 d TELECOMMUNICATIONS

West

- No security / no access control to protect this room.
- No air conditioning to maintain temperature and humidity to prolong life of equipment.
- No generator power to maintain computer / network operations during power outage.

5.6.2 Third Floor Conditions Reports

Click here to return to section directory....pg. 49

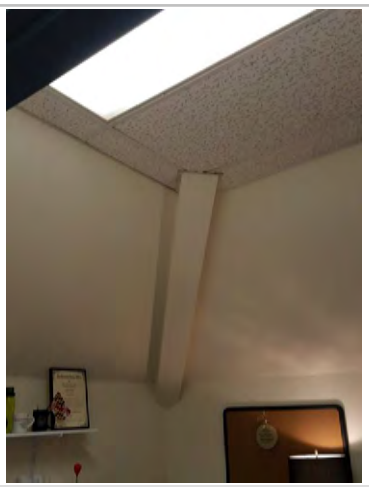
Department of Legislative Services Building
90 State Circle, Annapolis, MD 21401

Key Plan Location: North

Condition / Element Report

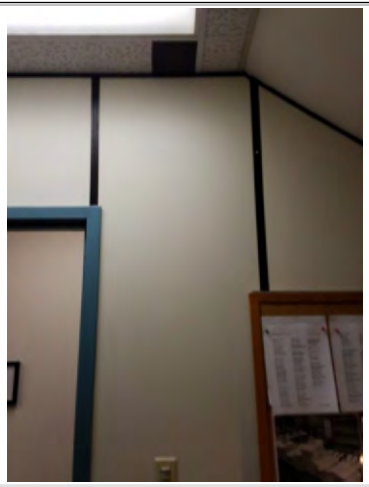
Discipline:	Architectural - Interiors	Report Number:	A-195
Room Identification:	3 - 09 d,e,f Offices	Condition:	Fair
Element Type:	Miscellaneous		
Element SubType:	Floors & Walls		

Photo Documentation



Typical wall

Figure 1 Clear Image 1



Typical partition

Figure 2 Clear Image 2

Element Description

1. The walls in these offices are typically in "Fair" condition with no issues to report.
2. The carpet, not shown, is in "Fair" condition with average wear for age and use.

References: Clear Text Box

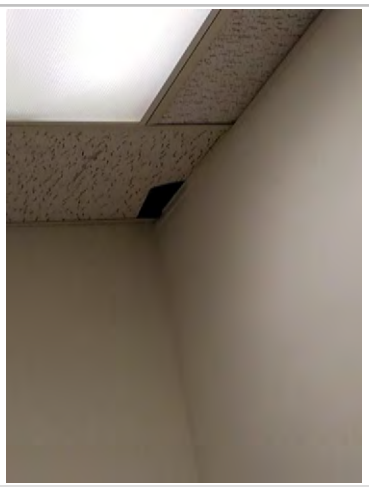
Department of Legislative Services Building
90 State Circle, Annapolis, MD 21401

Key Plan Location: North

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-196
Room Identification:	3 - 09 d,e,f Offices	Condition:	Poor
Element Type:	Ceiling		
Element SubType:	N/A		

Photo Documentation



Damaged tile

Figure 1 Clear Image 1

Water damage in 309e

Figure 2 Clear Image 2

Element Description

1. The ceiling tiles in these offices are in "Poor" condition. Damaged tiles are not atypical, and there is water damage in at least one instance.

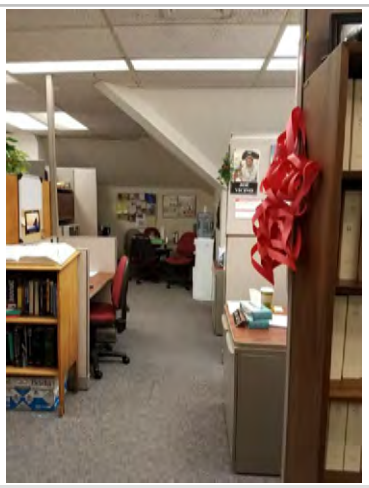
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	North

Condition / Element Report

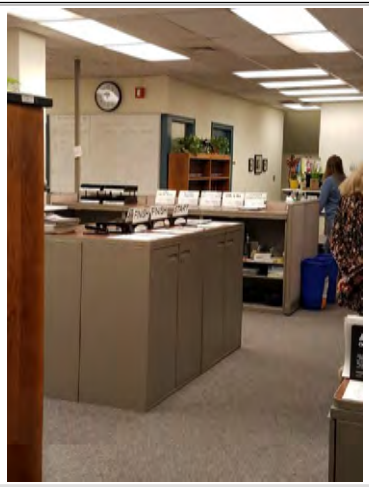
Discipline:	Architectural - Interiors	Report Number:	A-197
Room Identification:	3 - 09 Shared Office	Condition:	Fair
Element Type:	Miscellaneous		
Element SubType:	Floors & Walls		

Photo Documentation



View of office looking West

Figure 1 Clear Image 1



View of office looking West

Figure 2 Clear Image 2

Element Description

1. The carpet is in "Fair" condition with wear typical for age and use.
2. The walls are in "Fair" condition with wear typical for age and use.

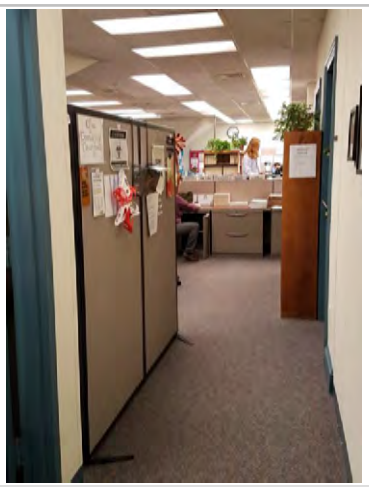
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	North

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-198
Room Identification:	3 - 09 Shared Office	Condition:	Poor
Element Type:	Ceiling		
Element SubType:	N/A		

Photo Documentation



View of ceiling looking East

Figure 1 Clear Image 1

Water damage in SW corner of shared office

Figure 2 Clear Image 2

Element Description

1. The ceiling in 309 Shared Office is in "Poor" condition throughout. Tiles are typically damaged and discolored. Water damage is typical with significant water damage in the South West corner of the office.

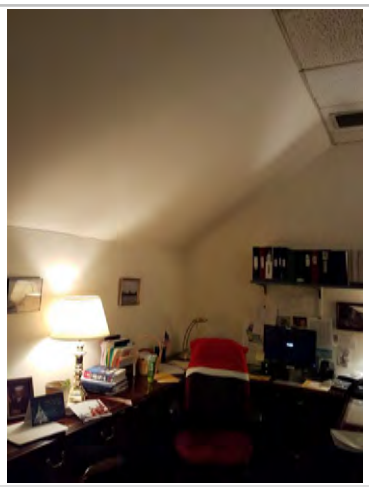
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

Condition / Element Report

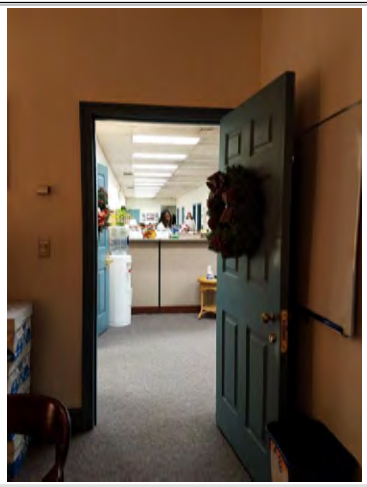
Discipline:	Architectural - Interiors	Report Number:	A-199
Room Identification:	3 - 11 a-b Offices	Condition:	Fair
Element Type:	Miscellaneous		
Element SubType:	Floors & Walls		

Photo Documentation



Typical wall condition

Figure 1 Clear Image 1



Typical carpet

Figure 2 Clear Image 2

Element Description

1. The walls in these offices are in "Fair" condition with no issues to report.
2. The carpet is in "Fair" condition with typical wear for age and use.

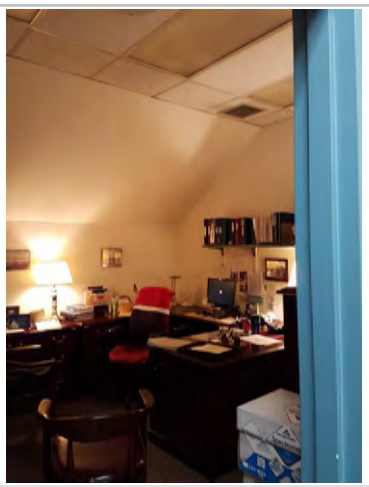
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

Condition / Element Report

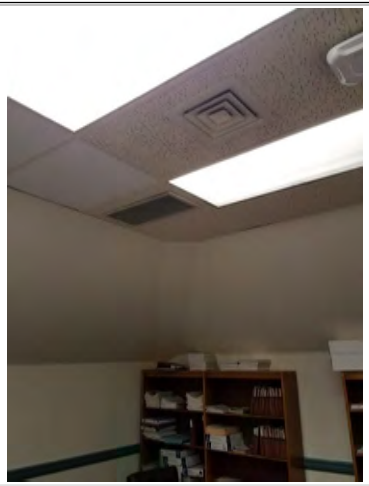
Discipline:	Architectural - Interiors	Report Number:	A-200
Room Identification:	3 - 11 a-c Offices	Condition:	Poor
Element Type:	Ceiling		
Element SubType:	N/A		

Photo Documentation



Typical ceiling condition

Figure 1 Clear Image 1



Typical ceiling condition

Figure 2 Clear Image 2

Element Description

1. The ceiling tiles are in "Poor" condition; bowed and discolored tiles are common throughout.

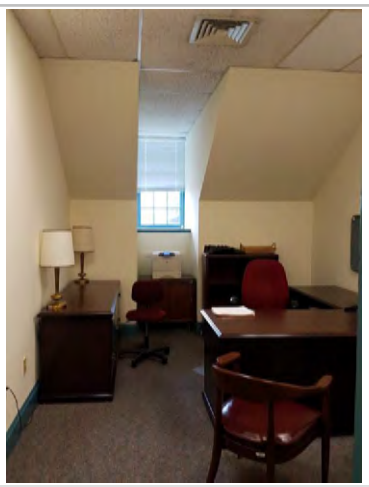
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

Condition / Element Report

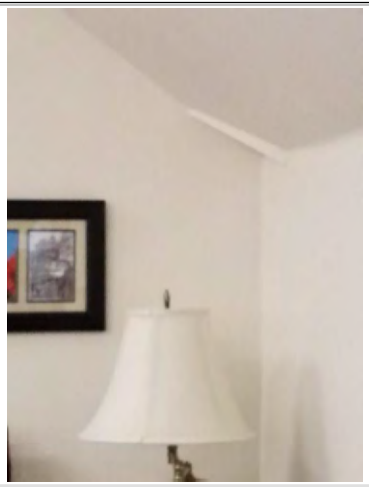
Discipline:	Architectural - Interiors	Report Number:	A-203
Room Identification:	3 - 11 e-i Offices	Condition:	Fair
Element Type:	Miscellaneous		
Element SubType:	Floors & Walls		

Photo Documentation



Typical office

Figure 1 Clear Image 1



Typical wall condition

Figure 2 Clear Image 2

Element Description

1. The carpet in these offices is in "Fair" condition with wear typical for use and age.
2. The walls in these offices are in "Fair" condition.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

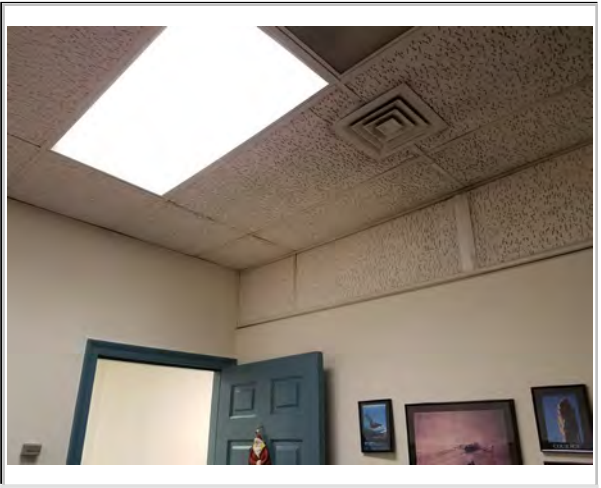
Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-204
Room Identification:	3 - 11 e-i Offices	Condition:	Poor
Element Type:	Ceiling		
Element SubType:	N/A		

Photo Documentation

Water damage in 311 h

Figure 1 Clear Image 1



Typical ceiling condition

Figure 2 Clear Image 2

Element Description

1. The ceiling tiles are in "Poor" condition; bowed and discolored tiles are common throughout.
2. There is water damage evident in 311h.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

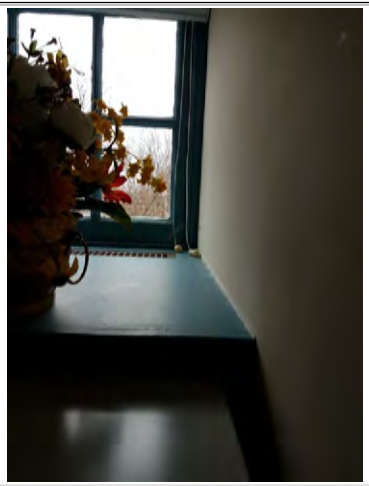
Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-205
Room Identification:	3 - 11 e-i Offices	Condition:	Poor
Element Type:	Openings		
Element SubType:	Windows		

Photo Documentation

Window sill

Figure 1 Clear Image 1



Window sill

Figure 2 Clear Image 2

Element Description

1. The windows are in "Poor" condition with excessive damage at the window sill.

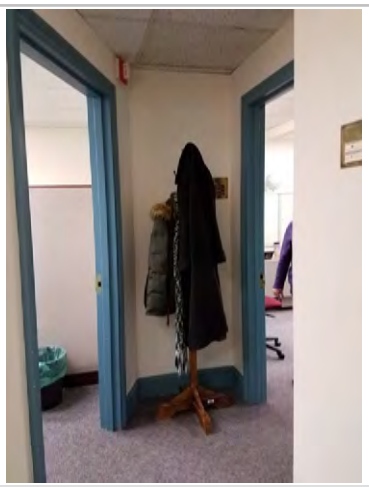
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-206
Room Identification:	3 - 11 k-l Offices	Condition:	Fair
Element Type:	Miscellaneous		
Element SubType:	Floors & Walls		

Photo Documentation



Typical carpet and wall

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

1. The carpet is in "Fair" condition with no significant issues.
2. The walls are in "Fair" condition.

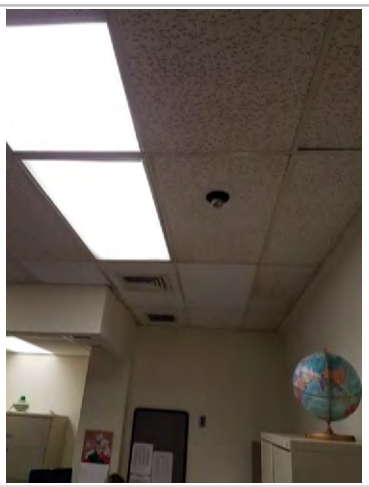
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

Condition / Element Report

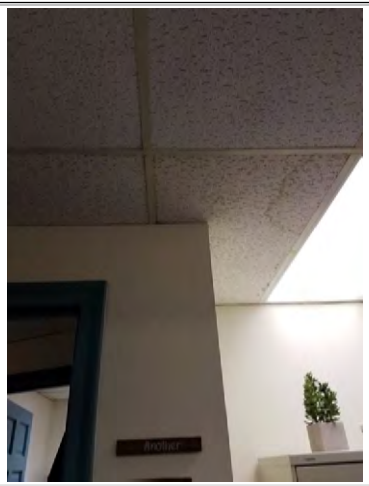
Discipline:	Architectural - Interiors	Report Number:	A-207
Room Identification:	3 - 11 k-l Offices	Condition:	Poor
Element Type:	Openings		
Element SubType:	Windows		

Photo Documentation



Typical ceiling tile

Figure 1 Clear Image 1



Water damage in ceiling tile

Figure 2 Clear Image 2

Element Description

1. The ceiling tiles are in "Poor" condition. Tiles are bowed and discolored throughout, and there are several instances of water damage in the tiles.

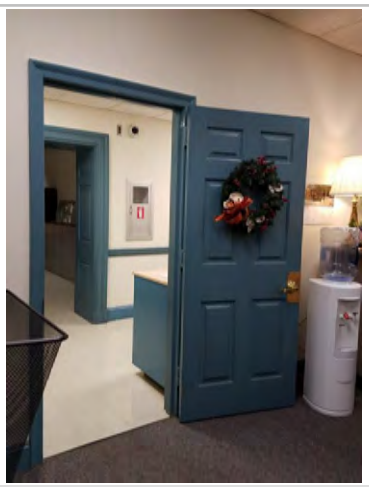
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-208
Room Identification:	3 - 11 Shared Office	Condition:	Fair
Element Type:	Miscellaneous		
Element SubType:	Floors & Walls		

Photo Documentation



View of office looking North

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

1. The floor of the Shared Office is in "Fair" condition with typical wear for age and use.
2. The walls are in "Fair" condition with no issues to report.

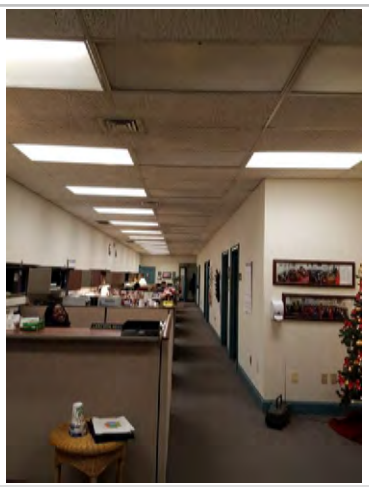
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-209
Room Identification:	3 - 11 Shared Office	Condition:	Poor
Element Type:	Ceiling		
Element SubType:	N/A		

Photo Documentation



View of office looking North

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

1. The ceiling tile is in "Poor" condition. Tiles are bowed and significantly discolored throughout.

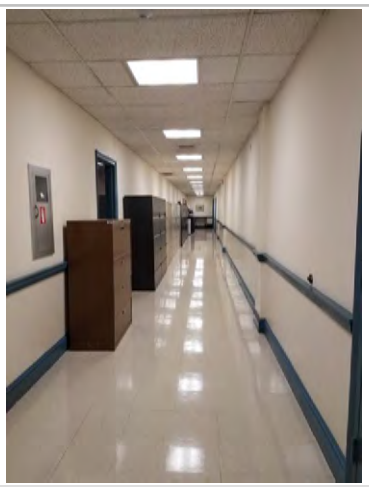
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-210
Room Identification:	3 - Corridor	Condition:	Fair
Element Type:	Miscellaneous		
Element SubType:	Floors & Walls & Ceiling		

Photo Documentation



View of corridor looking South

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

1. The floor of the Corridor is in "Fair" condition, however, tiles throughout are beginning to show signs of cracking.
2. The walls of the Corridor are in "Fair" condition.
3. The ceiling of the Corridor is in "Fair" condition, however, tiles throughout are beginning to discolor.

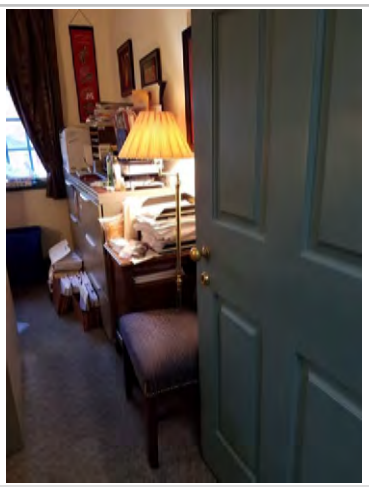
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	South

Condition / Element Report

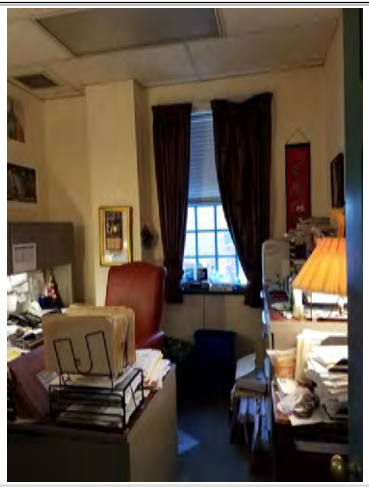
Discipline:	Architectural - Interiors	Report Number:	A-211
Room Identification:	3 - 00 a-e Offices	Condition:	Fair
Element Type:	Miscellaneous		
Element SubType:	Floors & Walls		

Photo Documentation



Typical floor condition

Figure 1 Clear Image 1



Typical wall condition

Figure 2 Clear Image 2

Element Description

1. The floors are typically in "Fair" condition with typical wear for age and use.
2. The walls are typically in "Fair" condition with no issues to report.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	South

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-212
Room Identification:	3 - 00 a-e Offices	Condition:	Poor
Element Type:	Ceiling		
Element SubType:	N/A		

Photo Documentation

Typical ceiling tile condition

Figure 1 Clear Image 1

Damaged ceiling tile

Figure 2 Clear Image 2

Element Description

1. The ceiling tiles in these offices are in "Poor" condition. Tiles are typically discolored throughout and damage to single tiles is common.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	South

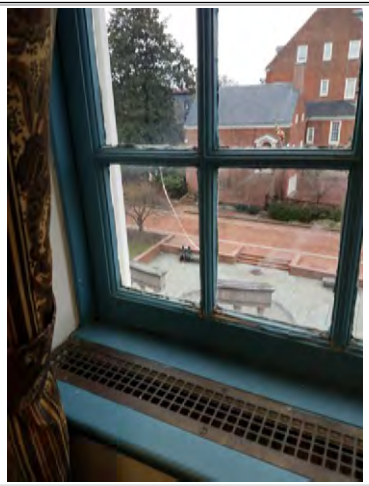
Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-213
Room Identification:	3 - 00 a-e Offices	Condition:	Critical
Element Type:	Openings		
Element SubType:	Windows		

Photo Documentation

Typical window condition with damaged trim

Figure 1 Clear Image 1



Cracked pane in 300e

Figure 2 Clear Image 2

Element Description

1. The windows in these offices are assessed in "Critical" condition due to a cracked pane in Office 300e.
2. The typical window has trim (sash, mullions and sill) are severely damaged and show excessive wear.

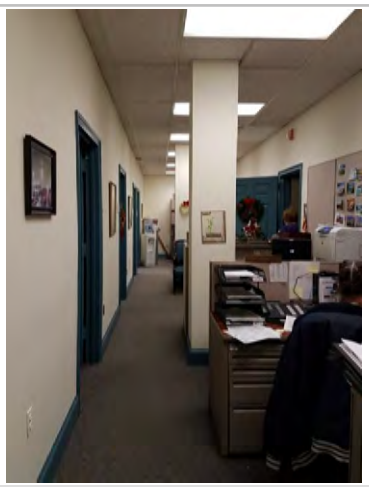
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	South

Condition / Element Report

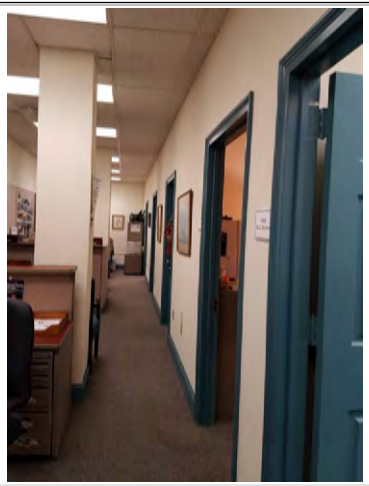
Discipline:	Architectural - Interiors	Report Number:	A-214
Room Identification:	3 - 00 Shared Offices	Condition:	Fair
Element Type:	Ceiling		
Element SubType:	N/A		

Photo Documentation



Shared Office looking West

Figure 1 Clear Image 1



Shared Office looking East

Figure 2 Clear Image 2

Element Description

1. The floors in this area are in "Fair" condition showing typical wear for age and use.
2. The walls are in "Fair" condition with no issues to report.

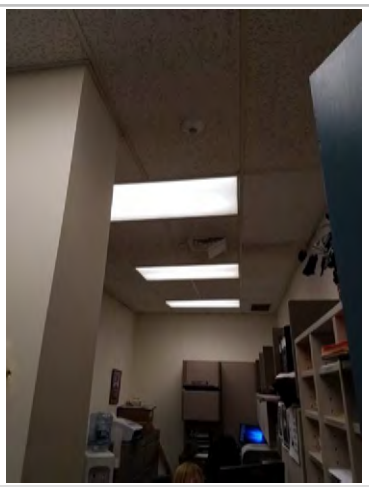
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	South

Condition / Element Report

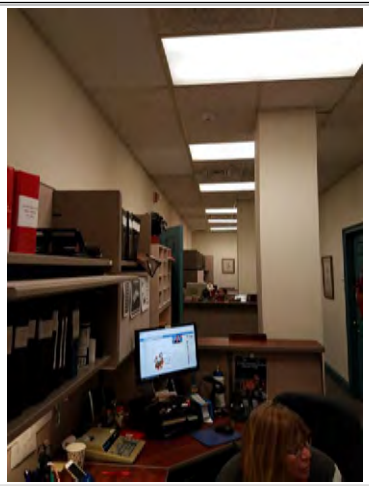
Discipline:	Architectural - Interiors	Report Number:	A-215
Room Identification:	3 - 00 Shared Offices	Condition:	Poor
Element Type:	Ceiling		
Element SubType:	N/A		

Photo Documentation



Typical ceiling tile condition

Figure 1 Clear Image 1



Typical ceiling tile condition

Figure 2 Clear Image 2

Element Description

1. The ceiling tiles in the Shared Office are in "Poor" condition. Tiles are typically discolored with excessive wear for age and use.

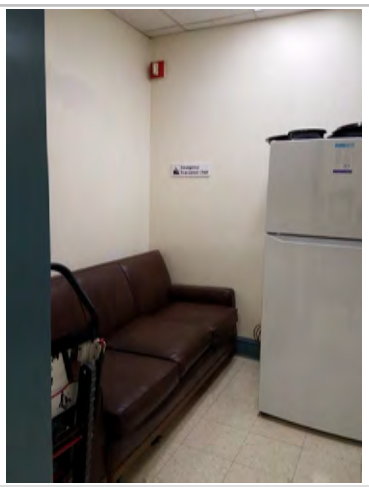
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	South

Condition / Element Report

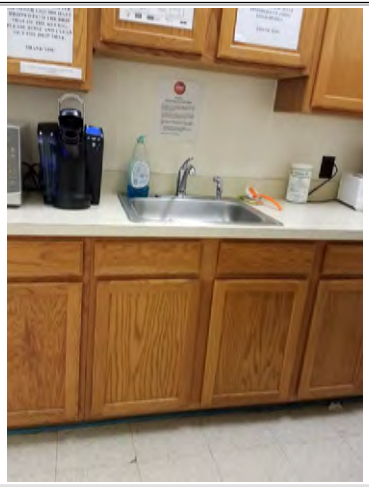
Discipline:	Architectural - Interiors	Report Number:	A-216
Room Identification:	3 - 12 Kitchenette	Condition:	Fair
Element Type:	Miscellaneous		
Element SubType:	Floors, Walls & Ceilings		

Photo Documentation



Shared Office looking West

Figure 1 Clear Image 1



Shared Office looking East

Figure 2 Clear Image 2

Element Description

1. The floors in this area are in "Fair" condition showing typical wear for age and use. There are atypical incidents of very minor damage to floor tiles.
2. The walls are in "Fair" condition. There is one instance of inconsistent paint on one wall.
3. The ceiling, not shown, are in "Fair" condition.

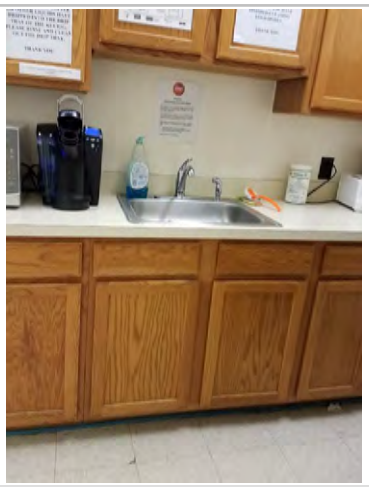
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	South

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-217
Room Identification:	3 - 12 Staff Breakroom	Condition:	ADA Consideration
Element Type:	Miscellaneous		
Element SubType:	sink		

Photo Documentation



Sink in third floor breakroom

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

1. The sink on the third floor breakroom does not meet ADA requirements as follows:
   1a. 212.3 Sinks. Where sinks are provided, at least 5 percent, but no fewer than one, of each type provided in each accessible room or space shall comply with 606.
   1b. 606.2 Clear Floor Space. A clear floor space complying with 305, positioned for a forward approach, and knee and toe clearance complying with 306 shall be provided.
   1c. The existing sink does not provide any knee or toe space clearance.

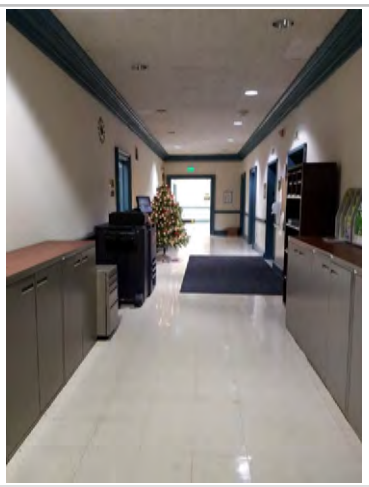
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	South

Condition / Element Report

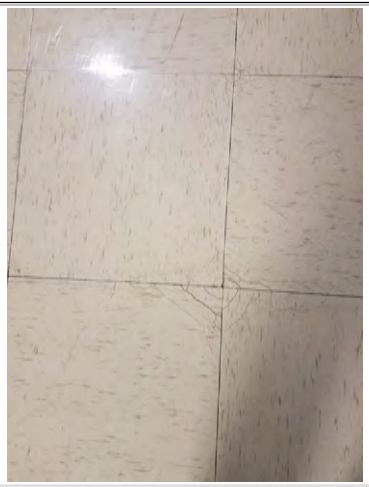
Discipline:	Architectural - Interiors	Report Number:	A-218
Room Identification:	3 - Elevator Lobby	Condition:	Poor
Element Type:	Miscellaneous		
Element SubType:	Floors & Ceilings		

Photo Documentation



Elevator Lobby looking West

Figure 1 Clear Image 1



Typical floor tile

Figure 2 Clear Image 2

Element Description

1. The floors in this area are in "Poor" condition. The tiles show excessive wear and are cracked throughout.
2. The ceiling is in "Poor" condition as the tile appears to be at the end of it's life-cycle. Tiles are typically discolored throughout.

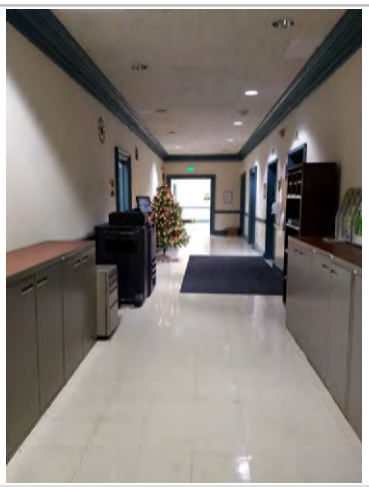
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	South

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-219
Room Identification:	3 - Elevator Lobby	Condition:	Fair
Element Type:	Walls		
Element SubType:	N/A		

Photo Documentation



Elevator Lobby looking West

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

1. The walls in the Elevator Lobby are in "Fair" condition with no significant issues to report.

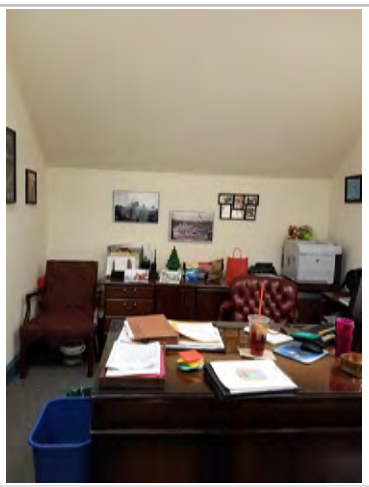
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-222
Room Identification:	3 - 04 Office	Condition:	Fair
Element Type:	Miscellaneous		
Element SubType:	Floors & Walls		

Photo Documentation



View of office looking South

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

1. The floors are assessed in "Fair" condition with typical wear from age and use.
2. The walls are in "Fair" condition with no issues to report.

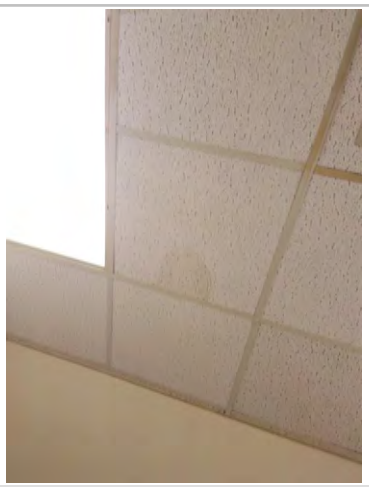
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-223
Room Identification:	3 - 04 Office	Condition:	Poor
Element Type:	Ceiling		
Element SubType:	N/A		

Photo Documentation



Water damage in ceiling tile

Figure 1 Clear Image 1

Water damage in ceiling tile

Figure 2 Clear Image 2

Element Description

1. The ceiling tiles are assessed in "Poor" condition due to multiple instances of water damage.

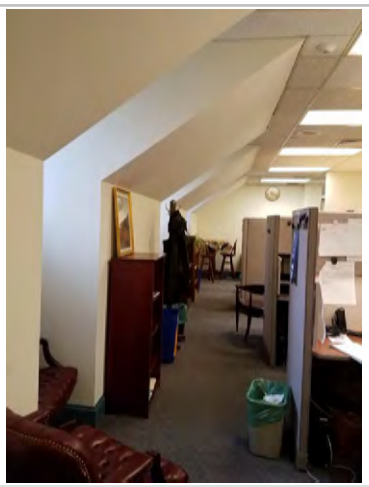
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

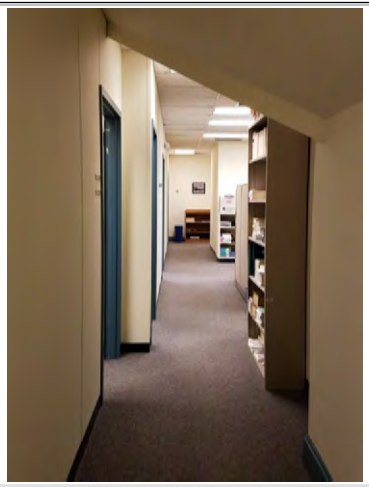
Discipline:	Architectural - Interiors	Report Number:	A-233
Room Identification:	3 - 09 Shared Office	Condition:	Fair
Element Type:	Miscellaneous		
Element SubType:	Floors & Walls		

Photo Documentation



View of offices looking North

Figure 1 Clear Image 1



View to offices looking South

Figure 2 Clear Image 2

Element Description

1. The floors and walls of the Shared Office are in "Fair" condition with average wear for use and age and no issues to report.

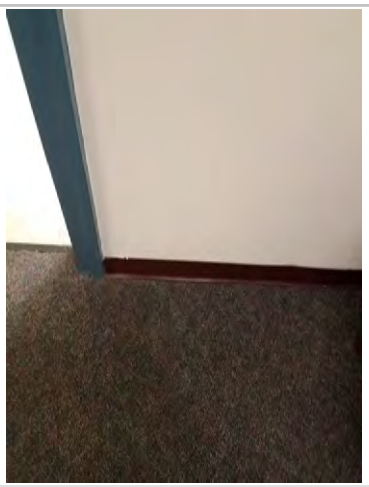
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-224
Room Identification:	3 - 05 Office	Condition:	Fair
Element Type:	Miscellaneous		
Element SubType:	Floor & Wall		

Photo Documentation



Floor and wall condition.

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

1. The carpet is in "Fair" condition with average wear for age and use.
2. The walls are in "Fair" condition with no issues to report.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-225
Room Identification:	3 - 05 Office	Condition:	Poor
Element Type:	Ceiling		
Element SubType:	N/A		

Photo Documentation

Ceiling condition

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

1. The ceiling is in "Poor" condition, with tiles typically discolored and at least one instance of water damage.

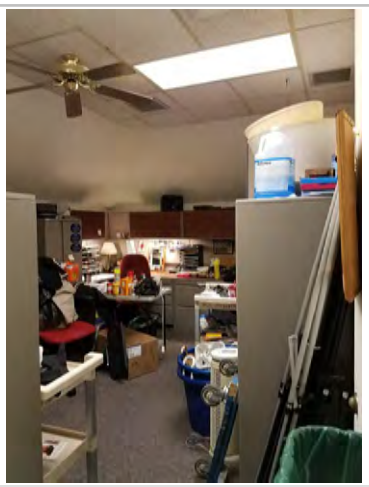
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

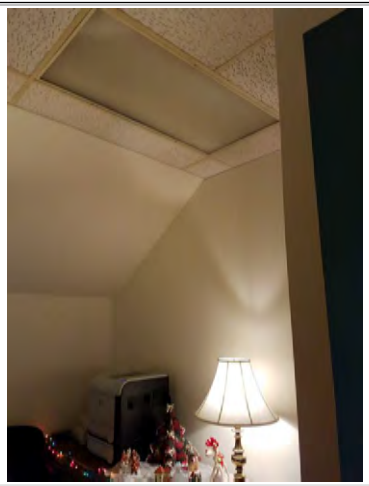
Discipline:	Architectural - Interiors	Report Number:	A-226
Room Identification:	3 - 06+06a Offices	Condition:	Fair
Element Type:	Miscellaneous		
Element SubType:	Floors & Walls		

Photo Documentation



View of Office 3-06

Figure 1 Clear Image 1



View of Office 3-06a

Figure 2 Clear Image 2

Element Description

1. The floors are assessed in "Fair" condition with typical wear from age and use.
2. The walls are in "Fair" condition with no issues to report.

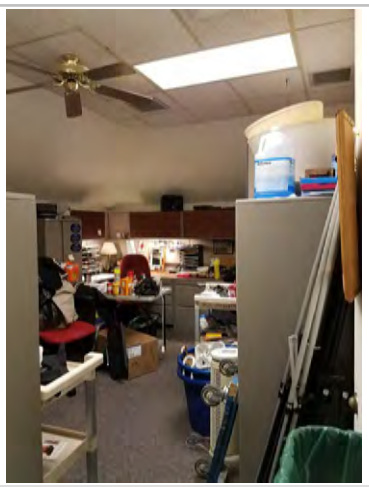
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

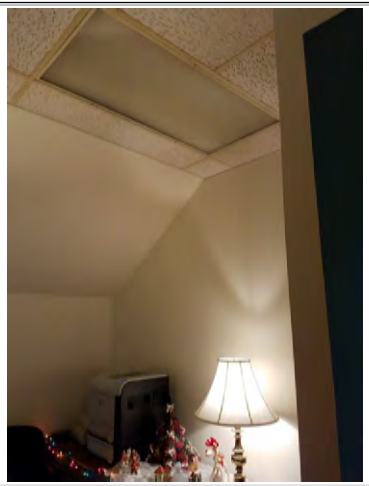
Discipline:	Architectural - Interiors	Report Number:	A-227
Room Identification:	3 - 06+06a Offices	Condition:	Poor
Element Type:	Ceiling		
Element SubType:	N/A		

Photo Documentation



View of Office 3-06

Figure 1 Clear Image 1



View of Office 3-06a

Figure 2 Clear Image 2

Element Description

1. The ceiling is in "Poor" condition, with tiles appearing to be at the end of their life span.

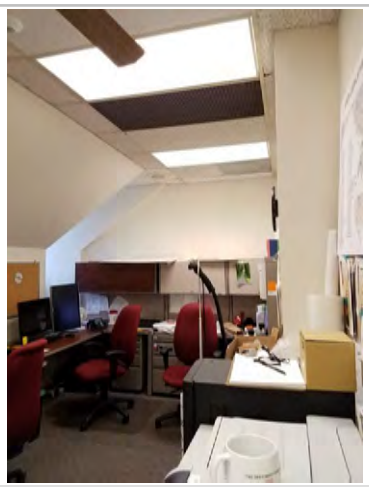
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

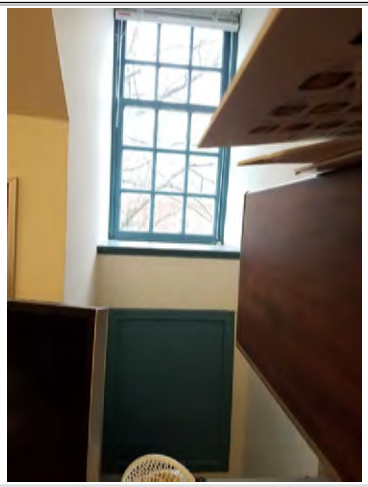
Discipline:	Architectural - Interiors	Report Number:	A-228
Room Identification:	3 - 07 Print Office	Condition:	Fair
Element Type:	Miscellaneous		
Element SubType:	Floors, Walls & Ceiling		

Photo Documentation



View of Office 3-07

Figure 1 Clear Image 1



View of Office 3-07

Figure 2 Clear Image 2

Element Description

1. The finishes on floor, wall and ceiling of this office are in "Fair" condition with no specific issues to report.

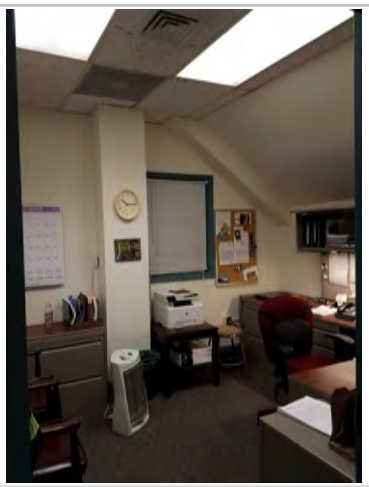
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

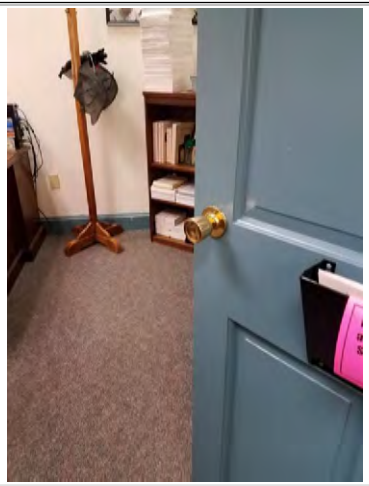
Discipline:	Architectural - Interiors	Report Number:	A-229
Room Identification:	3 - 09 a,b,c,g Offices	Condition:	Fair
Element Type:	Miscellaneous		
Element SubType:	Floors & Walls		

Photo Documentation



View of Typical Office

Figure 1 Clear Image 1



Typical carpet condition

Figure 2 Clear Image 2

Element Description

1. The finishes on floors and walls of these office are in "Fair" condition with no specific issues to report.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

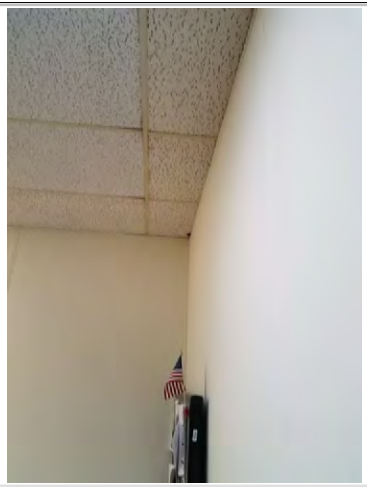
Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-230
Room Identification:	3 - 09 a,b,c,g Offices	Condition:	Poor
Element Type:	Ceiling		
Element SubType:	N/A		

Photo Documentation

View of Typical Office

Figure 1 Clear Image 1



Typical carpet condition

Figure 2 Clear Image 2

Element Description

1. The ceiling tiles are assessed in "Poor" condition with discolored and damaged tiles throughout.

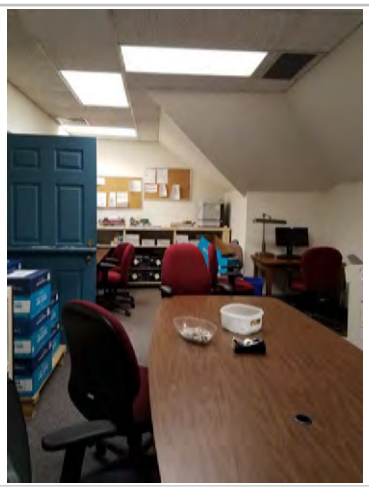
References: Clear Text Box

Department of Legislative Services Building 90 State Circle, Annapolis, MD 21401	Key Plan Location:	West

Condition / Element Report

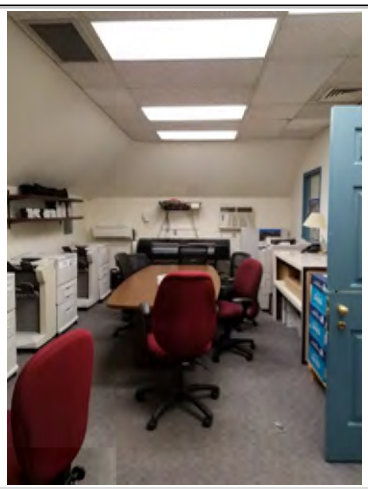
Discipline:	Architectural - Interiors	Report Number:	A-231
Room Identification:	3 - 09 h Copy Room	Condition:	Fair
Element Type:	Miscellaneous		
Element SubType:	Floors & Walls		

Photo Documentation



View of Copy Room looking South

Figure 1 Clear Image 1



View of Copy Room looking North

Figure 2 Clear Image 2

Element Description

1. The carpet and walls in this office are in "Fair" condition with typical wear for age and use and no issues to report.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

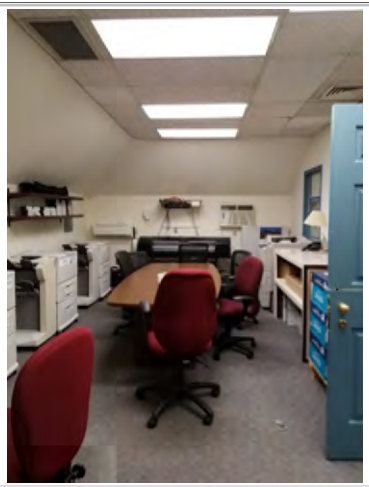
Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-232
Room Identification:	3 - 09 h Copy Room	Condition:	Poor
Element Type:	Ceiling		
Element SubType:	N/A		

Photo Documentation

Typical ceiling tile in Copy Room

Figure 1 Clear Image 1



View of Copy Room looking North

Figure 2 Clear Image 2

Element Description

1. The ceiling tiles are in "Poor" condition with discolored tiles throughout and appear to be at the end of their life span.

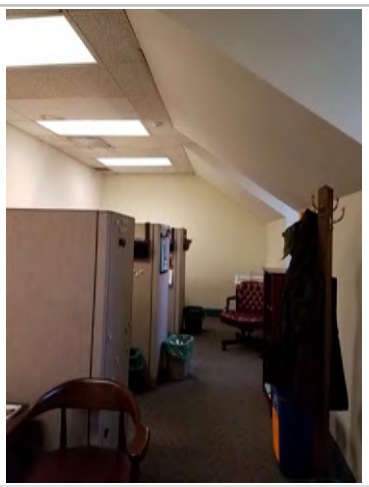
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

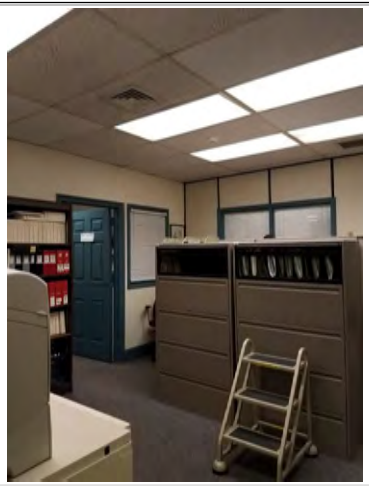
Discipline:	Architectural - Interiors	Report Number:	A-234
Room Identification:	3 - 09 Shared Office	Condition:	Poor
Element Type:	Ceiling		
Element SubType:	N/A		

Photo Documentation



Shared Office looking South

Figure 1 Clear Image 1



Typical ceiling tile

Figure 2 Clear Image 2

Element Description

1. The ceiling tiles are in "Poor" condition with discolored tiles throughout and appear to be at the end of their life span.
2. Water damage is evident in the south portion of the offices.

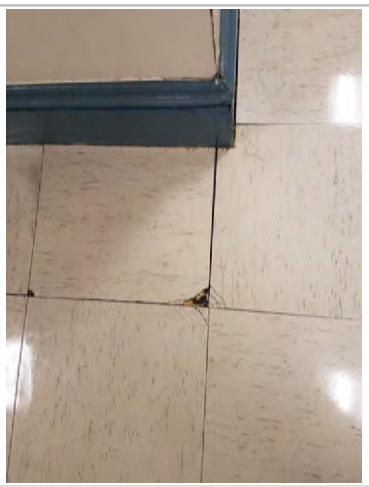
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

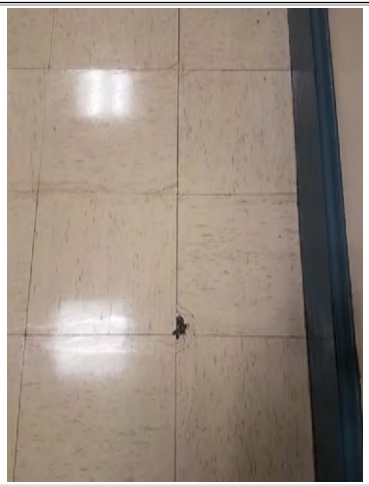
Discipline:	Architectural - Interiors	Report Number:	A-235
Room Identification:	3 - Corridor	Condition:	Poor
Element Type:	Floors		
Element SubType:	N/A		

Photo Documentation



Damaged tiles in corridor

Figure 1 Clear Image 1



Damaged tiles in corridor

Figure 2 Clear Image 2

Element Description

1. The floor in the West and Southwest Corridor is in "Poor" condition due to cracked tiles throughout and multiple instances of severely damaged tiles.

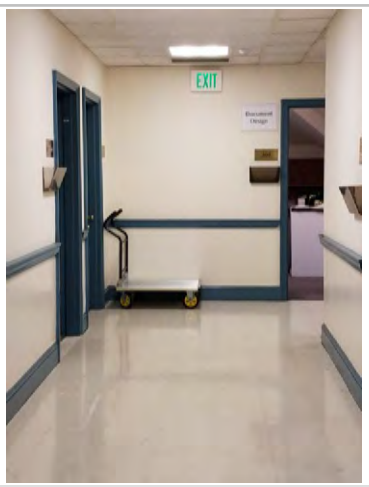
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

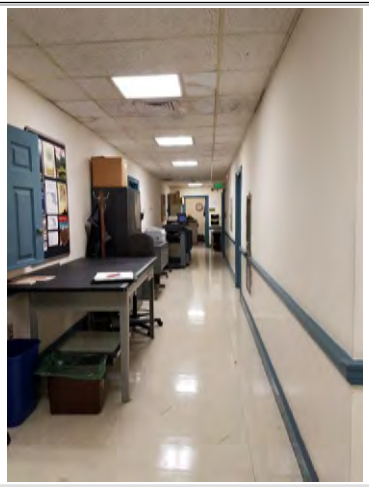
Discipline:	Architectural - Interiors	Report Number:	A-236
Room Identification:	3 - Corridor	Condition:	Fair
Element Type:	Walls		
Element SubType:	N/A		

Photo Documentation



View of corridor looking West

Figure 1 Clear Image 1



View of corridor looking North

Figure 2 Clear Image 2

Element Description

1. The walls in the West and Southwest corridors are in "Fair" condition with no issues to report.

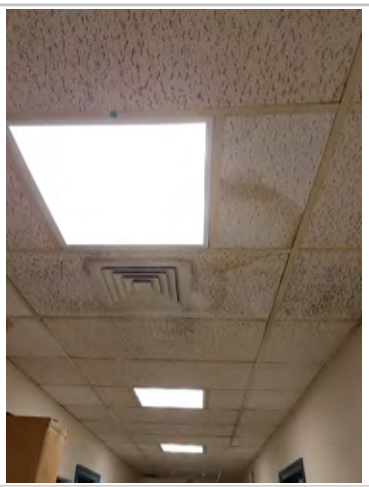
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

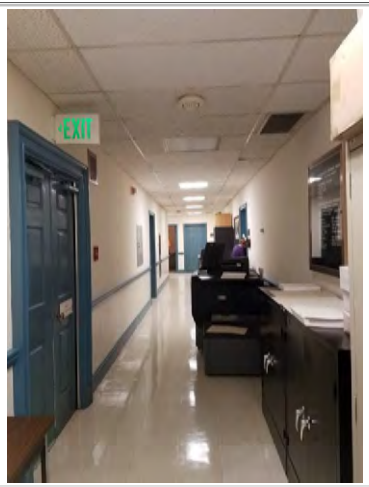
Discipline:	Architectural - Interiors	Report Number:	A-237
Room Identification:	3 - Corridor	Condition:	Critical
Element Type:	Ceiling		
Element SubType:	N/A		

Photo Documentation



Corridor looking North

Figure 1 Clear Image 1



Corridor looking South

Figure 2 Clear Image 2

Element Description

1. The ceiling tiles in the West Corridor are assessed in "Critical" condition due to excessive water damage towards the Southern portion on the Corridor.
2. Tiles that are not specifically damaged are generally in "Poor" condition throughout.

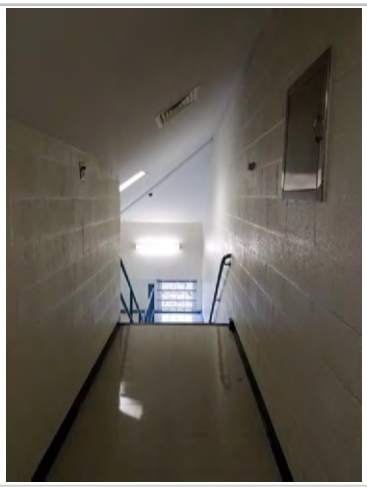
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

Condition / Element Report

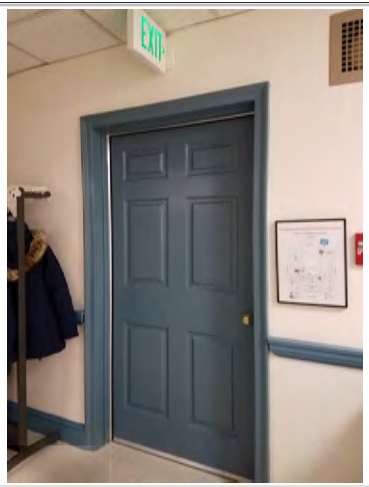
Discipline:	Architectural - Interiors	Report Number:	A-238
Room Identification:	3 - Stair B	Condition:	Good
Element Type:	Miscellaneous		
Element SubType:	Floors & Walls & Ceiling		

Photo Documentation



View of Stair B

Figure 1 Clear Image 1



View of Stair B door from corridor

Figure 2 Clear Image 2

Element Description

1. The condition of Stair B is in "Good" condition.

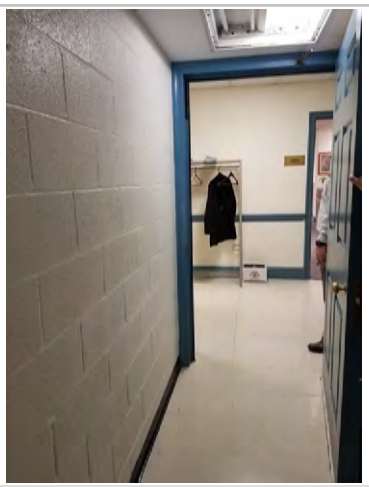
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	East

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-239
Room Identification:	3 - Stair B	Condition:	ADA Consideration
Element Type:	Openings		
Element SubType:	N/A		

Photo Documentation



Stair B access towards corridor

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

1. The door from Stair B to the corridor does not meet the 2010 ADA Accessibility Requirements as follows:
   1a. There is insufficient clearance between the latch side door and the wall.
   404.2.4 Maneuvering Clearances. Minimum maneuvering clearances at doors and gates shall comply with 404.2.4. Maneuvering clearances shall extend the full width of the doorway and the required latch side or hinge side clearance.
   1b. 404.2.4.1 Approach Direction from front pull side requires 18" clearance parallel to doorway. The door from Stair B is <6".

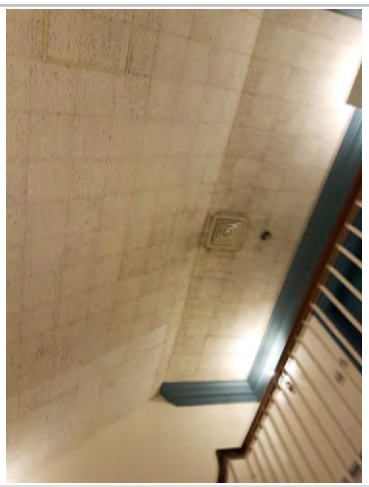
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-240
Room Identification:	3 - Stair A	Condition:	Poor
Element Type:	Ceiling		
Element SubType:	N/A		

Photo Documentation



Ceiling in Stair A

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

1. The ceiling tiles in Stair A are in "Poor" condition with discoloration throughout. The tiles appear to be at the end of their life cycle.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-241
Room Identification:	3 - Stair A	Condition:	Code Consideration
Element Type:	Openings		
Element SubType:	Doors		

Photo Documentation

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

1. The width of each door leaf in the opening to Stair A is 21"; for a total door opening width of 42". This does not meet IBC 2015 regulations as follows:

1a. IBC 2015 1010.1.1 The required capacity of each door opening ...shall provide a minimum clear width of 32". Where...a door opening includes two leaves without a mullion, one leaf shall provide a clear opening width of 32"

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-242
Room Identification:	3 - Stair A	Condition:	ADA Consideration
Element Type:	Openings		
Element SubType:	Doors		

Photo Documentation

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

1. The door hardware on the corridor side of Stair A at the third floor does not meet ADA requirements.

1a. 404.2.7 Door and Gate Hardware. Handles, pulls, latches, locks, and other operable parts on doors and gates shall comply with 309.4.

1b. 309.4 Operation. Operable parts shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist. The force required to activate operable parts shall be 5 pounds (22.2 N) maximum.

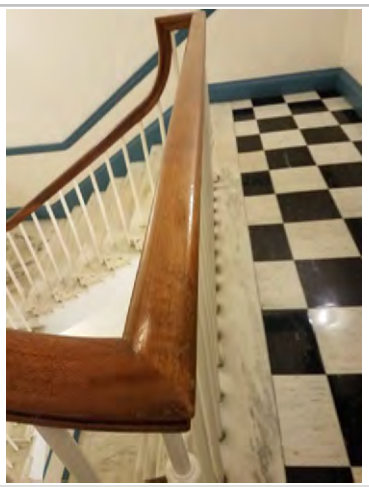
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

Discipline:	Architectural - Interiors	Report Number:	A-243
Room Identification:	3 - Stair A	Condition:	Code Consideration
Element Type:	Miscellaneous		
Element SubType:	Handrails		

Photo Documentation



(third floor handrail similar to second floor, shown)

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

1. The height of the handrail is 32" and does not meet IBC 2015 requirements as follows:
1a. IBC 2015 1014.2 Handrail height ...shall be uniform, not less than 34" and not more than 38".
1b. IBC 2015 1015.2 Guards shall be located along open-sided walking surfaces, including...stairs.
1015.3 Height. Required guards shall be not less than 42" high.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	Central

Condition / Element Report

Discipline:	MEP - Mechanical	Report Number:	9
Room Identification:	3 - 13	Condition:	Poor
Element Type:	HVAC - Primary		
Element SubType:	Air Handlers		

Photo Documentation

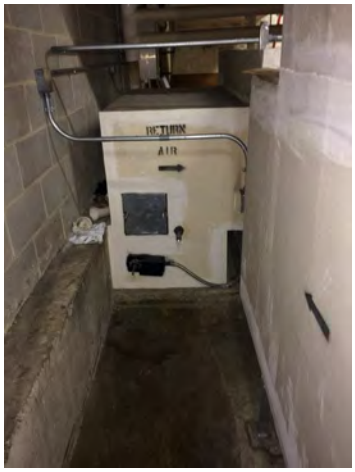


Figure 1 Clear Image 1

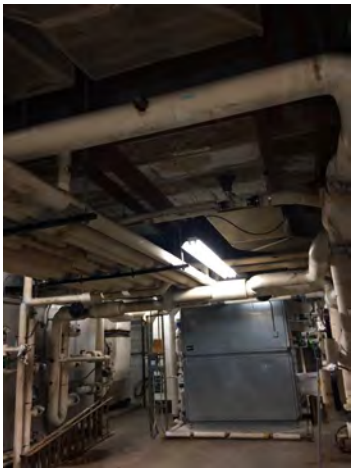


Figure 2 Clear Image 2

Element Description

These air handling units are existing higher pressure unit that serve multiple floors. These units are 1970's constant volume units and are inefficient by modern standards. The filtration provided is not up to current ASHRAE standards. The controls will not provide for optimum comfort. Due to age, 40 years, failure and capital replacement should be anticipated.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	Central

Condition / Element Report

Discipline:	MEP - Mechanical	Report Number:	18
Room Identification:	3 - 33	Condition:	Poor
Element Type:	HVAC - Primary		
Element SubType:	Unit Heaters		

Photo Documentation

Figure 1 Clear Image 1

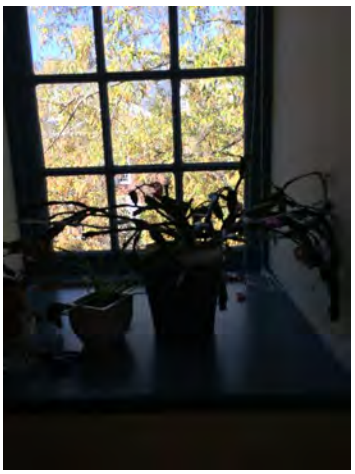


Figure 2 Clear Image 2

Element Description

Miscellaneous heating elements in support spaces include fin tube and hot water unit heaters are more than 40 years old and beyond their useful life and should be replaced.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	North

Condition / Element Report

Discipline:	MEP - Electrical	Report Number:	30
Room Identification:	3 - 35	Condition:	Poor
Element Type:	Electrical Service Distribution		
Element SubType:	Panel 3LA		

Photo Documentation

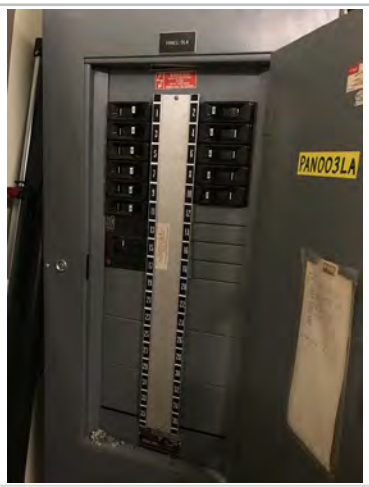


Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

Panelboard 3LA - 277/480 volt 3 phase, 4-wire, 225 amp, is original equipment, 40+ years old and should be replaced. Parts are not readily available for this equipment and repairs can be costly and faulty switches/breakers that are not readily available can lead to extended periods of downtime on affected circuits.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	North

Condition / Element Report

Discipline:	MEP - Electrical	Report Number:	31
Room Identification:	3 - 35	Condition:	Poor
Element Type:	Electrical Service Distribution		
Element SubType:	Panel 3PA		

Photo Documentation

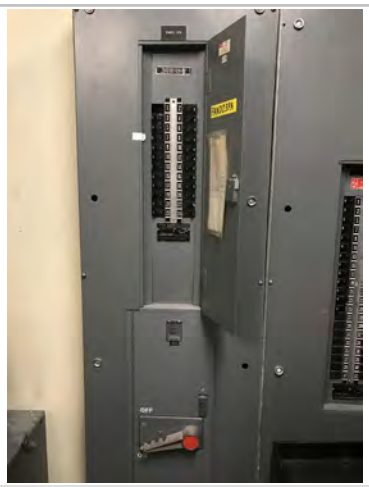


Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

Panelboard 3PA - 277/480 volt 3 phase, 4-wire, 200 amp, is original equipment, 40+ years old and should be replaced. Parts are not readily available for this equipment and repairs can be costly and faulty switches/breakers that are not readily available can lead to extended periods of downtime on affected circuits.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	South

Condition / Element Report

Discipline:	MEP - Electrical	Report Number:	32
Room Identification:	3 - 35	Condition:	Poor
Element Type:	Electrical Service Distribution		
Element SubType:	50kva Transformer		

Photo Documentation

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

50kva Dry Type Transformer - 480/208/120 3 phase, 4-wire, is original equipment, 40+ years old and should be replaced with new energy efficient transformer to comply with the 2016 Department of Energy and Maryland High Performance Buildings Program requirements.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	South

Condition / Element Report

Discipline:	MEP - Electrical	Report Number:	33
Room Identification:	3 - 34	Condition:	Poor
Element Type:	Electrical Service Distribution		
Element SubType:	Panel 3LB		

Photo Documentation

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

Panelboard 3LB - 277/480 volt 3 phase, 4-wire, 225 amp, is original equipment, 40+ years old and should be replaced. Parts are not readily available for this equipment and repairs can be costly and faulty switches/breakers that are not readily available can lead to extended periods of downtime on affected circuits.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	South

Condition / Element Report

Discipline:	MEP - Electrical	Report Number:	34
Room Identification:	3 - 34	Condition:	Poor
Element Type:	Electrical Service Distribution		
Element SubType:	Panel 3PB		

Photo Documentation

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

Panelboard 3PB - 277/480 volt 3 phase, 4-wire, 200 amp, is original equipment, 40+ years old and should be replaced. Parts are not readily available for this equipment and repairs can be costly and faulty switches/breakers that are not readily available can lead to extended periods of downtime on affected circuits.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	South

Condition / Element Report

Discipline:	MEP - Electrical	Report Number:	35
Room Identification:	3 - 34	Condition:	Poor
Element Type:	Electrical Service Distribution		
Element SubType:	50kva Transformer		

Photo Documentation

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

50kva Dry Type Transformer - 480/208/120 3 phase, 4-wire, is original equipment, 40+ years old and should be replaced with new energy efficient transformer to comply with the 2016 Department of Energy and Maryland High Performance Buildings Program requirements..
This room is cluttered and does not permit equipment to be inspected and/or serviced. Code required clearance needs to be maintained at all times.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	Central

Condition / Element Report

Discipline:	MEP - Electrical	Report Number:	36
Room Identification:	3 - 33	Condition:	Good
Element Type:	Miscellaneous		
Element SubType:	Motor Control Center - 2		

Photo Documentation

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

Motor Control Center MCC2 - 480/277 volt 3 phase, 4-wire, 300 amp, has been replaced and is in good condition.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	Central

Condition / Element Report

Discipline:	MEP - Electrical	Report Number:	37
Room Identification:	3 - 33	Condition:	Poor
Element Type:	Miscellaneous		
Element SubType:	Life Safety Generator		

Photo Documentation

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

Life Safety Generator - 277/480V, 3 phase, 4-wire, 85KW, with 125 amp output circuit breaker. The life safety generator is original equipment and is 40+ years old and it should be replaced.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	Central

Condition / Element Report

Discipline:	MEP - Electrical	Report Number:	38
Room Identification:	3 - 33	Condition:	Poor
Element Type:	Miscellaneous		
Element SubType:	Life Safety Generator		

Photo Documentation

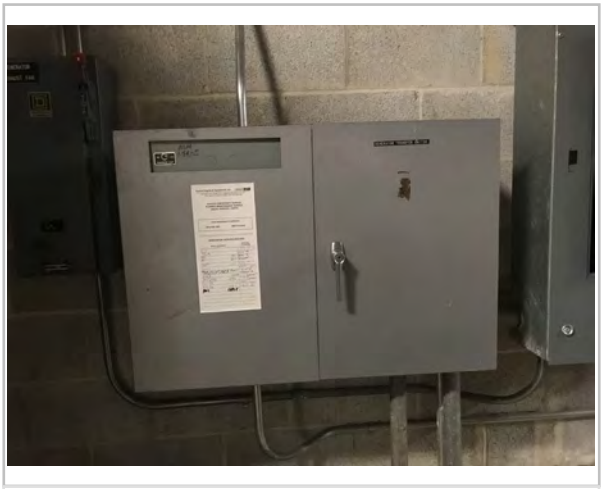


Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

Life Safety System/ATS and associated distribution panels are original equipment and is 40+ years old and they should be replaced.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	Central

Condition / Element Report

Discipline:	MEP - Electrical	Report Number:	39
Room Identification:	3 - 33	Condition:	Poor
Element Type:	Miscellaneous		
Element SubType:	Panel EA		

Photo Documentation

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

Panel EA - 277/480 volt 3 phase, 4-wire, 225 amp, is original equipment, 40+ years old and should be replaced.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	Central

Condition / Element Report

Discipline:	MEP - Electrical	Report Number:	39
Room Identification:	3 - 33	Condition:	Poor
Element Type:	Miscellaneous		
Element SubType:	Panel EA		

Photo Documentation

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

Panel ED - 120/208 volt 3 phase, 4-wire, 200 amp, is original equipment, 40+ years old and should be replaced.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	Central

Condition / Element Report

Discipline:	MEP - Electrical	Report Number:	40
Room Identification:	3 - 33	Condition:	Poor
Element Type:	Miscellaneous		
Element SubType:	Motor Starter SWBD - 3MSS		

Photo Documentation

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

Motor Starter Switchboard 3MSS - 480/277 volt 3 phase, 4-wire, 100 amp, is original equipment, 40+ years old and should be replaced. Parts are not readily available for this equipment and repairs can be costly and faulty switches/breakers that are not readily available can lead to extended periods of downtime on affected circuits.

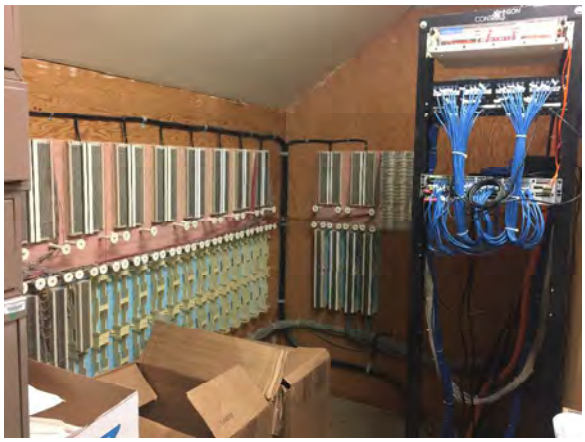
References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	West

Condition / Element Report

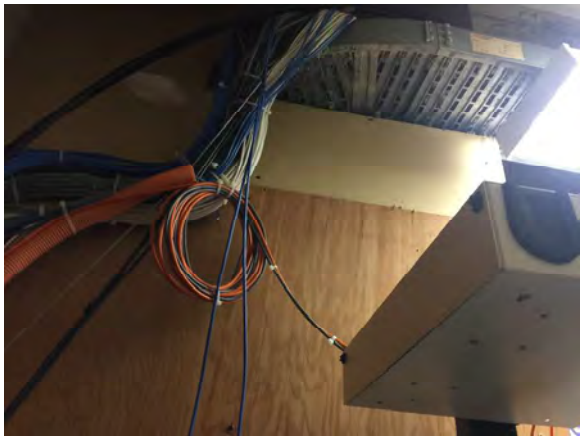
Discipline:	Low Voltage	Report Number:	
Room Identification:	3 - 10 Wiring CLoset	Condition:	Fair
Element Type:	Low Voltage		
Element SubType:	Wire Closet		

Photo Documentation



Telephone & IDF Rack & Equipment

Figure 1



Telecom Cabling hanging without suitable supports

Figure 2

Element Description

Third Floor IDF Room 3-10 North Wiring Closet :

1. No Air Conditioning - excessive heat will shorten life of network equipment
2. No Fire Protection - best practices recommend the headend telecom equipment be protected from fire.
3. No Electronic Access Control - best practice recommend monitoring access to telecom spaces.
4. Debris and spare materials stored in this telephone room - dust shortens equipment life.
5. No vertical cable support and vertical cable management / cable tray.
6. No telecom grounding and no bonding. - poor grounding can cause network problems
7. Limited to no fire-stopping - best practices recommend sealing penetrations to limit fire and smoke
8. No Generator and limited UPS power - network will not operate during long power outage.
9. Limited cable management & horizontal cable support in ceiling space. Limited cable tray. - limited future growth

References:

5.7.1 Roof Conditions Assessment

Click here to return to section directory....pg. 49

5.7.1 ROOF CONDITIONS ASSESSMENT

The Structure of the Roof and Cupola is sloped steel beams topped by plywood. The plywood is not consistent with the 1973 plans, and most likely is not original to the building. The cladding is slate.

a Sloped Roofing

Generally, the existing sloped slate roofing is in good condition, and we estimate the remaining service life will exceed 20 years with the routine maintenance and the following recommended repairs. We recommend resealing all of the slate ridges and hips, and re-driving slate fasteners that have backed out. In addition, throughout the sloped roofs, miscellaneous broken slates and copper snow guards should be replaced.

b Sloped Roof Flashing

The sloped metal roof flashings, consisting of both copper and terne-coated stainless steel, and are generally in good condition. We observed streaks in the copper valley flashings at locations where water drips off the slates and onto the copper valleys (See Roof Plan attached at Enclosure 1).

The copper erodes at these locations because copper continuously sacrifices its outer surface to form patina. However, the drips wash away the patina creating a never ending cycle that eventually erodes a hole in the copper flashing.

Consequently, REI recommends either coating the valleys or installing sacrificial copper flashing as required to protect the primary copper valley flashing.

c Flat Roof

Overall, the existing built-up flat roof is in fair condition. We recommend repairing some stripping around the air shafts, and installing a new vent pipe cap flashing at one location (See Roof Plan attached at Enclosure 1).

d Masonry Chimneys

The existing masonry chimneys are in fair condition, but various joints require repointing.

e Cupola

The cupola atop the sloped, pyramidal hip roof at the South end of the building appeared to be in fair condition, but the window framing and trim needs to be restored immediately.

5.7.2 Roof Assessment Reports

Click here to return to section directory....pg. 49

GENERAL NOTES

1. NUMEROUS SNOW GUARDS ARE BENT/BROKEN THROUGHOUT ROOF – REPLACE IMMEDIATELY
2. SIDES OF WINDOW DORMERS NEED TO BE REPAINTED
3. SEALANT AT RIDGES OF DORMERS AND HIPS SHOULD BE REPLACED IMMEDIATELY

KEYED NOTES – FLAT ROOF SYSTEM

1. AREAS PATCHED WITH ROOFING CEMENT
2. NO VENT PIPE FLASHING CAP PRESENT
3. SLATE DEBRIS/BROKEN GLASS
4. STRIPPING SEALANT JOINT ALONG EDGE; SHOULD BE RESEALED
5. ERODED ROOFING MATERIAL; ROOFING FELT EXPOSED

KEYED NOTES – SLATE ROOF

1. BROKEN SLATE SHINGLE AT GUTTER LINE
2. CRACKED SLATE SHINGLE
3. CHIMNEY APRON FLASHING PULLED UP
4. PONDING IN GUTTERS
5. MISSING SLATE SHINGLE
6. VARIOUS SLATE SHINGLES REPLACED
7. BROKEN SLATE SHINGLE
8. BUCKLING SLATE SHINGLE
9. STREAKS IN COPPER VALLEY FLASHING

KEYED NOTES – CHIMNEYS

1. AVERAGE CONDITION; EVIDENCE OF PREVIOUS REPOINTING REPAIRS
2. MORTAR FAILING IN VARIOUS LOCATIONS AROUND CHIMNEY – REPOINT IMMEDIATELY
3. FAIR CONDITION; EVIDENCE OF PREVIOUS REPOINTING REPAIRS
4. MORTAR IS CRACKED THROUGHOUT CHIMNEY AND HAS FAILED AT THE LOWER AESTHETIC STRING COURSE – REPOINT IMMEDIATELY; STREAKS ON SLATE DOWNSLOPE OF CHIMNEY DUE TO STEP FLASHING
5. FAIR CONDITION; STREAKS ON SLATE DOWNSLOPE OF CHIMNEY DUE TO STEP FLASHING
6. SECTIONS OF MORTAR HAVE FAILED ON TOP OF THE LOWER AESTHETIC STRING COURSE – REPOINT IMMEDIATELY; REPOINTING REQUIRED THROUGHOUT
7. ASPHALT SPLATTERED ON SIDE OF CHIMNEY; EVIDENCE OF PREVIOUS REPOINTING REPAIRS
8. MORTAR JOINTS ARE DETERIORATED AT TOP OF CHIMNEY – REPOINT IMMEDIATELY

LEGEND

RD EXISTING ROOF DRAIN

EXISTING WINDOW DORMER

HATCH EXISTING ROOF HATCH

EXISTING VENT OPENING

CHIMNEY EXISTING CHIMNEY (TYP)

EXISTING GUTTER SECTION

4

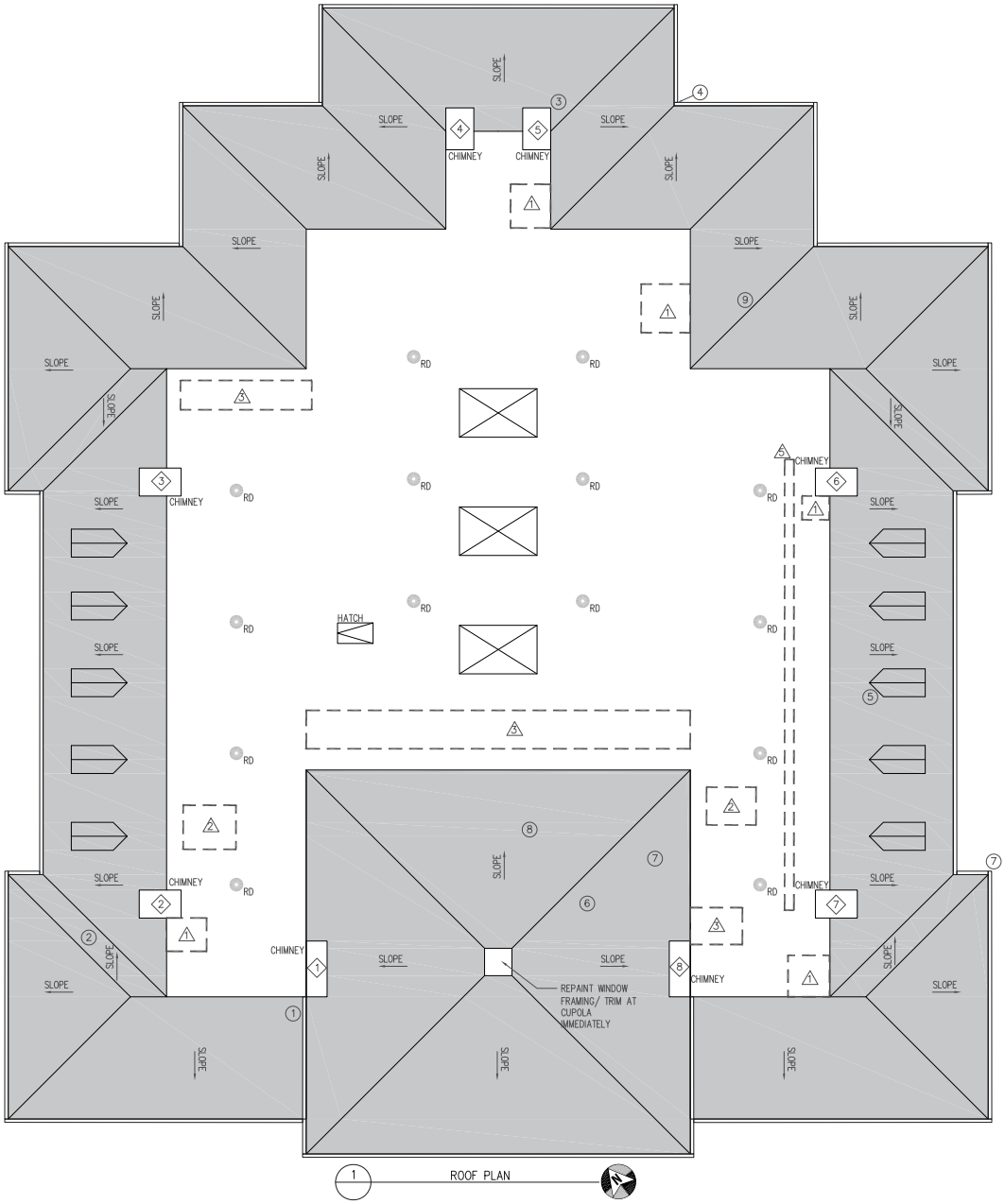
7

2

1

1

ROOF PLAN


SLOPE
CHIMNEY
RD
HATCH
REPAINT WINDOW FRAMING/ TRIM AT CUPOLA IMMEDIATELY
1 ROOF PLAN

ROOF PLAN

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	Location

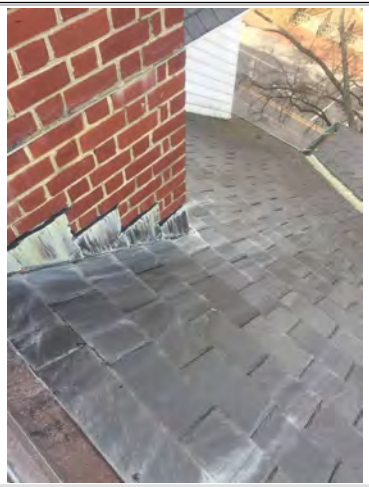
Condition / Element Report

Discipline:	Architectural - Envelope	Report Number:	
Room Identification:	N/A - N/A	Condition:	Fair
Element Type:	Roof		
Element SubType:	Masonry Chimneys		

Photo Documentation

Failing mortar at NW chimney

Figure 1 Clear Image 1



Streaks at step flashing of SW chimney

Figure 2 Clear Image 2

Element Description

Please refer to the Roof Plan at Enclosure 1 for chimney locations, designations, and additional notes. There are eight brick masonry chimneys at the roof: two chimneys located on each of the North, West, and East perimeters of the flat roof, and one chimney on each side of the sloped slate roof at the South end of the building. Generally, there was evidence of previous mortar joint repointing at a number of chimneys, and the chimneys appeared to be in fair condition.

There was some deteriorated mortar in the masonry chimney, so we recommend repointing immediately (during 2018), to prevent further deterioration and prolong the service lives of the chimneys. The photo provided at Figure 1 shows typical mortar deterioration observed at several chimney locations. Additionally, there were streaks on the chimney copper step flashing, indicating efflorescence caused by soluble salt runoff from the mortar. The photo in Figure 2 shows a typical example of streaking in the chimney step flashing. While unsightly, the copper is still solid, so remediation is currently unnecessary. We estimate that the chimney flashing has a remaining useful service life around 10-15 years.

References: Roof Plan

Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	Location

Condition / Element Report

Discipline:	Architectural - Envelope	Report Number:	
Room Identification:	N/A - N/A	Condition:	Fair
Element Type:	Roof		
Element SubType:	Cupola		

Photo Documentation

Cupola sill showing excessive amounts of chipped paint

Figure 1 Clear Image 1

Figure 2 Clear Image 2

Element Description

The cupola atop the sloped, pyramidal hip roof at the South end of the building appeared to be in fair condition. Visual inspections of the cupola was performed from the interior by way of access ladder. Similar to other windows at the building, the cupola windows are single-glazed, wood-framed with wood muntins. There was excessive paint chipping throughout the window frames and window muntins (See Figure 2). A buildup of chipped paint and debris was seen along the sill of the cupola (See Figure 1). Additionally, sealant at the perimeters of the window panes was deteriorated. There was a broken window pane covered with plexiglass in the cupola.

We recommend repainting the cupola's window framing and trim immediately to prevent further deterioration. We also recommend resealing window panes and muntins, as well as replacing the broken window pane.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	Location

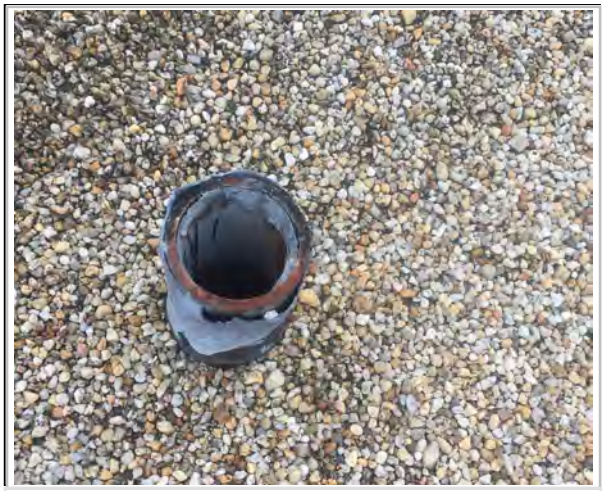
Condition / Element Report

Discipline:	Architectural - Envelope	Report Number:	
Room Identification:	N/A - N/A	Condition:	Fair
Element Type:	Roof		
Element SubType:	Flat Roofing		

Photo Documentation

Roof patching at SW chimney

Figure 1 Clear Image 1



Vent pipe without required flashing cap

Figure 2 Clear Image 2

Element Description

Please refer to the Roof Plan at Enclosure 1 for specific deficiency locations and additional notes. The existing flat roof system is a gravel-surfaced built-up asphalt roof with granular-surfaced modified bitumen cap plies on the exposed base flashing, over insulation and concrete plank decking. The flat roof is located at the center of the building, and is surrounded by a slate mansard roof on the east, north, and west perimeters. At the south end of the building, a pyramid-shaped hip roof intersects the mansard roof, rising up to a central cupola. Generally, the flat roofing appears to be in good/fair shape with minor deficiencies, as shown on the Roof Plan. We speculate the flat roof to be 15 to 20 years old, and with regular maintenance believe it will have a residual life expectancy of 5 to 10 years.

At isolated areas throughout the roof, the roofing membrane was eroded, exposing the fibers in the roofing felts. There were also locations where the membrane was previously patched with roofing cement. The photo provided in Figure 1 shows a typical patch area near the southwest chimney.

(SEE CONTINUED DISCUSSION ON FOLLOWING PAGE)

References: Roof Plan Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	Location

Condition / Element Report

Discipline:	Architectural - Envelope	Report Number:	
Room Identification:	N/A - N/A	Condition:	Fair
Element Type:	Roof		
Element SubType:	Flat Roofing		

Photo Documentation

Roof patching at SW chimney

Figure 1 Clear Image 1

Vent pipe without required flashing cap

Figure 2 Clear Image 2

Element Description

Some flat roof flashings were in poor condition. At drip edges for rectangular air shafts in the roof, the sealant joints between the drip edges and stripping were separating/failing, and should be repaired. Additionally, Figure 2 shows a vent pipe where the cap of the flashing boot was damaged and open, making it an imminent point of entry for water into the roofing system. A new vent pipe cap flashing should be installed at this pipe.

References: Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	Location

Condition / Element Report

Discipline:	Architectural - Envelope	Report Number:	AE -01
Room Identification:	N/A - N/A	Condition:	Good
Element Type:	Roof		
Element SubType:	Slate		

Photo Documentation

Cracking sealant along ridge of South end sloped roof

Figure 1 Clear Image 1

Broken shingle at gutter line along South edge

Figure 2 Clear Image 2

Element Description

Please refer to the attached Roof Plan for deficiency locations and additional notes. There is Buckingham slate roofing along the West, North, and East mansards, on top of ten window dormers, and on the sloped pyramidal hip roof at the South end of the building. The slate roof system appeared to be in good-to-fair condition, with no reported leaks. Roof cement at the ridges and hips of the sloped roofing was poorly installed. Consequently, the existing sealant was sloppy, and contained cracks, alligatoring, and voids, throughout, as indicated at the photo at Figure 1. Additionally, a number of slate fasteners along the hips and ridges were backing out (red arrow in Figure 1), leaving the penetrations exposed. We recommend immediately (within 2018) removing existing deficient sealant along the hips and ridges; driving backed-out fasteners back into the decking; and then resealing the ridges, hips, and fastener penetrations with non-sag, polymerized butyl sealant. We also identified some broken slates (indicated by red arrows in Figure 2) that should be replaced immediately, and some bent snow guards that should be replaced.

Based on the life expectancy of Buckingham slate (150 years), and the age of the roof, with the recommended repairs and routine maintenance, we estimate the remaining service life of the slate will exceed 20 years.

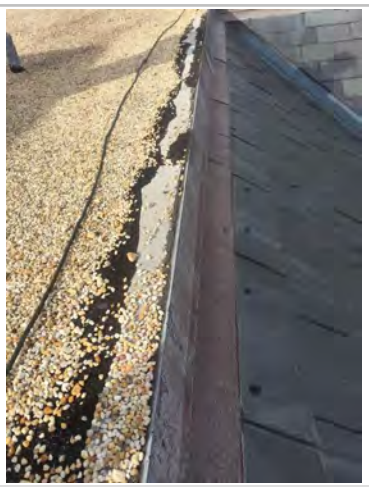
References: Roof Plan Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	Location

Condition / Element Report

Discipline:	Architectural - Envelope	Report Number:	
Room Identification:	N/A - N/A	Condition:	Good
Element Type:	Roof		
Element SubType:	Sloped Roof Flashing		

Photo Documentation



Sloped roof transition flashing

Figure 1 Clear Image 1

Streaking in copper valley flashing at NE corner

Figure 2 Clear Image 2

Element Description

Please refer to the Roof Plan at Enclosure 1 for specific deficiency locations and additional notes. The roofing systems contain a variety of copper and terne-coated stainless steel (TCS) flashing, including gravel stops at the transition between flat and sloped roofs, valley flashing, flashing at window dormers, and eave flashings/gutters. Generally, the flashings appeared to be in good condition.

Minor surface discoloration (see photo in Figure 1) was observed along the TCS gravel stop at the flat-to-sloped roof transition. The surface corrosion does not degrade the quality of the TCS flashing, but it is aesthetically displeasing. If the aesthetics are addressed, we recommend priming and painting the flashing.

Sloped roof valleys were flashed with copper. At some valley locations, water drips from joints between the slate and onto the copper valleys. As seen in the photo in Figure 2, there was evidence of streaking at a valley in the northeast corner of the roof. This type of streaking will wash away patina, erode the copper, and create holes in the flashing. We recommend coating the valley flashings, or installing sacrificial copper flashing at the valleys to protect the primary copper valley flashing.

References: Roof Plan Clear Text Box

5.8.1 Exterior + Facade Conditions Assessment

Click here to return to section directory....pg. 49

5.8.1 EXTERIOR CONDITIONS ASSESSMENT

a Facade

Foundation Waterproofing: The existing foundation waterproofing has failed at the locations indicated on the Facade Elevations at Enclosure 2, and must be replaced immediately. There are a number of active leaks at the sub-grade levels, causing interior damage, and deteriorating the foundation walls. The most significant leak areas were at Room G-18a (southeast corner of the building), and near the loading dock. Additionally, there were other significant leak areas near the Distribution Center and the Library (west side). Consequently, we recommend excavating down to the footing at the southeast corner of the building and installing new external waterproofing from the footing to grade. Then we recommend snaking the existing drainage tile, if present, or installing new perforated drainage pipe embedded in a layer of drainable gravel. In addition, multiple conduit penetrations near the loading dock, must be resealed. At problem areas on the west side, investigative water testing should be performed to identify the source(s) of the leaks.

b Windows

The existing, wood-framed windows are in poor condition and should be restored, as soon as possible. Generally, the existing paint was peeling severely, and the perimeter sealant was wide open. In addition, wood framing was deteriorated at a number of isolated areas. We recommend a full-scale window remediation project consisting of restoring deteriorated framing, stripping existing paint, and resealing and repainting frames.

c Entry Stairways:

The existing joints in the marble stairs at the North, South, East, and West entrances are in poor condition, creating paths for water to migrate beneath the stairs. There were also a few cracks and spalls in the marble steps. Additionally, the base of the iron railings at the stairs had partially corroded, and the corrosion spalled and stained the marble. We recommend restoring cracked/spalled steps at all entrances, and resealing joints in the stone. Consequently, the North and West stairs should be totally remediated as it is necessary to restore the stairs, masonry, and, if necessary, the stair foundations.

d Masonry Facade

Generally, the existing masonry facade is in good condition throughout the building. However, there was significant mortar deterioration below the steps at the North and West entrances, which should be repaired during stair remediation projects. Additionally, cracking in the stand-alone walls surrounding the loading dock area should be monitored with crack gauges, to determine if foundation underpinning is necessary.

e. Downspouts and Miscellaneous:

i. Two downspouts on the North facade and one on both the West and South facades were loose and must be re-anchored to the masonry walls.

ii. There was a gutter leaking on the north facade wall, which should be closely observed or water tested to determine cause of leak. Other gutters observed appeared to be in good condition.

iii. A broken light fixture at the north stairwell should be replaced.

iv. A corroded louver and lintel at the north stair entrance should be replaced during the stair remediation project.

v. Conductor heads were in good condition.

vi. Doors were in good condition.

vii. There is a small storage/ maintenance building at the corner of the property (near loading dock), that is not connected to the building. The EPDM roof of this building is in poor condition and should be replaced.

5.8.2 Exterior + Facade Reports

Click here to return to section directory....pg. 49

FACADE PLAN

GENERAL NOTES

1. VEGETATION ON MASONRY IN WINDOW WELLS
2. ENTRANCE STAIRWAYS NEED TO BE REGROUTED

KEYED NOTES – WINDOWS

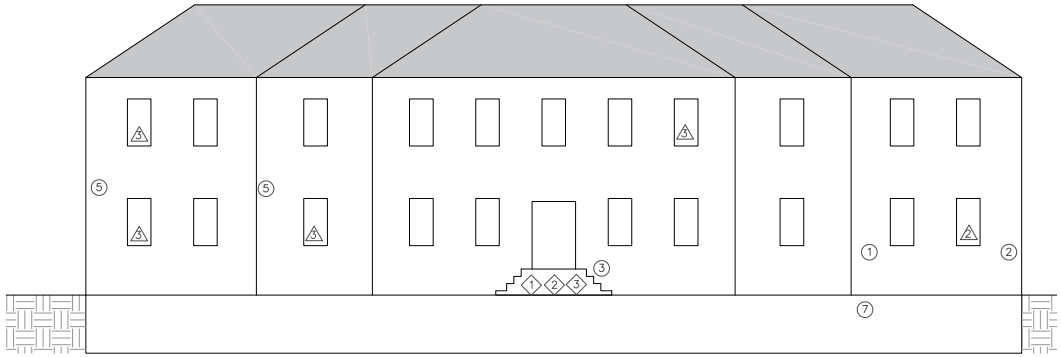
1. PEELING PAINT AROUND FRAME
2. FAILING SEALANT AROUND FRAME
3. DETERIORATING FRAMING
4. CHIPPED BRICK
5. INSECT NEST PRESENT
6. CRACKED WINDOW PANE
7. REPOINTING REQUIRED

KEYED NOTES – ENTRANCE STAIRWAYS

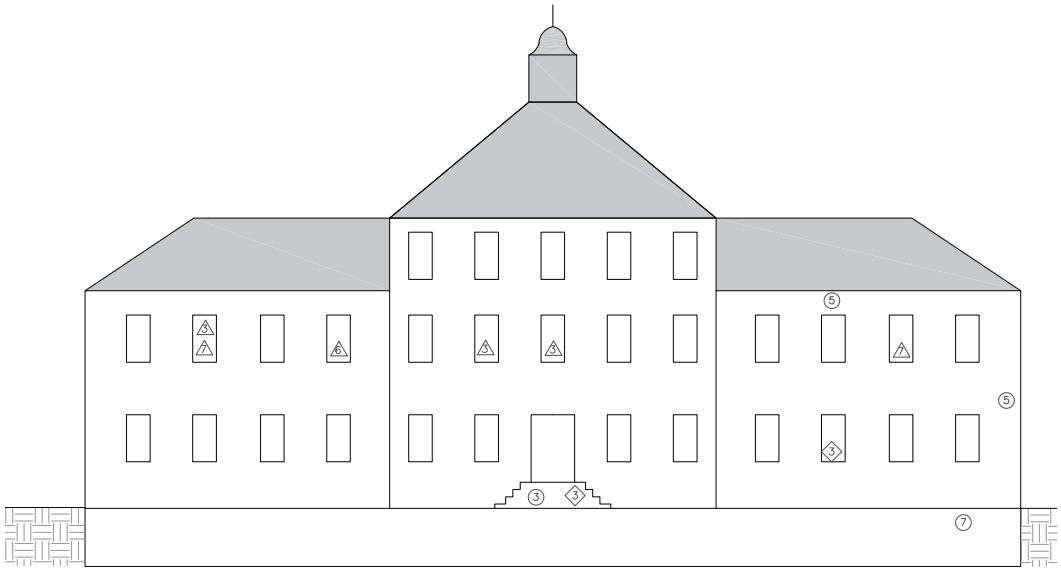
1. CRACKED/ BROKEN MARBLE STEPS
2. CORRODED RAILING POSTS
3. DETERIORATING MORTAR – REPOINTING REQUIRED

KEYED NOTES – FACADE

1. MISSING BRICKS
2. SCALDED BRICKS
3. FAILING GROUT
4. PREVIOUS REPOINTING REPAIRS
5. LOOSE DOWNSPOUT/ GUTTER
6. CRACK IN WALL
7. INTERIOR LEAKS – FAILING FOUNDATION WATERPROOFING



1 NORTH FACADE



2 SOUTH FACADE

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	Location

Condition / Element Report

Discipline:	Architectural - Envelope	Report Number:	
Room Identification:	N/A -	Condition:	Fair
Element Type:	Walls		
Element SubType:	Downspouts and Misc.		

Photo Documentation

Downspout shifted out of storm leader

Figure 1 Clear Image 1

Corroded louver and lintel at the north stair entrance

Figure 2 Clear Image 2

Element Description

There are rectangular copper downspouts serving the roof gutters at the slate roof perimeter. The downspouts are anchored to the brick facade, and extend down into storm leaders at grade. Generally, the existing downspouts were in fair condition, and appeared to be functioning properly. However, at some locations, downspouts were not properly secured to the building wall, and should be re-anchored. As seen in the photo at Figure 1, the loose downspout on the north elevation partially shifted out of the storm leader at grade. Consequently, the downspout must be re-aligned when re-anchored to the wall. There was also a leaking gutter at the north facade which should be water tested to determine leak source.

There was a corroded louver and lintel at the North Stair entrance that should be restored when the stairs and masonry are repaired, as seen in the Photo at Figure 2. There was also a broken light fixture at the stairwell along the north side of the building that should be replaced.

There is a small storage/ maintenance room at the corner of the property with an EPDM roof. The existing base flashing at the wall was open, and counterflashing was poorly detailed. Consequently we recommend replacing this roof in 1-2 years.

References: Facade Plan Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	Location

Condition / Element Report

Discipline:	Architectural - Envelope	Report Number:	
Room Identification:	N/A -	Condition:	Poor
Element Type:	Finishes / Details		
Element SubType:	Entry Stairways		

Photo Documentation

Corroded railing post penetration at the West Stair

Figure 1 Clear Image 1

Spalled marble step at east stair entrance

Figure 2 Clear Image 2

Element Description

There are marble stairs at the entrances on each side of the building. In general, the joints in the marble were in poor/ failing condition, creating paths for water to migrate beneath the stairs. There were a few cracks and spalls in the stone steps. Additionally the iron railings at the stairs had partially corroded (see photo at Figure 1), and the corrosion spalled and stained the marble stone. At all entrances, we recommend restoring cracked/spalled marble steps or landing stones, and re-grouting and resealing all horizontal joints between marble stones. Additionally, we recommend restoring railing post penetrations in the marble and resealing the penetrations to prevent water infiltration.

At the North and West stair entrances, there was evidence that deficiencies at the steps and landings allow water infiltration into the masonry (see masonry report), and possibly the stoop foundations, below. Consequently, we recommend a total remediation project at the North and West stair entrances to investigate and restore deteriorated stair foundations (if necessary), marble/ grout, railings, and brick masonry. While deterioration of masonry below the steps of the South and East entrances was not as severe, there were several deficiencies like the spall seen at Figure 2. Consequently, it would be economical to restore all stair entrances during the same project.

References: Facade Plan Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	Location

Condition / Element Report

Discipline:	Architectural - Envelope	Report Number:	
Room Identification:	N/A -	Condition:	Critical
Element Type:	Walls		
Element SubType:	Foundation Waterproofing		

Photo Documentation

Section of foundation wall where recent repairs were made

Figure 1 Clear Image 1

Concrete spall and exposed reinforcement at foundation

Figure 2 Clear Image 2

Element Description

The majority of the existing foundation waterproofing is below grade and not visible. However, based on leak information, and previous repair projects reported by building staff, there are existing foundation waterproofing deficiencies at numerous locations throughout the building.

Prior to recent interior renovations, there were a number of leaks in G15 offices along the eastern wall at the first level below grade (Level G). Subsequently, the exterior of the east foundation wall was at least partially excavated, and new waterproofing was installed at the foundation along these problem areas, as indicated in the photo at Figure 1. Building staff reported that these offices have not experienced leaks since the waterproofing was installed. However, for long-term repairs we recommend extending waterproofing from footing to grade, terminating waterproofing with throughwall counterflashing, and ensuring a drainage tile is present at the base of footing.

(SEE CONTINUED DISCUSSION ON FOLLOWING PAGE)

References: Facade Plan Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	Location

Condition / Element Report

Discipline:	Architectural - Envelope	Report Number:	
Room Identification:	N/A -	Condition:	Critical
Element Type:	Walls		
Element SubType:	Fndn. Waterproofing Cont.		

Photo Documentation

Section of foundation wall where recent repairs were made

Figure 1 Clear Image 1

Concrete spall and exposed reinforcement at foundation

Figure 2 Clear Image 2

Element Description

There were active leaks reported at numerous other locations at the southeast corner (near G-18a), south, and west foundation walls (Distribution Center and Library), which were NOT yet resolved. Additionally, there was moisture-related spalling and exposed reinforcement in the concrete foundation wall next to the loading dock elevator at Level G (see photo at Figure 2). To eliminate the foundation leaks at the southeast corner, we recommend excavating from footing to grade at the exterior foundation wall, and installing new waterproofing. In addition, we recommend snaking the existing drainage tile, if present, or installing a new continuous perforated drainage tile at the base of the wall, embedded in a layer of drainable gravel. At the south and west foundation walls, we recommend investigative water testing to determine the leak sources.

References: Facade Plan

Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	Location

Condition / Element Report

Discipline:	Architectural - Envelope	Report Number:	
Room Identification:	N/A -	Condition:	Good
Element Type:	Walls		
Element SubType:	Masonry Veneer		

Photo Documentation

Deteriorated mortar below the North Entrance stairs

Figure 1 Clear Image 1

Crack in masonry wall surrounding loading dock

Figure 2 Clear Image 2

Element Description

Exterior walls of the building are clad in red clay brick masonry laid in a Flemish bond pattern, with English corners at building corners and window jambs. Window heads are clad with flat-gauged brick arches, and there is an architectural band of four header courses near the second floor. Mortar joints are tooled into a beaded joint type.

Please refer to attached facade elevations for deficiency locations and additional notes. Existing masonry is in good condition, overall, and there was evidence of previous repointing repairs throughout. However, in some areas, particularly below the North and West stair entrances, there was evidence of moisture intrusion, causing significant mortar deterioration, as seen in the photo at Figure 1. We recommend budgeting to restore the North and West stairs by restoring the marble joints (see stair report), and the brick masonry below.

Additionally, there were isolated cracks, spalled bricks, and missing bricks throughout the masonry walls surrounding the loading dock. Some of the cracks indicated that there may be structural settlement at the isolated walls, so we recommend further investigation (crack gauge monitoring) to determine if underpinning is necessary (see typical crack circled in photo at Figure 2).

References: Facade Plan Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	Location

Condition / Element Report

Discipline:	Architectural - Envelope	Report Number:	
Room Identification:	N/A -	Condition:	Poor
Element Type:	Walls		
Element SubType:	Windows		

Photo Documentation

Peeling paint on a typical window frame and muntins

Figure 1 Clear Image 1

Deteriorated wooden window sill

Figure 2 Clear Image 2

Element Description

The existing windows are single-glazed, wood-framed with wood muntins separating individual window panes. In general, the existing paint on the window framing and muntins was severely peeling and flaking at all windows throughout the building (see photo at Figure 1). In addition, the sealant at the perimeters of the window openings was deteriorated and open. Consequently we recommend restoring all windows throughout the building.

The conditions of the existing wood framing varied depending on the location. The majority of the wood framing at the Floor One windows was in sound condition when probed. However, the wood at some first floor windows was severely deteriorated, as seen in the photo at Figure 2. Additionally, REI could not access the Floor Two or Floor Three windows, to verify the condition of the wood, but we did not observe obvious deterioration via binoculars.

(SEE CONTINUED DISCUSSION ON FOLLOWING PAGE)

References: Facade Plan Clear Text Box

Department of Legislative Services Building **90 State Circle, Annapolis, MD 21401**	Key Plan Location:	Location

Condition / Element Report

Discipline:	Architectural - Envelope	Report Number:	
Room Identification:	N/A -	Condition:	Poor
Element Type:	Walls		
Element SubType:	Windows		

Photo Documentation

Peeling paint on a typical window frame and muntins

Figure 1 Clear Image 1

Deteriorated wooden window sill

Figure 2 Clear Image 2

Element Description

Due to deteriorated wood framing at some windows, and the overall poor conditions of the paint and sealant at all windows throughout the building, we recommend a full-scale window restoration project. At a minimum, the project should include replacing, or stabilizing, any deteriorated framing, stripping existing paint, and resealing and repainting frames.

If the thermal efficiency of the windows would like to be improved, then retrofit existing wood frames to accept new double-pane glazing, or replace the windows with ones that match the existing windows' design, color, texture, and where possible, materials. Replacement window options should be consistent with the Secretary of the Interior's *Standards and Guidelines for Restoring Historical Buildings*.

References: Clear Text Box

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6.1 Elevator Reports

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SECTION I
EXECUTIVE SUMMARY

A. GENERAL

This review was commissioned to evaluate the existing overall condition of the equipment and level of preventive maintenance being provided by contractors.

A visual review of the physical system components currently in use at The Legislative Services Building was conducted by Bruce Pope of Lift Solutions Consulting on 11/15/2017 to determine overall condition, effectiveness of maintenance and code compliance and modernization assessment, if recommended. In addition to the visual review, performance measurements were taken with regard to operation and compared to established and industry standards. Ride quality was evaluated based on experience with similar installations and compared to industry standards at the time of installation.

The results of these tests and all noted deficiencies are specifically delineated within this report.

While we strongly urge you to review the entire report, for your convenience we have summarized our findings within this first section including any items requiring immediate attention of the Maintenance Contractor and/or Property Manager.

B. EVALUATION OF MAINTENANCE AND ADJUSTMENT

For the purpose of evaluating maintenance, Lift Solutions Consulting divides the tasks into four general areas: 1) housekeeping, 2) lubrication, 3) replacement or repair of worn components and 4) adjustments. These areas sometimes overlap but are sufficiently independent to allow separate evaluation.

Based on our findings, which we have detailed in the Elevator, Maintenance Contractor Deficiency Reports and Performance Evaluations, we rate the current maintenance program as follows:

	Elevator(s)	
	Rating = 1 to 5	Meets Requirements
Housekeeping	4	YES
Adjustment	3	YES
Replacement/Repair	3	YES
Lubrication	4	YES
Overall Average	3.5	YES

Our evaluation of work is based on the following ratings:

1. A rating of "1" indicates unacceptable levels of maintenance. A concentrated effort on the part of your maintenance contractor is required in all areas in order to justify payment of the monthly contract fee. Approximately 10% of our equipment reviews result in this rating.

2. A rating of "2" indicates below average levels of maintenance in most areas. Typically a short term concentrated effort is required by your maintenance contractor to avoid slipping to a "1" rating and or

improve to the acceptable rating of 3. Approximately 25% of our equipment review results in this rating.

3. A rating of "3" indicates acceptable levels of maintenance are being provided by your maintenance contractor. However, improvement may be required in specific areas. Approximately 50% of our equipment review results in this rating.

4. A rating of "4" indicates above average levels of maintenance are being provided by your maintenance contractor. This results in very good overall performance and operational characteristics of the equipment with infrequent shutdown of equipment due to maintenance related issues. Approximately 10% of our equipment review results in this rating.

5. A rating of "5" indicates superior levels of maintenance is being provided by you maintenance contractor. We seldom see this rating.

C. IMMEDIATE ACTION ITEMS

1. Contractor Items: The major areas of concern requiring follow-up by the Maintenance Contractor are:

   a. Elevators:

      1) Provide to seal hoist machine oil leaks
      2) Provide for elevators to run contract speed

2. Owner Items: The following items require immediate correction but are not the responsibility of the Maintenance Company:

   a. Elevators:

      1) Provide to make pit sump pump operable per code

D. CONCLUSION

We recommend that the Maintenance Contractor complete the deficiencies noted within 60 to 90 calendar days, after which a follow-up review should be conducted. For your use, we have attached a list of Owner Recommended Improvements which are not covered under the Terms and Conditions of your maintenance agreement with your Maintenance Contractor(s) for your use in planning future capital expenditure budgets.

This concludes our Maintenance Review of the Condition Assessment. A further study was done to address our recommendations for equipment upgrades. The results of that study will be found in the next section of this report. We trust you find it beneficial in evaluating your ongoing vertical transportation maintenance program. Should you have any questions regarding our review, report, etc., please contact us at your convenience.

SECTION II

ADJUSTMENT AND OPERATION OF INDIVIDUAL ELEVATORS

A. DISCUSSION

This section covers the factors associated with the operation of specific elements of the elevator system against standards which have been established either by Code, established local standards, or standards common to the elevator industry.

Operating efficiency of elevator groups is a combination of the efficiency of each elevator traveling from floor to floor loading and discharging passengers, and the effectiveness of the group control regulating the dispatch and spacing of elevators to meet traffic demand. Improper adjustment may reduce performance and lengthen response times 10% to 15%.

The criterion used to evaluate the performance measured on each elevator is defined below in Item B.

B. PERFORMANCE CRITERIA

1. Elevator Speed: Elevator speed is measured with a tachometer while the elevator makes a full run through the hoistway with no load in the car. Contract speed (to be found on the governor rating plate or the cross head on the car) should be maintained within criteria range indicated on individual performance evaluations under any load condition or travel direction.

2. Floor to Floor Performance Time: Measured from the instant the doors begin to close until doors are 3/4 open (1/2 open for side opening doors) and car is stopped at next successive floor under any loading condition or travel direction.

3. Door Open Time: Measured from the instant the doors begin to open until the doors are fully open.

   Door opening time should be as fast as possible to provide optimum adjustment of efficient elevator service. Our recommended door times are based on the door operator equipment installed while providing smooth operation and long equipment life.

4. Door Closing Time: Measured from the instant the doors begin to close until the doors are fully closed.

   The ASME A17.1 Code limits door closing time by defining the level of kinetic energy generated during door closing operation. We indicate the closing time which approximates Code requirement based on average door weight.

5. Long Door Hold Open Time: Measured from the instant the doors are fully open until the doors begin to close when the car stops in response to a hall call. Minimum time of 5 seconds required by The American with Disabilities ACT (A.D.A.) Elevator Requirements for Persons with Physical Disabilities.

6. Short Door Hold Open Time: Measured from the instant the doors are fully open until the doors begin to close when the car stops in response to a car call. It may also be reduced by re-registering a car call after the initial opening of the doors. Minimum time of 3 seconds required by The Americans with .Disabilities Act (A.D.A.) Elevator Requirements for Persons with Physical Disabilities.

7. Interrupted Ray Door Time: Initially measured from the instant the doors reach the fully open position until the doors begin to close after interrupting the door protective devices while doors are opening. Subsequently measured upon re-interrupting the door protective devices.

8. Nudging Time: Measured from the instant the doors reach the fully open position until the door buzzer sounds and the doors begin to close at reduced speed even though the door protective devices are interrupted.

9. Door Closing Force: Measured with a spring pressure gauge as the doors begin to close. The measured value is the force required to prevent the doors from closing under power. ASME A17.1 Code requires that the force required to stall the closing door be no more than 30 force pounds.

10. Operation: Subjective evaluation of the quality of ride and door operation. The factors identified are: Acceleration Up, Acceleration Down, Deceleration Up, Deceleration Down, Elevator Stop, Door Open and Door Close.

11. Safety: The items listed (communication means, car door protective devices, car stop switch and alarm bell and emergency lighting for the car) are those normally found on most elevators. We check them to make certain they are functioning properly.

C. ELEVATOR PERFORMANCE EVALUATIONS

The Performance Evaluations tabulate the results of our survey based on the criteria outlined in Item B above. Items marked "NO" in the Meets Criteria column require adjustments/ correction to ensure optimal performance and/or satisfy regulation and code requirements.

SECTION III
MAINTENANCE REVIEW

A. DISCUSSION OF MAINTENANCE AND REPAIR

Elevator, maintenance can be broken into four general areas; housekeeping, lubrication, renewal or repair of worn components, and adjustments. These areas sometimes overlap but are sufficiently independent to allow separate evaluation.

1. Housekeeping

Housekeeping requires about 60% of the total time spent maintaining equipment. While at first glance, this would appear to be an excessive amount of time simply cleaning, it is time well spent. If a job is kept clean, the fire hazard (especially in hoistways) is lessened. Potential troubles and worn components are often detected during routine cleaning operations. Dirt is a major cause of elevator, malfunction; a speck of dust between relay contacts can shut a unit down. Finally, a clean job makes routine inspection and maintenance easier.

a. Summary of Survey Results: Housekeeping was found to be very good, the machine room and elevator components within: controller, governors, selectors were well maintained.

2. Lubrication

Lubrication requires about 15% of the total time spent maintaining equipment. As with any mechanical equipment, proper lubrication minimizes wear, assures proper operation and lengthens trouble-free life of components.

a. Summary of Survey Results: Lubrication levels were adequate machinery in the hoistway displayed sufficient levels of oil.

3. Replacement and Repair

Replacement or repair of worn components represents about 15% of elevator, maintenance. By detecting and replacing worn components, it is often possible to prevent elevator, escalator and moving walk malfunction and unscheduled shutdown. Systematic repair and replacement of components ensures optimum useful life of the elevator, escalator and moving walk.

a. Summary of Survey Results: Repair and replacement levels were deemed to be adequate. Many component require replacement due to many years of wear and are not covered under the maintenance in agreement.

4. Adjustments

Adjustments require about 10% of elevator, maintenance time. Proper, timely adjustment keeps the equipment working smoothly and quietly.

a. Summary of Survey Results: Elevator adjustment levels (rear speed, leveling, and door operation) was found to be under performance elevators are traveling under contract speed and the doors are not adjusted for industry standard times.

B. MAINTENANCE CONTRACTOR DEFICIENCY DESCRIPTION REPORTS

The items noted in the Elevator Maintenance Contractor Deficiency Reports in Appendix A Elevator Performance and Equipment Disposition in Appendix B require correction by the Maintenance Contractor to ensure optimum equipment reliability and performance. (All of the items listed are covered under the terms of the maintenance agreement and are, therefore, the responsibility of the Maintenance Contractor.)

C. OWNER DEFICIENCY DESCRIPTION REPORTS

The items noted in the Owner Deficiency Reports for Elevator 1, 2, & 3 requires correction to ensure optimum equipment reliability, performance and maintenance personnel safety. All of the items listed are not covered under the terms of the maintenance agreement and are, therefore, the responsibility of the Owner.

D. SUPPORTING PHOTOGRAPHS

Passenger & Freight Elevators (See Appendix C)

SECTION IV
RECOMMENDED OWNER IMPROVEMENTS

The following items represent short and long term upgrade recommendations. Short term upgrades are recommended to be accomplished within 1-3 years; long term upgrades are recommended to be accomplished within 5-10 years.

SHORT TERM UPGRADE RECOMMENDATIONS

Major elevator equipment is approximately 46 years old with controller upgrades done approximately 26 years ago. The equipment is considered obsolete by industry standards and coupled with the effects of long term usage, has exceeded its expected life. As this type of operation does not meet todays industry definition of efficient operation, we recommend replacement of the existing controls to provide efficient modern automatic operation which would also bring the elevators info compliance with current code. These recommendations are defined in the section of this report titled Modernization Study Report.

SECTION V
SUPPLEMENTAL INFORMATION

A. GENERAL

During our survey of the freight elevator (#3), it was noted that there was no state tag (DLLR) indicating that the jack/cylinder assembly had been upgraded to a double bottom jack/cylinder to prevent oil leaking underground. Additionally it was noted that there was no "Oil Loss Log" in the machine room as required by DLLR to monitor oil loss, therefore, we are providing additional information regarding single bottom jacks which would have been installed during this original installation.

B. SINGLE BOTTOM HYDRAULIC CYCLINDER

Elevator #3 ....in your building was installed with a single bottom hydraulic cylinder which can pose a potentially serious safety issue. It deserves immediate attention by you and your Maintenance Contractor.

The in-ground hydraulic cylinder associated with this elevator does not appear to have been installed with any type of protection to prevent electrolysis of the cylinder. Electrolysis is the gradual degradation of the underground steel cylinder caused by ground water electrolysis which attacks and initiates corrosive activity on the cylinder bottom and side walls. Prior to 1971, cylinders were typically installed with a single flat bottom. Subsequent to that year, the National Elevator Code was revised to require double bottom cylinders with the upper one designed as a safety bulkhead. Unfortunately, if jack assemblies were installed without some type of protection, i.e. PVC well hole casing, cathodic protection, they may still fail due to corrosive activity anywhere along the length of the in-ground cylinder. In the event that the oil line from the pump unit to the cylinder is buried without protection, it too is subject to the same corrosive activity, and will develop leaks or fail completely.

There are three issues to be considered in regard to leaking hydraulic cylinders or associated oil lines.

1. In the event of a consistent leak in the system, a low oil condition is created and the elevator may not reach and stop accurately at the top floor served. This condition has the potential to create a tripping hazard for passengers entering or exiting the elevator. In addition, if a low oil feature was not provided with the original installation, equipment damage can result as the pump unit continues to run in an effort to force the elevator to the top landing.

2. In the event of a slow consistent leak or large breach, the ground surrounding the jack assembly will become contaminated with hydraulic oil, with the added potential of contaminating ground water.

3. In the event of a large breach and loss of oil, the elevator could accelerate rapidly in the down direction into the pit, possibly causing personal injury and/or equipment damage.

Obviously, the longer a slow consistent in-ground leak is allowed to continue, the greater the potential for all three of the above conditions to occur.

It is important to evaluate existing conditions before proceeding with corrective measures to determine the proper course of action. As a minimum, you should insist upon the response of your Maintenance Contractor to the following questions:

1. Have you detected an oil leak in the system?

2. If so, have you identified the location of the oil leak?

3. If so, what are your and our legal obligations?

4. If you have detected an oil leak in the system and the source is not readily apparent, then:

   a. What steps do you propose to take to identify the location of the leak?

   b. When will this be accomplished?

   c. What are the cost implications?

   d. How long will elevator service be interrupted?

   e. When did you last perform routine and periodic system tests required by the National code ASME A17.1, Rules 1004 and 1005 or other jurisdiction? Please provide written documentation.

   f. Do you know or do your records indicate if the hydraulic jack assembly was installed inside an outer protective casing or included any type of cathodic protection?

We recommend that you require your Elevator Maintenance Contractor's immediate attention and written response to the above questions. In addition, you should request their recommended solution, in writing, in regard to any corrective measures they deem necessary as a result of their investigation.

In the interim, we recommend implementation of monthly pressure testing of the hydraulic system. The National Elevator Code only requires hydraulic system tests to be completed on an annual basis. However, it does not preclude conducting the test on a more frequent interval, i.e., monthly, quarterly, etc. More frequent monitoring and testing will provide consistent information on the status of the system and in the event of an incident, would demonstrate that proactive measures were taken above and beyond the minimum requirements of the Code. Testing may accelerate cylinder failure however, if it is already in a weakened condition. Your Maintenance Contractor may expect compensation for this additional testing.

The age of the cylinder and severity of the corrosive activity of the soil surrounding it bear heavily on its anticipated life. Unfortunately, the day after a test reveals no leak, a leak can develop. Declining fluid level in the pump unit reservoir is, most often, the first indicator of a potential problem. Visual inspection of the fluid level in the reservoir should occur frequently with the elevator at the bottom floor served and at the same hour of the day due to expansion and contraction of the hydraulic fluid as it heats and cools in response to elevator usage.

In regard to Question No. 3, we believe you have a legal obligation to notify the EPA in the event of the loss of more than 25 gallons of fluid from the system. In addition, state and local requirements may vary and should be identified.

In regard to Question No. 4.e., you should require written confirmation of these tests in the future. This would also apply in the event that you authorized more frequent testing than Code required.

Note: The above questions apply to both the in-ground hydraulic cylinder and any associated in-ground piping between the pump unit and the jack assembly. If leaks are related to equipment on the pump unit, connection points of above ground oil lines between the pump and jack assembly, or the packing gland of the jack assembly, they are the responsibility of your Maintenance Contractor. Before any action is taken, you should insist that your Elevator Maintenance Contractor confirm that no leaks exist in the system which are readily apparent through visual inspection. This is important, as in most Preventive Maintenance Agreements, your Maintenance Contractor is responsible for these portions of the system. Unfortunately, the same is not true of the in-ground cylinder or in-ground oil lines which are typically excluded from coverage.

In the event visual review and Code mandated tests do not reveal an underground leak in the system, consideration should be given to the following proactive preventive measures:

1. Retrofit a plunger safety device. In our opinion, this retrofit should be viewed as a proactive measure. The device is, in essence, an electro-mechanical safety brake that fits around the entire circumference of the existing hydraulic plunger and monitors car speed and oil pressure within the elevator system. In the event of a drop in operating pressure or an overspeed condition in the down direction, sensors deploy the safety brake mechanism and grip the plunger, thereby stopping the uncontrolled descent of the elevator car.

   This type of safety device is currently only available from Adams Elevator Company. The product is called LifeJacket™. All manufacturers and service companies throughout the United States have access to this product. It can typically be retrofitted to an existing installation for approximately $10,000-$15,000 per elevator and is approximately 25%-30% of the cost of the replacement of the entire jack assembly. Note, however, that some local jurisdictional code authorities have not approved the use of this device or have only approved the device on a case by case basis.

   It should be noted that ,to date, has not witnessed a test of LifeJack™ nor does the current Elevator Safety Code, ASME 17.1, require this device on new installations or require its retroactive installation on existing hydraulic elevators. However, believes the device has merit. Adams has provided extensive data verifying their in-house testing, and additional testing by two independent firms. Those tests appear to more than justify the validity of the product. While it is not intended as a fix for a leaking cylinder, the device would safely stop an elevator in the event of an overspeed condition in the down direction caused by a major cylinder failure and rapid loss of fluid.

2. Evacuate (remove) the existing oil hydraulic fluid from the entire system including jack assembly, associated oil lines, pump unit and pump reservoir, and replace with a biodegradable, non-toxic hydraulic fluid. While not precluding the possibility of a future leak, or breach in a weakened cylinder or oil line, the contamination of the surrounding soil and water table are eliminated. Our understanding is that this non-toxic hydraulic fluid is compatible with existing systems requiring only minor readjustment.

Obviously, the implementation of both precautionary measures outlined above maximizes protection in the event of cylinder failure.

If an underground leak is identified, you have four possible solutions:

1. Sleeve the original cylinder if the inside diameter of the original cylinder permits. Experience indicates that this process works in only a very few cases. In addition, the wall thickness of the sleeve must necessarily be very thin and therefore, its life expectancy is much less than the original cylinder. While this solution may eliminate the leak in the system, current Code compliance would still not be met in regard to a safety bulkhead.

2. Replace the existing jack assembly and/or underground oil line. This is not an easy process. It is very costly and will require that the elevator be taken out of service for an extended period of time. In this event, the existing concrete pit floor would be removed from around the cylinder and the complete jack assembly lifted out of the hole. Unfortunately, the vacated hole may cave or fill with water. Re-drilling and water evacuation become very difficult, if not impossible, under these conditions with the potential to create problems with adjacent structural footings.

3. On older elevators with larger cylinders, it may be possible to abandon the existing cylinder in place and utilize it as an outer casing for insertion of a new jack assembly. This would mitigate the potential re-drilling problems discussed in Solution No. 2. This solution requires that the existing plunger be removed from its cylinder, the cylinder pumped dry of existing hydraulic oil and its exposed section cut-off flush with the pit floor. Depth measurements are then taken to assure that the abandoned cylinder will accommodate the length of the new jack assembly. If the proper length (depth) of the existing cylinder is not available, the possibility of breaking through the bottom of the existing cylinder

and drilling to the proper depth still exists. However, while this solution mitigates the caving-hole condition described above, water evacuation may still be a problem.

4. If space conditions allow, consideration could be given to abandonment of the existing in-ground jack assembly. The existing plunger is removed from its cylinder. The in-ground cylinder is then pumped dry of hydraulic fluid, filled with concrete, and permanently abandoned. Extensive modifications to the existing structural frame of the elevator are then made to accommodate the retrofit of new dual holeless hydraulic jack assemblies (one on each side of the elevator) within the bounds of the existing hoistway. This is not an easy or inexpensive retrofit. Again, this process requires an extended shutdown period to complete the work. In most cases, this solution is limited to no more than a three (3) stop elevator and requires very accurate field measurements of car side clearance, pit depth and overhead clearances.

APPENDIX A
ELEVATOR PERFORMANCE

LIFT SOLUTIONS CONSULTING

ELEVATOR PERFORMANCE EVALUATION

PROJECT:	LEGISLATIVE SERVICE BUILDING	OWNER ID #:	1	REVIEW DATE:	November 15, 2017
LOCATION:	90 STATE CIRCLE	ELEVATOR GROUP:	N/A	PERMIT ID #:	ST1540
CITY AND STATE:	ANNAPOLIS, MARYLAND 21401	GEARLESS:		GEARED: X	HYDRAULIC:
PROJECT NO:		PASSENGER: X		SERVICE:	FREIGHT:
MANUFACTURER:	O. THOMPSON	FLOORS SERVED:	5	FRONT: X	REAR:
CONTRACTOR:	DELAWARE ELEVATOR	CAPACITY	3500 LBS.	SPEED	350 FPM

MEASURED	CAR EMPTY	CAR FULL	CRITERIA		MEETS CRITERIA YES/NO	COMMENTS	NOTES
SPEED UP - FPM	334.0		332-350 FPM		YES		± 5 % (3, 5, or 10%)
SPEED DOWN - FPM	331.0		332-350 FPM		YES		± 5 % (3, 5, or 10%)
PERFORMANCE - UP - SEC	13.8		11.1 SEC		YES		TYPICAL FLOOR HEIGHT:
PERFORMANCE - DOWN - SEC	14.3		11.1 SEC		YES		BETWEEN FLOORS:
							PRE-OPENING: YES NO X
STOPPING ACCURACY	+1/4 IN		+1/4 IN		YES		± 1/4"
	FRONT	REAR	FRONT	REAR			DOOR TYPE: 2 SPEED SIDE SLIDE
							WIDTH: 42 HEIGHT: 84
DOOR OPEN - SEC.	2.9		2.4 SEC		ACCEPTABLE		DOOR OPERATOR SPEED:
DOOR CLOSE - SEC.	4.5		4.1 SEC		ACCEPTABLE		LOW: MED: X HIGH:
SHORT HOLD OPEN - SEC. (CAR CALL)	5.0		>3.0	>3.1	YES		
INTERRUPTED RAY - SEC.	8.0		>3.0*	>3.0*	YES		* >3.0 INITIAL, .5-1.5 SUBSEQUENT
NUDGING - SEC.	29.0		>20.0	>20.0	YES		
STALL PRESSURE -LBS.	24		30 MAX	30 MAX	YES		
LONG HOLD OPEN - SEC. (HALL CALL)	9.0		>5.0	>5.0	YES		
LANTERNS CALL NOTIFICATION SEC. (HALL CALL)	N/A						PREDICTIVE LANTERNS: YES OR NO
REDUCED DOOR CLOSE TIME (NUDGING)	N/A						1.68 X DOOR CLOSE TIME (LBA MINIMUM TIME)

OBSERVATIONS	MEETS CRITERIA	COMMENTS
ACCELERATION	YES	
RIDE	YES	
DECELERATION	YES	
STOP	YES	
DOOR OPERATION	YES	
DOOR PROTECTION	YES	
DOOR OPEN BUTTON	YES	
ALARM BUTTON	YES	
CAR LIGHTING GUARDED	YES	
FALSE CALL CANCEL	N/A	

FEATURES	INSTALLED	TESTED	COMMENTS
EMERGENCY LIGHT	YES		
FIRE SERVICE - PHASE 1	YES		
FIRE SERVICE - PHASE 2	YES		
FIRE PHONE JACK	NO		
STANDBY POWER	UK		
TELEPHONE	YES		
INTERCOM	N/A		
STOP SWITCH	YES		
SEISMIC OPERATION	N/A		
DOOR RESTRICTION	YES		

NOTES:

LIFT SOLUTIONS CONSULTING

ELEVATOR PERFORMANCE EVALUATION

PROJECT:	LEGISLATIVE SERVICE BUILDING	OWNER ID #:	2	REVIEW DATE:	November 15, 2017
LOCATION:	90 STATE CIRCLE	ELEVATOR GROUP:	N/A	PERMIT ID #:	ST1541
CITY AND STATE:	ANNAPOLIS, MARYLAND 21401	GEARLESS:		GEARED: X	HYDRAULIC:
PROJECT NO:		PASSENGER: X		SERVICE:	FREIGHT:
MANUFACTURER:	O. THOMPSON	FLOORS SERVED:	5	FRONT: X	REAR:
CONTRACTOR:	DELAWARE ELEVATOR	CAPACITY	3500 LBS.	SPEED	350 FPM

MEASURED	CAR EMPTY	CAR FULL	CRITERIA		MEETS CRITERIA YES/NO	COMMENTS	NOTES
SPEED UP - FPM	336.0		332-350 FPM		YES		± 5 % (3, 5, or 10%)
SPEED DOWN - FPM	332.0		332-350 FPM		YES		± 5 % (3, 5, or 10%)
PERFORMANCE - UP - SEC	13.3		11.1 SEC		YES		TYPICAL FLOOR HEIGHT:
PERFORMANCE - DOWN - SEC	14.1		11.1 SEC		YES		BETWEEN FLOORS:
							PRE-OPENING: YES NO X
STOPPING ACCURACY	+1/4		+1/4 IN		YES		± 1/4"
	FRONT	REAR	FRONT	REAR			DOOR TYPE: 2 SPEED SIDE SLIKE
							WIDTH: 42 HEIGHT: 84
DOOR OPEN - SEC.	3.0		2.4 SEC		ACCEPTABLE		DOOR OPERATOR SPEED:
DOOR CLOSE - SEC.	4.6		4.1 SEC		ACCEPTABLE		LOW: MED: X HIGH:
SHORT HOLD OPEN - SEC. (CAR CALL)	5.0		>3.0	>3.1	YES		
INTERRUPTED RAY - SEC.	7.0		>3.0*	>3.0*	YES		* >3.0 INITIAL, .5-1.5 SUBSEQUENT
NUDGING - SEC.	32.0		>20.0	>20.0	YES		
STALL PRESSURE -LBS.	26		30 MAX	30 MAX	YES		
LONG HOLD OPEN - SEC. (HALL CALL)	8.0		>5.0	>5.0	YES		
LANTERNS CALL NOTIFICATION SEC. (HALL CALL)	N/A						PREDICTIVE LANTERNS: YES OR NO
REDUCED DOOR CLOSE TIME (NUDGING)	N/A						1.68 X DOOR CLOSE TIME (LBA MINIMUM TIME)

OBSERVATIONS	MEETS CRITERIA	COMMENTS
ACCELERATION	YES	
RIDE	YES	
DECELERATION	YES	
STOP	YES	
DOOR OPERATION	YES	
DOOR PROTECTION	YES	
DOOR OPEN BUTTON	YES	
ALARM BUTTON	YES	
CAR LIGHTING GUARDED	YES	
FALSE CALL CANCEL	N/A	

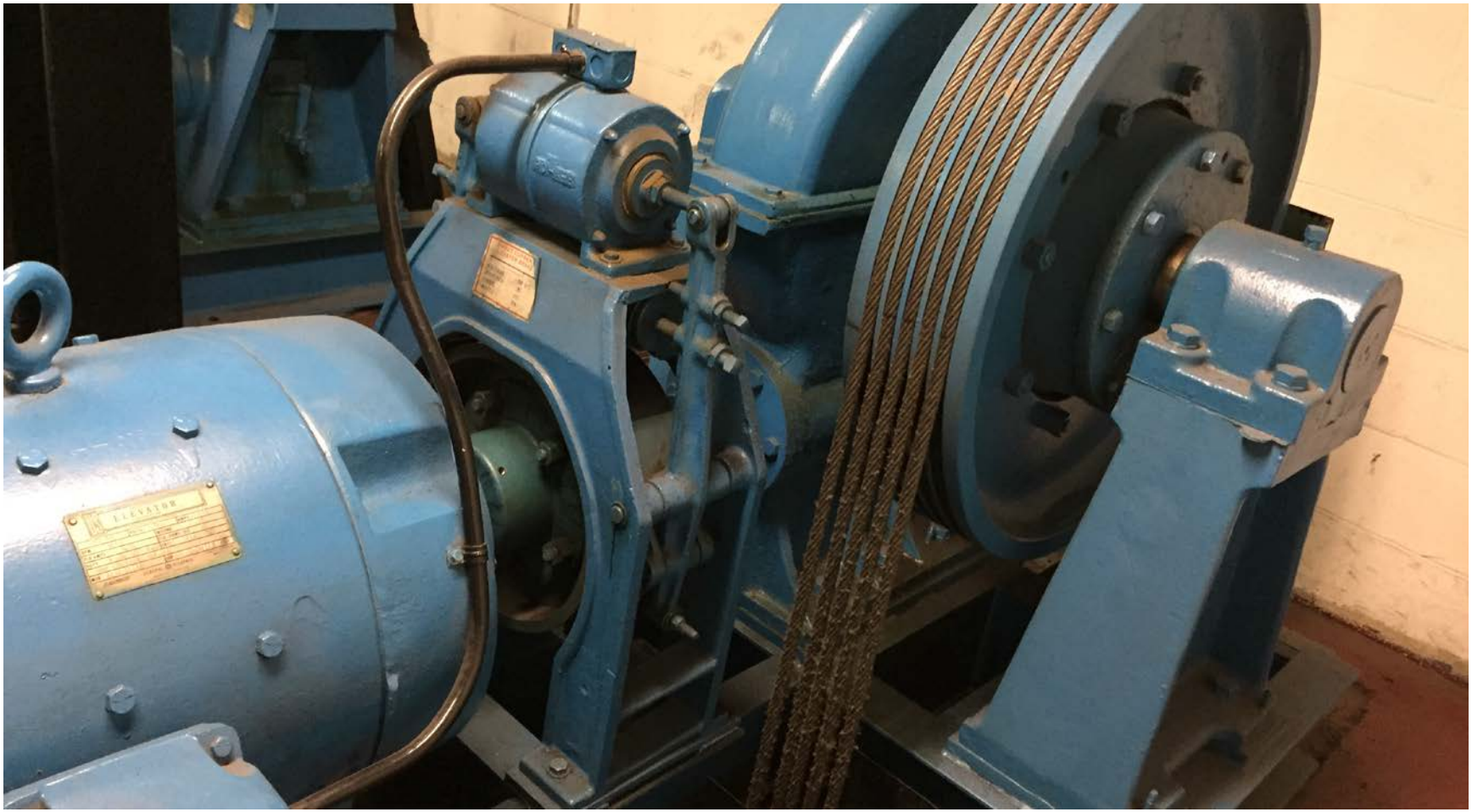
FEATURES	INSTALLED	TESTED	COMMENTS
EMERGENCY LIGHT	YES		
FIRE SERVICE - PHASE 1	YES		
FIRE SERVICE - PHASE 2	YES		
FIRE PHONE JACK	NO		
STANDBY POWER	UK		
TELEPHONE	YES		
INTERCOM	N/A		
STOP SWITCH	YES		
SEISMIC OPERATION	N/A		
DOOR RESTRICTION	YES		

NOTES:

APPENDIX C

PHOTOS

The existing hoist machines are showing signs of long term wear, oil is leaking from multiple seals, the worm gear is showing signs of wear which affects performance, the existing hoist motor and dated electronic drive controls are inefficient for dispatching (car and hall calls) and energy efficiency.



The existing hoist machines are showing signs of long term wear, oil is leaking from multiple seals, the worm gear is showing signs of wear which affects performance, the existing hoist motor and dated electronic drive controls are inefficient for dispatching (car and hall calls) and energy efficiency

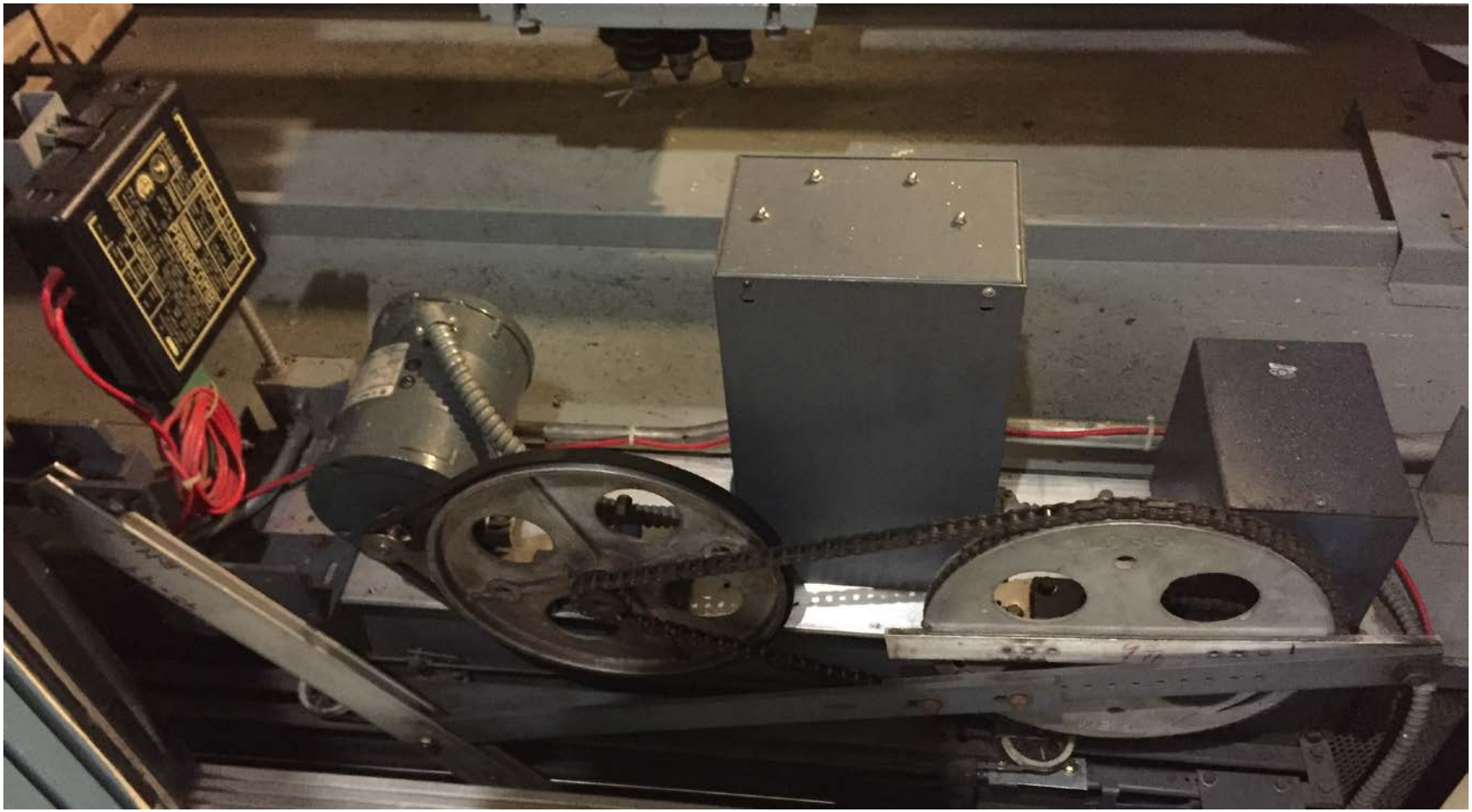
The existing selector system is heavily dependent on mechanical components which require more maintenance for proper floor leveling.

The existing pit sump pump and alarm is not functional

This type of operational system (while well maintained) has become obsolete and cannot provide the system performance and performance reliability attainable with modern controls

Hoistway doors show signs of minor rusting within the door panels

Door operators show considerable wear and are recommended for replacement in the course of a full elevator modernization



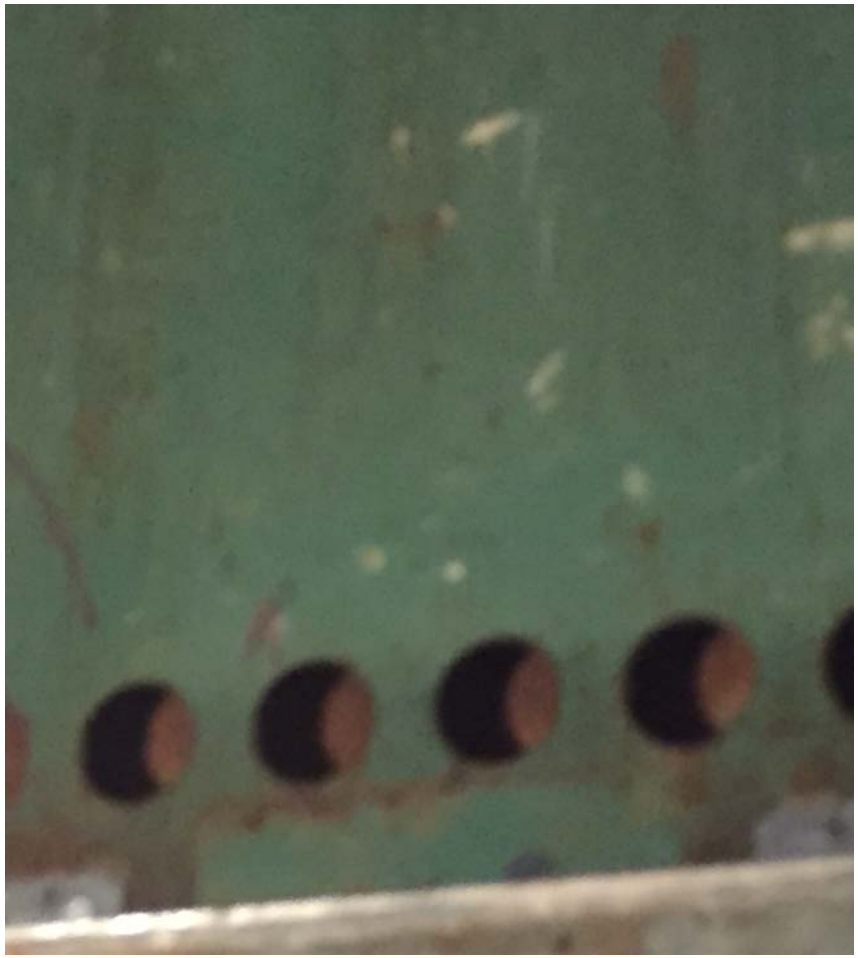
Some pit equipment should be replaced due to past pit flooding. Additionally the pit should be waterproofed and the sump pump made functional for code compliance

The pit sump pump and floats are not functioning. Not code compliant

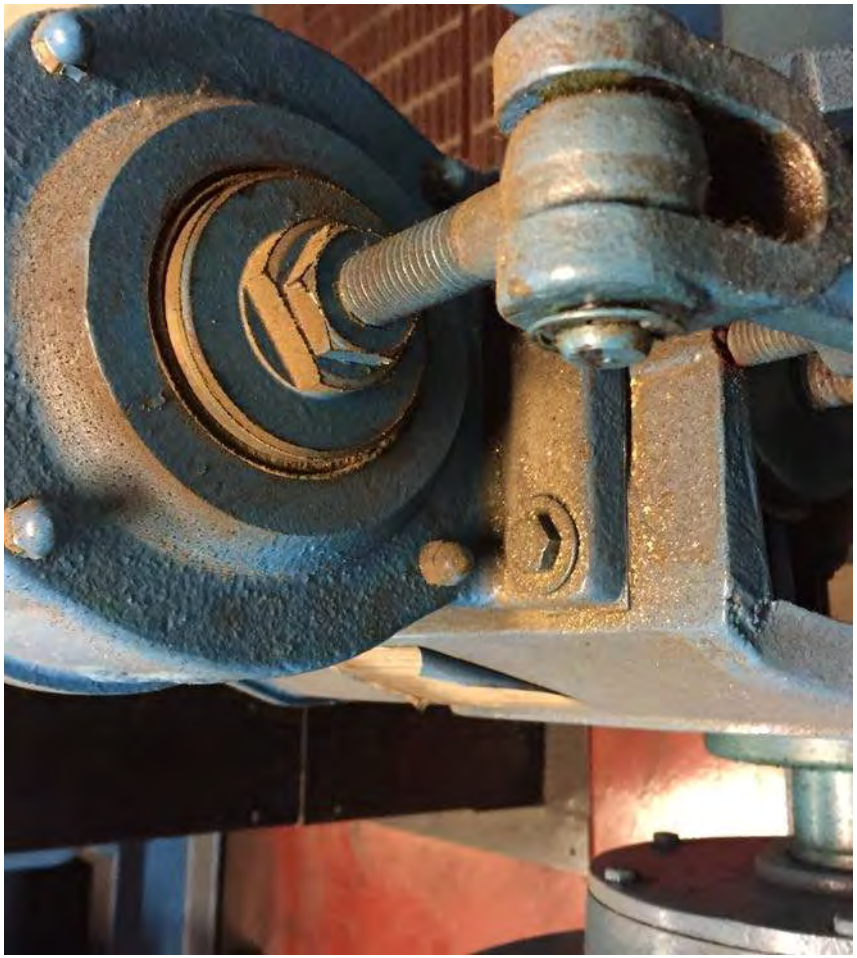
The pit sump pump and floats are not functioning. Not code compliant

Rusting components in pit

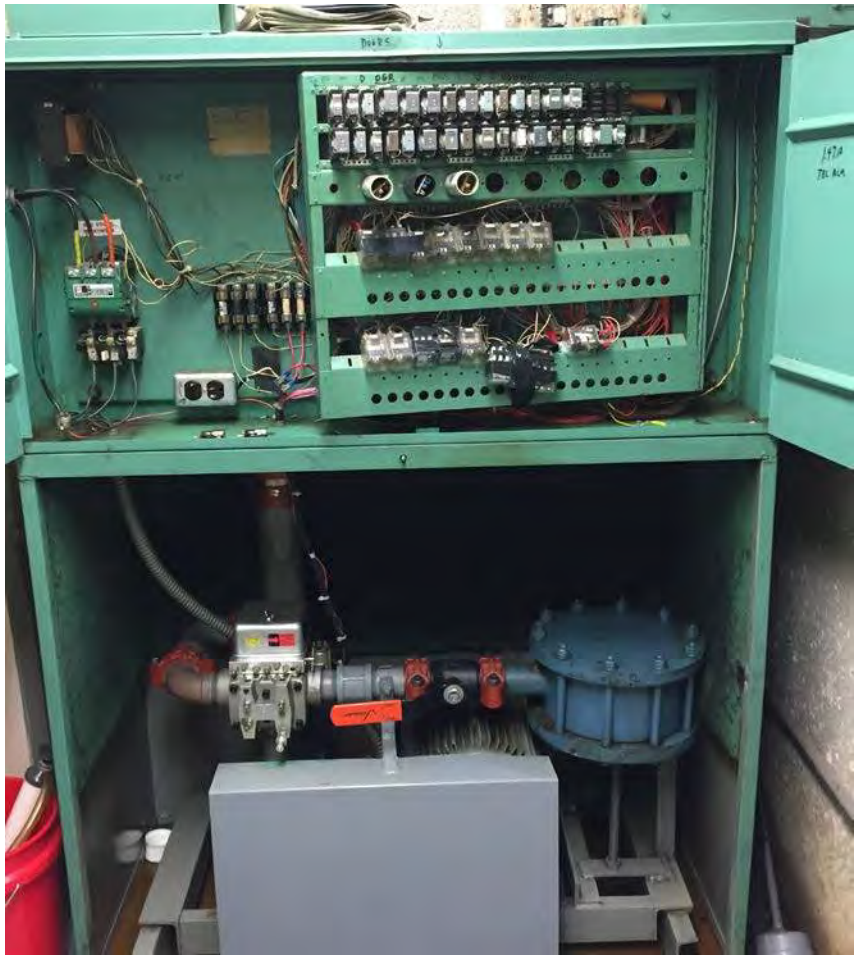
Hoistway doors are showing signs of rusting



The hoist machine brake core (copper) is showing signs of short term wear from possible alignment



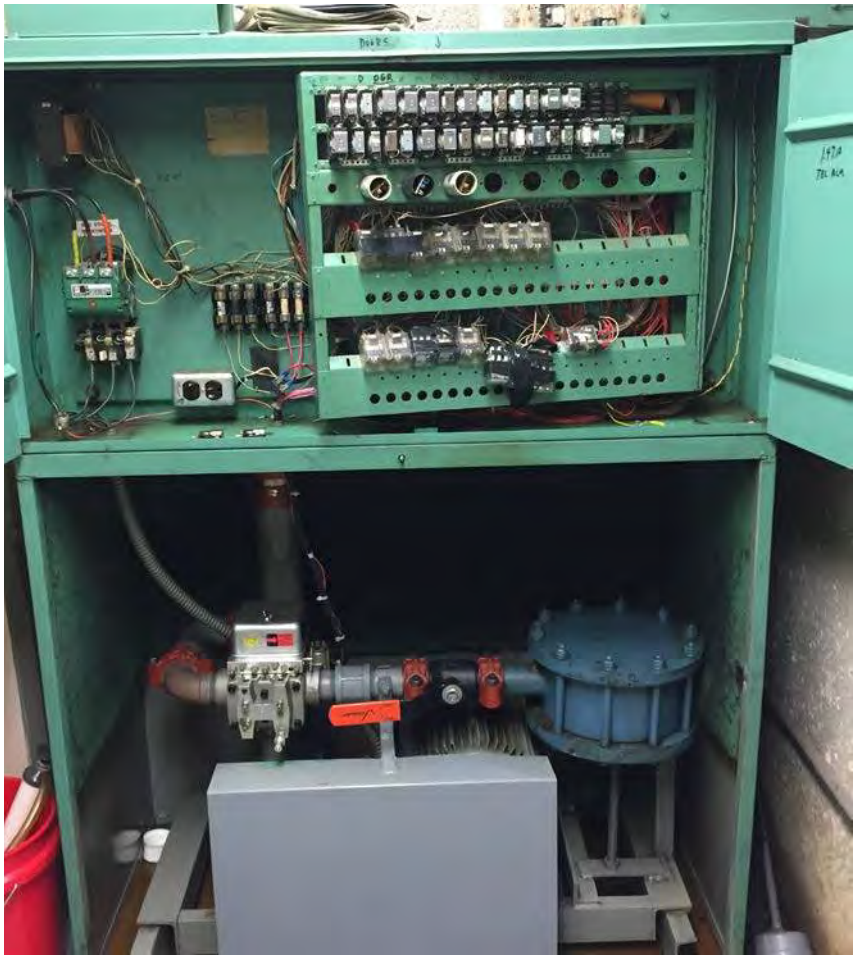
The existing freight elevator controller system is 46 years old, the controller wiring and relays are taped to the controller and do not display proper relay ID required for troubleshooting purposes



The existing freight elevator controller system is 46 years old, the controller wiring and relays are taped to the controller and do not display proper relay ID required for troubleshooting purposes

New freight doors and gates were recently added to the freight elevator, powered gates and doors are recommended

The existing pump unit is original equipment and oil is leaking from several areas into the oil pan. A new submersible type tank and pump unit is recommended during any modernization



The existing pump unit is original equipment and oil is leaking from several areas into the oil pan. A new submersible type tank and pump unit is recommended during any modernization

The existing elevator sump pump and float is not functioning, the pit should be waterproofed, debris should be cleaned

LIFT SOLUTIONS CONSULTING

Legislative Services Building
Annapolis, Maryland

ELEVATOR MODERNIZATION STUDY REPORT

DECEMBER 1, 2017

PREPARED FOR:

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I. SUMMARY

A. SCOPE

This report was commissioned to determine the level of repair and operation of the two passengers and one freight elevators currently in use at the Legislative Services Building. Examinations to determine the general condition, operation, and Code compliance were conducted. A review of individual components to determine remaining useful life and retainability during a complete modernization was also conducted.

B. GENERAL

Each elevator was tested and examined. The elevator machine room equipment and each individual hoistway, including all hoistway doors, interlocks, wire ropes, cabs, and fixtures, were reviewed to determine condition, operation, and Code compliance. The results of these examinations will be found in the following sections of this report.

C. RECOMMENDATIONS

Major elevator equipment is approximately 46 years old. The equipment is considered obsolete by industry standards, coupled with the effects of long-term usage, has exceeded its expected life.

This type of operational system was available in buildings in the early1970's & 1990's, has become obsolete and cannot provide the system performance and reliability attainable with modern controls. As this type of operation does not meet today's industry definition of efficient operation, we recommend replacement of the existing controls to provide modern automatic operation.

In addition, the modernized elevators would provide compliance with current Handicapped Accessibility Standards.

The existing hoist machines are showing signs of wear and are recommended for replacement.

The existing floor selectors (PM switches) are not capable of providing long-term reliability and should be replaced to be compatible with the new control system.

The existing door operating equipment on car doors and hoistway doors is showing signs of wear, and should be replaced.

Existing cab shells and interior finishes are showing signs of wear. New interior finishes could be installed if desired to enhance appearance.

All new operating fixtures, (i.e., car pushbuttons, hall pushbuttons, and position indicators) should be installed and relocated to better accommodate handicapped individuals and to provide reliable operation.

SECTION II
MODERNIZATION PLANS

A. GENERAL

During our survey, elevator components were reviewed to determine their existing condition and suitability for reuse under a modernization program. This section reviews the results of our equipment survey.

The existing elevator equipment was manufactured by < Company Name > and was installed approximately 46 years ago.

In general, the existing equipment is in fair operating condition. Many components have reached the end of their expected useful life. Availability of replacement materials becomes a problem and will have an impact on determining retainage. Although the system remains operational, it will be desirable to replace some of the components to provide operational and safety refinements available with today's equipment designs.

The following recommendations are based on the present condition of each primary component, its potential reliability, and its maintainability. Equipment relationships and performance are evaluated as to when it is suitable to replace one component without compromising its operation by retaining other components. Consideration is given to cost and to the cost effectiveness of replacing rather than reconditioning. And, finally, passenger safety features were evaluated and correlated into the recommended program of modernization.

B. MACHINE ROOM EQUIPMENT

1. Hoist Machines: The general condition of the machines is good. They should be reused. The passenger hoist machines have begun to show signs of heavy wear and are recommended for replacement during a modernization.

2. Controllers: The control design is obsolete. The system cannot be expected to provide efficient and reliable elevator service in the building. Elevator operation methods have changed dramatically since this installation.

   The existing control system utilizes a number of mechanical relays to control car and group elevator functions. Existing relays and associated wiring are in need of frequent attention to provide stable operation.

   Controllers should be replaced with new programmable microprocessor-based, solid-state automatic controls to realize the benefits of modern operational efficiencies and reliability.

All associated wiring from the signaling and operating devices should be replaced. Conduit should be reused wherever possible, provided the retained conduit meets National Electrical Code requirements.

3. Selectors: Selectors should be replaced when new controllers are provided.

4. Overspeed Governors: The overspeed governors will be retained and refurbished.

5. Hoist and Governor Ropes: are recommended for replacement during a modernization.

C. HOISTWAY EQUIPMENT

1. Guide Rails: The car and counterweight guide rails appear to be in good condition and should be reused during any typical modernization.

2. Hoistway Entrances: Passenger Elevator Hoistway doors are recommended for replacement during any modernization.

   Hoistway door equipment (hangers, tracks, rollers, interlocks) is original equipment, shows moderate wear, and does provide a restrictive device to prevent opening if car is not near floor level, as required by A17.3 and current Code. Hoistway door equipment is recommended for replacement to provide long-term reliability during any modernization.

3. Buffers: The car and counterweight buffers are in acceptable condition and should be reused in any scope of modernization.

D. ELEVATOR CARS

1. Elevator Car Slings, Platforms, and Safety Devices: The structural members and safety device of the elevator cars appear sound and should be reused in any scope of modernization.

2. Car Enclosures: New cab shells are recommended with cab interior finishes to enhance appearance.

3. Car Door Operators: The existing door system is showing wear from years of use and abuse. Door operators should be replaced to provide long-term reliability and efficiency.

4. New infrared screen detectors should be provided under any scope of modernization to enhance safety of passengers.

E. OPERATING AND SIGNALING DEVICES

1. Existing fixtures are showing some wear from years of use. New corridor pushbuttons should be installed and located at 42" above the floor.

2. Existing car operating panels should be removed and new panels installed and located in accordance with Handicapped standards. The new main panel would include a hands-free communication device also located in accordance with Handicapped standards.

3. A new fire control panel would be provided to include all switches required for Firefighters' Service and Life Safety Power Operations replaced during any modernization

III. ARCHITECTURAL REVIEW

A. GENERAL

Listed below are deviations from current Codes and our building-related recommendations as noted during our recent review. These items are related to existing conditions and most likely will require correction if a modernization is implemented. Please coordinate these items with associate design disciplines.

B. BUILDING – RELATED WORK

1. Hoistway and Pit:

   a. Wall cutouts and fire rated closure for control and signal fixture boxes, which penetrate walls. Verify location and sizes of cutouts with Elevator Contractor. Grout and patch as required.

   b. Cutting and patching walls and floors.

   c. Pit access ladder for each elevator.

   d. Waterproof pit. Indirect waste drain or sump with flush grate and pump.

   e. Protect open hoistways and entrances during construction per OSHA Regulations.

   f. Protect car enclosure, hoistway entrance assemblies, and special metal finishes from damage.

   g. Provide flooring for elevator cars as required.

   h. Provide wall cutouts for push-button stations, hall lanterns and positions indicators or other signal fixtures. Verify locations and sizes of cutouts on Elevator Contractor's shop drawings. Grout and patch as required. Provide wall cutouts for electrical and mechanical equipment added under this contract. Grout and patch as required.

   i. Close-up the existing machine room vents and exhaust fan in each machine room.

2. Machine Room and Machinery Spaces;

   a. Enclosure with access. Retain existing

   b. Paint walls, ceiling, and floor. Patch or seal all penetrations.

c. Provide self-closing, self-locking machine room door. Keying must be independent of any other building locks. Door or gate shall be operable from inside without key.

d. Provide machine room ventilation and heating. Maintain minimum temperature of 65°F, maximum 90°F. Maintain maximum 90% relative humidity, noncondensing. HVAC unit may be located within the bounds of the machine room if solely for the heating or cooling of that machine room.

e. Where machine room has more than one level, provide minimum 42" high guard railings at raised area when difference in levels is greater than 15". For access to raised level, provide vertical ladder with handgrip where difference in levels is greater than 8" and less than 36". Where difference in floor levels is 36" or greater, provide ship's ladder, with 60 degree maximum incline and top landing as required.

f. Machine room fire sprinkler runs where required must terminate within the bounds of the machine room. Shut-off valves shall be located outside the bounds of the machine room. Maintain minimum 7'-0" clear headroom under pipe runs.

g. Cover any unneeded vents or exhaust fan with fire-rated material as required to provide a fire-rated machine room enclosure.

3. Electrical Service, Conductors and Devices:

a. Lighting and GFCI convenience outlets in pit, and machine room.

b. Confirm the existing. Three-phase mainline copper power feeder to terminals of each elevator controller in the machine room is compliant with current National Electric code (N.E.C.) and that it is protected, lockable "open," disconnect as required by N.E.C.

c. Single-phase copper power feeder to each elevator controller for car lighting and exhaust blower with individual protected, lockable "open," disconnect switch located in machine room.

d. Emergency telephone line to each individual designated elevator control panel in elevator machine room.

e. Confirm the existing. Fire alarm initiating devices in each elevator lobby, for each group of elevators to initiate firefighters' return feature is compliant with current Life Safety Codes. Device at top of hoistway if sprinklered. Provide alarm initiating signal wiring from hoistway or machine room connection point to elevator controller terminals.

f. Run conduits from the closest elevator hoistway of each group and each individual elevator to the fire control room and/or the main level lobby control console. Coordinate size, quantity, and location with Elevator Contractor.

g. Firefighters' telephone jack and announcement speaker in car with connection to individual elevator control panels in elevator machine room and elevator control panel in firefighters' control room.

h. Three-phase power feeder to each freight elevator power door controller in machine room with protected, lockable "open," disconnect switch. Freight elevator only.

i. Provide new pit and machine room lighting and GFCI protected electrical outlets (the existing may be retained where code compliant). Provide adequate lighting to maintain minimum of 5 foot-candles illumination at pit floor, and 10 foot-candles illumination at machine room floor.

j. Provide single-phase disconnecting means, lockable in the off position, and power feeders to each individual unit for the HVAC work in each machine room. Include adequate circuit breaker. Verify location on Elevator Contractor's shop drawings.

4. Standby Power Provision: Retain existing and confirm operation during and emergency power condition **or** Provide new:

a. Standby power of normal voltage characteristics via normal electrical in each elevator group < > and/or single elevator unit at full-rated car speed and capacity.

b. Conductor from auxiliary form "C" dry contacts, located in the standby power transfer switch to a designated elevator control panel in each elevator group and/or single elevator unit. Provide a time delay of 30 - 45 seconds for pre-transfer signal in either direction.

c. Standby single-phase power to group controller, and each elevator controller for car lighting, exhaust blower, emergency signaling device, intercom amplifier, hoist machine cooling fan, car heating and air conditioning unit.

d. Means for absorbing regenerated power during an overhauling load condition.

e. Machine room ventilation or air conditioning to function under a standby power condition.

f. Emergency communications device(s) to function under a standby power condition.

APPENDIX B

EQUIPMENT DISPOSITION

ELEVATOR EQUIPMENT DISPOSITION
PASSENGER ELEVATORS 1 & 2

HOISTWAY ENTRANCE Side Slide/Swing	Remove Existing	Retain Existing	Recond. Existing	Provide New	Notes
Frames		X			
Door Panels		X	X		
Sight Guards		X			
Sills		X	X		
Sill Supports		X			
Fascia		X			
Toe Guard				X	
Dust Covers		X			
Struts and Headers		X	X		
Hangers		X			
Hanger Covers		X			
Closers		X			
Relating Mechanism		X			
Interlocks		X			
Gibs	X			X	
Access		X			
Floor Identification		X			
Finish				X	OPTIONAL

ELEVATOR EQUIPMENT DISPOSITION
PASSENGER ELEVATORS 1 & 2

CAR	Remove Existing	Retain Existing	Recond. Existing	Provide New	Notes
Frame		X			
Platform		X			
Safety Devices		X	X		
Isolation	X			X	
Load Weighing Device				X	
Car Guide Rails		X			
Guide Shoes		X			
Sills		X			
Flooring				X	OPTIONAL
Toe Guard	X				
Doors		X	X		
Door Hangers		X			
Door Header		X		X	
Door Clutch	X			X	
Door Unlocking Device	X			X	
Door Operator	X			X	
Door Contact	X			X	
Door Protection Device	X			X	
Top Control Station	X			X	
Work Light & Receptacle	X			X	
Top Exit Contact	X			X	
Selector Tape Switch	X			X	

ELEVATOR EQUIPMENT DISPOSITION
PASSENGER ELEVATORS 1 & 2

MACHINE ROOM	Remove Existing	Retain Existing	Recond. Existing	Provide New	Notes
Hoist Machine		X	X		PROVIDE NEW AC MOTOR
Hoist Ropes		X			
Support Beams & Tie Downs		X			
Guards				X	
SCR Drive	X				PROVIDE NEW AC MOTOR DEVICE
Controller	X			X	
Selector	X			X	
Group Controller				X	
Governor		X	X		
Governor Rope		X			
Wiring	X			X	
Lighting		X	X		
Access		X			
Ventilation				X	
Disconnect Switch		X			
Smoke Detectors				X	
Enclosure		X			
Heating/Air Conditioning				X	PROVIDE NEW SPLIT SYSTEM
Ladders/Stairs		X			

ELEVATOR EQUIPMENT DISPOSITION
PASSENGER ELEVATORS 1 & 2

HOISTWAY	Remove Existing	Retain Existing	Recond. Existing	Provide New	Notes
Main Guide Rails (Car)		X			
Counterweight Guide Rails		X			
Deflector Sheaves		X			
Counterweight Frame		X			
Counterweight Guide Shoes		X			
Normal & Final Terminal Devices	X			X	
Wiring & Traveling Cables	X			X	
Ventilation	X				
Enclosure		X			
Smoke Detectors				X	

ELEVATOR EQUIPMENT DISPOSITION
PASSENGER ELEVATORS 1 & 2

PIT	Remove Existing	Retain Existing	Recond. Existing	Provide New	Notes
Access Ladder		X			
Car Buffer		X	X		
Counterweight Buffer		X	X		
Governor Tension Sheave		X			
Selector Tension Sheave	X			X	
Stop Switches	X			X	
Sump				X	PROVIDE NEW PMP
Light	X			X	
Light Switch	X			X	
Outlet	X			X	

ELEVATOR EQUIPMENT DISPOSITION
PASSENGER ELEVATORS 1 & 2

CAR ENCLOSURE	Remove Existing	Retain Existing	Recond. Existing	Provide New	Notes
Ceiling		X		X	OPTIONAL
Lighting		X		X	OPTIONAL
Ventilation		X		X	OPTIONAL
Walls		X		X	OPTIONAL
Panels		X		X	OPTIONAL
Returns		X		X	OPTIONAL
Handrails		X		X	OPTIONAL
Flooring		X		X	OPTIONAL

ELEVATOR EQUIPMENT DISPOSITION
PASSENGER ELEVATORS 1 & 2

OPERATING DEVICES	Remove Existing	Retain Existing	Recond. Existing	Provide New	Notes
Hall Pushbuttons	X			X	
Access Switches				X	
Firefighters' Hall Station	X			X	
Main Car Station	X			X	
Communications System Wiring	X			X	
Lobby Panel	X			X	
Fire Command Center	X			X	
Signaling Devices	X			X	
Car Position Indicator	X			X	
Car Travel Lantern	X			X	
Hall Position Indicator	X			X	
Hall Position Indicator with Lanterns	X			X	AT LOBBY
Smoke Detector				X	
Hall Lanterns	X			X	

ELEVATOR EQUIPMENT DISPOSITION
FREIGHT ELEVATOR #3

HOISTWAY ENTRANCE Vertical Slide	Remove Existing	Retain Existing	Recond. Existing	Provide New	Notes
Frames		X			
Door Panels		X			
Astragal		X			
Vision Panel		X			
Pull Strap		X			
Sill		X			
Tracks		X			
Sprocket/Sheaves		X			
Relating Mechanism		X			
Guides		X			
Interlock		X			
Access Mechanism		X			
Structural Transfer		X			
Floor Identification		X			
Finish		x			

ELEVATOR EQUIPMENT DISPOSITION
FREIGHT ELEVATOR #3

CAR	Remove Existing	Retain Existing	Recond. Existing	Provide New	Notes
Frame		X			
Platform		X			
Isolation	X			X	
Plunger Isolation	X			X	
Car Guide Rails		X			
Guide Shoes		X	X		PROVIDE NEW LINERS
Sills		X			
Flooring		X			
Toe Guard	X			X	
Doors		X			
Door Unlocking Device		X			
Door Operator		X			
Door Contact		X			
Door Protection Device		X			
Top Control Station	X			X	
Work Light & Receptacle	X			X	
Top Exit Contact				X	
Selector Tape Switch	X			X	

ELEVATOR EQUIPMENT DISPOSITION
FREIGHT ELEVATOR #3

MACHINE ROOM	Remove Existing	Retain Existing	Recond. Existing	Provide New	Notes
Controllerl	X			X	
Selector	X			X	
Wiring	X			X	
Pump Unit	X			X	
Shut-Off Valve				X	
Muffler				X	
Piping	X			X	
Piping Support				X	
Lighting				X	
Access		X			MACHINE ROOM DOOR NOT COMPLIANT
Ventilation	X			X	
Disconnect Switch	X			X	
Smoke Detectors				X	
Enclosure		X			
Heating/Air Conditioning				X	

ELEVATOR EQUIPMENT DISPOSITION
FREIGHT ELEVATOR #3

HOISTWAY	Remove Existing	Retain Existing	Recond. Existing	Provide New	Notes
Main Guide Rails (Car)		X			
Normal & Final Terminal Devices		X		X	
Wiring & Traveling Cables		X		X	
Ventilation				X	
Enclosure		X			
Smoke Detectors				X	

ELEVATOR EQUIPMENT DISPOSITION
FREIGHT ELEVATOR #3

PIT	Remove Existing	Retain Existing	Recond. Existing	Provide New	Notes
Access Ladder		X			
Car Buffer		X			
Selector Tension Sheave	X			X	
Stop Switches	X			X	
Plunger		X			
Cylinder		X			
Shut-Off Valve		X			
Piping		X	X		
Piping Support					
Scavenger	X			X	
Sump PUMP	X			X	
Light				X	
Light Switch				X	
Outlet				X	

ELEVATOR EQUIPMENT DISPOSITION
FREIGHT ELEVATOR #3

CAR ENCLOSURE	Remove Existing	Retain Existing	Recond. Existing	Provide New	Notes
Ceiling		X			
Lighting		X			
Ventilation				X	
Walls		X			
Panels		X			
Handrails				X	
Flooring		X			

ELEVATOR EQUIPMENT DISPOSITION
FREIGHT ELEVATOR #3

OPERATING DEVICES	Remove Existing	Retain Existing	Recond. Existing	Provide New	Notes
Hall Pushbuttons	X			X	
Access Switches				X	
Firefighters' Hall Station	X			X	
Main Car Station	X			X	
Communications System Wiring				X	
Lobby Panel				X	
Signaling Devices	X			X	
Car Position Indicator				X	
Car Travel Lantern				X	
Hall Position Indicator with Lanterns				X	
Smoke Detector				X	

6.2 Civil Engineering / Site Reports

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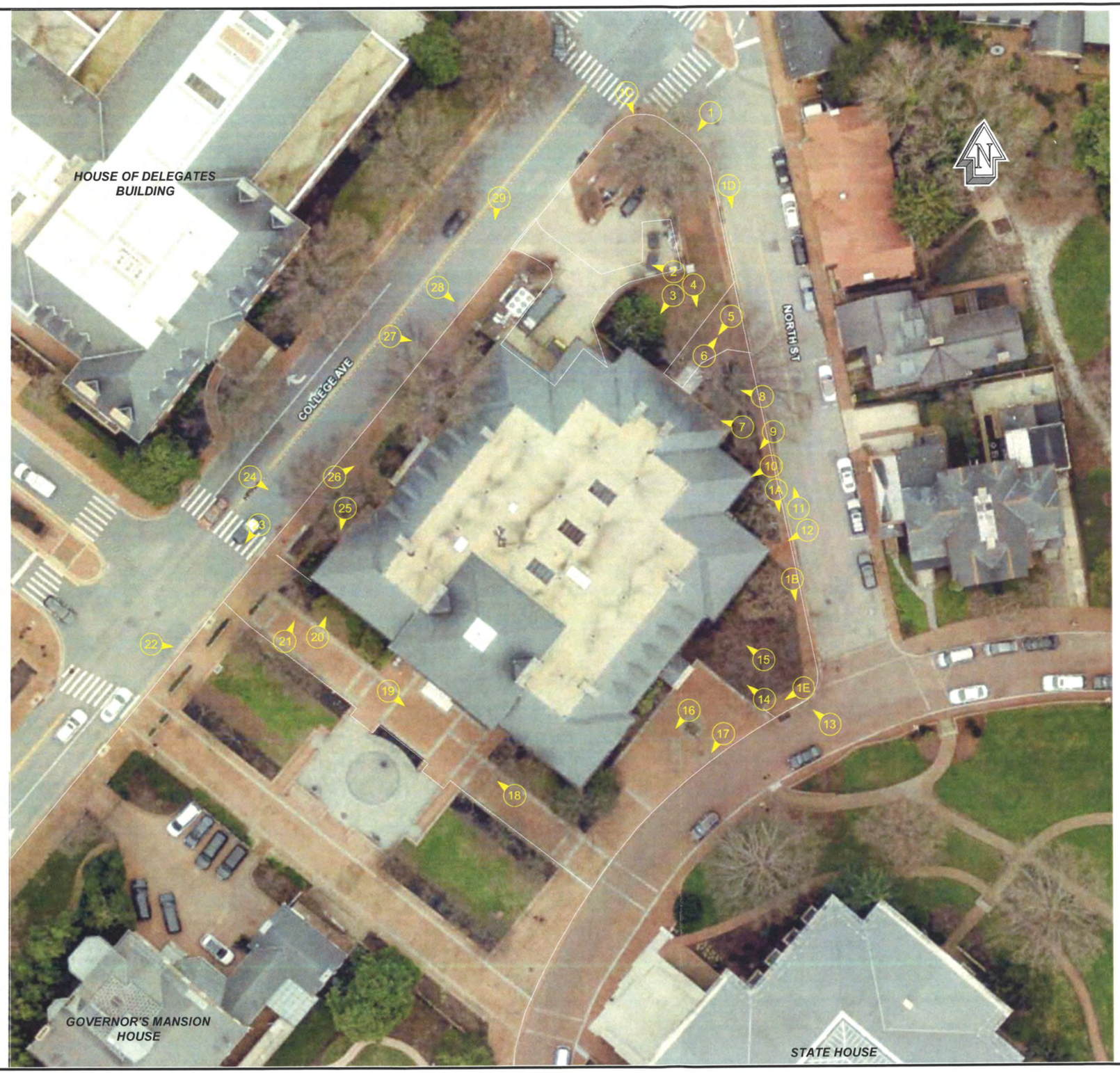

LEGEND

1 PHOTO # AND DIRECTION OF PICTURE

Revisions			
Rev. #	By	Date	Description

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.

Terry Schuman — Date 3/31/20
19593 — License No. — Exp./Renewal Date

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Date: JULY 2015
Job Number: 17-6234
Scale: 1" = 20'
Drawn By: T. PRICE
Approved By: T. SCHUMAN
Folder Reference: WGM DGS LEGISLATIVE SERVICES BLDG

PHOTO EXHIBIT
CONDITION SITE ASSESSMENT
FOR
LEGISLATIVE SERVICES BUILDING
90 STATE CIRCLE
TAX ID: 06-000-07679409
TAX MAP 52A, GRID 13, PARCEL 1095
CITY OF ANNAPOLIS, MARYLAND 21401
SIXTH DISTRICT ~ ANNE ARUNDEL COUNTY ~ ZONED P

Sheet No. 1 OF 504

24x36

F:\17-6234 WGM DGS Legislative Services Bldg 90 State Circle\Drawing Files\Feasibility Plan\17-6234 EXHIBIT-PICTURES.dwg

PLOTTED: Oct 08, 2018 - 10:37am
INCLUDED XREFS & IMAGES: 24x36.dwg 15-5328 MOSAIC.dwg AACO TOPO.dwg 17-6234 Base.dwg 17-6234 DEED MOSAIC.dwg 26-2565-MOD.tif GIS Image.tif 26-2565.TIF GEOTIFF-1.tiff GEOTIFF-2.tiff VMAP.tif

Department of Legislative Services Building 90 State Circle, Annapolis, MD 21401	Key Photo Number: 1
Condition / Element Report	
Discipline: Civil	**Report Number: 1**
Room Identification: N/A- south side of North Street sidewalk	**Condition: existing bricks are old but the bricks themselves are generally in good condition. See element description below for assessment**
Element Type: Site/Grounds Assessment	
Element SubType: N/A	

Photo Documentation

Element Description

- Perimeter walks around the building predominantly do not have any mortar or grouting between bricks. Gaps in bricking as much as ½ inch.
- Uneven bricks in numerous areas
- With any site improvements we recommend that the bricks be pulled up and totally replaced with new bricking similar to other recent surrounding state buildings in Annapolis.

References:

Department of Legislative Services Building 90 State Circle, Annapolis, MD 21401	Key Photo Number: 1A
Condition / Element Report	
Discipline: Civil	**Report Number:** 1
Room Identification: N/A- south side of North Street sidewalk	**Condition: deficient slope from back of curbing. See element description below for assessment**
Element Type: Site/Grounds Assessment	
Element SubType: N/A	

Photo Documentation

Element Description

- Several areas evident where proper sloping (2% minimum) from back of Curbing is not being met in numerous areas around the perimeter walks
- Perimeter walks around the building predominantly do not have any mortar or grouting between bricks. Gaps in bricking as much as ½ inch.
- With any site improvements we recommend that the bricks be pulled up and totally replaced with new bricking similar to other recent surrounding state buildings in Annapolis.

References:

Department of Legislative Services Building 90 State Circle, Annapolis, MD 21401	Key Photo Number: 1B
Condition / Element Report	
Discipline: Civil	**Report Number:** 1
Room Identification: N/A- south side of North Street sidewalk	**Condition: deficient slope from back of curbing and eroding landscape areas onsite . See element description below for assessment**
Element Type: Site/Grounds Assessment	
Element SubType: N/A	

Photo Documentation

Element Description

- Several areas evident where proper sloping (2% minimum) from back of Curbing is not being met in numerous areas around the perimeter walks
- Perimeter walks around the building predominantly do not have any mortar or grouting between bricks. Gaps in bricking as much as ½ inch.
- With any site improvements we recommend that the bricks be pulled up and totally replaced with new bricking similar to other recent surrounding state buildings in Annapolis.
- Stabilization of planting areas is causing sediment runoff onto sidewalks and city streets

References:

Department of Legislative Services Building 90 State Circle, Annapolis, MD 21401	Key Photo Number: 1C
Condition / Element Report	
Discipline: Civil	**Report Number:** 1
Room Identification: N/A- south side of North Street sidewalk	**Condition: Missing bricks in sidewalks. See element description below for assessment**
Element Type: Site/Grounds Assessment	
Element SubType: N/A	

Photo Documentation

Element Description

- Missing bricks in sidewalk
- Perimeter walks around the building predominantly do not have any mortar or grouting between bricks. Gaps in bricking as much as ½ inch.
- With any site improvements we recommend that the bricks be pulled up and totally replaced with new bricking similar to other recent surrounding state buildings in Annapolis.

References:

Department of Legislative Services Building 90 State Circle, Annapolis, MD 21401	Key Photo Number: 1D
Condition / Element Report	
Discipline: Civil	**Report Number:** 1
Room Identification: N/A- south side of North Street sidewalk	**Condition: missing bricks. See element description below for assessment**
Element Type: Site/Grounds Assessment	
Element SubType: N/A	

Photo Documentation

Element Description

- Missing bricks in sidewalk
- Perimeter walks around the building predominantly do not have any mortar or grouting between bricks. Gaps in bricking as much as ½ inch.
- With any site improvements we recommend that the bricks be pulled up and totally replaced with new bricking similar to other recent surrounding state buildings in Annapolis.

References:

Department of Legislative Services Building 90 State Circle, Annapolis, MD 21401	Key Photo Number: 1E
Condition / Element Report	
Discipline: Civil	**Report Number:** 1
Room Identification: N/A- south side of North Street sidewalk	**Condition: Missing bricks. See element description below for assessment**
Element Type: Site/Grounds Assessment	
Element SubType: N/A	

Photo Documentation

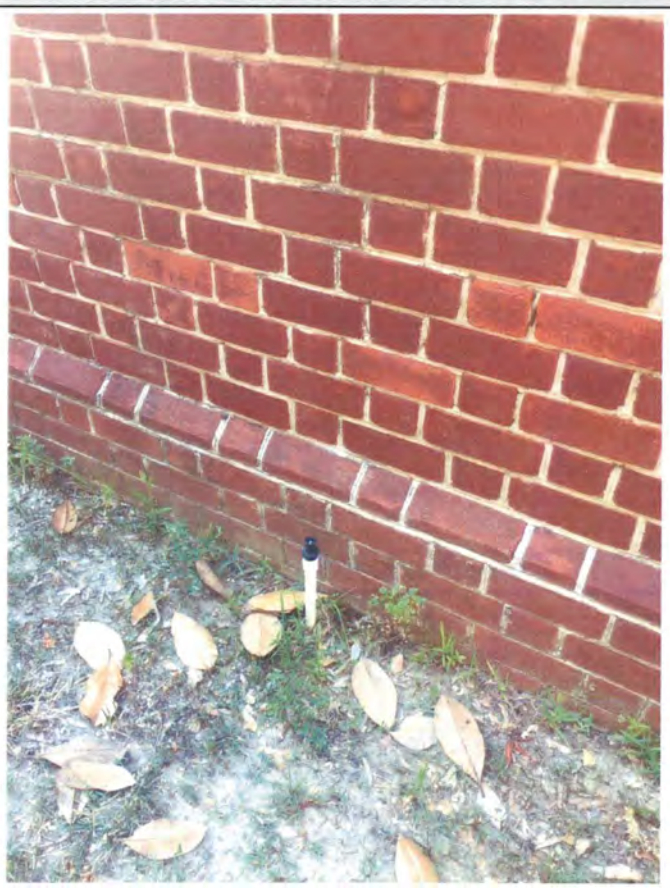
Element Description

- Missing bricks in sidewalk
- Perimeter walks around the building predominantly do not have any mortar or grouting between bricks. Gaps in bricking as much as ½ inch.
- With any site improvements we recommend that the bricks be pulled up and totally replaced with new bricking similar to other recent surrounding state buildings in Annapolis.

References:

Department of Legislative Services Building 90 State Circle, Annapolis, MD 21401	Key Photo Number: 2
Condition / Element Report	
Discipline: Civil	**Report Number:** 1
Room Identification: N/A	**Condition:** Appears to be in good condition but no in use. See element description below
Element Type: Site/Grounds Assessment	
Element SubType: N/A	

Photo Documentation



Element Description

- Existing irrigation system on the property should be serviced to determine it is functioning as installed

References:

Department of Legislative Services Building 90 State Circle, Annapolis, MD 21401	Key Photo Number: 3
Condition / Element Report	
Discipline: Civil	**Report Number:** 1
Room Identification: N/A	**Condition:** roof drains are directed underground and in most cases functioning as designed. Refer to Report Number 10 for additional assessment
Element Type: Site/Grounds Assessment	
Element SubType: N/A	

Photo Documentation

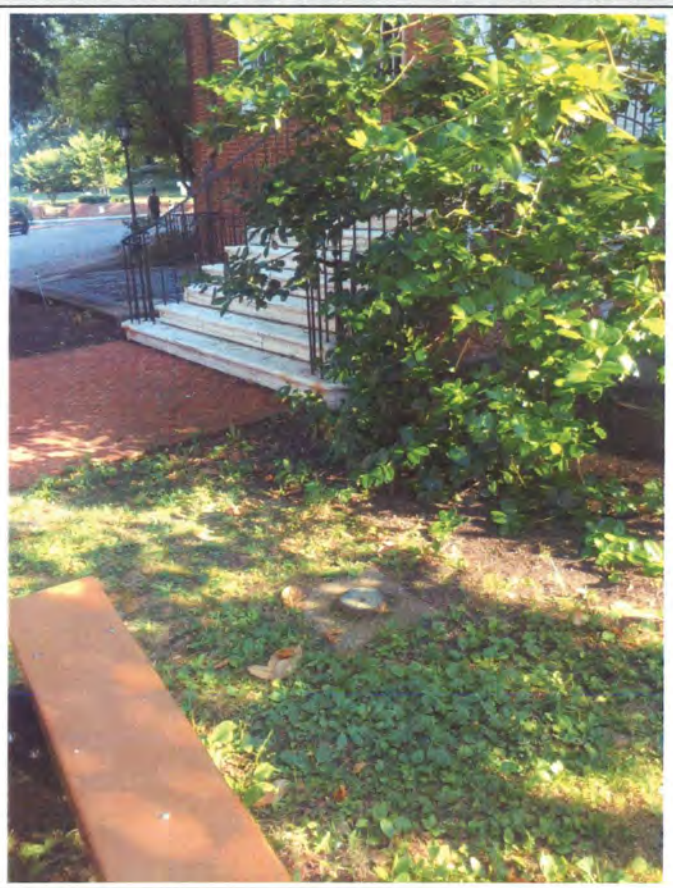
Element Description

- Existing roof drains conveyed underground. See report Number 10 for additional assessment

References:

Department of Legislative Services Building 90 State Circle, Annapolis, MD 21401	Key Photo Number: 4
Condition / Element Report	
Discipline: Civil	**Report Number:** 1
Room Identification: N/A	**Condition:** cleanout cover in good condition
Element Type: Site/Grounds Assessment	
Element SubType: N/A	

Photo Documentation



Element Description

- Existing roof drain cleanout. Recommend the cleanout covers are marked as to the type of utility they serve.

References:

Department of Legislative Services Building 90 State Circle, Annapolis, MD 21401	Key Photo Number: 5
Condition / Element Report	
Discipline: Civil	**Report Number:** 1
Room Identification: North Street Access	**Condition: stairway is generally in good shape**
Element Type: Site/Grounds Assessment	
Element SubType: N/A	

Photo Documentation

Element Description

- Existing North Street access door stairway. With any improvement the stairway surface should be cleaned and restored with all openings at railings properly grouted.
- Refer to Report Number 1F for crack in sidewalk

References:

Department of Legislative Services Building 90 State Circle, Annapolis, MD 21401	Key Photo Number: 6
Condition / Element Report	
Discipline: Civil	**Report Number: 6**
Room Identification: N/A- North Street door access walk	**Condition: Crack in sidewalk**
Element Type: Site/Grounds Assessment	
Element SubType: N/A	

Photo Documentation

Element Description

- Crack in sidewalk with a tripping hazard of up to ½" vertical. Cause of crack could be an underground root from adjacent tree or settlement issue
- Brick sidewalk needs to be repaired
- Generally, the walk from North Street access door to North Street sidewalk is in good shape with the exception of this crack

References:

Department of Legislative Services Building 90 State Circle, Annapolis, MD 21401	Key Photo Number: 7
Condition / Element Report	
Discipline: Civil	**Report Number:** 1
Room Identification: lower window well on North Street side of building	**Condition:** Window well, concrete and drain appears to be in good condition
Element Type: Site/Grounds Assessment	
Element SubType: N/A	

Photo Documentation

Element Description

- Existing areaway with debris will continue to be a maintenance issue
- Regular cleaning to clear any debris will be required.
- Vertical beehive type grating to allow drainage even if some debris exists may be a helpful solution to prevent full clogging of inlet.

References:

Department of Legislative Services Building 90 State Circle, Annapolis, MD 21401	Key Photo Number: 8
Condition / Element Report	
Discipline: Civil	**Report Number:** 1
Room Identification: N/A – Adjacent to North Street Door Access	**Condition:** Concrete and grating looks to be in good condition
Element Type: Site/Grounds Assessment	
Element SubType: N/A	

Photo Documentation

Element Description

- Generally, the Existing areaway is in good condition. No rusting or concrete deterioration is present.

References:

Department of Legislative Services Building 90 State Circle, Annapolis, MD 21401	Key Photo Number: 9
Condition / Element Report	
Discipline: Civil	**Report Number:** 1
Room Identification: N/A – window well along North Street side of building	**Condition:** Window well, concrete and drain appear to be in good condition
Element Type: Site/Grounds Assessment	
Element SubType: N/A	

Photo Documentation

Element Description

- Existing areaway with debris will continue to be a maintenance issue
- Regular cleaning to clear any debris will be required.
- Vertical beehive type grating to allow drainage even if some debris exists may be a helpful solution to prevent full clogging of inlet.

References:

Department of Legislative Services Building 90 State Circle, Annapolis, MD 21401	Key Photo Number: 10
Condition / Element Report	
Discipline: Civil	**Report Number:** 1
Room Identification: N/A – North Street side of building	**Condition: Existing Roof Drain with Gap in connection**
Element Type: Site/Grounds Assessment	
Element SubType: N/A	

Photo Documentation

Element Description

- Existing roof drain in need of repair
- Appears that some settlement or just connection of roof drain to boot is needed.
- No evidence of any major settlement is present

References:

Department of Legislative Services Building 90 State Circle, Annapolis, MD 21401	Key Photo Number: 11
Condition / Element Report	
Discipline: Civil	**Report Number:** 1
Room Identification: N/A – State Circle Entry walkway	**Condition: poor landscaping and stabilization**
Element Type: Site/Grounds Assessment	
Element SubType: N/A	

Photo Documentation

Element Description

- Existing irrigation utility box
- Unstabilized areas in need of permanent vegetative establishment

References:

Department of Legislative Services Building 90 State Circle, Annapolis, MD 21401	Key Photo Number: 12
Condition / Element Report	
Discipline: Civil	**Report Number:** 1
Room Identification: N/A – North Street landscape area facing the State Circle entryway	**Condition: poor landscaping and stabilization**
Element Type: Site/Grounds Assessment	
Element SubType: N/A	

Photo Documentation

Element Description

- Existing concrete roof drain cleanout cover in good condition
- Unstabilized area in need or permanent vegetative establishment

References:

Department of Legislative Services Building 90 State Circle, Annapolis, MD 21401	Key Photo Number: 13
Condition / Element Report	
Discipline: Civil	**Report Number:** 1
Room Identification: N/A – State Circle entryway walk	**Condition:** Assessment
Element Type: Site/Grounds Assessment	
Element SubType: N/A	

Photo Documentation

Element Description

- Curb repair needed. This is not a drain but just a missing portion of the curb header

References:

Department of Legislative Services Building 90 State Circle, Annapolis, MD 21401	Key Photo Number: 14
Condition / Element Report	
Discipline: Civil	**Report Number:** 1
Room Identification: N/A – State Circle entryway walk	**Condition: broken stone border, temporary cleanout covers, unstabilized eroding landscape areas**
Element Type: Site/Grounds Assessment	
Element SubType: N/A	

Photo Documentation

Element Description

- Temporary Roof drain cleanout covers in need of repair and final cover.
- Unstabiized landscape area is causing unnecessary erosion.
- Broken Stone border needs be replaced

References:

Department of Legislative Services Building 90 State Circle, Annapolis, MD 21401	Key Photo Number: 15
Condition / Element Report	
Discipline: Civil	**Report Number:** 1
Room Identification: N/A State Circle entry area walkway	**Condition: Roof drain covers, hole and utility repair has not been completed**
Element Type: Site/Grounds Assessment	
Element SubType: N/A	

Photo Documentation

Element Description

- Roof drain cleanout covers in need of repair. We do not know the reason for the Underground repair but it has appeared to be there for some time now unresolved. Repairs need to be completed, hole covered and grounds returned to a stabilized condition.

References:

Department of Legislative Services Building 90 State Circle, Annapolis, MD 21401	Key Photo Number: 16
Condition / Element Report	
Discipline: Civil	**Report Number:** 1
Room Identification: N/A – State Circle entry walk tree well border	**Condition: Stone Border is broken and in need of replacement**
Element Type: Site/Grounds Assessment	
Element SubType: N/A	

Photo Documentation

Element Description

- Broken tree well stone border needs to be removed and replaced.

References:

Department of Legislative Services Building 90 State Circle, Annapolis, MD 21401	Key Photo Number: 17
Condition / Element Report	
Discipline: Civil	**Report Number:** 1
Room Identification: N/A – State Circle	**Condition: Shown for informational purposes only**
Element Type: Site/Grounds Assessment	
Element SubType: N/A	

Photo Documentation

Element Description

- Example of electric manhole along state circle
- Shown for informational purposes only

References:

Department of Legislative Services Building 90 State Circle, Annapolis, MD 21401	Key Photo Number: 18
Condition / Element Report	
Discipline: Civil	**Report Number:** 1
Room Identification: N/A Handicap access ramp at Lawyers Mall entry way	**Condition:** Deficient ADA ramp
Element Type: Site/Grounds Assessment	
Element SubType: N/A	

Photo Documentation

Element Description

- Existing ADA Building access ramp. Approximately 24" wide.
- This ADA access will need to be bought up to current ADA standards for width of ramp

References:

Department of Legislative Services Building 90 State Circle, Annapolis, MD 21401	Key Photo Number: 19
Condition / Element Report	
Discipline: Civil	**Report Number:** 1
Room Identification: N/A Handicap access ramp at Lawyers Mall entry way	**Condition:** Deficient ADA ramp
Element Type: Site/Grounds Assessment	
Element SubType: N/A	

Photo Documentation

Element Description

- Existing ADA Building access ramp. Approximately 24" wide.
- This ADA access will need to be bought up to current ADA standards for
- width of ramp

References:

Department of Legislative Services Building 90 State Circle, Annapolis, MD 21401	Key Photo Number: 20
Condition / Element Report	
Discipline: Civil	**Report Number:** 1
Room Identification: N/A	**Condition:** Picture shown for information purposes only
Element Type: Site/Grounds Assessment	
Element SubType: N/A	

Photo Documentation

Element Description

- Existing roof drain and building completion date.
- Photo shown for informational purposes only

References:

Department of Legislative Services Building 90 State Circle, Annapolis, MD 21401	Key Photo Number: 21
Condition / Element Report	
Discipline: Civil	**Report Number:** 1
Room Identification: N/A – inlet at Lawyer Mall and College Avenue	**Condition: Existing inlet with debris**
Element Type: Site/Grounds Assessment	
Element SubType: N/A	

Photo Documentation

Element Description

- Existing inlet requires ongoing maintenance issue to clean debris on a regular basis.

References:

Department of Legislative Services Building 90 State Circle, Annapolis, MD 21401	Key Photo Number: 22
Condition / Element Report	
Discipline: Civil	**Report Number:** 1
Room Identification: N/A – Legislative building view from Lawyer Mall	**Condition: No Assessment necessary**
Element Type: Site/Grounds Assessment	
Element SubType: N/A	

Photo Documentation

Element Description

- College Avenue view of Legislative Services building
- No assessment necessary for informational purposes only

References:

Department of Legislative Services Building 90 State Circle, Annapolis, MD 21401	Key Photo Number: 23
Condition / Element Report	
Discipline: Civil	**Report Number:** 1
Room Identification: N/A – Detectable Warning Surface at College Avenue Lawyer Mall Access	**Condition:** Handicap Access at College Avenue
Element Type: Site/Grounds Assessment	
Element SubType: N/A	

Photo Documentation

Element Description

- Existing College Avenue pedestrian crosswalk with detectable warning surface that is insufficiently sized.
- The existing detectable warning surface width is only 24" and should be widened along with ADA ramp to be 36" minimum width.

References:

Department of Legislative Services Building 90 State Circle, Annapolis, MD 21401	Key Photo Number: 24
Condition / Element Report	
Discipline: Civil	**Report Number:** 1
Room Identification: N/A – College Avenue road frontage	**Condition: No assessment necessary**
Element Type: Site/Grounds Assessment	
Element SubType: N/A	

Photo Documentation

Element Description

- Existing water service from College Avenue shown for informational purposes only

References:

Department of Legislative Services Building 90 State Circle, Annapolis, MD 21401	Key Photo Number: 25
Condition / Element Report	
Discipline: Civil	**Report Number:** 1
Room Identification: N/A – Face of building along College Avenue	**Condition: FDC signage and landscaping obstruction**
Element Type: Site/Grounds Assessment	
Element SubType: N/A	

Photo Documentation

Element Description

- Existing Fire Department Connection (FDC) along College Avenue needs to have proper signage placed on building face above the FDC
  Landscaping should be trimmed for good clear access of FDC from street.

References:

Department of Legislative Services Building 90 State Circle, Annapolis, MD 21401	Key Photo Number: 26
Condition / Element Report	
Discipline: Civil	**Report Number:** 1
Room Identification: N/A – entry way along College Avenue	**Condition:** Existing steps appear to be in good condition
Element Type: Site/Grounds Assessment	
Element SubType: N/A	

Photo Documentation

Element Description

- Existing College Avenue access entry to building appears to be in good condition

References:

Department of Legislative Services Building 90 State Circle, Annapolis, MD 21401	Key Photo Number: 27
Condition / Element Report	
Discipline: Civil	**Report Number:** 1
Room Identification: N/A – Bus shelter along College Avenue	**Condition: Bus shelter in good shape with missing windows (see Report Number 27A) and bad drainage (see Report Numbers 28 and 28A)**
Element Type: Site/Grounds Assessment	
Element SubType: N/A	

Photo Documentation

Element Description

- Existing bus shelter See reports 27A, 28, & 28A

References:

Department of Legislative Services Building 90 State Circle, Annapolis, MD 21401	Key Photo Number: 27A
Condition / Element Report	
Discipline: Civil	**Report Number:** 1
Room Identification: N/A – Bus shelter along College Avenue	**Condition: Bus shelter in good shape with missing windows (see Report Number 27A) and bad drainage (see Report Numbers 28 and 28A)**
Element Type: Site/Grounds Assessment	
Element SubType: N/A	

Photo Documentation

Element Description

- Existing bus shelter with missing window
- See reports 27, 28, & 28A for additional assessment

References:

Department of Legislative Services Building 90 State Circle, Annapolis, MD 21401	Key Photo Number: 28
Condition / Element Report	
Discipline: Civil	**Report Number:** 1
Room Identification: N/A – Bus stop along College Avenue	**Condition: poor drainage, landscaping stabilization and safety concern for bus patrons**
Element Type: Site/Grounds Assessment	
Element SubType: N/A	

Photo Documentation

Element Description

- Existing area between bus shelter and loading area screen wall is poorly graded and unstabilized
- Recommend proper landscaping/mulch and a small drain and new piping to outlet through curbing of College Avenue
- Unsafe gap between shelter and building which should be properly fenced.

References:

Department of Legislative Services Building 90 State Circle, Annapolis, MD 21401	Key Photo Number: 28A
Condition / Element Report	
Discipline: Civil	**Report Number:** 1
Room Identification: N/A – Bus stop along College Avenue	**Condition: poor drainage, landscaping stabilization and safety concern for bus patrons. Note the drain from bus shelter discharging right at building foundation**
Element Type: Site/Grounds Assessment	
Element SubType: N/A	

Photo Documentation

Element Description

- Existing area between bus shelter and loading area screen wall is poorly graded and unstabilized
- Recommend proper landscaping stone or mulch and a small drain and new piping to collect roof drain and outlet through curbing of College Avenue
- Unsafe gap between shelter and building which should be properly fenced.

References:

Department of Legislative Services Building 90 State Circle, Annapolis, MD 21401	Key Photo Number: 29
Condition / Element Report	
Discipline: Civil	**Report Number:** 1
Room Identification: N/A – College Avenue	**Condition:** No assessment just depicting fire hydrant serving the fire department connection for the building
Element Type: Site/Grounds Assessment	
Element SubType: N/A	

Photo Documentation

Element Description

- Closest fire hydrant to building FDC. Approximately 130 feet.

References:

Department of Legislative Services Building 90 State Circle, Annapolis, MD 21401	Key Photo Number: 30
Condition / Element Report	
Discipline: Civil	**Report Number:** 1
Room Identification: N/A – State Circle Entry Way	**Condition:** Existing entry way stairwell in need of repair
Element Type: Site/Grounds Assessment	
Element SubType: N/A	

Photo Documentation

Element Description

- Broken steps in need of repair

References:

Department of Legislative Services Building 90 State Circle, Annapolis, MD 21401	Key Photo Number: 31
Condition / Element Report	
Discipline: Civil	**Report Number:** 1
Room Identification: N/A – State Circle Entry Way	**Condition:** Existing entry way stairwell in need of repair
Element Type: Site/Grounds Assessment	
Element SubType: N/A	

Photo Documentation

Element Description

- Broken steps in need of repair

References:

Department of Legislative Services Building 90 State Circle, Annapolis, MD 21401	Key Photo Number: 32
Condition / Element Report	
Discipline: Civil	**Report Number:** 1
Room Identification: N/A – State Circle Lawyer maip entry stone border	**Condition: Stone Border is broken and in need of replacement**
Element Type: Site/Grounds Assessment	
Element SubType: N/A	

Photo Documentation

Element Description

- Broken stone border needs to be removed and replaced.

References:

Department of Legislative Services Building 90 State Circle, Annapolis, MD 21401	Key Photo Number: 33
Condition / Element Report	
Discipline: Civil	**Report Number:** 1
Room Identification: N/A – Lawyer Mall Entry stairs	**Condition:** Existing entry way stairwell in need of repair
Element Type: Site/Grounds Assessment	
Element SubType: N/A	

Photo Documentation

Element Description

- Stone joints needs to be regrouted

References:

Department of Legislative Services Building 90 State Circle, Annapolis, MD 21401	Key Photo Number: 34
Condition / Element Report	
Discipline: Civil	**Report Number:** 1
Room Identification: N/A – Loading Dock Entry stairs	**Condition:** Existing Loading Area lower level stairwell
Element Type: Site/Grounds Assessment	
Element SubType: N/A	

Photo Documentation

Element Description

- Existing concrete stairs needs repairs to cracked concrete steps and deteriorating concrete
- Recommend beehive grate at bottom of steps to minimize clogging due to debris

References:

Department of Legislative Services Building 90 State Circle, Annapolis, MD 21401	Key Photo Number: 35
Condition / Element Report	
Discipline: Civil	**Report Number:** 1
Room Identification: N/A – Loading Dock	**Condition:** Existing Loading Area concrete paving in good condition
Element Type: Site/Grounds Assessment	
Element SubType: N/A	

Photo Documentation

Element Description

- Existing concrete pavement in good condition

References:

Department of Legislative Services Building 90 State Circle, Annapolis, MD 21401	Key Photo Number: 36
Condition / Element Report	
Discipline: Civil	**Report Number:** 1
Room Identification: N/A – Loading Dock	**Condition:** Existing Loading Area concrete paving in good condition
Element Type: Site/Grounds Assessment	
Element SubType: N/A	

Photo Documentation

Element Description

- Existing concrete pavement in good condition

References:

Department of Legislative Services Building 90 State Circle, Annapolis, MD 21401	Key Photo Number: 37
Condition / Element Report	
Discipline: Civil	**Report Number:** 1
Room Identification: N/A – Loading Dock Lighting	**Condition:** Existing Loading Area screen wall lighting
Element Type: Site/Grounds Assessment	
Element SubType: N/A	

Photo Documentation

Element Description

- Existing Lighting appears to be in good condition and functional

References:

Department of Legislative Services Building 90 State Circle, Annapolis, MD 21401	Key Photo Number: 38
Condition / Element Report	
Discipline: Civil	**Report Number:** 1
Room Identification: N/A – Perimeter Site Lighting	**Condition:** Existing perimeter site lighting
Element Type: Site/Grounds Assessment	
Element SubType: N/A	

Photo Documentation

Element Description

- Existing Lighting appears to be in good condition and functional

References:

Department of Legislative Services Building 90 State Circle, Annapolis, MD 21401	Key Photo Number: 39
Condition / Element Report	
Discipline: Civil	**Report Number:** 1
Room Identification: N/A – Perimeter Site Lighting	**Condition:** Existing perimeter site lighting
Element Type: Site/Grounds Assessment	
Element SubType: N/A	

Photo Documentation

Element Description

- Existing Lighting appears to be in good condition and functional

References:

VICINITY MAP

SCALE: 1"=2000'

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PERMITTED USE NO. 20400770

Real Property Data Search

Search Result for ANNE ARUNDEL COUNTY

View Map | View GroundRent Redemption | View GroundRent Registration

Tax Exempt: | Special Tax Recapture:
Exempt Class: | NONE

Account Identifier: District - 06 Subdivision - 000 Account Number - 07679409

Owner Information

Owner Name:	STATE OF MARYLAND	**Use:**	EXEMPT COMMERCIAL
		Principal Residence:	NO
Mailing Address:	BOARD OF PUBLIC WORKS ANNAPOLIS MD 21401	**Deed Reference:**	/02290/ 00156

Location & Structure Information

Premises Address:	COLLEGE AVE ANNAPOLIS 21401-0000	**Legal Description:**	1.18 ACRES COLLEGE AVE ANNAPOLIS

Map:	Grid:	Parcel:	Sub District:	Subdivision:	Section:	Block:	Lot:	Assessment Year:	Plat No:
052A	0013	1095		000			*	2018	Plat Ref:

Special Tax Areas: | **Town:** ANNAPOLIS
Ad Valorem:
Tax Class:

Primary Structure Built	Above Grade Living Area	Finished Basement Area	Property Land Area	County Use
			1.1800 AC	

Stories	Basement	Type	Exterior	Full/Half Bath	Garage	Last Major Renovation

Value Information

	Base Value	Value As of 01/01/2018	Phase-in Assessments As of 07/01/2017	Phase-in Assessments As of 07/01/2018
Land:	1,062,000	1,062,000		
Improvements	9,868,600	9,868,600		
Total:	10,930,600	10,930,600	10,930,600	10,930,600
Preferential Land:	0			0

Transfer Information

Seller:	**Date:**	**Price:**
Type:	**Deed1:** /02290/ 00156	**Deed2:**
Seller:	**Date:**	**Price:**
Type:	**Deed1:**	**Deed2:**
Seller:	**Date:**	**Price:**
Type:	**Deed1:**	**Deed2:**

Exemption Information

Partial Exempt Assessments:	Class	07/01/2017	07/01/2018
County:	200	10,930,600.00	10,930,600.00
State:	200	10,930,600.00	10,930,600.00
Municipal:	200	10,930,600.00|10,930,600.00	10,930,600.00|10,930,600.00

Tax Exempt: | Special Tax Recapture:

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Application No. H-67048
Written by LCJ:ljs

THIS DEED, Made this 7th day of May in the year one thousand nine hundred and sixty nine, by and between CALVARY METHODIST CHURCH, ANNAPOLIS, MARYLAND, a body corporate of the State of Maryland, party of the first part, Grantor; and STATE OF MARYLAND, to the use of the BOARD OF PUBLIC WORKS, party of the second part, Grantee.

WITNESSETH: That in consideration of the premises and the sum of Five Dollars, the receipt of which is hereby acknowledged, the said Grantor does hereby grant and convey unto the said Grantee, its successors and assigns, in fee simple, all those lots of ground situate in the Sixth Election District of Anne Arundel County, the City of Annapolis, State of Maryland, and described as follows, that is to say:

BEGINNING FOR THE FIRST, at a post, the southwest corner of that part of said Lot No. 75 belonging to Nicholas Harwood, running from thence and binding on Tabernacle Street, south 41 degrees west 5 perches and 3/10ths of a perch to a post, thence south 47 degrees 7 minutes east till it intersects the public Circle, thence running with and binding on said Circle till it intersects a line drawn south 45 degrees 30 minutes east from the southwest corner of Nicholas Harwood's part of said Lot aforesaid, thence with that line 10-7/10ths perches to the beginning.

SAVING AND EXCEPTING from the above described lot of ground, all that property conveyed by Deed dated November 20, 1900 and recorded among the Land Records of Anne Arundel County in Liber G.W. No. 19, folio 278, from Trustees of the Methodist Episcopal Church in the City and Precincts of Annapolis, to The State of Maryland, which is described as follows, that is to say:

Beginning for the same at the southwest corner of the Tower of the First Methodist Episcopal Church Building belonging to said corporation, and running thence north 42 degrees west 180 feet and 8/10ths of a foot to the southeast line of College Avenue, thence with the said Streetline of said Avenue, south 47 degrees west 18 feet and 9/10ths of a foot to the divisional line between the property of said Church Corporation and that of the Misses Pinkney; thence with the said divisionalline and that between the property of the said Church Corporation and the property of Mrs. Fannie M. Oliver, south 42 degrees east 182 feet and 65/100ths of a foot to the line of the State Circle, thence with the line of the said Circle, north 57 degrees east 18 feet and 9/10ths of a foot to a point on the said Circle opposite to the said Tower and the point of beginning, thence north 47 degrees west 6 feet to the point of beginning.

BEING the balance of the property described in a Deed dated December 24, 1833 and recorded among the Land Records of Anne Arundel County in Liber W.S.G. No. 18, folio 480, from Louis Gassaway, et al, Trustees, to Trustees of the Methodist Episcopal Church in the City and precincts of Annapolis.

BEGINNING FOR THE SECOND, being all that lot of ground in two parts designated as Lot A and Lot B, situate in the City of Annapolis and described as follows, that is to say: Beginning for Lot A on State Circle where the same is intersected by the west line of North Street; and running thence with State Circle 12.25 feet to the property of the First Methodist Episcopal Church, thence with said property, north 40 degrees (erroneously set forth as North 10 degrees in the Deed recorded in W.N.W. 27/375) west 65 feet, thence north 64 degrees east 50 feet to the line of North Street, thence with

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CIRCUIT COURT COUNTY

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the line of said Street, south 6½ degrees east 70 feet to the place of beginning; and Beginning for Lot B at a point on the west side of North Street at a distance 70 feet from State Circle and running thence south 64 degrees west 50 feet to the property of The First Methodist Episcopal Church, thence with the line of said property, north 40 degrees west 29.80 feet; thence north 52½ degrees east 74.25 feet to the line of said North Street; thence south 6½ degrees east 47.83 feet to the place of beginning. Being Lots A and B on a Plat made by E. Lacy Chinn and filed among the Land Records of Anne Arundel County in Liber G.W. No. 30, folio 433.

BEING the same property described in a Deed dated July 30, 1919 and recorded among the Land Records of Anne Arundel County in Liber W.N.W. No. 27, folio 375, from Annie E. Amos, widow, to the Trustees of the Methodist Episcopal Church in the City and Precincts of Annapolis, Md.

BEGINNING FOR THE THIRD, Being known and designated as Lot D on a Plat of the Gates Property which is recorded among the Land Records of Anne Arundel County in Liber G.W. No. 30, folio 433, and more particularly described as follows: Beginning for the same at the intersection of College Avenue and North Street, and running thence with the line of said Avenue, south 46 degrees west 47.16 feet; thence south 41½ degrees east with the partition wall of the double house 65 feet to the line of North Street; thence with the line of said Street, north 6½ degrees west 81.50 feet to the place of beginning. Being known and designated as No. 81 College Avenue in the City of Annapolis.

SAVING AND EXCEPTING from the above described property, all that property shown on a Plat attached to a Deed dated June 7, 1965 and recorded among the Land Records of Anne Arundel County in Liber L.N.P. No. 1870, folio 509, from Calvary Methodist Church to The Mayor and Aldermen of the City of Annapolis.

BEING the balance of the property described in a Deed dated October 16, 1964 and recorded among the Land Records of Anne Arundel County in Liber L.N.P. No. 1803, folio 450, from Dorothy V. Callahan and Charles W. Callahan, her husband, to The Calvary Methodist Church.

BEGINNING FOR THE FOURTH at an iron pipe here found which marks the easternmost corner of that conveyance from Henry E. Ciccarone and Elizabeth M. Ciccarone, his wife, to the Guaranteed Realty Corporation, by Deed dated September 15, 1951 and recorded among the Land Records of Anne Arundel County in Liber J.H.H. No. 644, folio 369; said pipe also marks the easternmost corner of Lot F, and the southernmost corner of Lot E, as shown on a Plat of the "Gates property", recorded among the Land Records of Anne Arundel County in Liber G.W. No. 30, folio 433; thence from the point of beginning so fixed, leaving said conveyance from Ciccarone and Lot F and binding on part of the northwest outline of that conveyance from Samuel Shenker to the Guaranteed Realty Corporation by Deed dated October 5, 1951 and recorded among the Land Records of Anne Arundel County in Liber J.H.H. No. 648, folio 237, reversely, north 46 degrees 00 minutes 00 seconds east 49.91 feet to intersect the west side of North Street; said last mentioned line is the common boundary between the land of Walter E. Quenstedt, the land of Annie B. Gates and the land of the Guaranteed Realty Corporation; thence leaving said westernmost outline and binding on said side of said North Street, and still with the outlines of said conveyance from Schenker, south 6 degrees 30 minutes 30 seconds east 51.75 feet to a point which marks the easternmost corner of the aforementioned conveyance from Schenker said point also marks the northernmost corner of that conveyance from Emma Groff, widow, to Annie E. Amos, by Deed dated October 30, 1903 and recorded among the Land Records of Anne Arundel County in Liber G.W. No. 34, folio 288; thence leaving said North Street and binding on the southernmost outline of the aforementioned conveyance from Schenker, and also the northernmost outline of the aforementioned conveyance to Annie E. Amos, south 52 degrees 09 minutes 40 seconds west 75.32 feet to a point; said point marks the southernmost corner of the aforementioned conveyance from Schenker, said point also marks the westernmost corner of said conveyance to Annie Amos; said last mentioned line is the common boundary between the land of the Calvary Methodist Church and the Guaranteed Realty Corporation; thence leaving said conveyance to Annie Amos, still binding on the outlines of said conveyance from Schenker, reversely as now surveyed, north 40 degrees 25 minutes 00 seconds west 32.95 feet to a point which marks the westernmost corner of said last mentioned conveyance; said last mentioned line is the common boundary between the land of the Calvary Methodist Church and the land of the said Guaranteed Realty Corporation, said point also marks the southernmost corner of that conveyance from

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Margaret Baker, et al, to The Guaranteed Realty Corporation, by Deed dated January 25, 1952 and recorded among the Land Records of Anne Arundel County in Liber J.H.H. No. 664, folio 532; thence leaving said conveyance from Schenker and binding on the southwest outline of said conveyance from Baker, reversely as now surveyed, north 40 degrees 25 minutes 00 seconds west 69.92 feet to intersect the southeast side of College Avenue, said last mentioned line is the common boundary between the land of the Calvary Methodist Church and the land of the said Guaranteed Realty Corporation; thence binding on the northwest outline of said conveyance from Baker, reversely, and also binding on the northwest outline of the aforementioned conveyance from Ciccarone, reversely, and binding on the southeast side of said College Avenue, north 46 degrees 00 minutes 00 seconds east 54.50 feet to a point which marks the northernmost corner of said conveyance from Ciccarone; thence leaving said College Avenue and binding on the aforementioned northeast outline of said conveyance from Ciccarone, reversely, as now surveyed, and with the common boundary between the land of Walter E. Quenstedt and the land of the Guaranteed Realty Corporation, south 40 degrees 25 minutes 00 seconds east 69.92 feet to the point of beginning.

BEGINNING FOR THE FIFTH at a point on the west side of North Street, said point marks the southeasternmost corner of that conveyance from Reinhart Ackenback, et al, to Annie B. Gates, by Deed dated May 19, 1903 and recorded among the Land Records of Anne Arundel County in Liber G.W. No. 30, folio 438, said point also marks the northernmost corner of that conveyance from Samuel Schenker to Guaranteed Realty Corporation by Deed dated October 5, 1951 and recorded among the Land Records of Anne Arundel County in Liber J.H.H. No. 648, folio 237, said point being located north 46 degrees 00 minutes 00 seconds east 49.91 feet measured along the northwest outline of said conveyance from Schenker from an iron pipe here found in said northwest outline which marks the easternmost corner of that conveyance from Henry E. Ciccarone and Elizabeth M. Ciccarone, his wife, to the Guaranteed Realty Corporation by Deed dated September 15, 1951 and recorded among the Land Records of Anne Arundel County in Liber J.H.H. No. 644, folio 369, said pipe also marks the southernmost corner of that conveyance from Charles B. Gates and Annie B. Gates, his wife, to Walter E. Quenstedt and Mary Quenstedt, his wife, by Deed dated May 9, 1922 and recorded among the Land Records of Anne Arundel County in Liber W.N.W. No. 56, folio 116; thence from the point of beginning so fixed, leaving said North Street and binding on the common boundary between the land of said Guaranteed Realty Corporation and the land of the said Annie B. Gates with part of the southeast outline of the aforementioned conveyance to Annie B. Gates from Reinhart Ackenback, et al, south 46 degrees 00 minutes 00 seconds west 27.08 feet to a point which marks the easternmost corner of the aforementioned conveyance to Quenstedt; thence leaving the outlines of said Guaranteed Realty Corporation and binding on the northeast outline of the aforementioned conveyance to Quenstedt, as now surveyed, north 40 degrees (erroneously referred to as North 45 in a Deed recorded in G.T.C. No. 1224, folio 196) 25 minutes 00 seconds west 69.92 feet to intersect the southeast side of College Avenue, said point marks the northernmost point of the aforementioned conveyance to Quenstedt, said last mentioned line is the common boundary between the land of said Walter E. Quenstedt and the said Annie B. Gates; thence leaving said conveyance to Quenstedt, binding on a part of the northwest outline of the aforementioned conveyance to Annie B. Gates, and binding on the southeast side of said College Avenue, north 46 degrees 00 minutes 00 seconds east 28.25 feet to a point which marks the northernmost corner of the said conveyance to Annie B. Gates from Reinhart Ackenback, et al, said point also marks the westernmost corner of that conveyance from Charles B. Gates and Annie B. Gates, his wife, to Jacqueline Qualey, by Deed dated June 16, 1947 and recorded among the Land Records of Anne Arundel County in Liber J.H.H. No. 414, folio 144; said point also marks the intersection formed by the southeast side of said Avenue with the partition wall of the existing double house; thence leaving said Avenue binding on the northeast outline of said conveyance to Annie B. Gates as now surveyed, and binding on the partition wall of the existing double house and the prolongation thereof, and also with the common boundary between the lands of Annie B. Gates and the land of said Jacqueline Qualey, south 42 degrees 22 minutes 40 seconds east 65 feet to intersect the west side of North Street; thence leaving said conveyance to Qualey, still binding on the outlines of said conveyance to Annie B. Gates, as now surveyed and with the west side of said North Street, south 6 degrees 30 minutes 30 seconds east 6.05 feet to the place of beginning.

T-102

LIBER 2250 PAGE 159

BEING the same lots of ground described in a Deed dated August 1, 1958 and recorded among the Land Records of Anne Arundel County in Liber G.T.C. No. 1224, folio 196, from Baltimore Federal Savings and Loan Association, to Calvary Methodist Church, Annapolis, Md.

THE said Trustees of the Methodist Episcopal Church in the City and Precincts of Annapolis was incorporated by Certificate of Incorporation dated November 6, 1833 and recorded among the Charter Records of Anne Arundel County in Liber W.S.G. No. 18, folio 477; by Articles of Consolidation dated March 28, 1922 and recorded among the Charter Records of Anne Arundel County in Liber W.N.W. No. 1, folio 380, the said Trustees of the Methodist Episcopal Church in the City and Precincts of Annapolis changed its name to the Calvary Methodist Episcopal Church of Annapolis, Maryland; and by a Confirmatory Agreement and Consolidation dated July 18, 1924 and recorded among the Charter Records of Anne Arundel County in Liber W.N.W. No. 2, folio 98; the Calvery Methodist Episcopal Church of Annapolis, Maryland changed its name to the Trustees of Calvery Methodist Episcopal Church of Annapolis, Maryland, which by Amendment of Charter dated December 1, 1943 and recorded among the Charter Records of Anne Arundel County in Liber J.H.H. No. 4, folio 338, changed its name from the Trustees of Calvary Methodist Episcopal Church of Annapolis, Maryland, to Calvary Methodist Church, Annapolis, Maryland the Grantor herein.

TOGETHER WITH the buildings and improvements thereon, and the rights, alleys, ways, waters, privileges, appurtenances and advantages to the same belonging or in anywise appertaining.

TO HAVE AND TO HOLD the said described property unto and to the use of the said Grantee, its successors and assigns, in fee simple.

THE Pastor of said Grantor Corporation and the District Superintendent join in the execution of this instrument for the purpose of indicating their consent to the conveyance of the above described properties to the Grantee herein.

THE said Grantor covenants to warrant specially the property hereby granted and conveyed, and to execute such further assurances of said land as may be requisite.

WITNESS: the signature of said body corporate by the hand of its President and Treasurer, Attested to by its Secretary.
WITNESS ALSO: the hand and seal of its Pastor and the District Superintendent.

CALVARY METHODIST CHURCH, ANNAPOLIS, MARYLAND.

ATTEST:

BY: Henry Ortland Jr. President

James F. Blose, Secretary

BY: Howard C. Will, Treasurer

Charles I. Wallace, Sr., Pastor (SEAL)

Lewis E. Ransom, (SEAL)
District Superintendent

T-102

LIBER 2290 PAGE 160

STATE OF MARYLAND, Baltimore City TO WIT:

I HEREBY CERTIFY, that on this 7th day of May 1969 before me, a Notary Public of the State aforesaid, personally appeared HENRY ORTLAND JACE JR., President, and HOWARD C. WILL, Treasurer, of CALVARY METHODIST CHURCH, ANNAPOLIS, MARYLAND, and that they, as such Officers, executed the same for the purposes therein contained by signing, in my presence, the name of the said Corporation by themselves, as Officers thereof.

WITNESS: My hand and Notarial Seal.

Marie M. Mumford
Notary Public

My Commission expires: June 30, 1969.

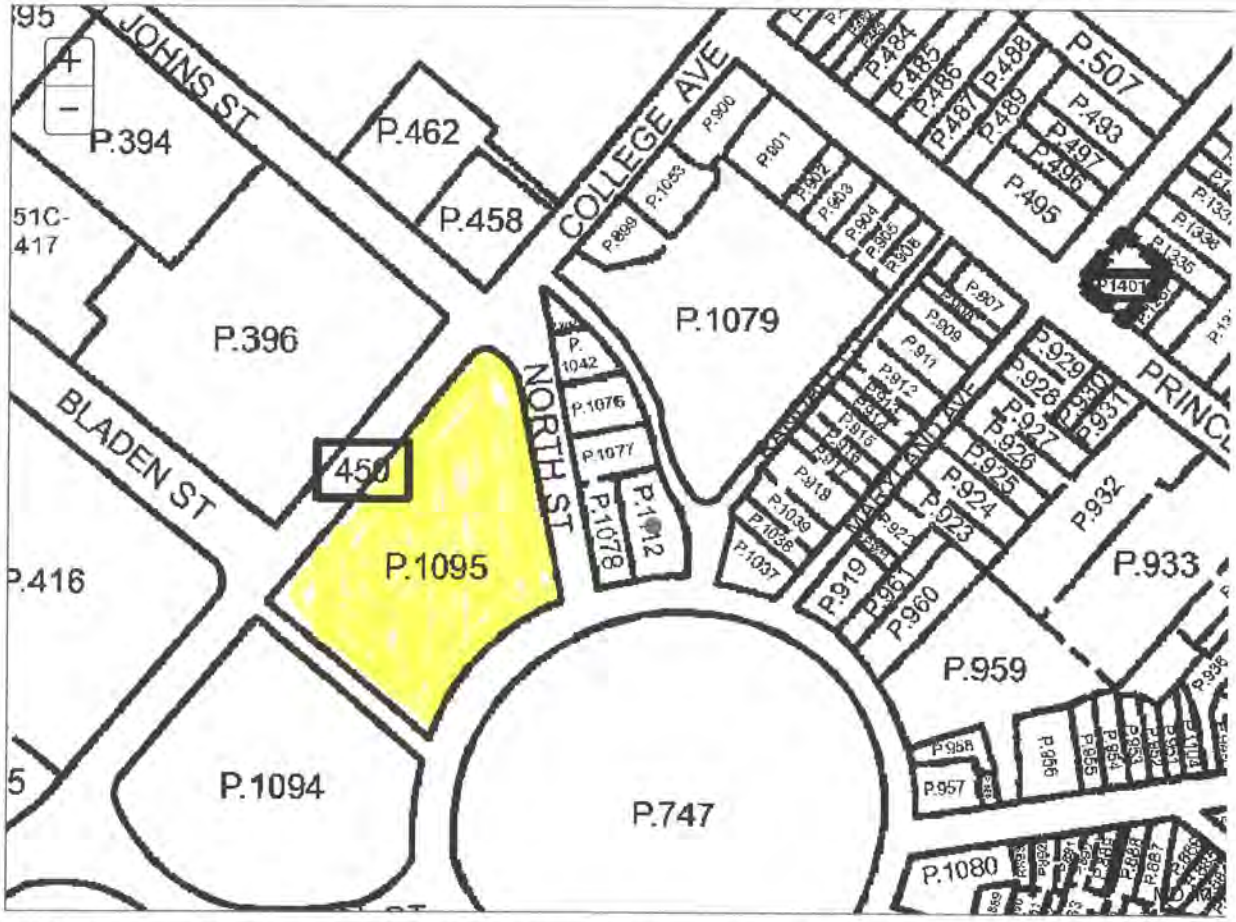
MARIE M. MUMFORD NOTARY PUBLIC BALTIMORE, MD.

THE TITLE GUARANTEE CO.
ST. PAUL & LEXINGTON STS.
Mailed to BALTIMORE 2, MD.

Anne Arundel County

New Search (http://sdat.dat.maryland.gov/RealProperty)

District: **06** Subdivision: **000** Account Number: **02686600**

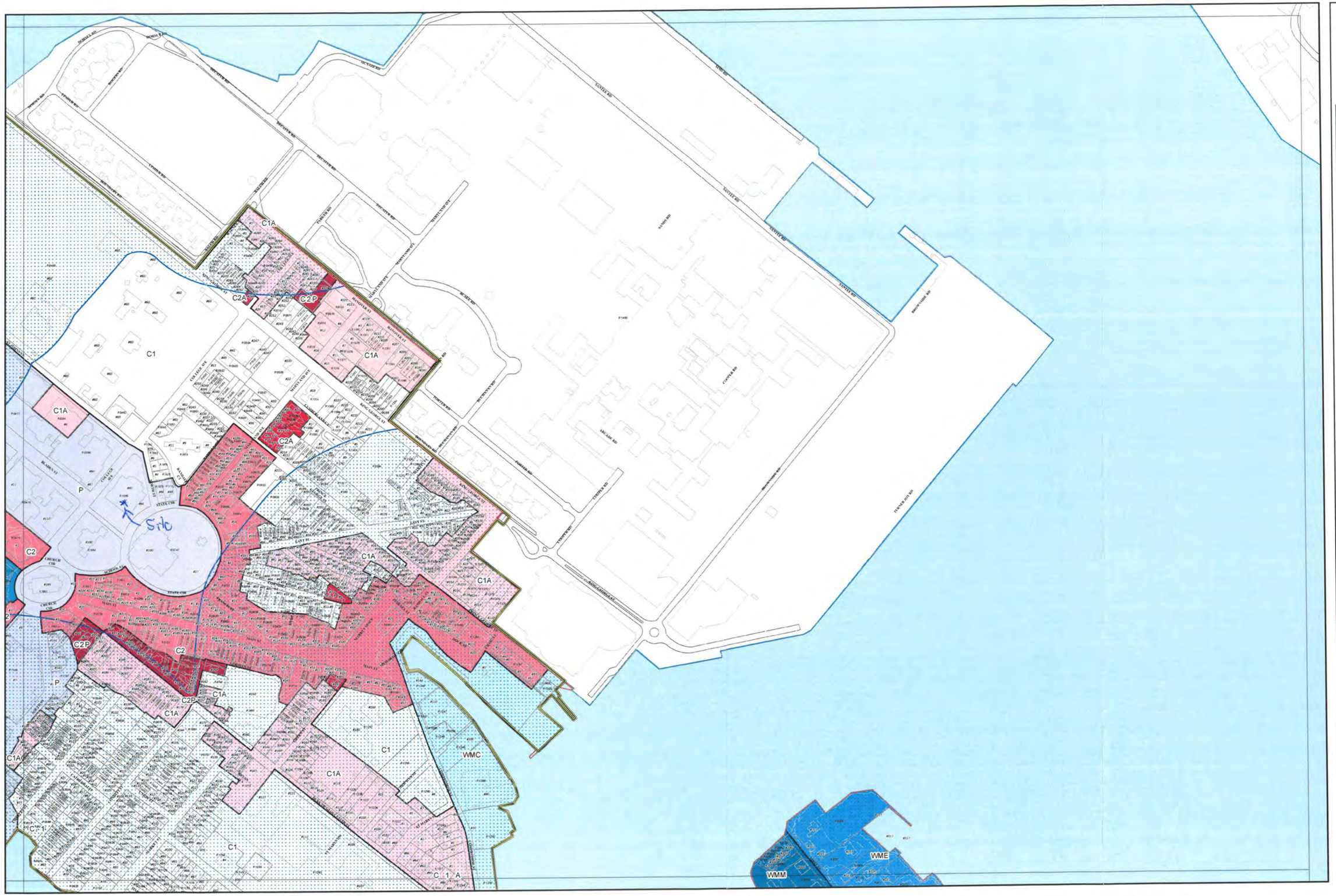


The information shown on this map has been compiled from deed descriptions and plats and is not a property survey. The map should not be used for legal descriptions. Users noting errors are urged to notify the Maryland Department of Planning Mapping, 301 W. Preston Street, Baltimore MD 21201.

If a plat for a property is needed, contact the local Land Records office where the property is located. Plats are also available online through the Maryland State Archives at **www.plats.net (http://www.plats.net)**.

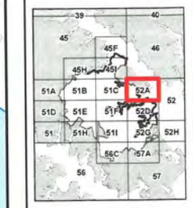
Property maps provided courtesy of the Maryland Department of Planning.

For more information on electronic mapping applications, visit the Maryland Department of Planning web site at **www.mdp.state.md.us/OurProducts/OurProducts.shtml (http://www.mdp.state.md.us/OurProducts/OurProducts.shtml)**.



CITY OF ANNAPOLIS
ZONING DISTRICT MAP

MAP 52A



OCD District

Historic District

City Boundary

Critical Area

Eastport Gateway Overlay Zones

Zone 1

Zone 2

See Addendum Sheet 1 for Mixed Use Height (MX) Districts

See Addendum Sheet 2 for Historic District Height Districts

0 50 100 200 Feet

Scale: 1"=200'

Note: The Critical Area Boundary is approximate and included only for reference. Please refer to the Official Critical Area maps.

By acceptance of this map material, you agree as follows: This map material (the "material") is made available by Annapolis, Maryland (the "City") as a public service. The material is for reference purposes only, and the City makes no representatives, warranties, or guarantees of the accuracy of the material. THE City MAKES NO AND DISCLAIMS ALL, EXPRESS AND IMPLIED WARRANTIES RELATING TO THE MATERIAL, INCLUDING WARRANTIES OF MERCHANTABILITY, INTEGRATION, TITLE, AND FITNESS FOR A PARTICULAR PURPOSE. You release the City, its agents, servants, and employees, from any and all liability related to the material or any of it, including its accuracy, availability, use, and misuse. In no event shall the City be liable for any direct, indirect, incidental, consequential, or other damages, including savings, profits, fees, costs, loss of data, or business interruption, related in any way to the material or any of it, including its accuracy, availability, use, and misuse. The material is in the public domain and may be copied without permission. Citation to the source is requested. Any errors or omissions in the material should be reported to the City of Annapolis Management of Information Technology.

CITY OF ANNAPOLIS

N W E S

This is to certify that this is the official "City of Annapolis Zoning District Map", incorporated in Section 21.05.020 of the Zoning Code (O-41-15), adopted by the Annapolis City Council on January 11, 2016 and shall take effect January 11, 2016

The Annapolis City Council:

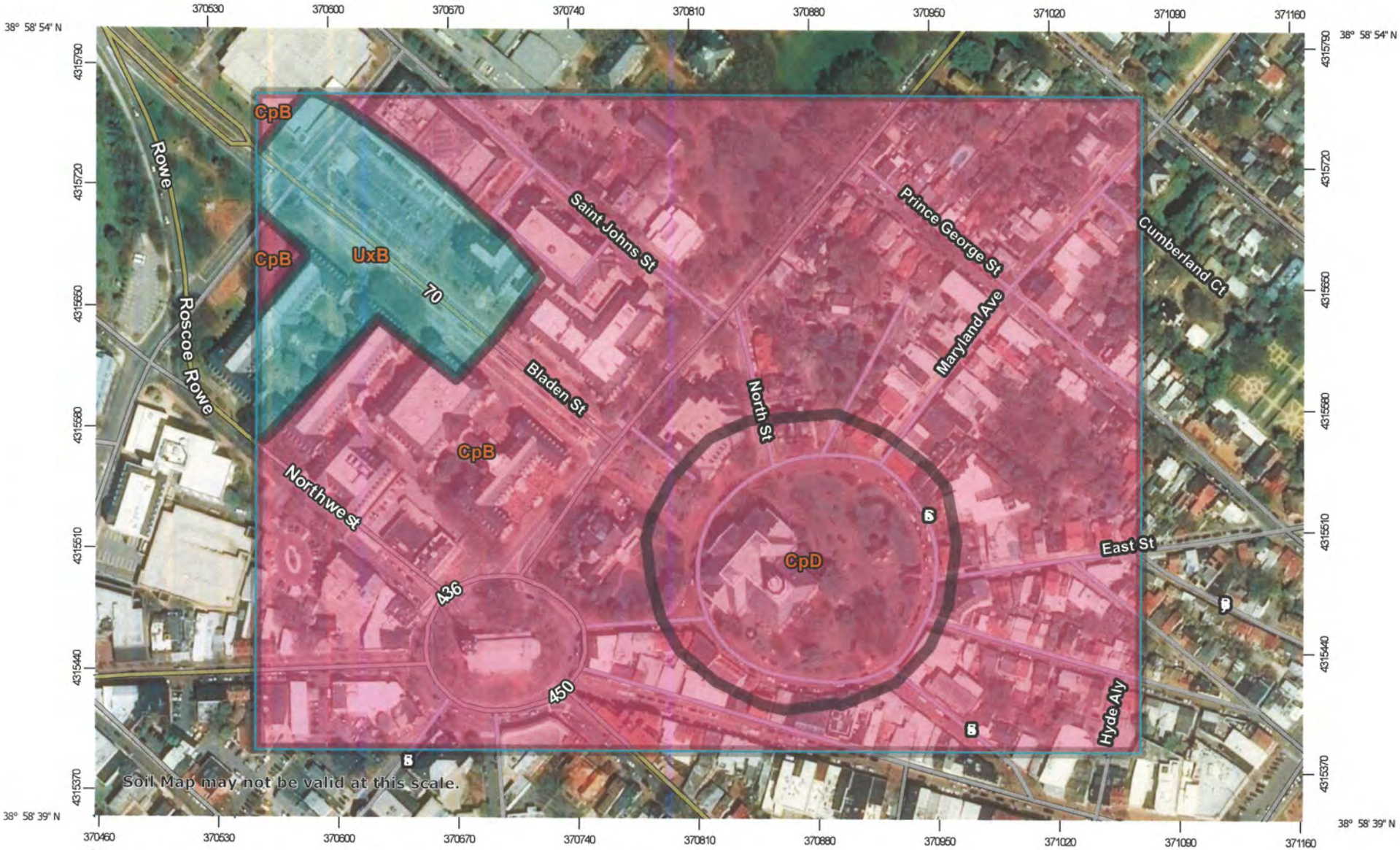
By: Michael Pantelides

Michael Pantelides, Mayor

Attest: Regina Watkins-Eldridge

Regina Watkins-Eldridge, City Clerk

Hydrologic Soil Group—Anne Arundel County, Maryland



Map Scale: 1:3,220 if printed on A landscape (11" x 8.5") sheet.

Meters: 0, 45, 90, 180, 270

Feet: 0, 150, 300, 600, 900

N

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

Soil Rating Polygons

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Anne Arundel County, Maryland
Survey Area Data: Version 16, Sep 19, 2017

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 16, 2014—Oct 20, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
CpB	Collington-Wist-Urban land complex, 0 to 5 percent slopes	A	38.2	78.6%
CpD	Collington-Wist-Urban land complex, 5 to 15 percent slopes	A	6.0	12.3%
UxB	Udorthents, loamy, sulfidic substratum, 0 to 5 percent slopes	C	4.4	9.1%
Totals for Area of Interest			**48.6**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

COLLEGE AVE
NORTH ST
RANDALL

LEGEND

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR	Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99	Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X — Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X — Areas determined to be outside the 0.2% annual chance floodplain.

ZONE D — Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

1% annual chance floodplain boundary

0.2% annual chance floodplain boundary

Floodway boundary

Zone D boundary

CBRS and OPA boundary

Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.

Limit of Moderate Wave Action

513 — Base Flood Elevation line and value; elevation in feet*

(EL 987) — Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988

(A)——(A) Cross section line

(23)- - - - - -(23) Transect line

87°07'45", 32°22'30" — Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere

4276000m N — 1000-meter Universal Transverse Mercator grid values, zone 18N

600000 FT — 5000-foot grid values: Maryland State Plane coordinate system (FIPSZONE 1900), Lambert Conformal Conic projection

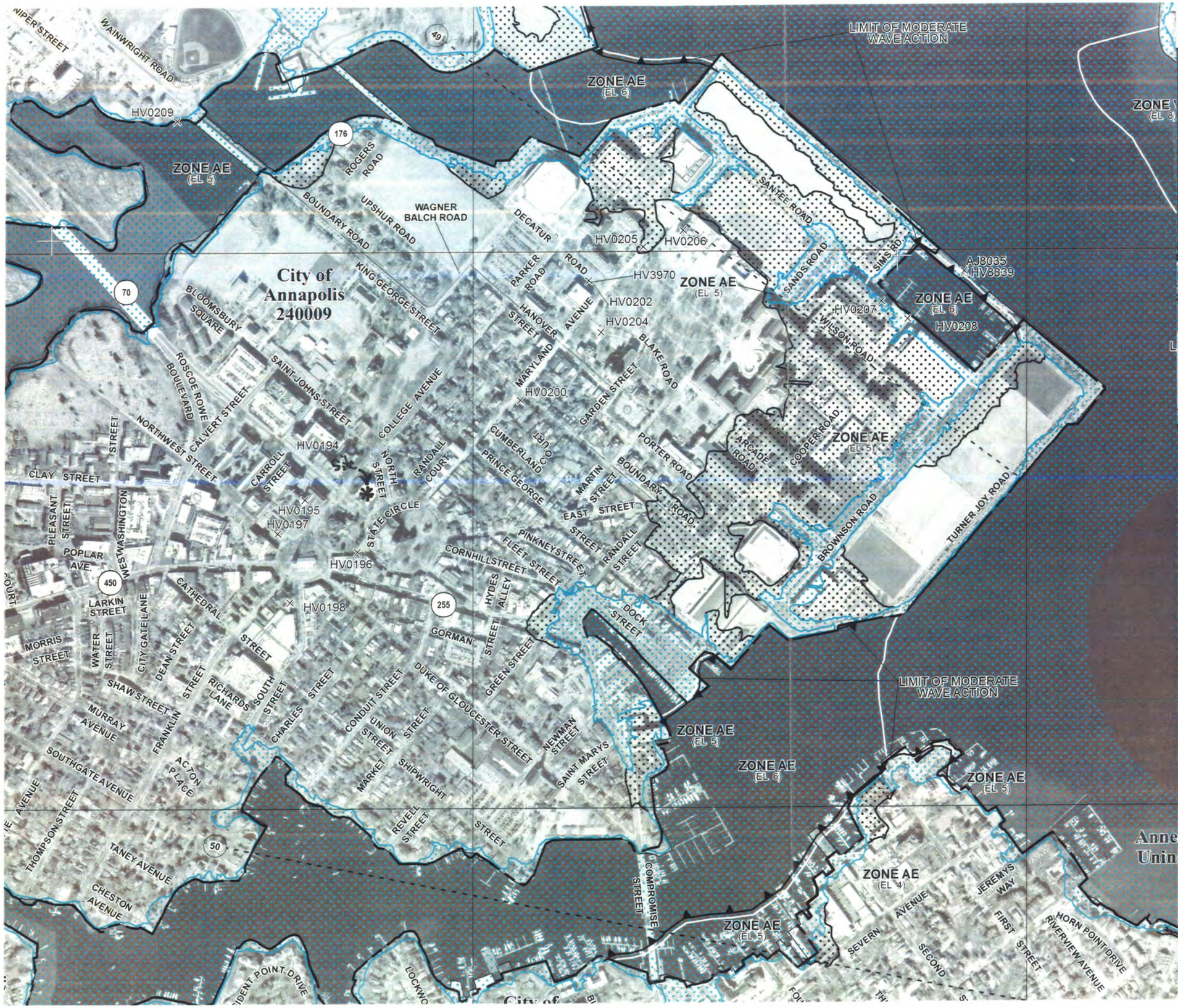
DX5510 × — Bench mark (see explanation in Notes to Users section of this FIRM panel)

• M1.5 — River Mile

MAP REPOSITORY
Refer to listing of Map Repositories on Map Index

EFFECTIVE DATE OF COUNTYWIDE
FLOOD INSURANCE RATE MAP
October 16, 2012

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL
February 18, 2015 - To incorporate new detailed coastal flood hazard analysis and to reflect updated topographic information.



tional Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 500'

50 0 500 1000 FEET

METERS

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0251F

FIRM

FLOOD INSURANCE RATE MAP

ANNE ARUNDEL COUNTY, MARYLAND
AND INCORPORATED AREAS

PANEL 251 OF 385

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
ANNAPOLIS, CITY OF	240009	0251	F
ANNE ARUNDEL COUNTY	240008	0251	F

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

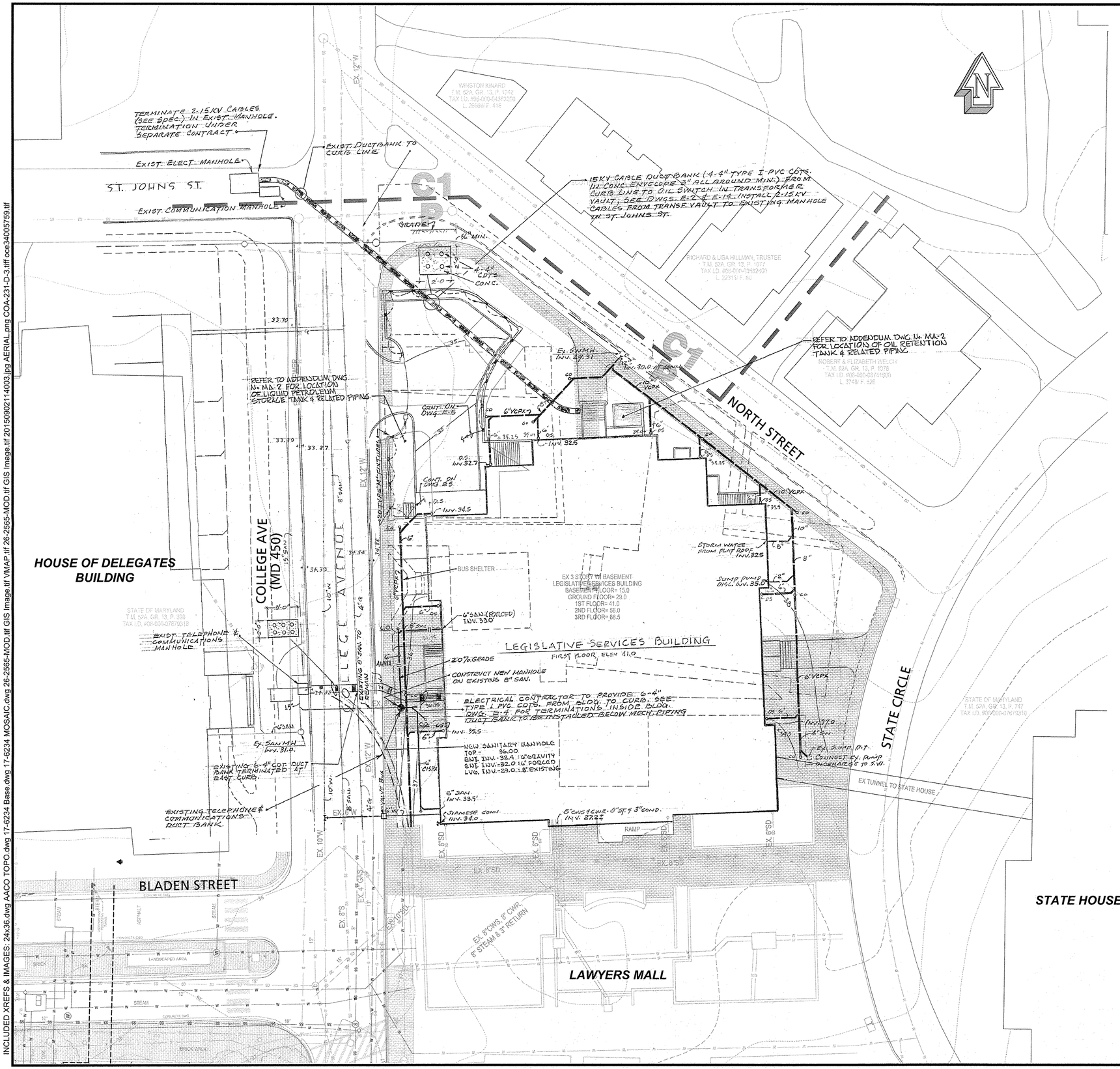
MAP NUMBER
24003C0251F

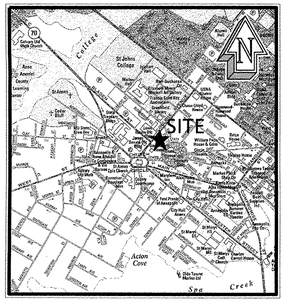
MAP REVISED
FEBRUARY 18, 2015

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

Critical Area Map





VICINITY MAP

SCALE: 1"=2000'
COPYRIGHT ADC THE MAP PEOPLE
PERMITTED USE NO. 20400770

GENERAL NOTES

1. OWNER :
   STATE OF MARYLAND
   BOARD OF PUBLIC WORKS
   ANNAPOLIS, MD 21401
2. THE PROPERTY IS SHOWN ON TAX MAP 52A, GRID 13, PARCELS 1095, DEED 2290 / 156.
3. THE TAX ACCOUNT INFORMATION IS 06-000-07679409.
4. THE PROPERTY IS IN THE P-PROFESSIONAL OFFICE ZONING DISTRICT OF THE CITY OF ANNAPOLIS.
5. SITE IS **NOT** LOCATED WITHIN THE CHESAPEAKE BAY CRITICAL AREA PROGRAM.
6. THE SITE ADDRESS IS 90 STATE CIRCLE, ANNAPOLIS, MD 21401.
7. THE TOTAL SITE AREA IS 1.18 AC +/-.
8. THE PROPERTY OUTLINES SHOWN HEREON ARE BASED ON RECORDED DEED INFORMATION. NO BOUNDARY SURVEY HAS BEEN PREPARED BY BAY ENGINEERING, INC. THE ACCURACY OF SHOWN INFORMATION IS NOT GUARANTEED BY BAY ENGINEERING, INC.
9. THE EXISTING TOPOGRAPHY AND FEATURES SHOWN HEREON ARE OBTAINED FROM A COMBINATION OF STATE SITE PLAN RECORDS AND ANNE ARUNDEL COUNTY GIS. NO FIELD SURVEY HAS BEEN PERFORMED BY BAY ENGINEERING INC.
10. THE PROPERTY DESCRIBED HEREON IS LOCATED IN THE FLOOD HAZARD ZONE "X" (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD PLAIN) AS DELINEATED ON THE FIRM FLOOD INSURANCE MAP #24003C0251F DATED OCT 16, 2012 FOR ANNE ARUNDEL COUNTY AND DISTRIBUTED BY THE FEDERAL EMERGENCY MANAGEMENT FACILITY.
11. THE SITE IS SERVICED BY CITY OF ANNAPOLIS WATER AND SEWER SERVICE.

SITE LEGEND

PROPERTY LINE
EXISTING CONTOUR
EXISTING UTILITY POLE W/ OVERHEAD WIRE
EXISTING WATER
EXISTING SEWER
EXISTING STORM DRAIN
EXISTING TELEPHONE
EXISTING GAS
EXISTING BRICK PAVERS
EXISTING CONCRETE
EXISTING TREE
EXISTING ZONING BOUNDARY
EXISTING ZONING DESIGNATION

SOIL TYPES

SYMBOL	DESCRIPTION	RATING
CpB	COLLINGTON-WIST-URBAN LAND COMPLEX, 0% TO 5% SLOPES	A
CpD	COLLINGTON-WIST-URBAN LAND COMPLEX, 5% TO 15% SLOPES	A

Revisions

Rev. #	By	Date	Description

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.

Terry Schuman — Date 3/31/20
19593 — License No. — Exp./Renewal Date

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Warning: This document is an instrument of professional service prepared by Bay Engineering Inc. Alteration of this document by any party other than Bay Engineering Inc. is a violation of law that will be prosecuted to its fullest extent.

Bay Engineering Inc.
Engineers, Planners and Surveyors
2661 Riva Road, Building 800
Annapolis, Maryland 21401
410.897.9292
410.897.9295 fax
email: info@bayengineering.com
www.bayengineering.com

Date	JULY 2015
Job Number	17-6234
Scale	1" = 20'
Drawn By	T. PRICE
Approved By	T. SCHUMAN
Folder Reference	WGM DGS LEGISLATIVE SERVICES BLDG

EXISTING CONDITIONS PLAN
CONDITION SITE ASSESSMENT
FOR
LEGISLATIVE SERVICES BUILDING
90 STATE CIRCLE
TAX ID: 06-000-07679409
TAX MAP 52A, GRID 13, PARCEL 1095
CITY OF ANNAPOLIS, MARYLAND 21401
SIXTH DISTRICT ~ ANNE ARUNDEL COUNTY ~ ZONED P

Sheet No. 1 OF 1

24x36

PLOTTED: Oct 08, 2018 - 10:25am
INCLUDED XREFS & IMAGES: 24x36.dwg AACO TOPO.dwg 17-6234 Base.dwg 17-6234 MOSAIC.dwg 26-2565-MOD.tif GIS Image.tif VMAP.tif 26-2565-MOD.tif GIS Image.tif 2015090211400 3.jpg AERIAL.png COA-231-D-3.tiff oca34005759.tif

F:\17-6234 WGM DGS Legislative Services Bldg 90 State Circle\Drawing Files\Feasibility Plan\17-6234 Feas Plan.dwg

54

STATE BLDG

STATE OFFICE BLDG.

COLLEGE AVE

NORTH ST

MARYLAND HALL OF RECORDS FSR 120-301

GOVERNORS MANSION SH 2-364

STATE HOUSE

STATE CIRCLE

SCHOOL ST

MAIN ST

CIRCLE

ROBERT JOHNSON HOUSE

ANNAPOLIS BANKING & TRUST

AFL-CIO

LAW LEGISLATIVE OFFICE BUILDING

5" FIRE LINE 39' FROM VALVE TO WALL.

6" W.C.O.

160' CAP 2' OFF CURB 30' X 20' DEEP

3" W GALV.

15" SAN

8" GAS 4" W

CAP 20' DEEP

10' EASEMENT

ABANDONED WATER GAS

1/2" COPPER WATER & DEEP RD 15' VALVE TO S RD WM

1" COPPER WATER & DEEP TO 6" WM

ABANDONED WATER

METER FOR SPRINKLER SYSTEM

NEW VALVE SLEEVE

VALVE BOXES BOILER DRAIN

BRICK ISLAND AT GRADE

HOSE CONN.

SURFACE DRAIN

WALK

BRICK DRAIN

N23000

N22750

N22500

E25750

E26000

E26250

SHEET 231-D-3

1"=40'

REV 12/28/67
REV 1/71
REV 5/05

6.3 HAZMAT Reports

Click here to return to Appendix Directory....pg 439

6304 Blair Hill Lane | Suite 2 | Baltimore, MD 21209
410-296-8800 (ph) | 410-296-8801 (f)
www.greenstreet-environmental.com

Environmental Building Assessment

Of

Legislative Services Building, 90 State Circle, Annapolis, MD 21401

GSE Project # 171101-2

Prepared For

Wheeler, Goodman, Masek
1 Annapolis Street, Suite100, Annapolis, MD 21401

Date of Report

April 2, 2018

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1.0 Summary

Green Street Environmental (GSE) was retained by Wheeler, Goodman, Masek to conduct an Environmental Building Assessment of the Legislative Services Building, 90 State Circle, Annapolis, MD 21401 (Site). GSE conducted all inspections and sampling on November 15th-17th, 2017.

The purpose of the Environmental Building Assessment was to identify specific building materials and building contents that must be addressed prior to or during renovation of the buildings to ensure environmental compliance with local, state and Federal regulations.

The scope of services included inspection, sampling/analyses and/or assessment of: asbestos, lead-based paint (LBP), mold, fluorescent lamps/ballasts, chlorofluorocarbons (CFCs), thermostats, compressed gas cylinders, transformers, and other potentially regulated/hazardous materials.

1.1 Summary of Findings

Building Item	Section	Recommendation
Asbestos	4.1	Remove RACM
Lead-Based Paint	4.2	No Further Action
Mold	4.3	Remediate
Fluorescent Lamps/Ballasts	4.4	Remove and Recycle
Chlorofluorocarbons	4.4	Remove and Recycle
Thermostats	4.5	Remove and Recycle
Compressed Gas Cylinders	4.6	Remove and Recycle
Non-BGE Transformers	4.7	Remove and Recycle
Other Potential Regulated / Hazardous Materials	4.8	Remove and Recycle

2.0 Introduction and Site Description

The Site is a commercial building with 3 floors above grade, a ground floor and a below grade basement. The structure is approximately 92,200 square feet (SF) and was constructed in 1976. The building is located in Annapolis, within the State Circle. The surrounding area is bound by College Avenue to the North, Government House to the West, Maryland State House to the South, and North Street to the East. (**Figure 1** and **Figure 2**).

2.1 Purpose and General Scope of Services

The Site will be substantially renovated. The purpose of the Environmental Building Assessment was to identify specific building materials and building contents that must be addressed prior to or during renovation of the building to ensure environmental compliance with local, state and Federal regulations. This Environmental Building Assessment was conducted over November 15-17, 2017.

The scope of work for this Environmental Building Assessment included the following:

- Conduct comprehensive asbestos inspections of the building;
- Conduct lead-based paint X-ray fluorescence (XRF) inspections of the building;
- Identify and inventory fluorescent lamps and fluorescent light ballasts in the building that may contain mercury or polychlorinated biphenyls (PCBs);
- Identify and inventory equipment in the building that may contain CFCs;
- Identify and inventory thermostats in the building that may contain mercury;
- Identify and inventory compressed gas cylinders in the building which may pose explosive hazards or contain regulated materials;
- Identify and inventory non-Baltimore Gas and Electric Company (BGE) transformers for the building and the associated grounds that may contain PCBs; and
- Identify other potentially regulated and/or hazardous materials in the building.

2.2 Limitations

Limitations encountered during this Environmental Building Assessment are discussed in Section 4.0 of this report. Exclusions to our inspection methods are discussed in the Section 3.0 of this report.

3.0 Inspection Methods and Rationale

3.1 Asbestos

The purpose of this asbestos inspection was to identify whether building materials at the Site are ACMs that may be subject to National Emission Standards for Hazardous Air Pollutants (NESHAP) requirements during renovation or demolition activities. An ACM is a building material that contains greater than 1% asbestos. According to NESHAP, regulated ACM (RACM) must be removed by a Maryland-licensed Asbestos Contractor in accordance with Code of Maryland Regulations (COMAR) 26.11.21, if the RACM will be impacted by renovation or demolition activities.

GSE adheres to sampling requirements outlined in the Asbestos Hazard Emergency Response Act (AHERA) and thus Occupational Safety and Health Act (OSHA) by reference. GSE's licensed Asbestos Inspector (Jake Kilczewski, Maryland Department of the Environment [MDE] Asbestos License #17001211) conducted the asbestos inspection and sampling. A total of 61 building material samples were collected and shipped via Federal Express to an accredited laboratory (SanAir Technologies Laboratory, Inc. in Powhatan, Virginia) for analysis using polarized light microscopy (PLM) by EPA Method 600. A total of 89 PLM analyses were required due to material layering.

All ACMs were quantified and the results are provided in Section 4.1 of this report.

3.2 Lead-Based Paint

The purpose of the lead-based paint inspection was to gain a general understanding of whether lead-based paint is present in the painted surfaces at the Site, and if so, what types of components contain lead-based paint. Representative interior and exterior painted components in the Legislative Services Building were selected for testing at the discretion of the GSE Inspector.

GSE is a Maryland-licensed Lead Inspection Contractor (# 12857) and maintains a Maryland Radioactive Material License (#MD-07-228-01). GSE's Maryland-licensed Lead Inspector (Sarah Munsch, MDE Lead License #16699) conducted XRF analyses using a Thermo Scientific™ Niton™ XLp 300A XRF analyzer.

Prior to and subsequent to each inspection event, "validation checks" were performed to ensure that the XRF measurements taken during the inspection truly reflect lead levels at the inspection sample points. GSE performed validation check measurements on the National Institute of Standards and Technology (NIST) Standard Reference Material using the nominal 1.0 mg/cm^2 paint film. In accordance with the manufacturer's recommendations, each validation check was a 20-second nominal sample of the NIST Standard Reference Material.

3.3 Mold

Visual Assessment

GSE was requested to review accessible areas of the building for water intrusion issues or evidence of microbial contamination. Jake Kilczewski and William Montley inspected the site on November 17, 2017. Moisture meter readings of gypsum board material were collected using a Ryobi Moisture Meter to determine if materials were damp or wet, thus allowing them to sustain mold growth.

The visual assessment did not include the following:

- Using a bore scope or other destructive access to investigate wall cavities or other inaccessible areas
- Moving furniture
- Investigating under wall coverings, attached carpet, vinyl or wood flooring
- Removing insulation in attic areas or crawlspaces for further investigation of floor, wall or ceiling systems
- Inspecting enclosed areas that may include the soffit areas of the building eaves, inaccessible crawlspace areas, or other areas that may be considered confined spaces
- Confirming that the HVAC system was functioning as designed

Microbial Sampling

Air Samples: Air sampling included the collection of 20 Allergenco-D spore trap samples. Sampling Event #1 was conducted on November 17, 2017:

Sample #	Sample Type	Sample date	Sample Location
2286420	Air	11/17/17	3rd Floor Front Hallway
2286421	Air	11/17/17	Tunnel to State House
2286434	Air	11/17/17	Room G18
2152732	Air	11/17/17	IT Training Room
2286428	Air	11/17/17	IT Hallway
2286413	Air	11/17/17	Mail Room Closet
2286427	Air	11/17/17	Print Shop Office
2286423	Air	11/17/17	Library
2286412	Air	11/17/17	Tunnel to House of Delegates

Sample #	Sample Type	Sample date	Sample Location
2203990	Air	11/17/17	Room 308
2286418	Air	11/17/17	Room 309
2286414	Air	11/17/17	Reception Office of Executive Director
2286422	Air	11/17/17	Room 225
2286415	Air	11/17/17	Room 110A
2286431	Air	11/17/17	1st Floor Service Room
2286430	Air	11/17/17	Old Kitchen
2286411	Air	11/17/17	Old Cafeteria
2286426	Air	11/17/17	Basement Boiler Room
2286416	Air	11/17/17	Basement Dark Room
2286419	Air	11/17/17	Outside

Collection of interior samples consisted of drawing 75 liters of air through the sampling media using a high-volume air pump. A comparison sample was collected from outside the front door. Collection of the outdoor sampling consisted of drawing a total of 45 liters of air through the sampling media using a high-volume air pump. The air pump was calibrated before and after use against a primary standard. The samples were sent to U.S. Micro-Solutions Inc. in Greensburg, PA for analysis by optical microscopy. Results were reported as spores per cubic meter of air.

3.4 Fluorescent Lamps, Ballasts, and Thermostats

GSE completed a visual assessment of the building for fluorescent lamps, fluorescent lamp ballasts and thermostats to estimate the quantities present at the Site. These items may contain regulated materials (mercury or PCBs) that must be removed, transported, and disposed of (or recycled) properly. Mercury is used to generate light in all fluorescent lamps. Fluorescent light ballasts manufactured before 1979 may contain PCBs. Ballasts manufactured in or after 1979 that do not contain PCBs should be labeled "No PBCs". If ballast is not labeled "No PCBs", it is best to assume it contains PCBs. Certain thermostats contain mercury switches used to turn heating and cooling systems on and off. The mercury is contained in a small glass ampoule. Most mercury-containing thermostats were manufactured between 1953 and1990.

Fluorescent Lamps: A lamp-by-lamp count was conducted. All fluorescent lamps are assumed to contain mercury.

Thermostats: Estimated quantities of thermostats are based on visual observation. All thermostats are assumed to contain mercury.

Fluorescent Lamp Ballasts: The total quantity of ballasts is estimated based on visual observations. A portion of the ballasts identified is accessed to determine if the "No PCB" label is present. Based on this evaluation, a final estimated quantity of PCB containing ballasts is calculated.

3.5 Chlorofluorocarbons

GSE completed a visual assessment of the building for equipment that may contain CFCs (e.g., equipment with refrigeration systems in place such as air conditioning units, vending machines, chillers, refrigeration units). In addition, Halon gas found in Halon gas fire suppression systems contains CFCs.

The purpose of this assessment was to determine estimated quantities of CFC containing equipment because CFCs are regulated and must be removed, transported and disposed of (recycled) properly.

3.6 Compressed Gas Cylinders

GSE completed a visual assessment of the building for compressed gas cylinders.

The purpose of this assessment was to determine estimated quantities of compressed gas cylinders because all cylinders are assumed to present a potential hazard regardless of condition or labeling. Gas cylinders may contain many different types of pressurized materials such as fuels, refrigerants and poisons. The associated hazards may include toxic effects and physical hazards from explosion or flammability.

3.7 Non-BGE Transformers

GSE completed a visual assessment of the buildings and the associated grounds of both buildings for non-BGE owned transformers.

The purpose of this assessment was to determine the presence or absence of non-BGE, oil filled, transformers because transformers may contain PCBs. A transformer's nameplate should indicate the trade name of the dielectric fluid, the approximate weight in pounds, and the amount of fluid, usually in gallons. Since PCBs were marketed under different trade names, the nameplate on a PCB transformer may not carry the specific term "PCBs". Trade names for PCBs could include: Abestol, Aroclor, Askarel, Chlophen, Chlorextol, DK, EEC-18, Fenclor, Inerteen, Kennechlor, No-Flamol, Phenoclor, Pyralene, Pyranol, Saf-T-Kuhl, Solvol or Non-Flammable Liquid. If the nameplate says "PCBs" or any of the names on the above list, then the transformer most

likely contains PCBs in concentrations of between 600,000 and 700,000 milligrams per kilogram (mg/kg). If there is no label or it cannot be read, then the only way to be certain is to test the electrical fluid.

4.0 Results and Recommendations

4.1 Asbestos

This section provides the results of the asbestos inspection (sampling and analyses) for the building. It is important to note that not all building material types have been sampled; only building materials that were accessible and suspected to contain asbestos at the time of the inspection were sampled. All of the field asbestos data and sample analyses results are provided in **Appendix A** and **Appendix B**, respectively**.**

A total of 60 building material samples were collected at the Legislative Services Building. A total of 89 PLM analyses were completed due to material layering. The table below provides a list of RACM identified in the building. RACM must be removed by a Maryland-licensed Asbestos Contractor in accordance with COMAR 26.11.21, if the RACM will be impacted by renovation or demolition activities.

Regulated ACM –	Estimated Quantity	Location(s)
Duct Seam Sealant	30 LF	Basement Floor, Old Cafeteria and Third Floor Mechanical Room
12x12" White/Gray Floor Tile and Mastic	118,800 SF	Third Floor Hallway & Offices, Second Floor Hallway & Offices, First Floor Hallway & Offices, Ground Floor Hallway & Offices, Basement Hallway & Offices
White 12x12 Floor Tile (Black Mastic Only)	120 SF	Basement Floor, Kitchen
*Joint Compound	230,000 SF	Throughout the Building – Basement, Ground Floor, First Floor, Second Floor, and Third Floor

* Joint compound was identified as containing 2% Chrysotile asbestos. The composite samples of gypsum board and joint compound were found to contain less than 1% asbestos by weight, which indicates that the material is not a regulated asbestos containing material in accordance with NESHAP regulations, however, OSHA requires that the two materials be analyzed separately. OSHA considers the joint compound to be an asbestos containing materials, which would be require conducting all renovation and demolition activities in accordance with 29 CFR 1910.134 (Respirator Standard) and 29 CFR 1926.1101 (Asbestos Standard).

4.2 Lead-Based Paint

A total of 145 XRF readings were taken at the Site. Readings greater than 0.70 milligrams per cubic centimeter (mg/cm^2) are considered "positive" for lead-based paint. The XRF Sampling Data provided here is considered "representative" but not necessarily comprehensive. Painted surfaces that were not inspected should be assumed to contain lead-based paint unless the data presented here, or other data, concludes that lead-based paint is not present. All XRF data are presented in **Appendix B**.

There were no component types found to contain lead-based paint. It is important to note that not all painted components were tested throughout the Site. Further evaluation of specific component types may be appropriate in select cases.

Contractors impacting surfaces containing lead must adhere to OSHA's Lead in Construction Standard. Lead containing materials should also be sampled and analyzed using the Toxicity Characteristic Leaching Procedure (TCLP) Lead method to ensure proper waste segregation and disposal. Additional testing and administrative requirements apply to pre-1978 residential rental housing that contains lead positive component in order to comply with MDE's Lead Poisoning Prevention Program.

4.3 Mold

Visual Assessment

Based on conversations with the facility staff, water intrusion is a known issue in the building. It is the intent of the Client to begin renovation activities in the building, and GSE has been requested to conduct an assessment of the building to determine if elevated levels of mold are present. Recent mold remediation work has been completed in the IT offices (G18) on the ground floor.

The following is a list of water damage or mold-contaminated material observed during the assessment:

- Third Floor Front Hallway: No areas of visible mold were observed. Moisture meter readings of the gypsum board wall and ceiling did not indicate that the material was damp or wet at the time of the assessment.
- Tunnel to State House: No areas of visible mold growth were observed. Moisture meter readings of the concrete masonry wall did not indicate that the material was wet or damp at the time of the assessment.
- Room G18: No visible mold growth was observed. Moisture meter readings of the gypsum board wall and ceiling did not indicate that the material was damp or wet at the time of the assessment.
- IT Training Room: No visible mold growth was observed. Moisture meter readings of the gypsum board wall did not indicate that the material was wet or damp at the time of the assessment.
- IT Hallway: No visible mold growth was observed. Moisture meter readings of the gypsum board wall did not indicate that the material was wet or damp at the time of the assessment.
- Mail Room Closet: No visible mold growth was observed. Moisture meter readings of the cement wall indicated that the material was wet or damp where conduit comes through the wall at the time of the assessment.
- Print Shop Office: No visible mold growth was observed. Minor staining and water damage was noted on ceiling tiles. Moisture meter readings of the gypsum board

wall did not indicate that the material was wet or damp at the time of the assessment.

- Library: Minor visible mold growth was observed on several books. Water-damaged suspended ceiling tiles were noted during the assessment. Moisture meter readings of the gypsum board wall did not indicate that the material was wet or damp at the time of the assessment.
- Tunnel to House of Delegates: No areas of visible mold growth were observed. Moisture meter readings of the concrete masonry wall did indicate that the material was wet or damp at the time of the assessment.
- Room 308: No visible mold growth was observed. Moisture meter readings of the gypsum board wall did not indicate that the material was wet or damp at the time of the assessment.
- Room 309: No visible mold growth was observed. Moisture meter readings of the gypsum board wall did not indicate that the material was wet or damp at the time of the assessment.
- Reception Office of the Executive Director: No visible mold growth was observed. Moisture meter readings of the gypsum board wall did not indicate that the material was wet or damp at the time of the assessment.
- Room 225: No visible mold growth was observed. Moisture meter readings of the gypsum board wall did not indicate that the material was wet or damp at the time of the assessment.
- Room 110A: No visible mold growth was observed. Moisture meter readings of the gypsum board wall indicated that the material was wet or damp at the time of the assessment.
- 1st Floor Service Room No visible mold growth was observed. Moisture meter readings of the gypsum board wall did not indicate that the material was wet or damp at the time of the assessment.
- Old Kitchen: No visible mold growth was observed. Moisture meter readings of the gypsum board wall did not indicate that the material was wet or damp at the time of the assessment.
- Old Cafeteria: No visible mold growth was observed. Moisture meter readings of the plaster wall did not indicate that the material was wet or damp at the time of the assessment.
- Basement Boiler Room: No visible mold growth was observed. Moisture meter readings of the gypsum board wall did not indicate that the material was wet or damp at the time of the assessment.
- Basement Dark Room: No visible mold growth was observed. Moisture meter readings of the gypsum board wall indicated that the material was wet or damp at the time of the assessment.
- Outside: No visible mold growth observed on exterior building components. Grade, in most cases appeared to flow away from the building. Minor areas of erosion at the foundation walls were noted in a few areas.

Several rooms and offices throughout the building were not assessed as part of this investigation.

Microbial Sampling

Air Samples: There are no regulatory standards or numerical guidelines to identify "safe" or "normal" spore levels to aid in interpretation. There is consensus; however, that indoor airborne fungal concentrations in non-problem buildings are usually comparable to outdoor concentrations. Additionally, the general rank order of predominant mold types will usually be qualitatively similar between the indoor and outdoor samples. The presence or absence of genera in small numbers should not be considered abnormal.

If mold concentrations in the affected area meet or exceed the above guidelines, it may be an indication of amplification within the building.

The following are the locations and the total mold present for the air sampling conducted at The Legislative Services Building during Sampling Event #1 on November 17, 2017:

Location	Total Mold
• 3rd Floor Front Hallway	91 Spores/m^3
• Tunnel to State House	13 Spores/m^3
• Room G18	273 Spores/m^3
• IT Training Room	<13 Spores/m^3
• IT Hallway	39 Spores/m^3
• Mail Room Closet	195 Spores/m^3
• Print Shop Office	26 Spores/m^3
• Library	26 Spores/m^3
• Tunnel to House of Delegates	78 Spores/m^3
• Room 308	65 Spores/m^3
• Room 309	91 Spores/m^3
• Reception Office of Executive Director	104 Spores/m^3
• Room 225	39 Spores/m^3
• Room 110A	65 Spores/m^3
• First Floor Service Room	52 Spores/m^3
• Old Kitchen	13 Spores/m^3
• Old Cafeteria	<13 Spores/m^3
• Basement Boiler Room	<13 Spores/m^3
• Basement Dark Room	52 Spores/m^3
• Outside	182 Spores/m^3

The following conditions are necessary for mold growth to occur on a surface: (1) a temperature between 40^0 and 100^0F, (2) mold spores, (3) a nutrient base and (4) moisture.

Building envelope, mechanical system leaks, and periods of elevated humidity during the summer months may have created conditions conducive to mold growth on gypsum board, suspended ceiling tiles, and carpet in the recent past. It appears that these areas have been remediated, however, the cause of the water infiltration may not have been repaired, potentially allowing for current or future mold growth. Minor, suspect, visible mold was noted on several books in the Library. Water staining of the suspended ceiling tiles was noted in several areas and is most likely related to leaks in the mechanical system of the building envelope. Air sampling did not indicate elevated spore counts in the ambient air of the areas assessed. Moisture meter monitoring of the suspended ceiling tiles and gypsum board did not indicate that the materials were wet or damp at the time of the assessment.

In order to maintain good air quality within the indoor environment:

1. Evaluate HVAC system in building to confirm system is operating as designed, which should include the evaluation of the system for reduction of relative humidity during the summer months.
2. Evaluate and repair building envelope to prevent further leaks.
3. Remove or clean mold-contaminated books noted in the Library.
4. Remove water-damaged and mold-contaminated suspended ceiling tiles throughout the building. Clean adjacent grid with a sanitizing agent or detergent.
5. Maintain levels of relative humidity between 30-60% through mechanical ventilation and humidification/dehumidification.

Any mold remediation work should be completed in accordance with the Institute of Inspection, Cleaning, Restoration Certification (IICRC) standard S520: Standard and Reference Guide for Professional Mold Remediation, which can be purchased from IICRC at http://www.iicrc.org, or the EPA "Mold Remediation in Schools and Commercial Buildings" guidelines, which can be found at http://www.epa.gov/iaq/molds/.

There is no practical way to eliminate all fungal spores from the indoor environment. The way to control indoor microbial contamination is to control moisture. This can be achieved by maintaining indoor relative humidity levels below 60% and by eliminating sources of water in the building through means such as repairing sump pumps and removing moisture-contaminated materials such as fiberglass insulation, gypsum board and carpet immediately.

4.4 Fluorescent Lamps, Ballasts, Thermostats

The table below indicates the estimated quantities of fluorescent lamps, lamp ballasts and thermostats identified as part of this Environmental Building Assessment. Mercury-containing lamps, PCB-containing ballasts, and mercury-containing thermostats are all regulated materials that should be inventoried, packaged and disposed of properly.

Floor	Mercury Fluorescent Lamps	Ballasts*	Mercury Thermostats
Basement	Approx. 360	Approx. 180	Approx. 20
Ground	Approx. 490	Approx. 240	Approx. 20
First	Approx. 350	Approx. 150	Approx. 50
Second	Approx. 500	Approx. 200	Approx. 40
Third	Approx. 375	Approx. 180	Approx. 25

*According to our visual inventory of the Site, it is estimated that there are 950 total fluorescent light ballasts. Ninety-five (95) of the ballasts were accessed and observed and all had a "No PCB" label. Therefore, it is our assumption that approximately 0% of the ballasts may contain PCBs.

4.5 Chlorofluorocarbons

The table below indicates the estimated quantities of CFC-containing equipment identified as part of the Environmental Building Assessment. Section 608 of the Clean Air Act regulates CFCs, which are comprehensive and cover all aspects of CFC use, handling, and disposal. Disposal of all CFC-containing equipment should be performed in accordance with the requirements outlined by Section 608 of the Clean Air Act.

Floor	CFC Equipment Description
Basement	None
Ground	3 Water fountains, 1 Refrigerator
First	5 Water fountains, 1 Refrigerator

Second	None
Third	2 Water fountains, 2 Refrigerators

4.6 Compressed Gas Cylinders

The table below indicates the estimated quantities of compressed gas cylinders identified as part of the Environmental Building Assessment. Guidance and regulations for handling, transport, and disposal of compressed gas cylinders are in place under OSHA, the Department of Transportation, and the Compressed Gas Association. The State of Maryland regulates the disposal of compressed gas cylinders in The Code of Maryland Regulations (COMAR 26.13).

Floor	Compressed Gas Cylinder Description
Basement	1 Fire extinguisher, 1 14.1-oz propane canister, 8 550-lbs Halon gas tanks (oxygen suppressant system)
Ground	5 fire extinguishers
First	6 fire extinguishers
Second	5 fire extinguishers
Third	6 fire extinguishers

4.7 Non-BGE Transformers

This Environmental Building Assessment did identify 4 non-BGE owned transformers in the third-floor mechanical room. These transformers were dry type transformers and do not contain PCB's.

Regulatory requirements for PCB transformers and PCB-contaminated transformers are codified at 40 Code of Federal Regulations (CFR) Part 761.

4.8 Other Potentially Regulated and/or Hazardous Materials

All batteries, tires, fire extinguishers, cleaning materials, paints/stains, and other regulated and/or hazardous materials, not intended for occupant use, should be

collected, staged, recycled, and/or disposed of in accordance with all state, and Federal regulated.

The following list indicates other potentially regulated and/or hazardous materials found on Site:

- Basement:
    - (2) 1-lb Duplicator Pressure Wash
    - (11) 5-lbs Rubber Roller Lube
    - (66) 5-lbs Ink Pail
    - (16) 3.3-lbs Ink Pail
    - (4) <3.3-lbs Ink Pail
    - (23) 2.2-lbs Ink Pail
    - (10) 1-lb Ink Pail
    - (7) 2-lbs Febo Clean 200
    - (6) 500-g Calcium Fix
    - (3) 500-g Multipurpose Grease
    - (8) 1-gallon Sure Wash
    - (2) 5-gallon Safety Can Deglazer
    - (1) 5-gallon Versi 4G Case
    - (1) 1-gallon Versi 4G Case
    - (4) 1-galllon Chain Saver
    - (3) 1-gallon Fountain Solution
    - (4) 5-gallon Pronto
    - (5) 5-gallon 253 Blanket Wash
    - (4) 5-gallon Isopropyl Alcohol
    - (1) 1-gallon Itek Laser Cleaner
    - (6)1-gallon Offset Etch
    - (1) 8-gallon Offset Etch
    - (17) 1-gallon Cristala Fount Silver Activator
    - (2) 1-gallon Graphite Plate Cleaner\
    - (9) 1-gallon Silver Stabilizer
    - (1) 1-gallon Silver Activator
    - (1) 1-gallon Deactivator
    - (9) 1-gallon Stamp Resin
    - (4) 1-gallon Polymer Photo Detergent
    - (1) 5-gallon Stripper
    - (1) 1-gallon Neutral Cleaner
    - (1) 1-gallon Viking Developer
    - (1) 1-gallon Fix Stabilizer
    - (1) 1-quart Pre-Sensitized Offset Plate Cleaner
    - (2) 1-quart Gold Mirade Silver Plate Cleaner
    - (8) 1-quart Valvoline Motor Oil
    - (3) 1-quart Chain Saver
    - (1) 1-quart Unlabeled Clear Solution

- (1) 1-quart Unlabeled Brown Solution
- (2) 1-quart Unlabeled Blue Solution
- (2) 1-quart True Blue
- (1) 1-quart Deglazer
- (1) 1-quart Cutter Blade Solution
- (4) 1-quart Poly Activator
- (7) 1-quart Silver/laser Plate Cleaner
- (4) 1-quart Stabilizer
- (8) 1-quaret Abdick Plate Cleaner
- (1) 5-quart Motor Oil
- (1) 1-pint Liquid Wrench
- (5) 1-pint Cylinder Greaser
- (4) 1-pint Poly Plate Etch
- (1) 10.5-oz Antistatic Compound
- (1) 12-oz Pledge
- (16) 3-oz WD40
- (1) 3-oz Gleit Spray
- (28) 12-oz Silicone Spray
- (11) 30-oz Blanket Fix
- (2) 10-oz Car Wax
- (1) 18-oz Lemon Oil Cleaner
- (16) 16-oz Anti-Skin Spray
- (2) 14-oz Cylinder Ink Preventer
- (6) 19-oz Clear View Glass Cleaner
- (16) 11.1-oz Electronic Cleaner Degreaser
- (6) 14-oz Marine Degreaser
- (5) 12-oz Penetrant Agent
- (6) 11-oz Lead Penetrant Catalyst
- 912) 19-oz Lysol Spray
- (7) 19-oz Furniture Polish
- (3) 17-oz Lemon Duster Spray
- (1) 15-oz Zenex Disinfectant
- (1) 10-oz Spray Adhesive
- (10) 15-oz Microshield Spray
- (9) 9-oz Side Table Lube
- (9) 10.5- oz Dry Lube with Release Agent
- (7) 10-oz Corrosion Inhibitor
- (2) 10-oz Microscopic Protective Shield
- (12) 7-oz Linen Breeze
- (5) 12-oz Cut Thru Remover
- (2) 11-oz Lube Oil
- (40) 3.5-oz Spray Power Duster
- (4) 16-fl oz Air Compressor Oil
- (1) 32-fl oz Speed Opaque
- (2) 12-fl oz Rubber Stamp Resin

    - (15) 4-fl oz Motor Oil
    - (3) 64-fl oz Emerald Green Cleaner
    - (1) 500-mL Super Creme
    - 7 cans Clorox Wipes

- Ground:
    - (3) 1-gallon Glass Cleaner
    - (11) 500-mL Super Crème
    - (2) 26-fl oz Disinfectant
    - (1) 3-oz WD40 can
    - (1) 8-oz Roach Killer
    - (1) 10-oz Clorox Spray
    - (1) Stainless Steel Cleaner Wipes

- First:
    - (1) 18-oz Furniture Polish
    - (1) 23-fl oz Lysol Spray

- Second:
    - (2) 19-oz Lysol

- Third:
    - (3) 19-oz Lysol
    - (2) 5-gallon Stripper
    - (72) 7-oz Linen Breeze
    - (1) 19-oz Furniture Polish
    - (2) 1-gallon Rope Lube
    - (5) 5-lbs Cement Mix

5.0 Certification

This Environmental Building Assessment was conducted in accordance with accepted environmental practices, standards, regulations and procedures.

Please visit our website at Green Street Environmental.

Prepared By:

Sarah Munsch

Environmental Scientist

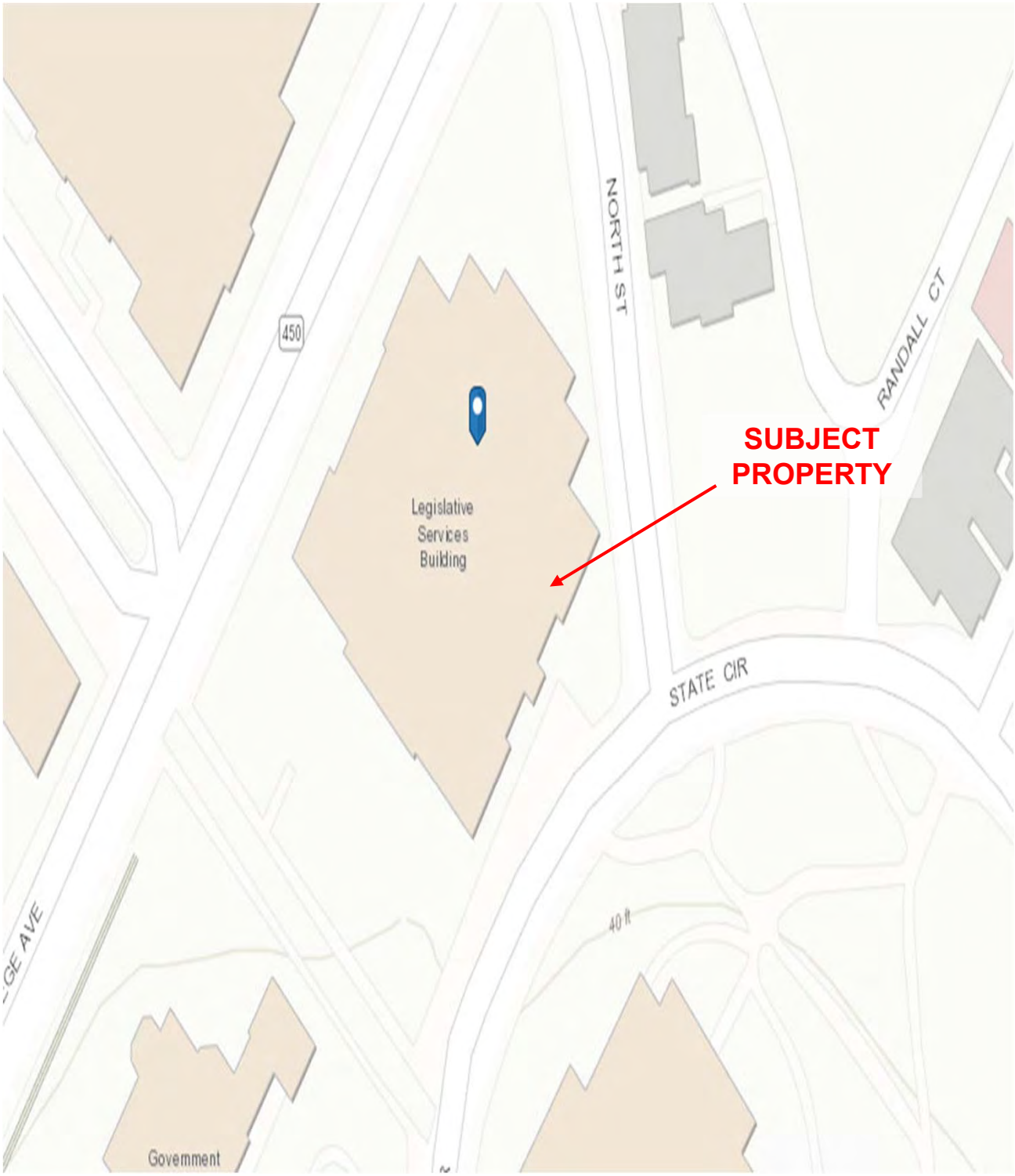
Reviewed By:

William Montley

Project Director

GREEN STREET ENVIRONMENTAL

Figures



Reference: Tax Map Image of County of Anne Arundel, (MERLIN, 2018)

N

GREEN STREET ENVIRONMENTAL	**SITE LOCATION MAP** **Legislative Services Building** **90 State Circle, Annapolis, MD, 21401**	Figure **1**

Reference: 2015 Aerial Photograph, (MERLIN, 2018)

N

GREEN STREET ENVIRONMENTAL

SITE LAYOUT AND SURROUNDING AREA MAP
Legislative Services Building
90 State Circle, Annapolis, MD, 21401

Figure
2

GREEN STREET ENVIRONMENTAL

Appendices

Appendix A:
Asbestos Field Data

GREEN STREET ENVIRONMENTAL
6304 BLAIR HILL LANE / SUITE 2 / BALTIMORE, MD 21209
PHONE 410.296.8800
FAX 410.296.8801
WWW.GREENSTREET-ENVIRONMENTAL.COM

Project # 171101-2

ASBESTOS BULK DATA

Project Name: Legislative Services Building

Date: 11/16/17

No.	Suspect Homogeneous ACM	Friable (Y/N)	"+"	Approx. Quantity	Location(s)	Sample ID(s)
1	White 2x4' Ceiling Tile	Y		N/A	Basement Floor, Ground Floor, First Floor, Second Floor, Third Floor Hallways	JK111617-(1-2)
2	White 12x12" Ceiling Tile	Y		N/A	Third Floor Mechanical Room, First Floor Hallway and Units 112 and 114	JK111617-(3-4)
3	White (Replacement) 2x4' Ceiling Tile	Y		N/A	Ground Floor Hallway	JK111617-(5-6)
4	White (Large Fissured) 2x4' Ceiling Tile	Y		N/A	Ground Floor Hallway	JK111617-(7-8)
5	White 2x2' Ceiling Tile	Y		N/A	Ground Floor Hallway	JK111617-(9-10)
6	White/Gray 12x12" Floor Tile & Mastic	N	✓	118,800 SF	Third Floor Hallway & Offices (25,000 SF), Second Floor Hallway & Offices (25,600 SF), First Floor Hallway & Offices (25,000SF), Ground Floor Hallway & Offices (23,600 SF), Basement Hallway & Offices (19,400 SF)	JK111617-(11-12)
7	White/Brown 12x12" Floor Tile & Mastic	N		N/A	Third Floor Unit 308	JK111617-(13-14)
8	White/Light Brown 12x12" Floor Tile & Mastic	N		N/A	Third Floor Unit 309	JK111617-(15-16)
9	Gray 12x12" Floor Tile & Mastic	N		N/A	First Floor Main and Side Entrances	JK111617-(17-18)
10	White/Blue/Gray 12x12" Floor Tile & Mastic	N		N/A	Ground Floor Mail Room	JK111617-(19-20)

"+" = Building Materials Containing ≥ 1% Asbestos by PLM Analysis

ACRONYMS:
ACM - asbestos-containing material
LF - linear feet
PLM - polarized light microscopy
SF - square feet

NOTES:

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WWW.GREENSTREET-ENVIRONMENTAL.COM

Project # 171101-2

ASBESTOS BULK DATA

Project Name: Legislative Services Building

Date: 11/16/17

No.	Suspect Homogeneous ACM	Friable (Y/N)	"+"	Approx. Quantity	Location(s)	Sample ID(s)
11	White/Black Stripe 12x12" Floor Tile & Mastic	N	☐	N/A	Ground Floor Vestibule	JK111617-(21-22)
12	Black/White Stripe 12x12" Floor Tile & Mastic	N	☐	N/A	Ground Floor Vestibule	JK111617-(23-24)
13	White 12x12" Floor Tile Mastic (Mastic only)	N	✓	120 SF	Basement Kitchen	JK111617-(25-26)
14	Black Cove Base & Mastic	N	☐	N/A	Third Floor Hallway, Ground Floor Mail Room, Basement Hallway	JK111617-(27-28)
15	Red/Brown Cove Base & Mastic	N	☐	N/A	Basement Kitchen	JK111617-(29-30)
16	Tan Cove Base & Mastic	N	☐	N/A	Basement Hallway	JK111617-931-32)
17	Duct Seam Sealant	N	✓	30 LF	Third Floor Mechanical Room, Ground Floor Old Cafeteria	JK111617-(33-37)
18	Duct Work Mastic	N	☐	N/A	Basement Hallway	JK111617-(38
19	White Drywall & Joint Compound	Y	✓	230,000 SF	Throughout - Basement (32,000 SF), Ground Floor (50,000 SF), First Floor (46,000 SF), Second Floor (52,000 SF), Third Floor (50,000 SF)	JK111617-(39-45)
20	Black Threshold & Mastic	N	☐	N/A	Second & Third Floor Lobby, Second Floor Units 210 & 212, First Floor Vestibule & Hallway	JK111617-(46-47)

"+" = Building Materials Containing ≥ 1% Asbestos by PLM Analysis

ACRONYMS:
ACM - asbestos-containing material
LF - linear feet
PLM - polarized light microscopy
SF - square feet

NOTES:

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Project # 171101-2

ASBESTOS BULK DATA

Project Name: Legislative Services Building

Date: 11/16/17

No.	Suspect Homogeneous ACM	Friable (Y/N)	"+"	Approx. Quantity	Location(s)	Sample ID(s)
21	White Pipe Wrap (TSI)	Y		N/A	Third Floor Mechanical Room	JK111617-(48-50)
22	White Mudded Pipe Joint	Y		N/A	Third Floor Mechanical Room	JK111617-(51-53)
23	Gray Spray Applied Fire Proofing	Y		N/A	Third Floor Mechanical Room	JK111617-(54-56)
24	White Plaster Ceiling	Y		N/A	Ground Floor Old Cafeteria	JK111617-(57-58)
25	White Window Glazing	N		N/A	Exterior	JK111617-(59-60)
26	White Window Caulk	N		N/A	Exterior	JK111617-61
27						
28						
29						
30						

"+" = Building Materials Containing ≥ 1% Asbestos by PLM Analysis

ACRONYMS:
ACM - asbestos-containing material
LF - linear feet
PLM - polarized light microscopy
SF - square feet

NOTES:

Appendix B:
Asbestos Laboratory Analytical Data

SanAir Technologies Laboratory

The Identification Specialists

Analysis Report prepared for Green Street Environmental

Report Date: 12/19/2017

Project Name: Legislative Services Bldg, Amended Report JT

Project #: 171101-2

SanAir ID#: 17047157

NVLAP TESTING

NVLAP LAB CODE 200870-0

1551 Oakbridge Dr. Suite B | Powhatan, Virginia 23139-8061
888.895.1177 | 804.897.1177 | fax: 804.897.0070 | IAQ@SanAir.com | SanAir.com

SanAir ID Number
17047157
FINAL REPORT
12/19/2017 12:47:25 PM

Name: Green Street Environmental
Address: 6304 Blair Hill Lane
Baltimore, MD 21209
Phone: 410-296-8800

Project Number: 171101-2
P.O. Number:
Project Name: Legislative Services Bldg, Amended Report JT
Collected Date: 11/16/2017
Received Date: 11/20/2017 9:20:00 AM

Dear Jake Kilczewski,

We at SanAir would like to thank you for the work you recently submitted. The 61 sample(s) were received on 11/20/2017 9:20:00 AM via FedEx. The final report(s) is enclosed for the following sample(s): JK111617-1, JK111617-2, JK111617-3, JK111617-4, JK111617-5, JK111617-6, JK111617-7, JK111617-8, JK111617-9, JK111617-10, JK111617-11, JK111617-12, JK111617-13, JK111617-14, JK111617-15, JK111617-16, JK111617-17, JK111617-18, JK111617-19, JK111617-20, JK111617-21, JK111617-22, JK111617-23, JK111617-24, JK111617-25, JK111617-26, JK111617-27, JK111617-28, JK111617-29, JK111617-30, JK111617-31, JK111617-32, JK111617-33, JK111617-34, JK111617-35, JK111617-36, JK111617-37, JK111617-38, JK111617-39, JK111617-40, JK111617-41, JK111617-42, JK111617-43, JK111617-44, JK111617-45, JK111617-46, JK111617-47, JK111617-48, JK111617-49, JK111617-50, JK111617-51, JK111617-52, JK111617-53, JK111617-54, JK111617-55, JK111617-56, JK111617-57, JK111617-58, JK111617-59, JK111617-60, JK111617-61.

These results only pertain to this job and should not be used in the interpretation of any other job. This report is only complete in its entirety. Refer to the listing below of the pages included in a complete final report.

Sincerely,

Sandra Sobrino
Asbestos & Materials Laboratory Manager
SanAir Technologies Laboratory

Final Report Includes:
- Cover Letter
- Analysis Pages
- Disclaimers and Additional Information

Sample conditions:
60 samples in Good condition.
1 samples in Layer Missing condition.

SanAir Technologies Laboratory

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Project Number: 171101-2
P.O. Number:
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Collected Date: 11/16/2017
Received Date: 11/20/2017 9:20:00 AM

Analyst: Childress, Susan

Asbestos Bulk PLM EPA 600/R-93/116

	Stereoscopic	Components		
SanAir ID / Description	Appearance	% Fibrous	% Non Fiberous	Asbestos Fibers
JK111617-1 / 17047157-001 2x4 Ft. Ceiling Tile	White Fibrous Homogeneous	55% Cellulose 25% Glass 10% Min. Wool	10% Other	None Detected
JK111617-2 / 17047157-002 2x4 Ft. Ceiling Tile	White Fibrous Homogeneous	55% Cellulose 25% Glass 10% Min. Wool	10% Other	None Detected
JK111617-3 / 17047157-003 12x12 In. Ceiling Tile	White Fibrous Homogeneous	45% Glass 45% Min. Wool	10% Other	None Detected
JK111617-4 / 17047157-004 12x12 In. Ceiling Tile	White Fibrous Homogeneous	45% Glass 45% Min. Wool	10% Other	None Detected
JK111617-5 / 17047157-005 2x4 Ft. Replacement Ceiling Tile	White Fibrous Homogeneous	60% Cellulose 20% Glass	20% Other	None Detected
JK111617-6 / 17047157-006 2x4 Ft. Replacement Ceiling Tile	White Fibrous Homogeneous	60% Cellulose 20% Glass	20% Other	None Detected
JK111617-7 / 17047157-007 2x4 Ft. Ceiling Tile	White Fibrous Homogeneous	55% Cellulose 25% Glass 10% Min. Wool	10% Other	None Detected
JK111617-8 / 17047157-008 2x4 Ft. Ceiling Tile	White Fibrous Homogeneous	55% Cellulose 25% Glass 10% Min. Wool	10% Other	None Detected
JK111617-9 / 17047157-009 2x2 Ft. Ceiling Tile	White Fibrous Homogeneous	60% Cellulose 25% Glass	15% Other	None Detected
JK111617-10 / 17047157-010 2x2 Ft. Ceiling Tile	White Fibrous Homogeneous	60% Cellulose 25% Glass	15% Other	None Detected

Amended Report: Additional Analysis

Certification

Analyst: Susan L. Childress
Approved Signatory:

Analysis Date: 12/19/2017
Date: 12/19/2017

SanAir Technologies Laboratory

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Analyst: Childress, Susan

Asbestos Bulk PLM EPA 600/R-93/116

	Stereoscopic	Components		
SanAir ID / Description	Appearance	% Fibrous	% Non Fiberous	Asbestos Fibers
JK111617-11 / 17047157-011 12x12 In. Floor Tile Mastic, Floor Tile	White Non-Fibrous Homogeneous		96% Other	4% Chrysotile
JK111617-11 / 17047157-011 12x12 In. Floor Tile Mastic, Mastic	Black Non-Fibrous Homogeneous		98% Other	2% Chrysotile
JK111617-12 / 17047157-012 12x12 In. Floor Tile Mastic				Not Analyzed
JK111617-13 / 17047157-013 12x12 In. Floor Tile Mastic, Floor Tile	White Non-Fibrous Homogeneous		100% Other	None Detected
JK111617-13 / 17047157-013 12x12 In. Floor Tile Mastic, Mastic	Clear Non-Fibrous Homogeneous	< 1% Cellulose < 1% Glass < 1% Synthetic	100% Other	None Detected
JK111617-14 / 17047157-014 12x12 In. Floor Tile Mastic, Floor Tile	White Non-Fibrous Homogeneous		100% Other	None Detected
JK111617-14 / 17047157-014 12x12 In. Floor Tile Mastic, Mastic	Clear Non-Fibrous Homogeneous	< 1% Cellulose < 1% Glass < 1% Synthetic	100% Other	None Detected
JK111617-15 / 17047157-015 12x12 In. Replacement Floor Tile Mastic, Floor Tile	White Non-Fibrous Homogeneous		100% Other	None Detected
JK111617-15 / 17047157-015 12x12 In. Replacement Floor Tile Mastic, Mastic	Various Non-Fibrous Homogeneous		100% Other	None Detected
JK111617-16 / 17047157-016 12x12 In. Replacement Floor Tile Mastic, Floor Tile	White Non-Fibrous Homogeneous		100% Other	None Detected

Amended Report: Additional Analysis

Certification

Analyst: Susan L. Childress
Approved Signatory:

Analysis Date: 12/19/2017
Date: 12/19/2017

SanAir Technologies Laboratory

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Collected Date: 11/16/2017
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Analyst: Childress, Susan

Asbestos Bulk PLM EPA 600/R-93/116

	Stereoscopic	Components		
SanAir ID / Description	Appearance	% Fibrous	% Non Fiberous	Asbestos Fibers
JK111617-16 / 17047157-016 12x12 In. Replacement Floor Tile Mastic, Mastic	Various Non-Fibrous Homogeneous		100% Other	None Detected
JK111617-17 / 17047157-017 12x12 In. Floor Tile Mastic, Floor Tile	Grey Non-Fibrous Homogeneous		100% Other	None Detected
JK111617-17 / 17047157-017 12x12 In. Floor Tile Mastic, Mastic	Yellow Non-Fibrous Homogeneous		100% Other	None Detected
JK111617-18 / 17047157-018 12x12 In. Floor Tile Mastic, Floor Tile	Grey Non-Fibrous Homogeneous		100% Other	None Detected
JK111617-18 / 17047157-018 12x12 In. Floor Tile Mastic, Mastic	Yellow Non-Fibrous Homogeneous		100% Other	None Detected
JK111617-19 / 17047157-019 12x12 In Floor Tile Mastic, Floor Tile	White Non-Fibrous Homogeneous		100% Other	None Detected
JK111617-19 / 17047157-019 12x12 In Floor Tile Mastic, Mastic	Yellow Non-Fibrous Homogeneous		100% Other	None Detected
JK111617-20 / 17047157-020 12x12 In Floor Tile Mastic, Floor Tile	White Non-Fibrous Homogeneous		100% Other	None Detected
JK111617-20 / 17047157-020 12x12 In Floor Tile Mastic, Mastic	Yellow Non-Fibrous Homogeneous		100% Other	None Detected
JK111617-21 / 17047157-021 12x12 In. Floor Tile Mastic, Floor Tile	White Non-Fibrous Homogeneous		100% Other	None Detected

Amended Report: Additional Analysis

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Analyst: Childress, Susan

Asbestos Bulk PLM EPA 600/R-93/116

	Stereoscopic	Components		
SanAir ID / Description	Appearance	% Fibrous	% Non Fiberous	Asbestos Fibers
JK111617-21 / 17047157-021 12x12 In. Floor Tile Mastic, Mastic	Yellow Non-Fibrous Homogeneous		100% Other	None Detected
JK111617-22 / 17047157-022 12x12 In. Floor Tile Mastic, Floor Tile	White Non-Fibrous Homogeneous		100% Other	None Detected
JK111617-22 / 17047157-022 12x12 In. Floor Tile Mastic, Mastic	Yellow Non-Fibrous Homogeneous		100% Other	None Detected
JK111617-23 / 17047157-023 12x12 In. Floor Tile Mastic, Floor Tile	Black Non-Fibrous Homogeneous		100% Other	None Detected
JK111617-23 / 17047157-023 12x12 In. Floor Tile Mastic, Mastic	Yellow Non-Fibrous Homogeneous		100% Other	None Detected
JK111617-24 / 17047157-024 12x12 In. Floor Tile Mastic, Floor Tile	Black Non-Fibrous Homogeneous		100% Other	None Detected
JK111617-24 / 17047157-024 12x12 In. Floor Tile Mastic, Mastic	Yellow Non-Fibrous Homogeneous		100% Other	None Detected
JK111617-25 / 17047157-025 12x12 In Floor Tile & Mastic, Floor Tile	White Non-Fibrous Homogeneous		100% Other	None Detected
JK111617-25 / 17047157-025 12x12 In Floor Tile & Mastic, Mastic	Various Non-Fibrous Homogeneous	< 1% Cellulose	98% Other	2% Chrysotile
JK111617-26 / 17047157-026 12x12 In Floor Tile & Mastic, Floor Tile	White Non-Fibrous Homogeneous		100% Other	None Detected

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Certification

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Asbestos Bulk PLM EPA 600/R-93/116

SanAir ID / Description	Stereoscopic Appearance	Components % Fibrous	% Non Fiberous	Asbestos Fibers
JK111617-26 / 17047157-026 12x12 In Floor Tile & Mastic, Mastic				Not Analyzed
JK111617-27 / 17047157-027 Cove Base And Mastic, Cove Base	Black Non-Fibrous Homogeneous		100% Other	None Detected
JK111617-27 / 17047157-027 Cove Base And Mastic, Mastic	Brown Non-Fibrous Homogeneous		100% Other	None Detected
JK111617-28 / 17047157-028 Cove Base And Mastic, Cove Base	Black Non-Fibrous Homogeneous		100% Other	None Detected
JK111617-28 / 17047157-028 Cove Base And Mastic, Mastic	Cream Non-Fibrous Homogeneous		100% Other	None Detected
JK111617-29 / 17047157-029 Cove Base And Mastic, Cove Base	Red Non-Fibrous Homogeneous		100% Other	None Detected
JK111617-29 / 17047157-029 Cove Base And Mastic, Mastic				Not Submitted
JK111617-30 / 17047157-030 Cove Base And Mastic, Cove Base	Red Non-Fibrous Homogeneous		100% Other	None Detected
JK111617-30 / 17047157-030 Cove Base And Mastic, Mastic	Cream Non-Fibrous Homogeneous		100% Other	None Detected
JK111617-31 / 17047157-031 Cove Base And Mastic, Cove Base	Tan Non-Fibrous Homogeneous		100% Other	None Detected

Amended Report: Additional Analysis

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Analyst: Childress, Susan

Asbestos Bulk PLM EPA 600/R-93/116

	Stereoscopic	Components		
SanAir ID / Description	Appearance	% Fibrous	% Non Fiberous	Asbestos Fibers
JK111617-31 / 17047157-031 Cove Base And Mastic, Mastic	Cream Non-Fibrous Homogeneous		100% Other	None Detected
JK111617-32 / 17047157-032 Cove Base And Mastic, Cove Base	Tan Non-Fibrous Homogeneous		100% Other	None Detected
JK111617-32 / 17047157-032 Cove Base And Mastic, Mastic	Cream Non-Fibrous Homogeneous		100% Other	None Detected
JK111617-33 / 17047157-033 Duct Seam Sealant	White Non-Fibrous Homogeneous		95% Other	5% Chrysotile
JK111617-34 / 17047157-034 Duct Seam Sealant				Not Analyzed
JK111617-35 / 17047157-035 Duct Seam Sealant				Not Analyzed
JK111617-36 / 17047157-036 Duct Seam Sealant				Not Analyzed
JK111617-37 / 17047157-037 Duct Seam Sealant				Not Analyzed
JK111617-38 / 17047157-038 Duct Mastic	Brown Non-Fibrous Homogeneous		100% Other	None Detected
JK111617-39 / 17047157-039 Drywall And Joint Compound, Drywall	Off-White Non-Fibrous Homogeneous	3% Cellulose	97% Other	None Detected

Amended Report: Additional Analysis

Certification

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Asbestos Bulk PLM EPA 600/R-93/116

	Stereoscopic	Components		
SanAir ID / Description	Appearance	% Fibrous	% Non Fiberous	Asbestos Fibers
JK111617-39 / 17047157-039 Drywall And Joint Compound, Joint Compound	White Non-Fibrous Homogeneous		100% Other	None Detected
JK111617-40 / 17047157-040 Drywall And Joint Compound, Drywall	Off-White Non-Fibrous Homogeneous	3% Cellulose	97% Other	None Detected
JK111617-40 / 17047157-040 Drywall And Joint Compound, Joint Compound	White Non-Fibrous Homogeneous		100% Other	None Detected
JK111617-41 / 17047157-041 Drywall And Joint Compound, Drywall	Off-White Non-Fibrous Homogeneous	3% Cellulose	97% Other	None Detected
JK111617-41 / 17047157-041 Drywall And Joint Compound, Joint Compound	White Non-Fibrous Homogeneous		98% Other	2% Chrysotile
JK111617-41 / 17047157-041 Drywall And Joint Compound, Composite	Various Non-Fibrous Homogeneous	< 1% Cellulose	100% Other	< 1% Chrysotile
JK111617-42 / 17047157-042 Drywall And Joint Compound, Drywall	Off-White Non-Fibrous Homogeneous	3% Cellulose	97% Other	None Detected
JK111617-42 / 17047157-042 Drywall And Joint Compound, Joint Compound	White Non-Fibrous Homogeneous		100% Other	None Detected
JK111617-43 / 17047157-043 Drywall And Joint Compound, Drywall	Off-White Non-Fibrous Homogeneous	3% Cellulose	97% Other	None Detected
JK111617-43 / 17047157-043 Drywall And Joint Compound, Joint Compound	White Non-Fibrous Homogeneous		98% Other	2% Chrysotile

Amended Report: Additional Analysis

Certification

Analyst: Susan L. Childress
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Analyst: Childress, Susan

Asbestos Bulk PLM EPA 600/R-93/116

	Stereoscopic	Components		
SanAir ID / Description	Appearance	% Fibrous	% Non Fiberous	Asbestos Fibers
JK111617-43 / 17047157-043 Drywall And Joint Compound, Composite	Various Non-Fibrous Homogeneous		100% Other	< 1% Chrysotile
JK111617-44 / 17047157-044 Drywall And Joint Compound, Drywall	Off-White Non-Fibrous Homogeneous	3% Cellulose	97% Other	None Detected
JK111617-44 / 17047157-044 Drywall And Joint Compound, Joint Compound	White Non-Fibrous Homogeneous		98% Other	2% Chrysotile
JK111617-44 / 17047157-044 Drywall And Joint Compound, Composite	Various Non-Fibrous Homogeneous		100% Other	< 1% Chrysotile
JK111617-45 / 17047157-045 Drywall And Joint Compound, Drywall	Off-White Non-Fibrous Homogeneous	3% Cellulose	97% Other	None Detected
JK111617-45 / 17047157-045 Drywall And Joint Compound, Joint Compound	White Non-Fibrous Homogeneous		98% Other	2% Chrysotile
JK111617-45 / 17047157-045 Drywall And Joint Compound, Composite	Various Non-Fibrous Homogeneous		100% Other	< 1% Chrysotile
JK111617-46 / 17047157-046 Threshold And Mastic, Threshold	Black Non-Fibrous Homogeneous		100% Other	None Detected
JK111617-46 / 17047157-046 Threshold And Mastic, Mastic	Yellow Non-Fibrous Homogeneous	< 1% Cellulose < 1% Synthetic	100% Other	None Detected
JK111617-47 / 17047157-047 Threshold And Mastic, Threshold	Black Non-Fibrous Homogeneous		100% Other	None Detected

Amended Report: Additional Analysis

Certification

Analyst: Susan L. Childress
Approved Signatory:

Analysis Date: 12/19/2017
Date: 12/19/2017

SanAir ID Number
17047157
FINAL REPORT
12/19/2017 12:47:25 PM

Name: Green Street Environmental
Address: 6304 Blair Hill Lane
Baltimore, MD 21209
Phone: 410-296-8800
Analyst: Childress, Susan

Project Number: 171101-2
P.O. Number:
Project Name: Legislative Services Bldg, Amended Report JT
Collected Date: 11/16/2017
Received Date: 11/20/2017 9:20:00 AM

Asbestos Bulk PLM EPA 600/R-93/116

	Stereoscopic	Components		
SanAir ID / Description	Appearance	% Fibrous	% Non Fiberous	Asbestos Fibers
JK111617-47 / 17047157-047 Threshold And Mastic, Mastic	Yellow Non-Fibrous Homogeneous	< 1% Cellulose < 1% Synthetic	100% Other	None Detected
JK111617-48 / 17047157-048 Pipe Wrap (TSI), Wrap	White Fibrous Homogeneous	95% Glass	5% Other	None Detected
JK111617-48 / 17047157-048 Pipe Wrap (TSI), Insulation	Gold Fibrous Homogeneous	98% Glass	2% Other	None Detected
JK111617-48 / 17047157-048 Pipe Wrap (TSI), Mastic/Wrap	Beige Non-Fibrous Homogeneous	60% Cellulose	40% Other	None Detected
JK111617-48 / 17047157-048 Pipe Wrap (TSI), Mud	Grey Non-Fibrous Heterogeneous	15% Glass	85% Other	None Detected
JK111617-49 / 17047157-049 Pipe Wrap (TSI), Wrap	White Fibrous Homogeneous	95% Glass	5% Other	None Detected
JK111617-49 / 17047157-049 Pipe Wrap (TSI), Insulation	Gold Fibrous Homogeneous	98% Glass	2% Other	None Detected
JK111617-49 / 17047157-049 Pipe Wrap (TSI), Wrap	Beige Fibrous Homogeneous	95% Cellulose	5% Other	None Detected
JK111617-50 / 17047157-050 Pipe Wrap (TSI), Wrap	Various Fibrous Homogeneous	90% Cellulose	10% Other	None Detected
JK111617-50 / 17047157-050 Pipe Wrap (TSI), Insulation	Yellow Fibrous Homogeneous	98% Glass	2% Other	None Detected

Amended Report: Additional Analysis

Certification

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Approved Signatory:

Analysis Date: 12/19/2017
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Name: Green Street Environmental
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Project Name: Legislative Services Bldg, Amended Report JT
Collected Date: 11/16/2017
Received Date: 11/20/2017 9:20:00 AM

Analyst: Childress, Susan

Asbestos Bulk PLM EPA 600/R-93/116

	Stereoscopic	Components		
SanAir ID / Description	Appearance	% Fibrous	% Non Fiberous	Asbestos Fibers
JK111617-50 / 17047157-050 Pipe Wrap (TSI), Mastic/Wrap	Various Non-Fibrous Homogeneous	60% Cellulose	40% Other	None Detected
JK111617-51 / 17047157-051 Mudded Pipe Joint	Grey Non-Fibrous Heterogeneous	20% Glass 10% Cellulose	70% Other	None Detected
JK111617-52 / 17047157-052 Mudded Pipe Joint	Grey Non-Fibrous Heterogeneous	20% Glass 10% Cellulose	70% Other	None Detected
JK111617-53 / 17047157-053 Mudded Pipe Joint	Grey Non-Fibrous Heterogeneous	20% Glass 10% Cellulose	70% Other	None Detected
JK111617-54 / 17047157-054 Spray-On Fireproofing	Grey Fibrous Homogeneous	98% Glass	2% Other	None Detected
JK111617-55 / 17047157-055 Spray-On Fireproofing	Grey Fibrous Homogeneous	98% Glass	2% Other	None Detected
JK111617-56 / 17047157-056 Spray-On Fireproofing	Grey Fibrous Homogeneous	98% Glass	2% Other	None Detected
JK111617-57 / 17047157-057 Plaster Ceiling, Plaster	Grey Non-Fibrous Homogeneous		100% Other	None Detected
JK111617-57 / 17047157-057 Plaster Ceiling, Skim Coat	White Non-Fibrous Homogeneous		100% Other	None Detected
JK111617-58 / 17047157-058 Plaster Ceiling, Plaster	Grey Non-Fibrous Homogeneous		100% Other	None Detected

Amended Report: Additional Analysis

Certification

Analyst: Susan L. Childress
Approved Signatory:

Analysis Date: 12/19/2017
Date: 12/19/2017

SanAir ID Number
17047157
FINAL REPORT
12/19/2017 12:47:25 PM

Name: Green Street Environmental
Address: 6304 Blair Hill Lane
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Phone: 410-296-8800

Project Number: 171101-2
P.O. Number:
Project Name: Legislative Services Bldg, Amended Report JT
Collected Date: 11/16/2017
Received Date: 11/20/2017 9:20:00 AM

Analyst: Childress, Susan

Asbestos Bulk PLM EPA 600/R-93/116

SanAir ID / Description	Stereoscopic Appearance	Components % Fibrous	% Non Fiberous	Asbestos Fibers
JK111617-58 / 17047157-058 Plaster Ceiling, Skim Coat	White Non-Fibrous Homogeneous		100% Other	None Detected
JK111617-59 / 17047157-059 Exterior Window Glazing	White Non-Fibrous Homogeneous		100% Other	None Detected
JK111617-60 / 17047157-060 Exterior Window Glazing	White Non-Fibrous Homogeneous		100% Other	None Detected
JK111617-61 / 17047157-061 Exterior Window Caulk	White Non-Fibrous Homogeneous		100% Other	None Detected

Amended Report: Additional Analysis

Certification

Analyst: Susan L. Childress
Approved Signatory:

Analysis Date: 12/19/2017
Date: 12/19/2017

Disclaimer

The final report cannot be reproduced, except in full, without written authorization from SanAir. Fibers smaller than 5 microns cannot be seen with this method due to scope limitations. The accuracy of the results is dependent upon the client's sampling procedure and information provided to the laboratory by the client. SanAir assumes no responsibility for the sampling procedure and will provide evaluation reports based solely on the sample and information provided by the client. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. government. Samples are held for a period of 60 days.

For NY state samples, method EPA 600/M4-82-020 is performed.

Polarized- light microscopy is not consistently reliable in detecting asbestos in floor covering and similar non-friable organically bound materials. Quantitative transmission electron microscopy is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos containing.

Asbestos Certifications
NVLAP lab code 200870
City of Philadelphia: ALL-460
PA Department of Environmental Protection Number: 68-05397
California License Number: 2915
Colorado License Number: AL-23143
Connecticut License Number: PH-0105
Massachusetts License Number: AA000222
Maine License Number: LB-0075
New York ELAP lab ID: 11983
Rhode Island License Number: AAL-126
Texas Department of State Health Services License Number: 300440
Commonwealth of Virginia 3333000323
Washington State License Number: C989
West Virginia License Number: LT000566
Vermont License: AL166318

Revision Date: 11/30/2017

SanAir Technologies Laboratory

1551 Oakbridge Dr. STE B
Powhatan, VA 23139
804.897.1177 / 888.895.1177
Fax 804.897.0070
sanair.com

Asbestos Chain of Custody
Form 140, Rev 1, 1/20/2017

SanAir ID Number: 17047151

Company: Green Street Environmental		Project #: 171101-2	Collect by: Jake Kilczewski
Address: 6304 Blair Hill Lane		Project Name: Legislative Services Bldg	Phone #: 410-296-8800
City, St., Zip: Baltimore, MD 21209		Date Collected: 11/16/17	Fax #: —
State of Collection: MD	Account#: 2555	P.O. Number: —	Email: smunsch@greenstreet-environmental.com

Bulk

ABB	PLM EPA 600/R-93/116	■
	Positive Stop ■	
ABEPA	PLM EPA 400 Point Count	☐
ABB1K	PLM EPA 1000 Point Count	☐
ABBEN	PLM EPA NOB**	☐
ABBCH	TEM Chatfield**	☐
ABBTM	TEM EPA NOB**	☐
ABQ	PLM Qualitative	☐

** Available on 24-hr. to 5-day TAT

Water

ABHE	EPA 100.2	☐

Air

ABA	PCM NIOSH 7400	☐
ABA-2	OSHA w/ TWA*	☐
ABTEM	TEM AHERA	☐
ABATN	TEM NIOSH 7402	☐
ABT2	TEM Level II	☐
Other:		☐

New York ELAP

PLM NY	PLM EPA 600/M4-82-020	☐
ABEPA2	NY ELAP 198.1	☐
ABENY	NY ELAP 198.6 PLM NOB	☐
ABBNY	NY ELAP 198.4 TEM NOB	☐

Soil

ABSE	PLM EPA 600/R-93/116 (Qual.)	☐

Vermiculite & Soil

ABSP	PLM CARB 435 (LOD <1%)	☐
ABSP1	PLM CARB 435 (LOD 0.25%)	☐
ABSP2	PLM CARB 435 (LOD 0.1%)	☐

Dust

ABWA	TEM Wipe ASTM D-6480	☐
ABDMV	TEM Microvac ASTM D-5755	☐

Matrix	Other	
		☐

Turn Around Times	3 HR (4 HR TEM) ☐	6 HR (8HR TEM) ☐	12 HR ☐	24 HR ☐
	☐ 2 Days	☐ 3 Days	☐ 4 Days	■ 5 Days

Special Instructions

Sample #	Sample Identification/Location	Volume or Area	Sample Date	Flow Rate*	Start – Stop Time*	
JK111617-(1-2)	2x4 ft. white ceiling tile	—	11/16/17	—	—	—
JK111617(3-4)	12x12 in. white ceiling tile	—	11/16/17	—	—	—
JK111617-(5-6)	2x4 ft. white replacement ceiling tile	—	11/16/17	—	—	—
JK111617(7-8)	2x4 ft. white big fissured ceiling tile	—	11/16/17	—	—	—
JK111617(9-10)	2x2 ft. white ceiling tile	—	11/16/17	—	—	—
JK111617(11-12)	12x12 in. white/gray floor tile mastic	—	11/16/17	—	—	—
JK111617(13-14)	12x12 in. white/brown floor tile mastic	—	11/16/17	—	—	—
JK111617(15-16)	12x12 in. white replacement floor tile mastic	—	11/16/17	—	—	—
JK111617(17-18)	12x12 in. gray floor tile mastic	—	11/16/17	—	—	—
JK111617(19-20)	12x12 in white/blue/gray floor tile mastic	—	11/16/17	—	—	—
JK111617(21-22)	12x12 in. white/black stripe floor tile mastic	—	11/16/17	—	—	—
JK111617(23-24)	12x12 in. black/white stripe floor tile mastic	—	11/16/17	—	—	—

Relinquished by	Date	Time	Received by	Date	Time
			AC	NOV 20 2017	9:29AM

If no technician is provided, then the primary contact for your account will be selected. Unless scheduled, the turnaround time for all samples received after 3 pm EST Friday will begin at 8 am Monday morning. Weekend or holiday work must be scheduled ahead of time and is charged for rush turnaround time. SanAir covers Standard Overnight FedEx shipping. Shipments billed to SanAir with a faster shipping rate will result in additional charges.

Page 1 of 2

17047157

Form 140, Revision 1, 1/20/2017

Sample #	Sample Identification/Location	Volume or Area	Sample Date	Flow Rate*	Start – Stop Time*	
JK111617(25-26)	12x12in wh floor tile & mastic	/	11/16/17	/	/	/
JK111617(27-28)	Black cove base and mastic	/	11/16/17	/	/	/
JK111617(29-30)	red cove base and mastic	/	11/16/17	/	/	/
JK111617(31-32)	tan cove base and mastic	/	11/16/17	/	/	/
JK111617(33-37)	duct seam sealant	/	11/16/17	/	/	/
JK111617-38	duct mastic	/	11/16/17	/	/	/
JK111617-(39-45)	drywall and joint compound	/	11/16/17	/	/	/
JK111617(46-47)	black threshold and mastic	/	11/16/17	/	/	/
JK111617(48-50)	wh. pipe wrap (TSI)	/	11/16/17	/	/	/
JK111617(51-53)	mudded pipe joint	/	11/16/17	/	/	/
JK111617(54-56)	spray-on fireproofing	/	11/16/17	/	/	/
JK111617(57-58)	plaster ceiling	/	11/16/17	/	/	/
JK111617(59-60)	exterior window glazing	/	11/16/17	/	/	/
JK111617-61	exterior window caulk	/	11/16/17	/	/	/

Special Instructions	

Relinquished by	Date	Time	Received by	Date	Time
Sarah Munsch	11/17/17	2:00 pm	MC	NOV 20 2017	10:29AM

If no technician is provided, then the primary contact for your account will be selected. Unless scheduled, the turnaround time for all samples received after 3 pm EST Friday will begin at 8 am Monday morning. Weekend or holiday work must be scheduled ahead of time and is charged for rush turnaround time. SanAir covers Standard Overnight FedEx shipping. Shipments billed to SanAir with a faster shipping rate will result in additional charges.

Page 2 of 2

Appendix C:
Lead-Based Paint Field Data

GREEN STREET ENVIRONMENTAL
6304 BLAIR HILL LANE / SUITE 2
BALTIMORE, MD 21209
PHONE 410.296.8800 • FAX 410.296.8801
WWW.GREENSTREET-ENVIRONMENTAL.COM

Project # 171101-2

LEAD XRF DATA

Project Name: Legislative Services Building

Date: 11/15/17

No.	Room Equivalent	Component Type / Substrate / Color	WC*	Reading mg/cm^2	"+"
1	Basement B14	Wall/Drywall/White	D	0.0	☐
2	Basement B11-A (office)	Door Surface/Metal/Blue	B	0.0	☐
3	Basement B11 (hallway)	Baseboard/Wood/Blue	A	0.0	☐
4	Basement B11 (print shop)	Column/Cement/White	-	0.0	☐
5	Basement B11 (print shop)	Wall/Cement/Blue	D	0.0	☐
6	Basement B11 (print shop)	Door Case/Metal/Green	C	0.01	☐
7	Basement B11 (print shop)	Wall/Cement Block/Blue	A	0.0	☐
8	Basement B11 (print shop)	Door Surface/Wood/Green	C	0.0	☐
9	Basement B11 (print shop)	Wall/Drywall/Blue-Gray	A	0.0	☐
10	Basement B10	Door Case/Metal/Black	D	0.03	☐
11	Basement Library	Door Surface/Wood/Cream	B	0.0	☐
12	Basement B11	Elevator Door Case/Metal/Black	B	0.0	☐
13	Basement Mens Room	Ceiling/Drywall/White	-	0.0	☐
14	Basement Hallway	Chair Rail/Wood/Blue	B	0.0	☐
15	Basement Hallway	Baseboard/Wood/Blue	C	0.0	☐
16	Basement B04	Wall/Drywall/White	B	0.0	☐
17	Basement Library	Column/Drywall/White	-	0.0	☐
18	Basement Library	Bulkhead/Metal/White	-	0.0	☐
19	Basement Library	Wall/Drywall/White	B	0.0	☐
20	Basement B08B	Door Case/Wood/Blue	D	0.0	☐
21	Basement B08B	Door Surface/Wood/Blue	D	0.0	☐
22	Basement Hallway	Desk Surface/Wood/Blue	A	0.0	☐
23	Basement Stairwell	Handrail/Metal/????	B	0.0	☐
24	Basement Stairwell	Stringer/Metal/Blue	B	0.0	☐
25	Basement Stairwell	Riser/Metal/Blue	B	0.0	☐

WC = Wall Code**: A = bldg. entrance, B, C, D = clockwise from building entrance. **"+" = Reading > 0.7 mg/cm^2

Validation Checks	Validation Check Readings (mg/cm^2)
Pre: 9:00 AM/PM	1 1.0, 2 0.9, 3 1.1
Post: 10:55 AM/PM	1 1.0, 2 0.9, 3 1.0

GREEN STREET ENVIRONMENTAL
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BALTIMORE, MD 21209
PHONE 410.296.8800 • FAX 410.296.8801
WWW.GREENSTREET-ENVIRONMENTAL.COM

Project # 171101-2

LEAD XRF DATA

Project Name: Legislative Services Building

Date: 11/15/17

No.	Room Equivalent	Component Type / Substrate / Color	WC*	Reading mg/cm²	"+"
26	Ground Floor G15A	Door Case/Metal/Blue	B	0.0	☐
27	Ground Floor G15A	Door Surface/Wood/Blye	B	0.0	☐
28	Ground Floor G15F	Wall/Drywall/White	B	0.0	☐
29	Ground Floor G15F	Baseboard/Wood/Blue	C	0.0	☐
30	Ground Floor G15H	Wall/Drywall/White	D	0.0	☐
31	Ground Floor G15H	Door Case/Wood/Blue	D	0.0	☐
32	Ground Floor Hallway of Offices (G15)	Exterior Door Surface/Wood/???	D	0.0	☐
33	Ground Floor Training Room G15	Closet Door Surface/Wood/Blue	D	0.0	☐
34	Ground Floor Training Room G15	Wall/Drywall/White	A	0.0	☐
35	Ground Floor Cafeteria	Door Pillar/Wood/Blue	B	0.0	☐
36	Ground Floor Cafeteria	Chair Rail/Wood/Blue	B	0.0	☐
37	Ground Floor Document Design	Door Case/Wood/Blue	B	0.0	☐
38	Ground Floor Hallway	Grate/metal/White	D	0.0	☐
39	Ground Floor Hallway	Display Case/Wood/Blue	B	0.0	☐
40	Ground Floor Hallway	Door Surface/Wood/Blue	C	0.0	☐
41	Ground Floor Bill Room Help Desk	Window Case/Wood/Blue	A	0.0	☐
42	Ground Floor Hallway	Door Case/Metal/Blue	A	0.0	☐
43	Ground Floor Hallway	Elevator Door Case/Metal/Blue	D	0.0	☐
44	Ground Floor Hallway	Crown Molding/Wood/Blue	A	0.0	☐
45	Ground Floor Hallway	Desk Surface/Wood/Blue	A	0.0	☐
46	Ground Floor Hallway	Door Surface/Wood/Blue	D	0.0	☐
47	Ground Floor Womens Room	Door Surface/Wood/Blue	C	0.0	☐
48	Ground Floor Stairwell	Newel Post/Metal/Blue	-	0.0	☐
49	Ground Floor Mail Room	Wall/Drywall/Whtie	D	0.0	☐
50	Ground Floor Mail Room	Water Valve Pipe/Metal/White	A	0.10	☐

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NOTES:

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Project # 171101-2

LEAD XRF DATA

Project Name: Legislative Services Building

Date: 11/15/17

No.	Room Equivalent	Component Type / Substrate / Color	WC*	Reading mg/cm^2	"+"
51	Ground Floor Mail Room Storage Closet	Wall/Drywall/White	B	0.0	☐
52	1st Floor Joint Committee Hearing Room (hallway)	Wall/Drywall/White	D	0.0	☐
53	1st Floor Joint Committee Hearing Room (hallway)	Wall/Drywall/White	D	0.0	☐
54	1st Floor Joint Committee Hearing Room (hallway)	Surface Access Panel/Metal/White	D	0.0	☐
55	1st Floor Joint Committee Hearing Room (hallway)	Railing Support/Metal/White	D	0.0	☐
56	1st Floor Hallway	Column/Drywall/Blue	D	0.0	☐
57	1st Floor Computer Room	Wall/Drywall/Light Blue	A	0.0	☐
58	1st Floor 120	Window Sill/Wood/Blue	A	0.0	☐
59	1st Floor 120	Window Sash/Wood/Blue	A	0.0	☐
60	1st Floor 120	Window Case/Metal/Blue	A	0.0	☐
61	1st Floor 120	Chair Rail/Wood/Blue	D	0.0	☐
62	1st Floor Meeting Room	Window Sash/Wood/Blue	D	0.0	☐
63	1st Floor Meeting Room	Door Surface/Wood/Blue	C	0.0	☐
64	1st Floor Meeting Room	Door Case/Wood/Blue	C	0.0	☐
65	1st Floor Hallway	Baseboard/Wood/Blue	C	0.0	☐
66	1st Floor Hallway	Door Case/Wood/Blue	C	0.0	☐
67	1st Floor Hallway	Door Surface/Wood/Blue	D	0.0	☐
68	1st Floor Hallway	Exterior Door Surface/Wood/???	D	0.0	☐
69	1st Floor Billing	Window Case/Wood/Blue	A	0.0	☐
70	1st Floor Billing	Window Sill/Wood/Blue	A	0.0	☐
71	1st Floor Billing	Window Sash/Wood/Blue	A	0.0	☐
72	1st Floor Billing	Window Apron/Wood/Blue	A	0.0	☐
73	1st Floor 108 E-H	Baseboard/Wood/Blue	A	0.0	☐
74	1st Floor 108 E-H	Wall/Drywall/White	A	0.0	☐
75	1st Floor Hallway	Column/Wood/Blue	A	0.0	☐

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NOTES:

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BALTIMORE, MD 21209
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WWW.GREENSTREET-ENVIRONMENTAL.COM

Project # 171101-2

LEAD XRF DATA

Project Name: Legislative Services Building

Date: 11/15/17

No.	Room Equivalent	Component Type / Substrate / Color	WC*	Reading mg/cm²	"+"
76	1st Floor Stairwell	Ballast/Metal/White	-	0.25	☐
77	1st Floor Attorney General Office	Door Case/Wood/Blue	D	0.0	☐
78	1st Floor Attorney General Office	Window Sill/Wood/White	D	0.0	☐
79	1st Floor Attorney General Office	Window Sash/Wood/White	D	0.0	☐
80	1st Floor Attorney General Office	Baseboard/Wood/Blue	B	0.0	☐
81	1st Floor Attorney General Office Closet	Wall/Drywall/Green	B	0.0	☐
82	2nd Floor Hallway (elevator)	Wall/Drywall/White	A	0.0	☐
83	2nd Floor Hallway (elevator)	Baseboard/Wood/Blue	A	0.0	☐
84	2nd Floor Office Spaces	Window Sill/Wood/Blue	A	0.0	☐
85	2nd Floor Office Spaces	Window Sash/Wood/Blue	A	0.0	☐
86	2nd Floor Storage Room	Wall/Concrete Block/White	D	0.0	☐
87	2nd Floor Conference Room	Door Case/Metal/Blue	A	0.0	☐
88	2nd Floor 207 Offices	Door Surface/Wood/Blue	A	0.0	☐
89	2nd Floor 207C	Wall/Drywall/White	D	0.0	☐
90	2nd Floor 207C	Baseboard/Wood/Blue	D	0.0	☐
91	2nd Floor 207C	Door Case/Wood/Blue	C	0.0	☐
92	2nd Floor Hallway	Access Panel Surface/Wood/White	C	0.0	☐
93	2nd Floor Hallway	Door Surface/Wood/Blue	C	0.0	☐
94	2nd Floor Stairwell	Ballast/Metal/White	-	0.0	☐
95	2nd Floor 215 A & B Offices	Column/Wood/White	B	0.0	☐
96	2nd Floor 216I	Window Sill/Wood/Blue	A	0.0	☐
97	2nd Floor 216I	Window Sash/Wood/Blue	A	0.0	☐
98	2nd Floor 226 Offices	Column/Drywall/White	-	0.0	☐
99	2nd Floor 200C Office	Chair Rail/Wood/Blue	D	0.0	☐
100	2nd Floor 200C Office	Baseboard/Wood/Blue	C	0.28	☐

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NOTES:

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Date: 11/15/17

No.	Room Equivalent	Component Type / Substrate / Color	WC*	Reading mg/cm²	"+"
101	3rd Floor 300 Offices	Door Case/Wood/Blue	A	0.0	☐
102	3rd Floor 300 E	Window Sill/Wood/Blue	A	0.0	☐
103	3rd Floor 300 E	Window Sash/Wood/Blue	A	0.0	☐
104	3rd Floor 300 E	Wall/Drywall/White	B	0.0	☐
105	3rd Floor Human Resources	Door Case/Wood/Blue	A	0.0	☐
106	3rd Floor Human Resources	Door Surface/Wood/Blue	A	0.0	☐
107	3rd Floor 311D	Ceiling/Drywall/White	-	0.0	☐
108	3rd Floor 311D	Baseboard/Wood/Blue	C	0.0	☐
109	3rd Floor 311D	Ledge/Wood/Blue	-	0.0	☐
110	3rd Floor 309	Column/Drywall/White	-	0.0	☐
111	3rd Floor 309	Window Case/Wood/Blue	C	0.0	☐
112	3rd Floor 309	Window Case/Wood/Blue	D	0.0	☐
113	3rd Floor 309	Wall/Drywall/White	C	0.0	☐
114	3rd Floor 309	Window Sash/Wood/Blue	C	0.0	☐
115	3rd Floor DOC Design	Baseboard/Wood/Blue	A	0.0	☐
116	3rd Floor DOC Design	Door Case/Wood/Blue	A	0.0	☐
117	3rd Floor DOC Design	Door Surface/Wood/Blue	A	0.0	☐
118	3rd Floor 304	Door Surface/Wood/Blue	A	0.0	☐
119	3rd Floor 304	Wall/Drywall/White	D	0.0	☐
120	3rd Floor 304	Ceiling/Drywall/White	-	0.0	☐
121	3rd Floor Hallway	Column/Wood/Blue	C	0.0	☐
122	3rd Floor Mens Room	Ceiling/Drywall/White	-	0.0	☐
123	3rd Floor Mens Room	Access Panel Surface/Metal/Gray	-	0.0	☐
124	3rd Floor Mens Room	Partition Between Stalls/Metal/Gray	-	0.0	☐
125	3rd Floor Hallway	Chair Rail/Wood/Blue	A	0.0	☐

WC = Wall Code**: A = bldg. entrance, B, C, D = clockwise from building entrance.* ***"+" = Reading > 0.7 mg/cm²

NOTES:

GREEN STREET ENVIRONMENTAL
6304 BLAIR HILL LANE / SUITE 2
BALTIMORE, MD 21209
PHONE 410.296.8800 • FAX 410.296.8801
WWW.GREENSTREET-ENVIRONMENTAL.COM

Project # 171101-2

LEAD XRF DATA

Project Name: Legislative Services Building

Date: 11/15/17

No.	Room Equivalent	Component Type / Substrate / Color	WC*	Reading mg/cm²	"+"
126	Exterior	Window Sill/Wood/White	A	0.02	☐
127	Exterior	Window Case/Wood/White	A	0.0	☐
128	Exterior	Door Case/Wood/White	A	0.0	☐
129	Exterior	Door Surface/Wood/White	A	0.0	☐
130	Exterior	Window Sill/Wood/White	D	0.0	☐
131	Exterior	Window Sash/Wood/White	D	0.0	☐
132	Exterior	Pillar/Wood/White	D	0.0	☐
133	Exterior	Railing/Metal/Black	D	0.15	☐
134	Exterior	Door Case/Cement/White	D	0.0	☐
135	Exterior	Railing/Metal/Black	C	0.0	☐
136	Exterior	Window Sill/Wood/White	B	0.0	☐
137	Exterior	Door Surface/Wood/White	B	0.0	☐
138	Exterior	Railing/Metal/Black	A	0.0	☐
139	Exterior	Window Sill/Wood/White	B	0.0	☐
140	Exterior	Window Case/Wood/White	B	0.0	☐
141	Exterior	Pillar/Wood/White	B	0.0	☐
142	Exterior	Door Surface/Wood/White	B	0.0	☐
143	Exterior	Window Apron/Wood/White	B	0.0	☐
144	Exterior	Window Case/Wood/White	A	0.0	☐
145	Exterior	Window Sash/Wood/White	A	0.0	☐
146					☐
147					☐
148					☐
149					☐
150					☐

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NOTES:

Appendix D:
Microbial Laboratory Analytical Data

U.S. Micro-Solutions, Inc. * 1075 South Main Street, Suite 104 * Greensburg, PA 15601
Phone: (724) 853-4047 Fax: (724) 853-4049 AIHA-LAP, LLC EMLAP # 103009
www.usmslab.com

Customer Name:	**Green Street Environmental**	**Sample Date:**	**November 17, 2017**
Customer Address:	**6304 Blair Hill Lane, #2**	**Date Received:**	**November 20, 2017**
	Baltimore, MD 21209	**Date of Report:**	**November 22, 2017**
Customer Phone:	**(443) 504-7054**	**Fax:**	
PO Number:		**Attention:**	**Brett Kilczewski**
Project Name/Number:	**LSB / 171101-2**		

Customer sample numbers below are uniquely identified by prefixing Laboratory # 119203-17

Airborne Spore Trap Analysis - AllergencoD
Analytical Method: USMS-M008

Total Volume (L)		**75**				**75**				**75**			
Sample Number		**2286420**				**2286421**				**2286434**			
Location:		**Hall outside Rick & Debbie's Office**				**Tunnel to State House**				**G-18**			
Particle ID		**Raw ct.**	**AS**	**Spores/m³**	**%**	**Raw ct.**	**AS**	**Spores/m³**	**%**	**Raw ct.**	**AS**	**Spores/m³**	**%**
Alternaria													
Ascospores						1	13	**13**	100%	1	13	**13**	5%
Aspergillus/Penicillium-like		6	13	**78**	86%					12	13	**156**	57%
Basidiospores													
Bipolaris/Drechslera													
Cercospora													
Chaetomium													
Cladosporium													
Curvularia													
Epicoccum													
Helicomyces													
Nigrospora													
Oidium													
Pithomyces/Ulocladium													
Polythrincium													
Rusts													
Smuts/ Myxomycetes		1	13	**13**	14%					8	13	**104**	38%
Stachybotrys													
Torula													
Unidentified dematiaceous conidia													
Unidentified hyaline conidia													
Total Mould (Spores/m³ of air)		7		**91**		1		**13**		21		**273**	
Pollen		0	13	< **13**		0	13	< **13**		0	13	< **13**	
Hyphal Fragments		1	13	**13**									
Insect Fragments													
Plant Fragments													
Skin Cell Fragments		1				1				1			
Debris		2				2				2			
Analyst Initials		HC				HC				HC			
Date Analyzed		11/22/17				11/22/17				11/22/17			

Entire trace analyzed. Results relate only to the samples tested. Results are reported as calculated. For biological data, the first and/or second digit should be considered significant. Total percentage may not equal 100% due to rounding. Percentages reported as 0% are greater than 0 and less than 0.5%. The *Aspergillus/Penicllium*-like category cannot be differentiated by non-viable sampling methods.
AS=Analytical Sensitivity (spore/m^3); Blank Lines = None Detected

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Technical Manager: Herbert Layman

Herbert Layman, BS, SM, CIEC

U.S. Micro-Solutions, Inc. * 1075 South Main Street, Suite 104 * Greensburg, PA 15601
Phone: (724) 853-4047 Fax: (724) 853-4049 AIHA-LAP, LLC EMLAP # 103009
www.usmslab.com

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	Baltimore, MD 21209	**Date of Report:**	**November 22, 2017**
Customer Phone:	**(443) 504-7054**	**Fax:**	
PO Number:		**Attention:**	**Brett Kilczewski**
Project Name/Number:	**LSB / 171101-2**		

Customer sample numbers below are uniquely identified by prefixing Laboratory # 119203-17

Airborne Spore Trap Analysis - AllergencoD
Analytical Method: USMS-M008

Total Volume (L)		**75**				**75**				**75**			
Sample Number		**2152732**				**2286428**				**2286413**			
Location:		**IT Training Room**				**IT Hallway**				**Mail Room Closet**			
Particle ID		**Raw ct.**	**AS**	**Spores/m³**	**%**	**Raw ct.**	**AS**	**Spores/m³**	**%**	**Raw ct.**	**AS**	**Spores/m³**	**%**
Alternaria													
Ascospores													
Aspergillus/Penicillium-like										14	13	**182**	93%
Basidiospores													
Bipolaris/Drechslera													
Cercospora													
Chaetomium													
Cladosporium						1	13	**13**	33%				
Curvularia													
Epicoccum													
Helicomyces													
Nigrospora													
Oidium													
Pithomyces/Ulocladium													
Polythrincium													
Rusts													
Smuts/ Myxomycetes						2	13	**26**	67%	1	13	**13**	7%
Stachybotrys													
Torula													
Unidentified dematiaceous conidia													
Unidentified hyaline conidia													
Total Mould (Spores/m³ of air)		0	13	< **13**		3		**39**		15		**195**	
Pollen		0	13	< **13**		0	13	< **13**		0	13	< **13**	
Hyphal Fragments													
Insect Fragments													
Plant Fragments													
Skin Cell Fragments		1				1				1			
Debris		2				1				2			
Analyst Initials		HC				HC				HC			
Date Analyzed		11/22/17				11/22/17				11/22/17			

Entire trace analyzed. Results relate only to the samples tested. Results are reported as calculated. For biological data, the first and/or second digit should be considered significant. Total percentage may not equal 100% due to rounding. Percentages reported as 0% are greater than 0 and less than 0.5%. The *Aspergillus/Penicllium*-like category cannot be differentiated by non-viable sampling methods.
AS=Analytical Sensitivity (spore/m^3); Blank Lines = None Detected

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Technical Manager: Herbert Layman
Herbert Layman, BS, SM, CIEC

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Phone: (724) 853-4047 Fax: (724) 853-4049 AIHA-LAP, LLC EMLAP # 103009
www.usmslab.com

Customer Name:	**Green Street Environmental**	**Sample Date:**	**November 17, 2017**
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	Baltimore, MD 21209	**Date of Report:**	**November 22, 2017**
Customer Phone:	**(443) 504-7054**	**Fax:**	
PO Number:		**Attention:**	**Brett Kilczewski**
Project Name/Number:	**LSB / 171101-2**		

Customer sample numbers below are uniquely identified by prefixing Laboratory # 119203-17

Airborne Spore Trap Analysis - AllergencoD
Analytical Method: USMS-M008

Total Volume (L)		**75**				**75**				**75**			
Sample Number		**2286427**				**2286423**				**2286412**			
Location:		**Print Shop Office**				**Library**				**Tunnel to House of Delegates**			
Particle ID		**Raw ct.**	**AS**	**Spores/m³**	**%**	**Raw ct.**	**AS**	**Spores/m³**	**%**	**Raw ct.**	**AS**	**Spores/m³**	**%**
Alternaria													
Ascospores													
Aspergillus/Penicillium-like										3	13	**39**	50%
Basidiospores		1	13	**13**	50%	1	13	**13**	50%	1	13	**13**	17%
Bipolaris/Drechslera													
Cercospora													
Chaetomium													
Cladosporium						1	13	**13**	50%				
Curvularia													
Epicoccum													
Helicomyces													
Nigrospora													
Oidium													
Pithomyces/Ulocladium													
Polythrincium													
Rusts													
Smuts/ Myxomycetes		1	13	**13**	50%					2	13	**26**	33%
Stachybotrys													
Torula													
Unidentified dematiaceous conidia													
Unidentified hyaline conidia													
Total Mould (Spores/m³ of air)		2		**26**		2		**26**		6		**78**	
Pollen		0	13	< **13**		0	13	< **13**		0	13	< **13**	
Hyphal Fragments													
Insect Fragments													
Plant Fragments													
Skin Cell Fragments		1				1				1			
Debris		3***				2				2			
Analyst Initials		LS				LS				LS			
Date Analyzed		11/22/17				11/22/17				11/22/17			

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AS=Analytical Sensitivity (spore/m^3); Blank Lines = None Detected

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*** A debris rating of 3 or greater indicates that the accuracy of the analysis is likely affected.

Technical Manager: Herbert Layman

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	Baltimore, MD 21209	**Date of Report:**	**November 22, 2017**
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Project Name/Number:	**LSB / 171101-2**		

Customer sample numbers below are uniquely identified by prefixing Laboratory # 119203-17

Airborne Spore Trap Analysis - AllergencoD
Analytical Method: USMS-M008

Total Volume (L)		**75**				**75**				**75**			
Sample Number		**2203990**				**2286418**				**2286414**			
Location:		**308**				**309**				**Reception Office of Executive Director**			
Particle ID		**Raw ct.**	**AS**	**Spores/m³**	**%**	**Raw ct.**	**AS**	**Spores/m³**	**%**	**Raw ct.**	**AS**	**Spores/m³**	**%**
Alternaria													
Ascospores													
Aspergillus/Penicillium-like		1	13	**13**	20%	4	13	**52**	57%	8	13	**104**	100%
Basidiospores		1	13	**13**	20%	1	13	**13**	14%				
Bipolaris/Drechslera													
Cercospora													
Chaetomium													
Cladosporium		2	13	**26**	40%	1	13	**13**	14%				
Curvularia		1	13	**13**	20%								
Epicoccum													
Helicomyces													
Nigrospora													
Oidium													
Pithomyces/Ulocladium													
Polythrincium													
Rusts													
Smuts/ Myxomycetes						1	13	**13**	14%				
Stachybotrys													
Torula													
Unidentified dematiaceous conidia													
Unidentified hyaline conidia													
Total Mould (Spores/m³ of air)		5		**65**		7		**91**		8		**104**	
Pollen		0	13	< **13**		0	13	< **13**		0	13	< **13**	
Hyphal Fragments													
Insect Fragments													
Plant Fragments													
Skin Cell Fragments		1				1				1			
Debris		1				2				2			
Analyst Initials		HC				HC				HC			
Date Analyzed		11/22/17				11/22/17				11/22/17			

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Customer Name:	**Green Street Environmental**	**Sample Date:**	**November 17, 2017**
Customer Address:	**6304 Blair Hill Lane, #2**	**Date Received:**	**November 20, 2017**
	Baltimore, MD 21209	**Date of Report:**	**November 22, 2017**
Customer Phone:	**(443) 504-7054**	**Fax:**	
PO Number:		**Attention:**	**Brett Kilczewski**
Project Name/Number:	**LSB / 171101-2**		

Customer sample numbers below are uniquely identified by prefixing Laboratory # 119203-17

Airborne Spore Trap Analysis - AllergencoD
Analytical Method: USMS-M008

Total Volume (L)		**75**				**75**				**75**			
Sample Number		**2286422**				**2286415**				**2286431**			
Location:		**225**				**110A**				**1st Floor Service Room**			
Particle ID		**Raw ct.**	**AS**	**Spores/m³**	**%**	**Raw ct.**	**AS**	**Spores/m³**	**%**	**Raw ct.**	**AS**	**Spores/m³**	**%**
Alternaria													
Ascospores													
Aspergillus/Penicillium-like													
Basidiospores		3	13	**39**	100%	5	13	**65**	100%	4	13	**52**	100%
Bipolaris/Drechslera													
Cercospora													
Chaetomium													
Cladosporium													
Curvularia													
Epicoccum													
Helicomyces													
Nigrospora													
Oidium													
Pithomyces/Ulocladium													
Polythrincium													
Rusts													
Smuts/ Myxomycetes													
Stachybotrys													
Torula													
Unidentified dematiaceous conidia													
Unidentified hyaline conidia													
Total Mould (Spores/m³ of air)		3		**39**		5		**65**		4		**52**	
Pollen		0	13	< **13**		0	13	< **13**		0	13	< **13**	
Hyphal Fragments													
Insect Fragments													
Plant Fragments													
Skin Cell Fragments		1				1				1			
Debris		2				2				2			
Analyst Initials		LS				LS				LS			
Date Analyzed		11/22/17				11/22/17				11/22/17			

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	Baltimore, MD 21209	**Date of Report:**	**November 22, 2017**
Customer Phone:	**(443) 504-7054**	**Fax:**	
PO Number:		**Attention:**	**Brett Kilczewski**
Project Name/Number:	**LSB / 171101-2**		

Customer sample numbers below are uniquely identified by prefixing Laboratory # 119203-17

Airborne Spore Trap Analysis - AllergencoD
Analytical Method: USMS-M008

Total Volume (L)		**75**				**75**				**75**			
Sample Number		**2286430**				**2286411**				**2286426**			
Location:		**Old Kitchen**				**Old Cafeteria**				**Basement Boiler Room**			
Particle ID		**Raw ct.**	**AS**	**Spores/m³**	**%**	**Raw ct.**	**AS**	**Spores/m³**	**%**	**Raw ct.**	**AS**	**Spores/m³**	**%**
Alternaria													
Ascospores													
Aspergillus/Penicillium-like													
Basidiospores													
Bipolaris/Drechslera													
Cercospora													
Chaetomium													
Cladosporium		1	13	**13**	100%								
Curvularia													
Epicoccum													
Helicomyces													
Nigrospora													
Oidium													
Pithomyces/Ulocladium													
Polythrincium													
Rusts													
Smuts/ Myxomycetes													
Stachybotrys													
Torula													
Unidentified dematiaceous conidia													
Unidentified hyaline conidia													
Total Mould (Spores/m³ of air)		1		**13**		0	13	< **13**		0	13	< **13**	
Pollen		0	13	< **13**		0	13	< **13**		0	13	< **13**	
Hyphal Fragments		1	13	**13**									
Insect Fragments													
Plant Fragments													
Skin Cell Fragments		1				1				1			
Debris		2				2				2			
Analyst Initials		HC				HC				HC			
Date Analyzed		11/22/17				11/22/17				11/22/17			

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Technical Manager: Herbert Layman

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www.usmslab.com

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	Baltimore, MD 21209	**Date of Report:**	**November 22, 2017**
Customer Phone:	**(443) 504-7054**	**Fax:**	
PO Number:		**Attention:**	**Brett Kilczewski**
Project Name/Number:	**LSB / 171101-2**		

Customer sample numbers below are uniquely identified by prefixing Laboratory # 119203-17

Airborne Spore Trap Analysis - AllergencoD
Analytical Method: USMS-M008

Total Volume (L)		**75**				**75**							
Sample Number		**2286416**				**2286419**							
Location:		**Basement Dark Room**				**Outside**							
Particle ID		**Raw ct.**	**AS**	**Spores/m³**	**%**	**Raw ct.**	**AS**	**Spores/m³**	**%**	**Raw ct.**	**AS**	**Spores/m³**	**%**
Alternaria													
Ascospores						1	13	**13**	7%				
Aspergillus/Penicillium-like		4	13	**52**	100%								
Basidiospores						12	13	**156**	86%				
Bipolaris/Drechslera													
Cercospora													
Chaetomium													
Cladosporium						1	13	**13**	7%				
Curvularia													
Epicoccum													
Helicomyces													
Nigrospora													
Oidium													
Pithomyces/Ulocladium													
Polythrincium													
Rusts													
Smuts/ Myxomycetes													
Stachybotrys													
Torula													
Unidentified dematiaceous conidia													
Unidentified hyaline conidia													
Total Mould (Spores/m³ of air)		4		**52**		14		**182**					
Pollen		0	13	< **13**		0	13	< **13**					
Hyphal Fragments													
Insect Fragments													
Plant Fragments													
Skin Cell Fragments		1				1							
Debris		2				1							
Analyst Initials		LS				LS							
Date Analyzed		11/22/17				11/22/17							

Entire trace analyzed. Results relate only to the samples tested. Results are reported as calculated. For biological data, the first and/or second digit should be considered significant. Total percentage may not equal 100% due to rounding. Percentages reported as 0% are greater than 0 and less than 0.5%. The *Aspergillus/Penicllium*-like category cannot be differentiated by non-viable sampling methods.
AS=Analytical Sensitivity (spore/m^3); Blank Lines = None Detected

When providing duplicates of this report, the document should be provided in total and not in section in accordance with AIHA-LAP, LLC. Any unauthorized or improper disclosure, copying, distribution, use, or falsification of these results is prohibited. USMS shall have no liability to the Customer or the Customer's customer for opinions stated, recommendations made, actions taken, or conduct implemented based on the test results reported.

Technical Manager: Herbert Layman

Herbert Layman, BS, SM, CIEC

SPORE TRAP INTERPRETATION TIPS

Currently there are no numeric standards for airborne or surface microbial contamination indoors. Suggested guidelines are constantly being reviewed and edited as more information surrounding microbial IAQ issues surface.

Some common denominators should be considered when interpreting results:

1. Comparison of indoor/outdoor concentration ratios.

   a. Generally indoor fungal counts should be lower than outdoor counts and the types of fungi found indoors should be similar to outdoors. During inclement weather, remember to note time, temperature, and season.

   b. However, indoor levels may be higher than corresponding outdoor levels (winter time in the northern U.S.) with a predominance of ***Aspergillus/Penicillium*** or ***Cladosporium*** conidia with no significant amplification of any moulds.

   c. There is always a potential bias from infiltration of outdoor air, poor housekeeping, excessive indoor relative humidity, or potential contamination sources (e.g. water intrusion through a basement wall) that may negatively influence post-remedial verification or clearance levels.

2. Complaint vs. non-complaint areas or affected vs. non-affected areas.

3. Consider air exchange rates and activity levels in a building structure, weather, and season of the year.

4. Rank order assessment and concentration (e.g. Spores/m^3 of air) of the fungi.

   a. If the total indoor spore count is >2000 spore/m^3 of air, an indoor air quality issue may be present.

   b. Spore counts >100 spores/m^3 of indoor air of ***Stachybotrys*** or ***Chaetomium*** for post-remedial verification is generally not acceptable.

5. The investigator should look for various patterns among the types of moulds detected indoors:

   a. Are there water indicator microorganisms present such, as but not limited to, ***Chaetomium***, ***Stachybotrys***, ***Rhodotorula***, ***Trichoderma***, and ***Scopulariopsis***?

   b. ***Aspergillus/Penicillium*** and/or ***Cladosporium*** are usually primary (1st) colonizers in damp or moisture intrusion areas of homes or commercial buildings.

   c. ***Chaetomium*** or ***Stachybotrys*** are tertiary (3rd) colonizers of indoor materials and are usually associated with chronic long standing water/moisture issues in a building.

   d. The presence of ***hyphal fragments*** or ***fruiting structures*** usually indicate amplification (growth) of fungi on building substrates.

   e. ***Ascospores*** and ***basidiospores*** most often represent the entrance of inadequately filtered outdoor air. Most indoor materials will not support the growth of these fungi.

6. When unidentified ***hyaline*** (clear) of ***dematiaceous*** (dark-pigmented) conidia are noted on a spore trap sample, it indicates that no particular fungus can be identified.

SPORE TRAP RESULT INTERPRETATION

DEBRIS RATING (using 600X magnification) (Air-O-Cell, Micro 5, Allergenco D, Cyclex d, VersaTrap, etc.)		
DEBRIS RATING	**CONDITIONS FOR REPORTING DEBRIS RATING**	**SIGNIFICANCE**
0	A visible trace, including particulates and debris, is not observed.	Indicates the sample was a blank or that improper sampling occurred.
1	Debris is present and <10% of the average viewing field is obscured.	Minimal amount of debris is observed.
2	Debris is present and 10% to <40% of the average viewing field is obscured.	Low amount of debris is observed, counts may be affected.
3[1]	Debris is present and 40% to 75% of the average viewing field is obscured.	Moderate amount of debris is observed, relative amounts of conidia/hyphal fragments may be underestimated.
4[1]	Debris is present and >75% of the average viewing field is obscured.	High amount of debris is observed, counts are estimated.
5[1,2]	Debris is present and the entire viewing field is obscured.	Periphery of trace is the area analyzed. Presence of conidia/hyphal fragments noted. Suggest recollect.
6[1]	Unable to analyze due to heavy debris	Unable to analyze due to heavy debris. Suggest recollect.

[1]A rating of 3 or greater indicates that the accuracy of the analysis is likely affected.
[2] A rating of 5 indicates that only the presence of conidia/hyphal fragments was noted. Recollection of the sample is suggested.

SKIN CELL ANALYSIS	
SKIN CELL RATING	**RELATIVE AMOUNTS OF OBSERVED SKIN CELLS per high power field (600X)**
0	No skin cells present
1	No skin cells present
2	2 to 5
3	6 to 10
4	11 to 15
5	≥16

End of Report

U.S. MICRO-SOLUTIONS, INC - LABORATORY TEST REQUEST / CHAIN OF CUSTODY

U.S Micro-Solutions, Inc.
475C Willow Crossing Road
Greensburg, PA 15601
Phone: 724-853-4047
Fax: 724-853-4049

CUSTOMER / COMPANY INFORMATION

NAME: Green Street Environmental

ADDRESS: 6304 Blair Hill Lane./#2 CITY / STATE / ZIP: Baltimore, MD 21209

ATTENTION TO (Results of Analysis): Brett Kilczewski PHONE NO:

SAMPLE(S) OBTAINED BY: ~~Brett Kilczewski~~ Jake Kilczewski

PROJECT NAME/NUMBER: LSB / 171101-2 NUMBER OF SAMPLES: 20

TURN AROUND TIME: (Check One)

☒ STANDARD ☐ NEXT DAY ☐ SAME DAY ☐ 3-HOUR ☐ SATURDAY

RESULTS SENT VIA (Check One)

☑ EMAIL RESULTS ☐ US POSTAL SERVICE ☐ FAX RESULTS

EMAIL ADDRESS: BKilczewski@GreenStreet-Environmental.com FAX NO:

PO #	PROPOSAL #	PAYMENT INFORMATION (Check One)
		☒ ON ACCOUNT ☐ CREDIT CARD ☐ PAYMENT ENCLOSED

WEATHER	FOG	RAIN	SNOW	WIND	CLEAR
LEVEL: NONE	X	X	X		
LIGHT				X	
MODERATE					
HIGH					X

SAMPLE DATE	SAMPLE NUMBER	SAMPLE LOCATION & DESCRIPTION	SAMPLE VOLUME /AREA	BIOAEROSOL (CULTURABLE)	SWAB	BULK	SPORE TRAP	TAPE	OTHER (PLEASE LIST)	FUNGAL CULTURE & GENUS ID	BACTERIA CULTURE W/GRAM STAIN ID	BACTERIA W/GENUS & GRAM NEG SPECIES ID	SEWAGE SCREEN	LEGIONELLA CULTURE	COLILERT (WATER ONLY)	SPORE TRAP COUNT	DIRECT MICROSCOPIC EXAMINATION	OTHER (PLEASE LIST)
11/17/17	2286420	Hallway Outside Rick + Debbie Office	75L				X									X		
	2286421	Tunnel to State House																
	2286434	G-14																
	2152732	IT Training Room																
	2286428	IT Hallway																
	2286413	Mail Room Closet																
	2286427	Print Shop Office																
	2286423	Library																
	2286412	Tunnel to House of Delegates																
	2203990	308																
	2286418	309																

RELINQUISHED BY (MUST SIGN) DATE AND TIME: 11/17/17 1500

RELINQUISHED BY (MUST SIGN) DATE AND TIME:

Certified 1/2013

LAB USE ONLY

DATE/TIME RECEIVED IN LAB: 11-20-17 10:00am SIGNATURE: [signature] LABORATORY #: 114203-17 DATE OF TEST SET UP: 11-21-17 SIGNATURE: [signature]

U.S. MICRO-SOLUTIONS, INC - LABORATORY TEST REQUEST / CHAIN OF CUSTODY

U.S Micro-Solutions, Inc.
475C Willow Crossing Road
Greensburg, PA 15601
Phone: 724-853-4047
Fax: 724-853-4049

CUSTOMER / COMPANY INFORMATION

NAME: Green Street Environmental

ADDRESS: 6304 Blair Hill Lane./#2 CITY / STATE / ZIP: Baltimore, MD 21209

ATTENTION TO (Results of Analysis): Brett Kilczewski PHONE NO:

SAMPLE(S) OBTAINED BY: ~~Brett Kilczewski~~ Jake Kilczewski

PROJECT NAME/NUMBER: LSB / 171101-2 NUMBER OF SAMPLES: 20

WEATHER	FOG	RAIN	SNOW	WIND	CLEAR
LEVEL: NONE	X	X	X		
LIGHT				X	
MODERATE					
HIGH					X

TURN AROUND TIME: (Check One)

☒ STANDARD ☐ NEXT DAY ☐ SAME DAY ☐ 3-HOUR ☐ SATURDAY

RESULTS SENT VIA (Check One)

☑ EMAIL RESULTS ☐ US POSTAL SERVICE ☐ FAX RESULTS

EMAIL ADDRESS: BKilczewski@GreenStreet-Environmental.com FAX NO:

PO #	PROPOSAL #	PAYMENT INFORMATION (Check One)
		☐ ON ACCOUNT ☐ CREDIT CARD ☐ PAYMENT ENCLOSED

SAMPLE DATE	SAMPLE NUMBER	SAMPLE LOCATION & DESCRIPTION	SAMPLE VOLUME /AREA	BIOAEROSOL (CULTURABLE)	SWAB	BULK	SPORE TRAP Ad	TAPE	OTHER (PLEASE LIST)	FUNGAL CULTURE & GENUS ID	BACTERIA CULTURE W/GRAM STAIN ID	BACTERIA W/GENUS & GRAM NEG SPECIES ID	SEWAGE SCREEN	LEGIONELLA CULTURE	COLILERT (WATER ONLY)	SPORE TRAP COUNT	DIRECT MICROSCOPIC EXAMINATION	OTHER (PLEASE LIST)
11/17/17	2286414	Reception office of Executive Director					X									X		
	2286422	225																
	2286415	110A																
	2286431	1st Floor Service Room																
	2286430	old Kitchen																
	2286411	Old Cafeteria																
	2286426	Basement Boiler Room																
	2286416	Basement Dark Room																
	2286419	Outside																

RELINQUISHED BY (MUST SIGN) DATE AND TIME: 11/17/17 1500 RELINQUISHED BY (MUST SIGN) DATE AND TIME

LAB USE ONLY

DATE/TIME RECEIVED IN LAB: 11-20-17 11:00AM SIGNATURE: [signature] LABORATORY #: 119203-17 DATE OF TEST SET UP: 11-21-17 SIGNATURE: [signature]

CF88180 1/2013

END OF REPORT

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Appendix C

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Building Enclosure Condition Assessment

Maryland Department of Legistlative Services (DLS) Building
Annapolis, MD
7 April 2020

SGH Project 200022

SIMPSON GUMPERTZ & HEGER

Engineering of Structures and Building Enclosures

PREPARED FOR:

Murphy & Dittenhafer Architects
226 West Market Street
York, PA 17401

PREPARED BY:

Simpson Gumpertz & Heger Inc.
1625 Eye Street NW, Suite 900
Washington, DC 20006
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Fax: 202.239.4198

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7 April 2020

Todd R. Grove, AIA
Murphy & Dittenhaffer Architects
226 West Market Street
York, PA 17401

Project 200022 – Building Enclosure Condition Assessment, Maryland Department of Legislative Services (DLS) Headquarters Building, Annapolis, MD

Dear Mr. Grove:

As you requested, we reviewed the enclosure rehabilitation needs of the Department of Legislative Services Building. The enclosed report summarizes our work. We are happy to further implement the recommendations discussed herein for the renovation option or provide new enclosure systems under the raze and rebuild option.

We look forward to our continued work with you, either on a building rehabilitation or building replacement design.

Sincerely yours,

STATE OF MARYLAND
NIKLAS W. VIGENER
No. 25345
PROFESSIONAL ENGINEER

Niklas W. Vigener, P.E.
Senior Principal
MD License No. 25345

Brian S. Rose
Senior Consulting Engineer

\\sgh.com\offices\DC\Projects\2020\200022.00-MDLS\WP\001NWVigener-L-200022.00.anp.docx

Encls.

Professional Certification
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.
License No. 28452 Exp. Date: 11/17/2020

EXECUTIVE SUMMARY

The Department of Legislative Services (DLS), headquartered in Annapolis, MD, is a five-story brick-clad building constructed in 1976. DLS engaged the Maryland Stadium Authority (MSA) to manage improvements to the DLS building. This process will include an option analysis and project scope development, followed by design of the selected option. MSA has hired a team led by Murphy & Dittenhafer Architects (M&D) for the Programming and Due Diligence and Study Design Phases. DLS is considering two scenarios: 1) Renovation and 2) Raze and Rebuild. M&D engaged Simpson Gumpertz & Heger Inc. (SGH) to perform a condition assessment of the building enclosure and provide conceptual repair recommendations.

SGH's work identified, in part, the following performance issues related to the building enclosure:

- The foundation walls lack positive-side below-grade waterproofing and the negative-side waterproofing is ineffective.
- The waterproofing surrounding the tunnel to the House of Delegates is ineffective.
- The brick cladding is in serviceable condition. The wall assembly lacks a dedicated air barrier, and, likely, water barrier.
- The exterior doors and windows have reached the end of their service life and have poor air and thermal performance compared to contemporary performance standards.
- The steep-slope roof slate shingles appear to be in serviceable condition. The roof's perimeter details include defective detailing that leave it susceptible to leakage.
- The steep-slope roof and attic lack thermal insulation.
- The low-slope built-up roofing system has reached the end of its service life and likely experiences leakage.

The DLS building will require significant remedial work to improve its building envelope and to address the water intrusion issues at the basement, ground floor, and third floor. We provide alternative repair approaches, but we recommend that, as a minimum, the renovation work include the following:

- Excavate the foundation walls and tunnels and provide a below-grade wall waterproofing, drainage, and insulation system.
- Reconstruct the exterior stairs to allow for continuous below-grade wall waterproofing.
- Conduct limited masonry reconstruction and repointing and consider providing interior insulation.

- Refurbish the existing window frames in place, provide new perimeter sealant joints, and provide new storm windows.
- Review the structural capacity and condition of the gypsum plank roof deck. It is likely that replacement roof assemblies that meet current code will increase structural loads.
- Remove and salvage the slate shingles. Build them back into a roof assembly that includes self-adhered membrane underlayment, a reliable nailbase, and code-required insulation.
- Restore the cupola.
- Remove and replace the built-up roofing system with a low-slope roofing system that incorporates code-required insulation.

If DLS decides to move forward with Scenario 1: Renovation, additional investigation is required to collect design information, confirm the repair scope, and to confirm the condition and configuration of the existing enclosure components.

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APPENDIX

APPENDIX A – Relevant Original Construction Drawings

1. INTRODUCTION

The Department of Legislative Services (DLS) has engaged the Maryland Stadium Authority (MSA) to manage improvements to the DLS headquarters building. MSA has hired the design team led by Murphy & Dittenhafer Architects (M&D) for the Programming and Due Diligence and Study Design Phases. The DLS is considering two Scenarios: 1) Renovation or 2) Razing and Rebuild. M&D has engaged Simpson Gumpertz & Heger (SGH) to provide building enclosure consulting services, and specifically to conduct a condition assessment of the DLS building envelope, provide repair recommendations, and discuss the merits and disadvantages of both scenarios for the Study Design and future project phases. Scenario 1 will include a gut renovation of the existing building, infilling portions of the multi-story interior spaces, retaining a yet-undefined portion of the existing building enclosure, and may include construction of a new addition. Scenario 2 will include demolition of the existing superstructure, either retaining or demolishing the below-grade structure, and constructing a new building. The design team is currently developing strategies to address MSA's programing needs and assessing the condition of the existing building systems to provide a recommendation regarding which design scenario to pursue.

Given that a possible new building design is not yet established, we do not comment on design aspects of a new building except where existing building portions, specifically the below-grade portions, may be incorporated into the construction.

1.1 Building Description

The DLS headquarters building is located in Annapolis, MD next to the Maryland State House and other state government landmarks (Photos 1 and 2). The DLS building was constructed in 1976 and contains approximately 102,590 gross square feet on five floors. The building is approximately square in plan. The two lowest floors are partially below-grade. Two tunnels lead to nearby government buildings. Its major southwest elevation includes a steep-slope pavilion above the third floor that extends above the rest of the mansard roof. The building is covered with steep-slope slate mansard roofs at its perimeter, and a hipped slate roof topped by a wood and glass cupola over the center pavilion. The building interior is covered with a low-slope roof with internal drainage.

Henry Powell Hopkins & Associate and Wrenn, Lewis, and Jencks (HPH & WJL) designed the building in a Georgian Revival style. The facade consists of Flemish bond brick masonry cladding with

wood-framed single-glazed windows in punched openings. The wood entrance doors are embellished with decorative wood elements. The internally drained low-slope roof is covered with an aggregated-surfaced built-up roofing (BUR) membrane. The slate roofs drain into copper hung gutters built attached to a wood dentil molding cornice.

1.2 Objective

The objective of our Programing Phase condition assessment is to review and evaluate the integrity of the existing building enclosure, confirm findings from a 2018 Building Conditions Assessment report prepared by Wheeler Goodman Masek Architecture + Interiors (WGM), provide recommendations for remediation efforts, and discuss the merits and disadvantages of both scenarios. We performed our work in general accordance with ASTM E2018 Standard Guide for Property Condition Assessments: Baseline Property Condition Assessment Process.

1.3 Scope of Work

The scope of our Programing Phase condition assessment includes the following tasks:

- Review original construction drawings dated September 1973 and the Building Conditions Assessment report prepared by WGM and dated 28 September 2018, both provided to us by M&D.
- Perform a one-day condition assessment of the building enclosure systems visible from the interior, grade, and accessible roof areas.
- Prepare this report summarizing our findings, providing conceptual repair recommendations, and discussing remediation approaches.

2. INFORMATION FROM OTHERS

We discussed the performance of the DLS building with DLS Facilities and Maintenance (FM) personnel including Mr. DJ Lissau, Ms. Debra Feeley, and others. These DLS representatives told us, in part, the following information during our site investigation:

- The DLS building is not a historic landmark, but the repairs to its exterior should be respectful of its state governmental use and the surrounding historic campus, which was confirmed by M&D.

- Water leaks into the below-grade basement level and partially below-grade ground floor at several areas. Water enters through the ceiling, walls, and stairwells at the building perimeter during and following most rain events. The severity of leakage is most significant on the east and west elevations and beneath the stairways at entrances. Occupants do not report water intrusion through the slab-on-grade slab-to-wall or perimeter joints.

- DLS has observed widespread leakage through the third-floor ceilings, typically beneath the transition from the low-slope roof to the steep-slope mansard roof at the building perimeter. They regularly replace ceiling tiles that are damaged by leakage in this general location and throughout the third floor. DLS did not report any recent roofing repairs.

- DLS previously engaged a contractor to make foundation wall waterproofing repairs at the central portion of the east elevation. The repairs consisted of excavating approximately 20 ft below-grade and installing waterproofing membrane with a termination bar above-grade, as well as performing grout injection. Following the repairs, the leakage stopped but eventually returned, though it is less pervasive now.

- The interior finishes throughout the occupied areas of the basement level are regularly replaced or repainted to address water stains, including inboard of previously repaired areas at the east elevation.

- Water ponds in the freight elevator pit at the northwest corner of the building.

- Stair B occasionally floods when the drain in the exterior stairwell is clogged. During rain events, FM personnel use sandbags to keep the flooding contained and prevent leaks through the entrance door.

- The tunnel to the State House was built in the 1940s and has no reported water intrusion.

- The tunnel to the House of Delegates was built with the DLS building and experiences leaks through its walls and at its connection to the DLS building. The tunnel interior was repainted prior to the start of the 2020 Legislative Session in January. The tunnels are frequently used, and therefore, addressing the leakage is a priority for FM.

- Occupants report cold drafts through windows but do not report water leakage through the above-grade walls or windows. Most windows are painted shut but some are operable.

3. DOCUMENT REVIEW

3.1 Design Drawings for Original Construction

We reviewed available original construction drawings provided by M&D that consist of architectural and structural drawings prepared by HPH & WJL and dated September 1973. Annotated copies of the referenced portions of the drawings are included in Appendix A. We note the following relevant information from these drawings:

- Sheet A-4 shows a new tunnel exiting the building toward the northwest at the basement level between Column Lines 22 and 23 (House of Delegates Tunnel). Sheet A-5 shows a tie-in to an existing tunnel exiting the building toward the east near Column Line 24 at the ground-floor level (State House Tunnel).

- Detail 1/A-12 shows "metallic waterproofing" applied on top of the basement slab- on- grade and covered by the scheduled floor finish (shown graphically as a concrete topping slab). The waterproofing extends up the exterior walls.

- Sheets A-4 and A-5 include several plan details that show "metallic waterproofing" on the interior face of the concrete foundation walls of the basement and ground floors. For example, Detail 3/A-4 shows a plan detail at the south elevation of the basement floor with metallic waterproofing wrapping the concrete foundation walls on the interior and a "slag block" (concrete masonry unit (CMU)) interior partition wall built against the waterproofing layer.

- Detail 9/A-5 shows a section through the tunnel that leads to the State House. The tunnel consists of 10 in. thick reinforced concrete walls and slabs covered on all four sides by a membrane waterproofing. The roof waterproofing is covered by a concrete topping slab. The vertical membrane waterproofing is covered with 4 in. "cinder block" as a protection layer. The interior face of the concrete tunnel walls is finished with tile.

- The drawings do not include a section through the "new" tunnel to the House of Delegates, but the plans graphically show cast-in-place concrete walls without annotations for waterproofing.

- Details 7/A-9 and 10/A-9 show a section detail at the transition from the steep-sloped slate roof to the low-slope built-up roof, both at the perimeter mansard roofs and at the cupola roof. The steep slope roof is supported by structural steel rafters with galvanized steel T-section cross bars that support 2 in. metal-edge "gypsum planks." The roof deck is covered with felt. The drawings do not show thermal insulation.

- Detail 1/A12 and others show acoustical ceiling tiles hung from the underside of the roof structure without interior insulation.

- Detail 7/A-10 shows the low-slope roof consists of, from interior to exterior, 2 in. metal- edge "gypsum planks," 1 in. rigid insulation, BUR membrane, and gravel aggregate. The planks are supported on galvanized steel T-section cross bars and structural steel rafters.

- At the transition from the low-slope roof to the ridge of the mansard roofs, the built-up roofing laps over a copper gravel stop which extends 4 in. over the slate shingles onto

the mansard roof, and is hooked onto a continuous copper cleat fastened to the mansard roof deck. At the transition from the low-slope roof to the base of the cupola roof, a metal flashing is shown extending 10 in. up behind the slate of the cupola roof.

- Details 5/A-9 and 11/A-9 show that the eight chimneys are ornamental, i.e., contain no flues, vents, or other mechanical function. The chimneys consist of 4 in. concrete masonry backup and 4 in. face brick, and are supported on a cast-in-place concrete slab and structural steel. They are covered with a 4 in. concrete slab, 1 in. insulation, and a sloped concrete topping. The drawings show through-wall masonry flashing at the base of the chimney that is integrated with the surrounding roofs.

- The roof plan on sheet A-9 shows three “air sumps” or recessed wells with vertical louver air intakes at their site walls. Detail 4/A-9 shows a “4 ply roofing” membrane under a topping slab at the base of the wells.

- Detail 1/A-12 shows a typical wall section through the full height of the building exterior at an exterior stairwell and at windows. The basement level and ground floor level have a below-grade concrete foundation wall. On the interior, the foundation wall is covered with metallic waterproofing and gypsum sheathing wall finishes.

- Details 2/A-12 and A/A-12 show that the above-grade walls consist of a 4 in. CMU block backup wall, “masonry fill insulation” in the cavity, a parge coat on the interior face of the brick, and 4 in. brick cladding. The brick cladding is shown anchored with wire truss reinforcing to the CMU block, and with dovetail veneer anchors set into slots cast in the concrete backup. The brick is supported on steel lintels at the window heads and spans continuous past the elevated floors. The drawings show no vertical or horizontal brick masonry expansion joints, no thermal insulation other than the “masonry fill insulation,” and no provisions for mechanical connection between the CMU backup wall and the concrete floor slabs. A membrane through-wall flashing extends from the face of the CMU block through the brick at the window heads and floor lines but does not daylight.

- Details 5, 6, 7, 8, and 9/A-12 combined show the typical wood-framed windows. The details depict a membrane flashing below the wood sill and weeping to the exterior above the brick cladding. Above the window, bricks are supported by a steel lintel, the masonry fill insulation is reduced to 1 in., and the reinforced CMU lintels are 7-3/4 in. wide. Membrane flashing is shown between the lintel and brick at the window head, but its lateral extents are not called out, and it does not daylight. The drawings show wood- framed, operable sash windows with single-pane glass. The sealant perimeter joints at window jambs and head are covered with wood molding.

- Detail 11/A-12 shows a section detail at the steep-slope roof edge. The masonry cladding is shown extending tight to the underside of the gypsum plank roof deck. A copper apron flashing extends 12 in. minimum up the slate roof and turns down the roof eave to shingle into the copper gutter, which is supported on a decorative wood-clad cornice and hard brass hangers spaced approximately 36 in. o.c.

3.2 2018 Building Condition Assessment Report

We reviewed the previous condition assessment report provided to us by M&D, prepared by WGM, and dated 28 September 2018. We summarize the following relevant observations and findings from the report:

- The report notes active leaks at the below-grade levels, most significantly at Room G-18a, near the loading dock, and into the Distribution Center and Library on the west elevation.

- The wood-framed windows are in poor condition. The paint is peeling severely, and the perimeter sealant joints are open. The report notes deteriorated wood at a number of isolated areas.

- The wood doors are in good condition.

- The marble stair treads at entrances are in poor condition and are creating paths for water to migrate beneath the stairs. The marble is cracked and spalled, and the iron railings have stained or spalled the marble.

- The existing masonry facade is in good condition, with the exception of significant mortar deterioration below the steps at the North and West entrances. The brick is cracked at the freestanding walls surrounding the loading dock.

- The masonry chimneys on the roof are in fair condition.

- At the north entrance stairway, the louver and lintel above are corroded.

- Four downspouts (two at the north facade and one at both the west and south facades) are loose.

- At the time of the report, a gutter on the north facade was leaking. Other gutters appeared to be in good condition.

- The sloped slate roof is in good condition and has an estimated remaining service life of 20 yrs. The sloped copper and terne-coated stainless steel roof flashings are generally in good condition, with the exception of stained and eroded copper flashings at the slate roof valleys.

- The built-up low-slope roof is in fair condition.

- The wood-framed cupola is in fair condition.

- At the northwest corner of the property near the loading dock, there is a small storage building with an EPDM roof. The EPDM membrane is in poor condition.

The 2018 report prepared by WGM also includes the following repair recommendations regarding the building enclosure:

- Excavate down to the footing at the southeast corner, install new external waterproofing, and snake the existing drainage tile or install new perforated drainage pipe embedded in drainable gravel. Reseal conduit penetrations near the loading dock and perform investigative water testing at the west elevation.

- Restore the wood-framed windows as soon as possible. Strip the existing paint and reseal and repaint the frames.

- Restore the marble stairs and reseal joints in the stone everywhere, and conduct a full remediation to the stairs, masonry, and foundations at the north and west stairs.
- Monitor the cracks in the standalone masonry walls with crack gauges.
- Repoint the masonry chimneys on the roof.
- Replace the corroded louver and lintel at the north entrance stairway.
- Re-anchor the loose downspouts to the masonry walls.
- Investigate the cause of leakage at the gutter on the north elevation.
- Reseal all slate ridges and hips, re-drive slate fasteners, and replace miscellaneous broken slates and copper snow guards as necessary.
- Either coat the flashings in the slate roof valleys or install sacrificial copper flashings to protect the existing.
- Repair the built-up roof flashings at the air shafts.
- Restore the wood window framing and trim of the cupola immediately.
- Replace the EPDM roof over the storage building.

4. OBSERVATIONS

Brian S. Rose and Samantha P. Corbel of SGH visited the DLS building on 21 January 2020 to make observations that inform our building enclosure condition assessment. We walked the site with Todd Grove of M&D and DJ Lissau of DLS. We made exterior observations from grade and from the low-slope roof, but we were not able to make up-close observations of the south elevation due to ongoing construction in front of the facade. We summarize our observations, separated by primary system, in the sections below.

4.1 Below-Grade Construction

The cast-in-place foundation walls extend two stories below grade and are waterproofed with a coating at the interior. We summarize our interior observations made from representative portions of the basement and ground floor as follows:

- Where the interior face of the concrete foundation walls is exposed without interior drywall finishes, we saw a cementitious parge coat (we assume the "metallic waterproofing") applied to their interior face. We observed efflorescence, spalls, and cracks in the coating on the hallway walls leading to the freight elevator (Photo 3).

- We saw no negative-side waterproofing on the concrete foundation walls in the room with the freight elevator. We observed spalled concrete and corroded steel reinforcing in the wall adjacent to the elevator pit (Photo 4).

- We saw damaged, stained, and warped finishes extending from the top of the basement walls and reportedly recently replaced acoustical ceiling tiles (ACT's) (Photo 5) primarily centered beneath the entrance stairs on each elevation. We observed plastic sheeting draped over the wood shelves, and warped ceiling tiles, along the south elevation in the basement Distribution Room (Photo 6).

- The basement and ground floors are primarily covered with vinyl tile flooring and are stained due to run off from the walls.

- We observed several areas of orange staining and blistered paint on the walls of the House of Delegates tunnel (Photo 7) and at the tunnel's connection to the DLS building (Photo 8). We did not observe signs of water intrusion along the ceramic tile finishes in the State House tunnel (Photo 9).

We made the following exterior observations of the below-grade conditions:

- A below-grade waterproofing membrane extends above the finished grade and its top edge is secured to the brick with a termination bar along its top edge just below the brick weeps at a portion of the east elevation approximately between gridlines 10 and 14 (Photo 10). The membrane has the appearance of bentonite membrane with a geotextile fabric carrier sheet impregnated with grey material. The waterproofing is not sealed or secured with a termination bar along the vertical edges, including at the stair (Photo 11).

- Outside of the repair at the east elevation, the brick extends below grade with no visible through-wall flashing or waterproofing system.

- The area drain at the landing of Stair B, which exits from the northeast corner of the ground floor, is covered with a wire mesh cage and is surrounded with leaves and debris (Photo 12).

4.2 Exterior Masonry

All elevations are covered with brick masonry in a Flemish bond pattern (Photo 13). Decorative brick elements include a water table at the first-floor line, a belt course at the second-floor line, jack arches above windows, and several ornamental chimneys on the roof. At each elevation, a brick framed staircase with marble steps and landings extends out from an entrance.

We summarize our interior observations relevant to the exterior made from representative portions of the first and third floors as follows:

- Dry wall interior finishes are supported on cold-formed metal framing, approximately 1- 1/2 in. deep, anchors to the interior face of the CMU backup walls. We observed no obvious indications of leakage in the portions of the first floor that we surveyed.

- We specifically viewed interior wall finishes surrounding the windows and between the dormers, but we saw no staining indicative of water leakage.

We made the following exterior observations:

- We saw no significant cracks, spalls, bulging at floor lines, or other signs of brick movement (Photo 14). We also did not see vertical or horizontal expansion joints in the brick masonry. From grade, the vertical face of the brick appears tilted slightly toward the interior at some elevations.

- We observed weeps at the bottom of the brick belt course, water table, and at grade (Photo 15). Refer to the window section below regarding lintels. We observed no protruding through-wall flashings or drip edges through the brick.

- The brick masonry is stained at the belt courses and water tables (Photo 15), beneath window sills (Photo 16), beneath the marble staircases, and at the freestanding brick site walls near the loading dock.

- Mortar joints are eroded or completely missing beneath some window sills (Photo 17), the marble stairs (Photos 18 and 19), and at the site walls surrounding the loading dock.

- The marble steps are cracked and chipped at several corners on all exterior stairs. The handrails are corroded and are causing the marble treads to crack and spall at pocket anchors through the stone (Photo 20). Most joints between the marble treads are open.

- The louver and the steel lintel set within the brick stairs at the north elevation entrance are rusted (Photo 21).

- The brick at the site walls near the loading dock is cracked and has apparent impact damage (Photo 22).

- The ornamental chimneys are covered with a metal cap flashing that extends down the top edge of the brick and is sloped to drain. The chimneys limited brick cracking and appear plumb. The mortar joints are stained or eroded at localized areas, typically near the top of the chimneys, and the metal cap flashings are stained (Photo 23). We were not able to observe the tops of the chimneys up close.

4.3 Windows and Doors

At all elevations, single-glazed hung wood-framed windows are set into punched openings in the masonry facade (Photo 24). We made the following interior observations at a representative window on the first floor:

- The hung wood-framed windows include single-pane glass with true divided lites between wood muntins. The windows have no storm glazing.

- We observed peeling paint on the interior muntins at a window on the north elevation of the first floor (Photo 25). We saw no broken glass at any windows.

- The width of the CMU backup wall below the typical windows is narrower than in the field of the wall to create an air space between the CMU and the dry wall finishes to house fin tube radiators.

We made the following exterior observations regarding the windows and doors:

- We observed varying degrees of peeling paint and some wood deterioration on the exterior window frames (Photo 26).

- The glazing putty fills the joints between the muntins and the glass and is alligatored, shrunk, and discontinuous in localized frame joints (Photo 26).

- The window frames are set nearly flush with the exterior face of the brick and are surrounded by wood trim molding. The brick moldings are set tight against the surrounding brick masonry, and the joint between the molding and the brick is covered with sealant that is painted to match the frame. The perimeter sealant joints are pliable but are locally debonded from the brick (Photo 27).

- The window heads are covered with wood trim. We saw no rust stains or obvious signs of distress (e.g., displaced brick or trim).

- We observed no signs of significant deterioration or obvious wood rot at the decorative wood pilasters, entablatures, and pediments surrounding the door openings (Photo 28), with the exception of localized deterioration at the base of the pilaster (Photo 29).

4.4 Roofing

The building is covered with steep-slope slate roofing at the perimeter mansard roofs and at the hipped roof, which is topped by a wood and glass cupola, (Photo 30), and by built-up roofing membrane (BUR) at the low-slope roof (Photo 31). We summarize our interior observations made from representative portions of the third-floor attic and the interior of the cupola as follows:

- We observed damaged, stained, and recently replaced ACT above the third floor beneath the transition between the low-slope and steep-slope roofs throughout the building perimeter (Photo 32).

- The roof deck consists of 2 in. thick gypsum plank that is supported by steel beams at both the steep-slope and low-slope roofs. The steel framing is covered with fireproofing (Photo 33). The edges of the gypsum planks are visible at the hatches and cupola. At localized areas, sheet metal is fastened to the underside of the gypsum plank (Photo 34).

- The interior paint on the wood-framed windows of the cupola is peeling, and the wood, particularly at the sill, is rotted. Several panes of glass are missing and were replaced with clear acrylic panels on the interior (Photo 35).

- We saw no thermal insulation on the underside of the steep slope deck, the underside of the low-slope deck, or the third-floor drop ceiling where we viewed these components below the cupola roof on the north elevation.

We made the following exterior observations regarding the roofs and cornices:

- The slate shingles are approximately 1/4-in. thick, nominal. We observed no delaminated slate or systemic breaking or significant gaps between tiles (Photo 36).

- A small number of slate are cracked and/or disengaged from a fastener, and several sheet metal repairs are slipped into the field of the roof over the top edge of replacement slate shingles (Photo 37).

- We did not observe the roofing underlayment material or condition.

- The third-floor dormers are clad with wood siding and are integrated into the mansard slate roof with metal flashings (Photo 38).

- The slate joints at roof hips and ridges are covered with roofing cement (not metal cap flashings) at all roofs, including at the mansard roof dormers. The roofing cement is cracked, alligatored, and discontinuous (Photo 39).

- Exposed metal flashings, such as at valleys and step flashings, are stained, eroded, and bent at localized areas (Photo 40).

- Painted wood dentil cornices extend from the brick cladding to the edge of the mansard roof. We did not make up-close observations, but we saw no obvious wood rot on the cornices when viewed from grade and from the low-slope roofs.

- The steep-slope slate mansard roofs drain to a hung copper gutter supported by metal straps (Photo 41) with decorative copper scuppers through the wood cornice and exterior downspouts mechanically fastened to the brick cladding. We observe one gap between sections of hung gutter on the west elevation. Multiple downspouts are loose or dislodged near-grade and do not extend into the below-grade piping (Photo 42).

- The paint is peeling from the wood paneling and window frames of the cupola (Photo 43). We were not able to observe the condition of the cupola copper roof.

- A granular-faced modified-bitumen cap sheet is bed in asphalt over the low-slope BUR membrane and onto a metal gravel stop that covers the top of the mansard steep-slope roof. The asphalt along the flashing edges is alligatored and cracked (Photos 44 and 45).

- The low-slope BUR membrane is covered with gravel aggregate surfacing. The roof is internally drained. We observed several areas of blistered and exposed asphalt at the BUR membrane (Photo 46). We also observed areas where gravel aggregate is missing, and the reinforcing felt between the asphalt layers is exposed (Photo 47).

- We observed a hole in the granular-faced modified-bitumen base flashing sheet at the base of a chimney (Photo 48).

- We observed three metal grates, over the “air sumps” areas, set below the BUR membrane and surrounded by gravel stops (Photo 49).

- A freestanding storage shed near the loading dock is covered with a low-slope EPDM roof. The EPDM membrane is eroded, stained, and covered in debris (Photo 50).

5. DISCUSSION AND RECOMMENDATIONS FOR REMEDIAL WORK

5.1 Below-Grade Construction

Our observations of the below-grade conditions generally align with WGM's findings outlined in their 2018 Conditions Assessment Report.

5.1.1 Waterproofing

The cementitious parge coat applied to the interior face of the foundation walls is likely the metallic waterproofing shown in the original Drawings and is likely original (almost 50 yrs old). Proprietary additives, including metal-oxides, within most metallic waterproofing coatings react to liquid water to form a water-resistant layer, similar to crystalline waterproofing systems that are common in modern construction. Negative-side waterproofing (applied to the interior) does not protect the reinforcing within the foundation walls and provides limited effectiveness for preventing leaks at transitions with adjoining structure (e.g., floor lines, intersecting partitions), construction joints, and penetrations (e.g., pipes). Additionally, cementitious coatings offer little, if any, in-service crack bridging capabilities, as demonstrated by the water stains at coating cracks that we observed. The coating at the MDLS Building is beyond its useful service life. DLS may consider performing grout injections as an interim, relatively low-cost, repair measure. It will likely take several rounds of injections to address current leakage. Even if the existing system is repaired, the negative-side waterproofing approach includes inherent shortcomings compared to a positive- side approach from the exterior.

The membrane that extends partially above grade at the east elevation was installed as part of the previous repair project to address basement leaks. The membrane is bentonite-based and relies on a geotextile fabric carrier sheet to engage newly cast concrete (in new construction) and support bentonite granules (clay) that swell when hydrated. Bentonite membranes rely on confining pressure between the soil and the foundation wall to form a watertight layer. The bentonite granules likely washed away from the exposed membrane, which is why bentonite membranes are not appropriate for at-grade transitions and are best-suited for blind-side (property line) construction. The repairs decreased the leakage, according to DLS representatives, but water likely infiltrates through defects and around the vertical edges of the waterproofing that are not integrated with the backup wall above-grade or adjacent waterproofing systems. Future positive-side repairs should incorporate a positive-side membrane suitable for remedial applications over finished spaces, such as self-adhered modified asphalt waterproofing membrane, and should be combined with through-wall flashings at-grade. The waterproofing

repairs must be closely coordinated with the exterior stair work to either extend the waterproofing continuous around the existing stairs or between the basement and reconstructed stairs.

5.1.2 Drainage

The Drawings do not indicate a drainage system at the foundation walls or under the slab, and we did not observe a drainage board extending above grade. We were not provided with a geotechnical report to determine the water table location. Without drainage, the hydrostatic pressure created by an elevated water table – either constantly, seasonally, or following heavy rains – can force leakage through discontinuities in the waterproofing that may otherwise not leak. A proper water management system should include sloping grade to drain water away from the building and a means of moving underground water away from the building and directly into the stormwater management system. Therefore, the new foundation wall waterproofing should be covered by a drainage composite connected to a perimeter collection pipe at the top of the footing to direct water from the building into the stormwater management system.

At the basement exterior stairwells, the clogged drains allow water to collect and drain under the door thresholds. The sandbags used as ad hoc mitigation by building staff indicate the flooding is periodic and severe. The rehabilitation scope should include scoping and clearing all drains and, if appropriate, modifications to the stair and door configuration to prevent leakage. The design should review the location and sizes of the drains and provide additional drains and plumbing lines as necessary. All drains should include maintainable strainers and be located where accessible for maintenance.

5.1.3 Remediation Approach for Below-Grade Walls

To provide a long-term and reliable solution for preventing leaks into below-grade occupied spaces, we recommend the following work at below-grade spaces:

- Excavate down to the top of the footings and remove the existing waterproofing, where present, to expose the foundation wall along the building perimeter. Note that the State House tunnel, which enters the building at the ground floor, will require underpinning to support it as the excavation for the basement waterproofing proceeds below it.

- Perform concrete repairs necessary to address deterioration and to prepare a suitable substrate for the waterproofing. Given that the concrete foundation wall was not originally designed to receive below-grade waterproofing, this work will likely be extensive and include widespread mechanical preparation and patching.

- Provide two layers of self-adhered modified asphalt membrane waterproofing (e.g., Bituthene 4000 by CGP Applied Technologies, Envirosheet by CETCO, Blueskin WP200

by Henry Company) over the foundation walls. Extend the waterproofing 8 in. above-grade and secure with a termination bar.

- Cover the waterproofing with a drainage composite connected to a foundation wall plumbing system at the base of the wall (i.e., French drains) integrated with the stormwater management system. Provide extruded polystyrene insulation outboard of the drainage composite to improve the energy performance of the below-grade spaces.

- Demolish the stairs and extend the foundation wall waterproofing behind the stairs. Reconstruct the stairs outboard of the waterproofing.

    - Alternatively, if the concrete stair structure remains in place as a value engineering measure, extend the foundation wall waterproofing around the below-grade stair walls and remove the pavers and setting bed. Repair or replace the concrete stair slab and provide fluid- applied horizontal waterproofing continuously over the structure and integrate it with the wall membrane. Provide a drainage layer. Then reinstall the pavers, treads, and setting bed. This second option will require the stairs to be underpinned to provide waterproofing on the basement wall below.

- Remove and salvage the brick cladding above the concrete shelf at grade in a leg-and-leg fashion and provide new through-wall flashings between the CMU backup wall and the top of the new waterproofing. Reconstruct the brick cladding. Assess the structural implications of this work. Provide additional brick lateral ties and shear pins as necessary to address the introduction of a slip plane and the consequent reduction of the base shear capacity of the wall.

    - Alternatively, as a value engineering measure, extend waterproofing above-grade on the face of the exterior wall and protect it with a copper protection plate and surface-sealed flashing. This latter approach requires the owner to accept a change in appearance (exposed copper protection plate along-grade) and a risk of leakage should water in the above-grade cavity drain inboard of the top edge of the new waterproofing.

- Backfill and slope grade away from the building to improve surface drainage.

- Provide new plumbing connections to the exterior stairs that access the basement and provide new or additional drains as determined by drainage calculations. Clean and scope any existing drains at grade that must remain.

5.1.4 Tunnels

The below-grade waterproofing surrounding the House of Delegates tunnel is no longer functioning, but the older State House tunnel does not appear to have visible water intrusion issues. Similar to the basement walls, the team may consider grout injections as an interim, relatively low-cost, repair measure. Effective long-term repairs will require excavating the House of Delegates tunnel and applying new positive-side waterproofing in combination with a drainage system. Though the State House tunnel is not currently leaking, the existing waterproofing is likely several decades old and beyond its service life. Enacting or budgeting for similar repairs at

the State House tunnel is a prudent measure considering its importance to the DLS functions and the potential for shared project cost efficiency with the repairs to the House of Delegates tunnel. Unlike the painted concrete in the House of Delegates tunnel, however, the ceramic tile finishes in the State House tunnel will limit access for grout injections, when these become necessary in the future, and will likely need to be removed for such a repair. We understand that the extent of M&D's design work on the tunnels is still developing. The team may consider renovating the tunnels with the basement waterproofing repairs or as a standalone project in the future. If enacted as a separate project, the current basement scope of work should include applying new waterproofing at the connections to the tunnels to protect these vulnerable transitions, and to serve as tie-ins for later tunnel waterproofing work.

5.1.5 Remediation Approach for Tunnels

We note that different repair approaches may be selected for each tunnel, since the State House tunnel is performing adequately. However, the mobilization costs and disruption to occupants may warrant a coordinated and proactive approach. We recommend implementing one of the following repair options to address the tunnels.

Option 1 – Long-Term Repair:

- Excavate the tunnels to their foundation. This will require temporarily closing College Avenue.
- Demolish the concrete topping and cinderblock to expose the waterproofing surrounding the outside of the State House tunnel and the House of Delegates tunnel. Through exploratory test pits, the team can review the condition and configuration of the cinder block to determine if it can be retained and covered with waterproofing.
- Remove the existing waterproofing. Perform concrete repairs if required and prepare the concrete surfaces to receive the new waterproofing.
- Cast a sloped, bonded, thin-set topping on the top of the tunnels, to provide a sloped membrane substrate and promote drainage off of the tunnel roof.
- Apply a self-adhered waterproofing membrane (same system as for the foundation walls) over the top and sides of the tunnels. Salvage the existing waterproofing membrane beneath the tunnel and integrate it with the new waterproofing at the base of the walls.
- Provide drainage composite connected to a foundation wall drainage system at the base of the wall and integrate with the stormwater management system.
- Provide extruded polystyrene insulation over the tunnel walls and roof.
- Cast a new topping slab over the tunnels at paved areas.

- Backfill the soil and reconstruct the overburden.

Option 2 – Short-Term Repairs:

- Remove interior finishes as necessary, primarily at the connection to the adjoining building, to expose the concrete structure at the House of Delegates tunnel.
- Grout inject all concrete cracks with water stains. We note this option will likely require several rounds of grout injection to address the leaks, and additional leaks may occur in the future if more cracks were to form through the concrete tunnel structure.
- Excavate and provide positive-side waterproofing repairs at the connections between the tunnels and adjacent buildings, in conjunction with below-grade waterproofing repairs to the foundation wall, and to serve as future tie-ins for the Option 1 repairs.
- Conduct concrete repairs as determined by the Structural Engineer of Record.
- Continue to monitor the State House tunnel for leakage and conduct repairs similar to the options discussed herein when deemed necessary. We note that grout injections will require removing extensive areas of ceramic tile finishes to access the concrete cracks, and the aesthetic requirements of a patching the tiles must be reviewed.

5.2 Exterior Masonry

Our observations of the exterior masonry generally align with WGM's findings. However, the 2018 Conditions Assessment Report did not discuss several important performance aspects of the exterior masonry, including accommodation of brick movement, water management, brick anchorage, and energy performance. We include discussion of these items below.

5.2.1 Exterior Wall Structure

The exterior walls were designed to function as multi-wythe tied composite masonry. Based on the original construction drawings, the single wythe of brick cladding is connected to the 8 in. concrete masonry backup wall with ties that are graphically shown as wire truss reinforcing. By design, the concrete masonry backup and exterior brick function together to collect and distribute lateral loads into the primary structural lateral load resisting system for the building by spanning vertically between floor structures. We were not able to observe the condition of these brick ties or anchors. Depending on the tie material (likely galvanized steel) and the amount of moisture in the cavity, the metal ties will have experienced varying levels of corrosion, reducing their structural capacity. Although we did not observe mortar spalls or rust stains that would indicate corrosion of the wire ties. Their condition should be confirmed, along with continuity and competence of the entire load path from the brick veneer to the main building structure, during a field investigation that includes sample openings in representative locations. In particular, if DLS decides to retain the brick, we recommend verifying the as-built spacing of the lateral ties, the condition of the metal

ties, the connection between the CMU backup wall and the concrete floor slabs, and the roof edge condition – see the discussion below. On similar buildings we have worked on with deteriorated veneer ties, structural engineering analysis and repairs were required and typically included remedial masonry veneer ties drilled into the backup wall through the brick mortar joints, as well as provision of positive mechanical attachment between the top of the backup wall and the floor slab.

Brick masonry moves in service, both by irreversible brick growth due to moisture absorption and also by cyclical movement (both expansion and contraction) due to temperature changes. Contemporary brick veneer wall assemblies include provisions to accommodate this movement. The Brick Industry Association [1](BIA) recommends providing vertical expansion joints spaced at not more than 25 ft and at or near wall corners. The brick masonry at this building has no vertical expansion joints even though the largest horizontal distance between wall corners is between 45 ft and 55 ft on each elevation. However, we saw no significant distress caused by brick movement (e.g., cracking or displaced brick at ends of wall sections). It is likely that the horizontal spans of opaque brick are too short to accumulate sufficient horizontal movement to cause cracking, and that the elevations are sufficiently segmented to allow the limited horizontal movement to resolve at corners without sufficient restraint to cause visible brick distress.

The brick masonry has no horizontal expansion joints, and the original construction drawings show a single gravity support for the brick at the concrete haunch just below grade, so the brick extends continuously without shelf angles for the height of the facade (approximately 40 ft) and all vertical brick movement must be resolved at the roof eaves. Similar to vertical joints, BIA recommends horizontal “soft joints” below shelf angles to accommodate vertical brick expansion and movement. We observed no obvious brick masonry distress or visible rotation at the windows such as would result from unaccommodated vertical brick expansion. The wood cornice conceals the top of the brick. Detail 1/A-12 schematically shows the brick cladding finished tight to the underside of the sloped roof deck but also shows the roof steel beams supported on concrete knee walls that bear on concrete drop beams at the roof slab perimeter. Therefore, the exterior walls do not support the eaves, and may or may not have been constructed with room to accommodate the vertical brick movement inboard of the cornice. The as-built masonry walls likely accommodated the growth adequately, and further irreversible brick growth is unlikely. This

[1] “Technical Note 18 A: Accommodating Expansion of Brickwork.” Brick Industry Association, May 2019. www.gobrick.com/docs/default-source/read-research-documents/technicalnotes/tn18a.pdf?sfvrsn=0.

condition should be confirmed with field work to determine if remedial work, such as provision of a horizontal expansion joint at the top of the wall, is required.

The brick units themselves are in good condition with little to no cracking, either from the firing process or in-service stresses. The mortar joints are struck in a grapevine pattern (center portion of the joint is struck into a rectangular indent) and are also in good condition with few localized areas of cracking or spalls in the field of the wall. The mortar joints at the water table, beneath window sills, at the entrance stairs, and at other similar conditions with a horizontal projection, have more significant erosion and deterioration, and require repointing.

5.2.2 Masonry Chimneys

Due to their exposure, chimneys undergo more severe weathering and, consequently, more rapid deterioration than masonry in the field of the wall. The brick masonry at the chimney is more visibly deteriorated than other masonry on the building, but we saw no obvious signs of brick movement, cracking, or significant deterioration. We expect that, in addition to through-wall flashing installation to accommodate roofing work (see below), the chimney masonry will require full repointing and some in situ reconstruction of deteriorated masonry near the top of the wall. Similar to the exterior walls, the condition of the brick anchorage requires review and likely reinforcing. This initial assessment should be confirmed with exploratory openings.

5.2.3 Masonry Stairs and Site Walls

The exterior stairs are in poor condition, with significant water-related deterioration of the brick masonry, organic growth, spalled natural stones at railing anchor pockets, and displaced masonry. The stairs must be, at least partially, removed to accommodate the installation of continuous foundation wall waterproofing. The stairs should be removed and reconstructed, in coordination with the foundation wall waterproofing repairs – see the discussion above.

The masonry at the loading dock walls is also in poor condition. In addition to weathering issues similar to the stairs, vehicular impacts likely spalled corner bricks and will continue without the addition of bollards or corner guards. The mortar joints can be repointed, and the bricks locally replaced in kind to refresh the service life of the cladding.

5.2.4 Exterior Wall Air/Water/Thermal Barriers

The opaque wall assembly does not include a dedicated membrane air and water barrier, which would typically be located on the exterior face of the backup wall. The unusual parge coat that is

shown on the drawings applied to the interior face of the brick was likely intended to limit water penetration into the cavity, but the drawings do not show the parge coat integrating with the window systems and other transitions. Therefore, the parge coat, if present, would provide limited functional waterproofing performance and does not function as an air barrier. The membrane through-wall flashing that is shown on the drawings at floor lines and windows, if present, helps to collect and direct water out of the cavity. Without a continuous dedicated water barrier, the walls rely on the integrity of the cladding, window perimeter seals, and membrane flashings to resist water penetration. We saw no water stains at the above-grade walls, so this system appears to function to keep water out of the building, but this initial assessment must be confirmed with testing prior to settling on a repair scope. Field testing will also help the team understand how the renovation work (e.g., replacing the windows or roof transitions) may alter the current performance.

The original construction drawings indicate membrane through-wall flashings at floor lines and over steel lintels at window heads. The location of the visible weeps generally align with the flashings shown in the Original drawings, but the weep locations are inconsistently placed and/or are clogged with debris. The flashings do not project from the masonry. We were unable to observe the condition of the flashings without making openings in the masonry. BIA [2]recommends extending the through-wall flashing beyond the face of the brick and forming it into a drip to direct water away from the wall and prevent water from soaking to the brick below. In addition, unlike metal, typical membrane materials used at the time of the building's construction, namely PVC, neoprene, or EPDM, embrittle and deteriorate over time. The long-term water barrier performance of the wall can be improved, and the steel lintels protected from corrosion by providing metal through-wall flashings with drips and weep openings. Since the existing flashings appear to be functioning, the team may consider limiting the extent of flashing replacement as a value engineering option, but should be prepared for individual or wholesale follow-up repairs, e.g. to steel lintels, as flashings deteriorate.

The original construction drawings show "masonry fill insulation" between the brick cladding and the CMU backup wall. Without making openings in the masonry, we could not determine material composition or condition. In similar buildings, such masonry fill insulation is typically vermiculite,

[2] "Technical Note 28 B: Brick Veneer/Steel Stud Walls." Brick Industry Association, December 2005. www.gobrick.com/docs/default-source/read-research-documents/technicalnotes/28b-brick-veneer-steel-stud-walls.pdf?sfvrsn=0.

an inorganic, pourable material that provides modest insulating benefits in concrete and masonry construction.

As is common for buildings constructed prior to the 1990s, the opaque walls do not include an intentional air barrier system, which, along with the limited thermal insulation, contributes to poor energy efficiency of the wall assembly. Provision of a more effective thermal barrier can be achieved by removing the interior finishes and providing insulation on the interior of the CMU walls. However, it is likely that the existing wall assembly relies on some drying of incidental moisture to the interior, and that the addition of interior insulation and would lead to moisture accumulation. Therefore, any approach that adds interior insulation (e.g., closed- or open-cell polyurethane spray foam or mineral wool) and a vapor retarder, if any, must be carefully reviewed and analyzed during the design phase to limit the risk for moisture accumulation.

Alternatively, the wall assembly could be rebuilt to include air/water/thermal barriers in the wall cavity, similar to a contemporary brick cavity wall assembly. This approach would include removal of the brick, structural strengthening of the CMU backup, provision of an air/water barrier and rigid insulation over the backup, and reconstruction of the brick. It comes with significant and costly technical and architectural challenges, including gravity support of the brick that would require enlarging the foundation and providing shelf angles at the floor lines, and a larger thickness of the wall assembly. We expect that these challenges make this approach impractical.

5.2.5 Remediation Approach for Exterior Masonry

We recommend the following remediation work:

- Confirm the condition and configuration of the wire truss reinforcing, through-wall flashings, top-of-wall anchorage, and top-of-wall movement joint. It is likely that the walls will require addition of remedial masonry anchors to augment corroded reinforcing, and provision of metal flashing to replace ineffective or deteriorated membrane flashing.

- Confirm the watertightness of the exterior walls and window openings with water tests. It is likely that the walls will require some targeted waterproofing and flashing repairs.

- Confirm the condition and configuration of the concealed steel window lintels. It is likely that a portion of them will require repairs to address deterioration, and/or provision of metal flashing to replace ineffective or deteriorate membrane flashing.

- Repoint brick masonry with eroded or missing mortar joints to limit the amount of water that enters the wall assembly. The quantity of repointing is likely limited (5 – 10% of the wall area) and limited to areas with high exposure (e.g., belt course, water tables) but aesthetic considerations will dictate repointing of larger areas to achieve a consistent appearance.

- Perform partial reconstruction of the decorative chimneys in coordination with roofing work (see below).
- Remove and reconstruct the exterior stairs in coordination with below-grade waterproofing work.
- Repair the loading dock walls and provide protective guards or bollards.
- Consider removing the finishes and providing insulation and an air barrier inboard of the opaque walls if improved energy efficiency is a project goal. Carefully analyze such an approach to limit the risk of moisture accumulation.

5.3 Windows and Doors

Our observations of the windows and doors generally align with WGM's findings. The 2018 Condition Assessment Report did not discuss the steel lintels at the window heads, the glazing putty on the window exteriors, or the thermal performance of the existing windows. We discuss the lintels in the context of the brick masonry above.

5.3.1 Air, Water, and Thermal Barrier Performance

Similar to other wood windows, the DLS windows rely on the continuity of the exterior components (perimeter seals, glazing putty, frame paint, etc.) as well as the membrane sill flashing that is shown on the drawings to prevent leakage and wood deterioration. We did not observe and DLS did not report window leakage, so these systems appear to be effective. However, the sealant surrounding the perimeter molding is adhesively debonding from the masonry, which will continue and may lead to future leakage. Although the wood molding covers the primary sealant joints (if present) between the frame and the masonry, the sealant has exceeded its expected service life. The glazing putty retains the glass to the true mutins, limits air and water leakage, and is in fair to poor condition. As the putty continues to deteriorate, it will accelerate the frames' exposure to water. If the walls are retained, exploratory opening(s) at the window head and water testing is prudent to check the performance, condition, and remaining service life of the existing water barrier.

The paint on the window frames is in poor condition, and moderate wood deterioration is beginning to occur at corners. The paint on the cupola is severely deteriorated. While the onset of peeling paint is predominantly an aesthetic issue, if not addressed, it will lead to wood rot, window deterioration, and increased leakage. If the windows are retained, the team should conduct a hands- on survey of the windows from the exterior to accurately quantify the extent of wood rot and inform budgeting efforts. After stripping the paint, all wood surfaces should be treated to limit future rot. At frames with measurable section loss, the affected sashes or frame

elements should be entirely replaced. We anticipate a new coating over the exterior window frames will extend, but not fully refresh, the remaining service life of the windows.

The thermal performance of the single glazed windows is significantly lower than contemporary windows with insulating glazing, and the windows will limit the project's energy performance goals. Additionally, the tenants report nuisance cold air drafts near the windows that can be attributed to the poor thermal performance and discontinuities in the weather stripping surrounding the sashes and the lack of an air barrier at the rough openings. Replacing the windows with new thermally broken frames and insulating glass units will improve thermal performance but entails changes in appearance that are likely inconsistent with the historic character of the government complex. Alternatively, the energy performance of the windows can be improved by providing interior storm windows, fastened to the rough opening inboard of the existing frames, to improve the effective R-value and air infiltration resistance. The storm windows should be operable or removable to allow for cleaning and maintenance and the perimeter detailing should be carefully reviewed during the design phase to provide structural support and sufficient thermal barrier continuity. As a less effective measure, the existing weather stripping can be replaced, or the windows fixed and sealed shut, to limit air leakage. Alternatively, the windows could be replaced with thermally broken aluminum windows, which are less costly than replacement wood windows. This approach comes with significant, and likely objectionable appearance change because the thin wood muntins of the divided lites cannot be replicated in aluminum.

5.3.2 Finishes

The painted wood doors and surrounding trim have limited peeling paint and are in good to fair condition due to the weathering protection provided by the pediment overhang. The deterioration is generally limited to the base of the pilasters that are exposed to snow and ice accumulation. If the doors are retained, stripping and repainting the doors, along with partial wood trim repairs, are required. The tops of the pediments should be protected with metal cap flashing, coordinated with the masonry repairs, to protect walls.

5.3.3 Remediation Approach for Windows and Doors

Option 1: Restore In-Place

- Remove existing paint, prepare and treat the wood.
- Remove and replace localized areas of rotted wood.
- Remove and replace existing glazing putty in-kind.

- Remove and replace existing weather stripping around all sashes.
- Provide interior single-pane storm glazing supported in a new operable or removable frame inboard if consistent with historic preservation requirements.
- Remove wood molding and existing sealant at the window perimeters, replace the perimeter sealant joints, and provide new wood molding.
- Repaint the windows and frames.

Option 2: Remove, Restore, and Reinstall

- Remove wood-framed windows/doors and salvage.
- Remove existing paint, prepare and treat wood, reseal all frame corners, and repaint the wood frames. Remove and replace the existing weather stripping around all sashes. Remove and replace the existing glazing putty.
- Provide new perimeter flashings at the rough opening. These will consist of metal head flashing, and reinforced cold fluid-applied waterproofing jamb flashing and sill pan.
- Provide interior storm glazing.
- Provide metal cap above the door pediments. Provide wood framing and trim repairs and repaint.
- Reinstall the restored wood frames and provide new perimeter sealant joints.

Option 3: Replace with New Windows

- Remove and dispose of existing wood windows.
- Provide head, jamb, sill and pediment flashings repairs as for Option 2.
- Provide new wood windows to match existing. Pending aesthetic requirements, and as a value engineering measure only, the team could consider providing insulating glazing for improved thermal performance and/or thermally broken aluminum frames.
- Provide new perimeter sealant joints.

5.4 Roofing

Our assessment of the DLS building roofs differ from WGM's findings regarding the remaining service life of the roofing assemblies. Their report concluded that the low-slope built-up roofing and cupola were in fair condition (with no estimated remaining service life) and the slate roofs have an estimated remaining service life of 20 yrs. Our findings indicate that while the slate shingles are in serviceable condition, we cannot determine the remaining service life of the sloped roofs without observing the roofing underlayment. In addition, the slate roof has perimeter

detailing defects that may contribute to leakage and will limit its service life, similar to WGM's findings.

5.4.1 Slate Roofing

The slate roof shingles do not show spalling, flaking, or systemic cracking and are likely in sufficiently good condition to be reused during a future roof replacement. The few damaged slates can likely be attributed to impact damage or fasteners backing out. Salvaging the existing slate is likely feasible and may even be economical for Scenario 2: Raise and Rebuild, pending the design of the new roof. However, laboratory testing on slate samples from the existing roof is required to confirm the slate's condition and likely remaining service life.

The drawings indicate that the steep-slope roof assemblies consist of gypsum plank, roofing felt, and the slate shingles. We observed limited incidental water stains on the underside of the sloped roof deck which suggests that some leakage is occurring. The asphalt-saturated felt underlayment that is shown on the drawings embrittles over time, and the existing underlayment, if original, has likely exceeded its expected service life. It is likely that flashing defects, along with defective or deteriorated underlayment, contribute to this leakage, and that this leakage will increase over time and deteriorate the gypsum plank. Additionally, in our experience, gypsum planks cannot provide code-required pullout strength for roofing fasteners. Even if additional investigation determines the gypsum deterioration is limited, we expect that the planks must be augmented with a mechanically attached nailbase, such as combination gypsum/galvanized steel sheathing, to form a reliable and reusable substrate for the slate.

The drawings do not indicate insulation anywhere in the sloped roof assembly or the attic floor. We did not see insulation on the drop ceiling below the raised slate roof over the north elevation pavilion. The roof replacement design requires addition of code-required insulation. The thermal barrier and vapor retarder placement must be carefully reviewed during the design and detailed to be continuous with the low-slope roofing (see below) and wall systems.

The existing metal flashings do not have obvious defects, but are stained, bent at locations, and eroded at high-flow areas of the slate roof valleys. All metal flashing must be removed to accommodate the work at the low-slope and steep-slope roofs. We recommend replacing all perimeter flashings with copper or zinc-tin coated copper, depending on the desired aesthetic. The gutters and downleaders appear to be in serviceable condition that would require only limited repairs. However, if all roofing is replaced, we recommend replacement of the gutters and

downleaders to provide one single replacement roofing system with a consistent service life, and avoid later follow-up repairs shortly after a comprehensive roofing project. The roofing cement applied over the slate ridges and hips appears to be a repair and should be replaced with cap flashing (at the ridges) and shingled step flashing (at the hips). The wood cornice should be repaired.

Due to its increased exposure, the cupola windows and wood panel cladding are in worse condition than the windows and cornice and will require more significant remediation. The wood elements are beginning to rot, which will make simply stripping and repainting them insufficient. Rather, the windows and panels should be replaced in kind. We were not able to observe the condition of the cupola copper roof, but we anticipate it will require replacement.

5.4.2 Remediation Approach for Slate Roofing

- Remove the slate roofing. Salvage slate shingles and protect for reinstallation pending laboratory testing to confirm their condition.
- Perform additional investigation into the condition, and especially nail-holding capacity, of the gypsum plank deck. Replace, or repair and augment the nail base if necessary.
- Confirm presence of appropriate insulation and air/vapor barrier at mansard roofs.
- Provide roof insulation to meet current energy code. At the north elevation elevated roof, consider providing the thermal and barrier at the ceiling level, and providing a ventilated attic to limit the structural demand on the sloped roofs.
- Provide self-adhered membrane roofing underlayment integrated with the surrounding conditions.
- Reinstall salvaged slate shingles. Assume 10% of the existing slate will need to be replaced in-kind. Replace metal flashing, including perimeter gravel stops, valley and ridge flashing. Provide metal cap flashing at roof ridges. Provide properly configured through-wall flashing (coordinated with masonry repairs) at rising walls.
- Replace hung gutters and downspouts.
- Reconstruct the cupola cladding and replace the windows. Vent the cupola and attic to the exterior.

5.4.3 Built-up Roofing Membrane (BUR)

The BUR membrane at the low-slope roof is comprised of several layers felt set in hot fluid-applied asphalt, and a gravel aggregate surfacing set into a flood coat of asphalt. The aggregate surfacing provides wear and ultraviolet (UV) light protection for the asphalt, but wind can scour the gravel and result in asphalt weathering. We observed several locations of missing gravel, blistered

asphalt (a sign of UV exposure), and exposed reinforcing (a sign of weathering). In addition, the membrane shows apparent repairs, namely the installation of remedial layers of bituminous roll roofing set in asphalt, near its perimeter. The roof leaks at perimeter conditions, and the interior ceilings require regular repairs to address this leakage. Built-up roofing membranes are irreparably damaged by leakage that penetrates the roofing plies. Additional investigative work, including test cuts and laboratory moisture testing, would be required to conclusively assess the condition of the membrane, but based on its performance history and leakage we expect that the BUR membrane is at the end of its service life and should be replaced. Suitable replacement low-slope roofing membranes include adhered single-ply thermoplastic membranes, such as PVC or TPO, or multi-ply modified bitumen systems. Aggregate surfacing systems without perimeter parapets are no longer allowed by the governing building code due to wind scour.

The 1 in. of rigid insulation shown within the low-slope roofing assembly provides insufficient thermal performance to meet current energy code requirements. The low-slope roof is supported by 2 in. thick gypsum planks, which can also be damaged by water intrusion. The sheet metal fastened to the underside of the planks may indicate previous repairs to deteriorated gypsum or may be a result of relocated hung fixtures. We did not assess the structural capacity of the roof structure and plank system, but any replacement roofing system will increase gravity loads due to additional code-required insulation and increased live load requirements. These effects must be assessed by the team's structural engineer and will likely require structural strengthening of the roof.

Due to access limitations, we were not able to review the condition of the waterproofing membranes on the walls and bottom of the "air sumps" but expect that they will merit replacement.

The EPDM roof over the loading dock storage shed has exceeded its service life and will allow increased leakage into the roof structure. The replacement strategy must be coordinated with the renovation programing needs. If the shed is reroofed, the new membrane must integrate with through-wall flashing at the adjoining brick site walls.

5.4.4 Remediation Approach for BUR

- Perform exploratory openings, investigation, and analysis to assess the condition of the gypsum plank deck.
- Access the structural capacity of the existing roof structure in light of increased structural demands. Plan for strengthening or replacing the roof deck (and potentially the roof structure) to support the increased dead and live loads.

- Remove and dispose of the low-slope BUR materials, including base flashings, gravel stop, and insulation.
- Provide a suitable new low-slope roofing assembly, such as modified-bituminous or PVC single-ply membrane. Provide gypsum cover board, increased insulation thickness, and vapor retarder.
- Remove and replace all metal flashing, including at the perimeter gravel stop, valleys, ridges, and through-wall locations. The new perimeter systems must be designed to accommodate the increased assembly thickness.
- Remove and replace the “air sump” waterproofing membranes.
- Remove and replace the EPDM roofing at the loading dock shed.

5.5 Hazardous Materials

Our assignment did not include sampling of building components for hazardous materials. In our experience, buildings constructed around the time of the DLS building construction frequently include hazardous materials that must be abated as part of the work, and that will impact construction cost and logistics. These include asbestos (sealants, mastics, wall membranes, roof assembly components), PCB’s (sealants), and lead (paint, such as on structural steel components; sealants). The original construction drawings indicate vinyl asbestos tile, lead-coated metal flashings, and a lead-coated copper cupola roof.

5.6 Limited Observations

Our analysis is based on our review of conditions shown in the drawings, our limited visual observations of as-built conditions, and our experience with similar buildings. It is unlikely that the scope of our investigation was sufficient to uncover all conditions that require remediation. When considering between Scenario 1 and 2, the team should ensure that the budget for the renovation option includes a healthy contingency to accommodate additional remediation and construction costs necessary due to unforeseen conditions that will be uncovered as the design develops. The design team requires design information to inform the rehabilitation design contemplated under Scenario 1. Therefore, the team should count on performing significant additional investigation and performance testing during the Study Design Phase to uncover, review, and/or confirm as-built conditions if DLS choses to move forward with Scenario 1.

6. CONCLUSIONS

In general, we agree with WGM's findings from their 2018 condition assessment except for the viability of maintaining the roofs and where noted otherwise.

Based on our work described herein, we conclude the following:

6.1 Below-Grade Construction

- The negative-side below-grade wall waterproofing is not effective and is contributing to widespread water intrusion into the basement and ground floor.
- The remedial positive-side wall waterproofing repair is defectively detailed and likely allows continued leakage.
- There are no obvious signs of leakage through the basement floor slab.
- The waterproofing at the tunnel to the House of Delegates has failed. The waterproofing over the State House tunnel is not causing leakage to the interior.
- Effective below-grade wall waterproofing repairs will require provision of exterior membrane waterproofing and drainage at the foundation walls and the tunnels.

6.2 Exterior Masonry

- The exterior stairs are in poor condition and require repair or replacement coordinated with foundation wall waterproofing repairs.
- The exterior walls show no apparent distress or significant deterioration. Although the masonry lacks vertical and horizontal expansion joints, there are no obvious signs of brick distress due to movement.
- The exterior walls do not experience obvious leakage, but lack dedicated and effective air, water, and thermal barriers. Consequently, building enclosure performance is poor by contemporary standards.
- The brick masonry's wire truss reinforcing is susceptible to in-service deterioration that would require remedial strengthening.

6.3 Windows and Doors

- The wood-framed windows are providing a functional water barrier but have poor air and thermal barrier performance by modern standards.
- The paint on the wood trim and framing and the glazing putty is in fair to poor condition and is beginning to allow rot.
- Improving the window thermal performance would require replacement with units that have insulated glazing (subject to historic preservation requirements) or the addition of interior storm glazing.

6.4 Roofing

- The slate roof does not appear to be causing leakage issues but has defective perimeter detailing and the underlayment is beyond its services life.

- The individual slate shingles appear to be serviceable condition and can be likely be salvaged and reused when the roof is reconstructed.

- The wood cladding and wood-framed windows at the cupola are deteriorated. They require replacement or extensive repair.

- The low-slope built-up roof membrane has failed and requires replacement.

- The roofs lack a continuous and integrated thermal barrier.

- The condition and structural capacity of the gypsum planks on all roofs must be reviewed in light of current code requirements for attachment and gravity loads and will likely require strengthening or replacement.

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PHOTOS

Photo 1

Aerial view of the DLS building and surrounding state government landmarks. South elevation is in foreground.

Photo credit to Pictometry.

Photo 2

DLS Building - partial east elevation.

Photo 3

Interior view of west elevation foundation wall. Note efflorescence stains originating at top of wall.

Photo 4

Interior view of north elevation foundation wall. Note exposed and spalled concrete with corroded rebar near the freight elevator.

Photo 5

Arrow shows approximate extent of replaced acoustical ceiling tiles in the basement Library on the west elevation.

Photo 6

Plastic sheeting protecting wood shelving from water leakage in the ground-level Distribution Room. Note warped ceiling tiles (arrows) above shelving.

Photo 7

Blistered paint and water stains near the base of the wall of the House of Delegates tunnel.

Photo 8

Orange staining at the connection between the House of Delegates tunnel and the DLS building.

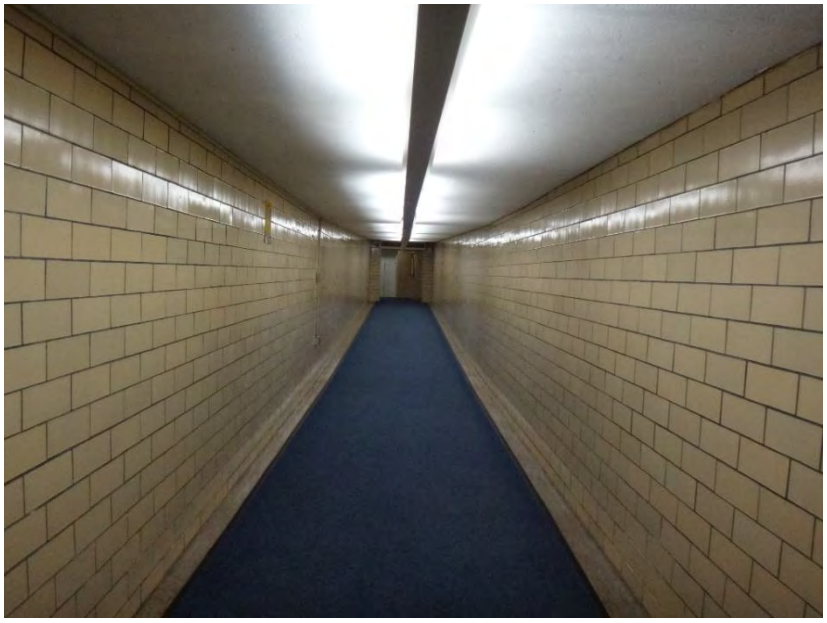


Photo 9

Overall view of the State House tunnel.

Photo 10

Exposed below-grade waterproofing membrane (arrows) extending above the finished grade at the east elevation.

Photo 11

Close-up view of the exposed below-grade waterproofing. Note the exposed edges.

Photo 12

The area drain (arrow) at the exterior landing of Stair B is covered by a wire mesh strainer and surrounded by debris.

Photo 13

Overall view of the north elevation. Note brick belt course (top arrow) extending around the second-floor line, and jack arches and wood trim above window heads (middle arrow) and brick water table (bottom arrow).

Photo 14

Return wall on north elevation. Note continuous mortar joint (arrow) at inside corner, and generally intact brick masonry.

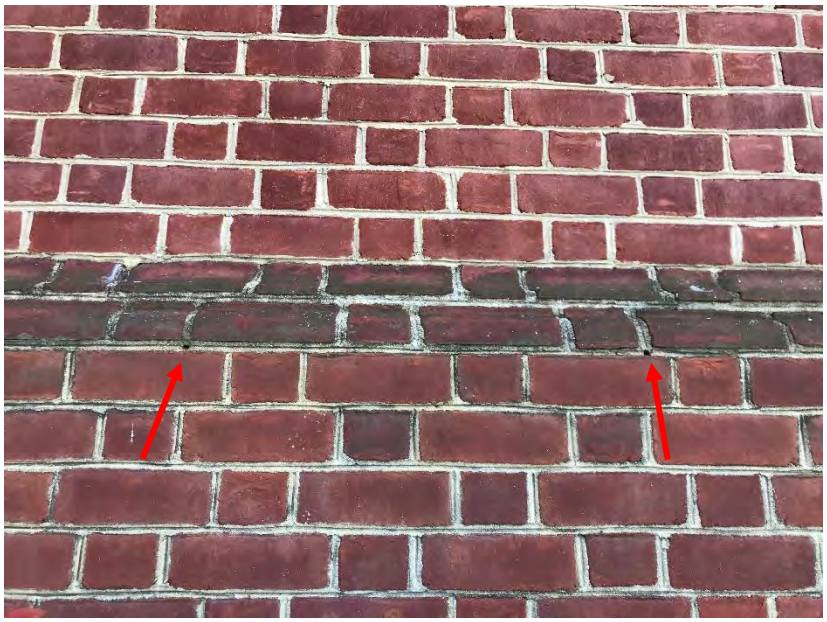


Photo 15

Weeps (arrows) and stained projecting brick at the water table.

Photo 16

View of typical wood-framed, double-hung window. The bricks below a window sill on the north elevation are stained.

Photo 17

Eroded and missing mortar joints, displaced brick (arrow) below a window sill on the north elevation.

Photo 18

Stained brick and eroded mortar joints (arrows) at the north entrance stair.

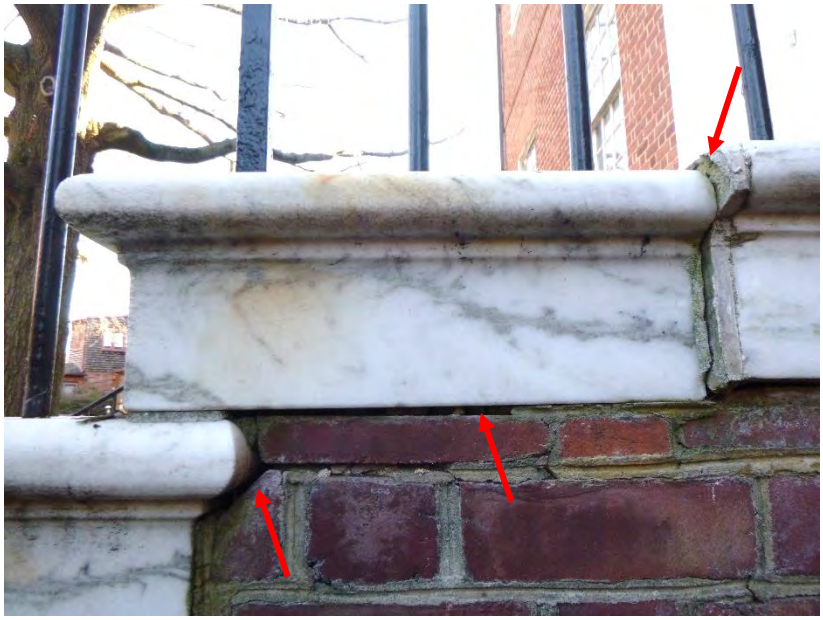


Photo 19

Displaced stair tread (top arrow) and open mortar joints (bottom arrows) at the north entrance stair.

Photo 20

Corroded hand rail and spalled marble steps surrounding the anchor pockets at entrance stairs on the east elevation.

Photo 21

Deteriorated steel lintel (arrow) at louver beneath the north elevation marble stairs.

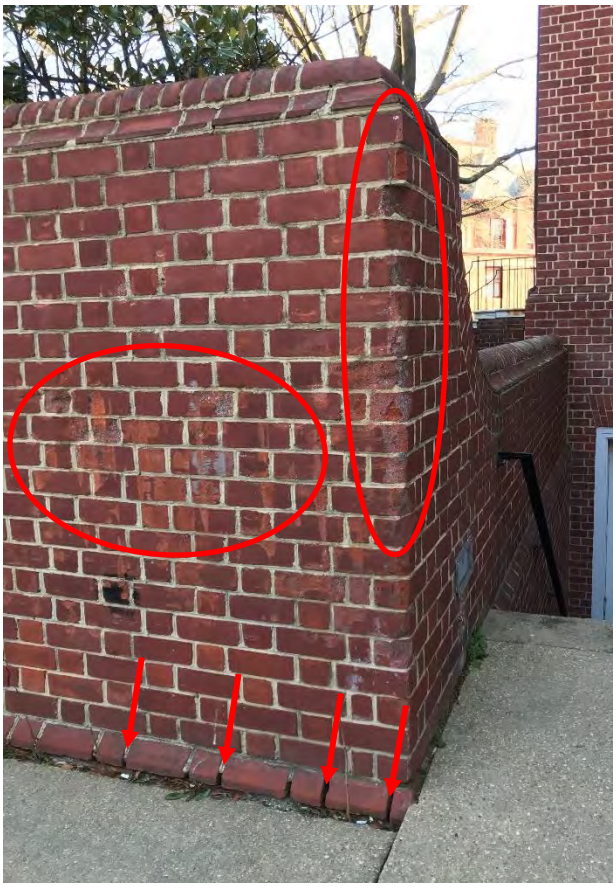


Photo 22

Damaged brick (ellipses) and missing mortar joints (arrow) at site walls near loading dock.

Photo 23

North elevation chimneys. Note roof flashing terminations, cap flashings, stained brick and eroded mortar.

Photo 24

Representative view of typical hung wood-framed windows at the north elevation.

Photo 25

Peeling paint on the interior surfaces of adjoining window muntins on the first-floor north elevation.

Photo 26

Typical deteriorated glazing putty at single-glazed wood windows (arrow).

Photo 27

Paint covers the frame and perimeter sealant joint between the wood sill and the brick. Note wood and paint deterioration. The wood frame is in contact with the brick (arrows).

Photo 28

Wood pilasters (lower arrow), entablature (middle arrow), pediment (upper arrow), and transom windows at north elevation door opening.

Photo 29

Base of wood pilaster at north elevation door opening.

Photo 30

Representative view of wood-framed cupola, steep-sloped slate roof, and low-slope roof.

Photo 31

Representative view of the low-slope BUR assembly, facing the chimneys on the north elevation.

Photo 32

Stained and warped (arrows) ceiling tiles below the top edge of the steep-slope roof above the third floor. Note that white tiles typically indicate recently replaced tiles.

Photo 33

Overall interior view of the steep-slope roof deck surrounding the cupola. The steel beams are covered with fireproofing. Note that the top of the ceiling tiles is exposed and the underside of the steep slope roof is uninsulated.

Photo 34

Sheet metal fastened to the underside of the “gypsum plank boards” at the low-slope roof.

Photo 35

Peeling paint and wood window deterioration at the interior of the cupola. Note the glazing in the left window was removed and replaced with plexiglass.

Photo 36

Slate shingles and snow guards on the cupola roof. Note membrane roof base flashing below bottom course of slate.

Photo 37

Apparent replacement slate shingles identifiable by metal flashing bibs (arrows).

Photo 38

Mansard roof dormers are clad with wood siding. The slate roof ridges are covered with roofing cement (arrow).

Photo 39

Deteriorated roofing cement at the hip of the slate roof below the cupola.

Photo 40

Copper valley flashing (right arrow), counterflashing (left arrow) and step flashing against brick chimney.

Photo 41

Hung copper gutter and wood dentil cornice along the slate roof eave.

Photo 42

Copper downspout empties into storm drainage inlet.

Photo 43

Overall view of cupola. Paint is peeling from the wood paneling.

Photo 44

A metal gravel stop covers the transition between the low-slope and steep-slope mansard roofs.

Photo 45

The asphalt along the edges of the modified-bitumen cap sheet is cracked and discontinuous at the metal gravel stop.

Photo 46

Exposed and blistered asphalt (arrow) at seams in the modified-bitumen base flashing at a chimney.

Photo 47

Localized area of missing gravel, aggregate surfacing, and exposed fiberglass felt at the BUR.

Photo 48

Hole at a side lap in the modified-bitumen base flashing at the base of a chimney.

Photo 49

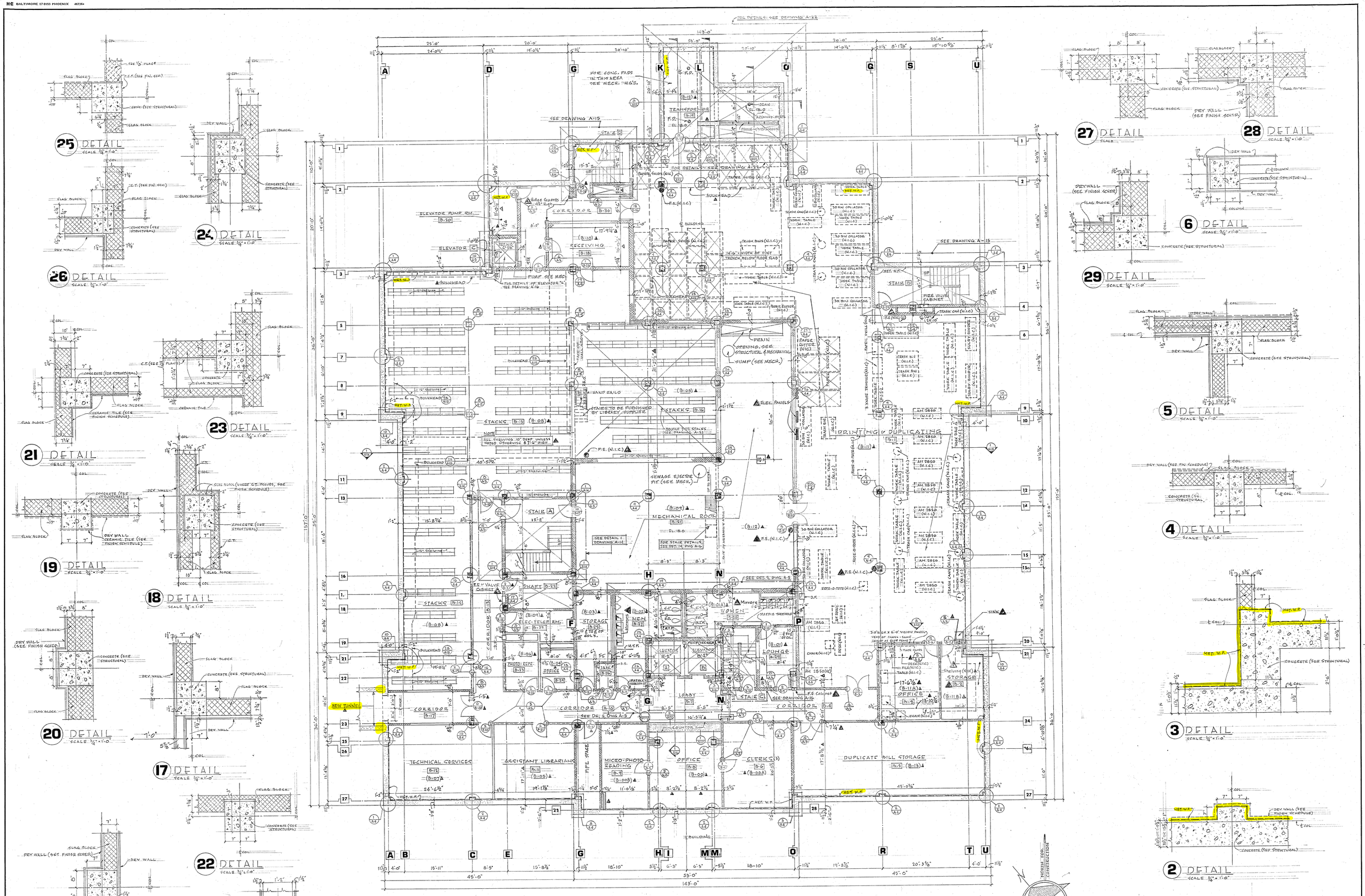
Representative view of metal grate over “air sump” at low-slope roof.

Photo 50

EPDM roof above storage hut near leading dock.

APPENDIX A

RELEVANT ORIGINAL CONSTRUCTION DRAWINGS



BASEMENT FLOOR PLAN

SCALE 1/8" = 1'-0" TOP OF CONCRETE = EL. 18.0'

NOTE!
ALL MASONRY PARTITIONS TO BE CARRIED TO UNDERSIDE OF STRUCTURAL SLAB ABOVE, UNLESS OTHERWISE NOTED; DRY WALL PARTITIONS NOTED THUS, ═══, ARE TO BE CARRIED TO UNDERSIDE OF STRUCTURAL SLAB ABOVE

NO.	DATE	REVISIONS
1	1-29-79	AS-BUILT DATA

TITLE OF DRAWING: **basement floor plan & details**

LEGISLATIVE SERVICES BUILDING
STATE CIRCLE COMPLEX
ANNAPOLIS, MARYLAND

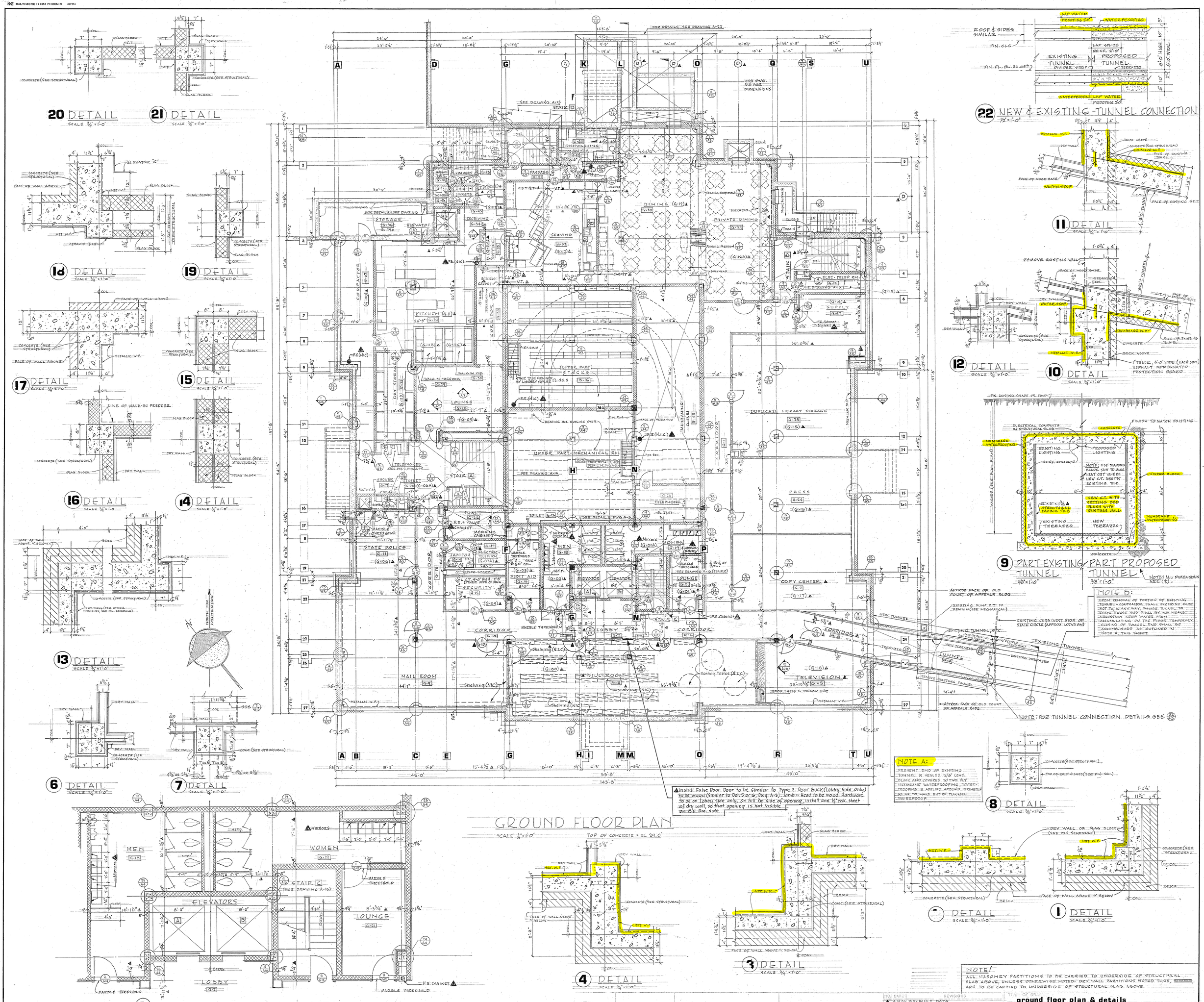
HENRY POWELL HOPKINS & ASSOCIATES
WRENN LEWIS & JENCKS
ARCHITECTS AND ENGINEERS
ANNAPOLIS, MARYLAND

DRAWING NO. A-4
DGS PROJECT NO. D0217
DATE: SEPT. 1975

DEPARTMENT OF GENERAL SERVICES
OFFICE OF DESIGN & CONSTRUCTION
APPROVED
PRINCIPAL ENG. | PRINCIPAL ELEC. | PRINCIPAL MECH.
SCE | M.E. | E.E. | SUPERVISOR
DATE 10/14/75

BOARD OF EXAMINERS AND REGISTRATION OF ARCHITECTS
523-A
STATE OF MARYLAND

FILE 26 DRAWING: 2531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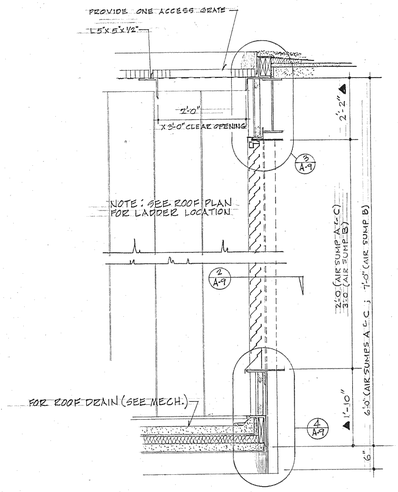
SCALE 3/4"=1'-0"
6 DETAIL
SCALE 3/4"=1'-0"
7 DETAIL
SCALE 3/4"=1'-0"
5 PLAN OF TOILETS G-18 & G-19, ETC.
(BASEMENT FLOOR TOILETS B-28 & B-29 SIMILAR)
SCALE 1/4"=1'-0"
GROUND FLOOR PLAN
SCALE 1/8"=1'-0"
4 DETAIL
SCALE 3/4"=1'-0"
3 DETAIL
SCALE 3/4"=1'-0"
2 DETAIL
SCALE 3/4"=1'-0"
1 DETAIL
SCALE 3/4"=1'-0"
8 DETAIL
SCALE 3/4"=1'-0"
22 NEW & EXISTING-TUNNEL CONNECTION
1/2"=1'-0"
11 DETAIL
SCALE 3/4"=1'-0"
12 DETAIL
SCALE 3/4"=1'-0"
10 DETAIL
SCALE 3/4"=1'-0"
9 PART EXISTING TUNNEL / PART PROPOSED TUNNEL
3/8"=1'-0"
NOTE: ALL DIMENSIONS ARE (±).
NOTE B:
UPON REMOVAL OF PORTION OF EXISTING TUNNEL - CONTRACTOR SHALL EXERCISE CARE NOT TO, IN ANY WAY, DAMAGE TUNNEL TO STATE HOUSE AND SHALL BY ANY MEANS NECESSARY KEEP WATER FROM ACCUMULATING ON THE FLOOR. TEMPORARY CLOSING OF TUNNEL END SHALL BE ACCOMPLISHED AS OUTLINED IN NOTE A, THIS SHEET.
NOTE A:
PRESENT END OF EXISTING TUNNEL IS SEALED W/8" CONC. BLOCK AND COVERED W/TWO PLY MEMBRANE WATERPROOFING. WATER-PROOFING IS APPLIED AROUND PERIMETER SO AS TO MAKE ENTIRE TUNNEL WATERPROOF.
NOTE: FOR TUNNEL CONNECTION DETAILS SEE
Install False Door. Door to be similar to Type 2. Door Buck (Lobby Side Only) to be wood (Similar to Det. 5 on G. Dwg. A-3). Jamb & Head to be Wood. Hardware to be on Lobby side only. On Bill Rm. side of opening install one 1/2" thk. sheet of dry wall, so that opening is not visible on Bill Rm. side.
NOTE:
ALL MASONRY PARTITIONS TO BE CARRIED TO UNDERSIDE OF STRUCTURAL SLAB ABOVE, UNLESS OTHERWISE NOTED. DRY WALL PARTITIONS NOTED THUS, ARE TO BE CARRIED TO UNDERSIDE OF STRUCTURAL SLAB ABOVE.
DEPARTMENT OF GENERAL SERVICES
OFFICE OF DESIGN & CONSTRUCTION
APPROVED
REVISIONS
4-29-76 AS-BUILT DATA
ground floor plan & details
A-5
SEPT. 1973
FILE 26 DRAWING: 2532



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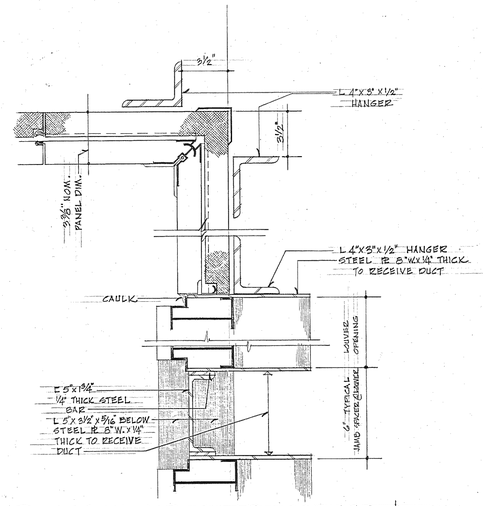

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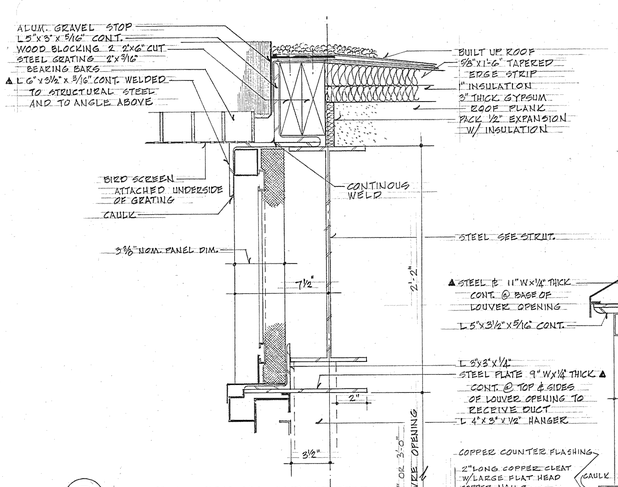

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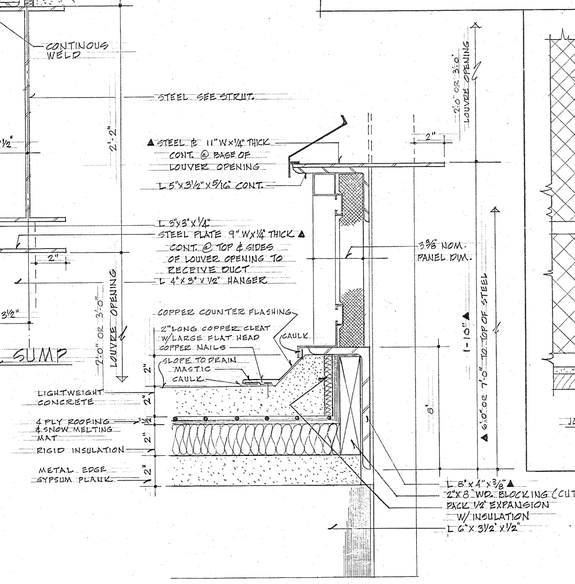

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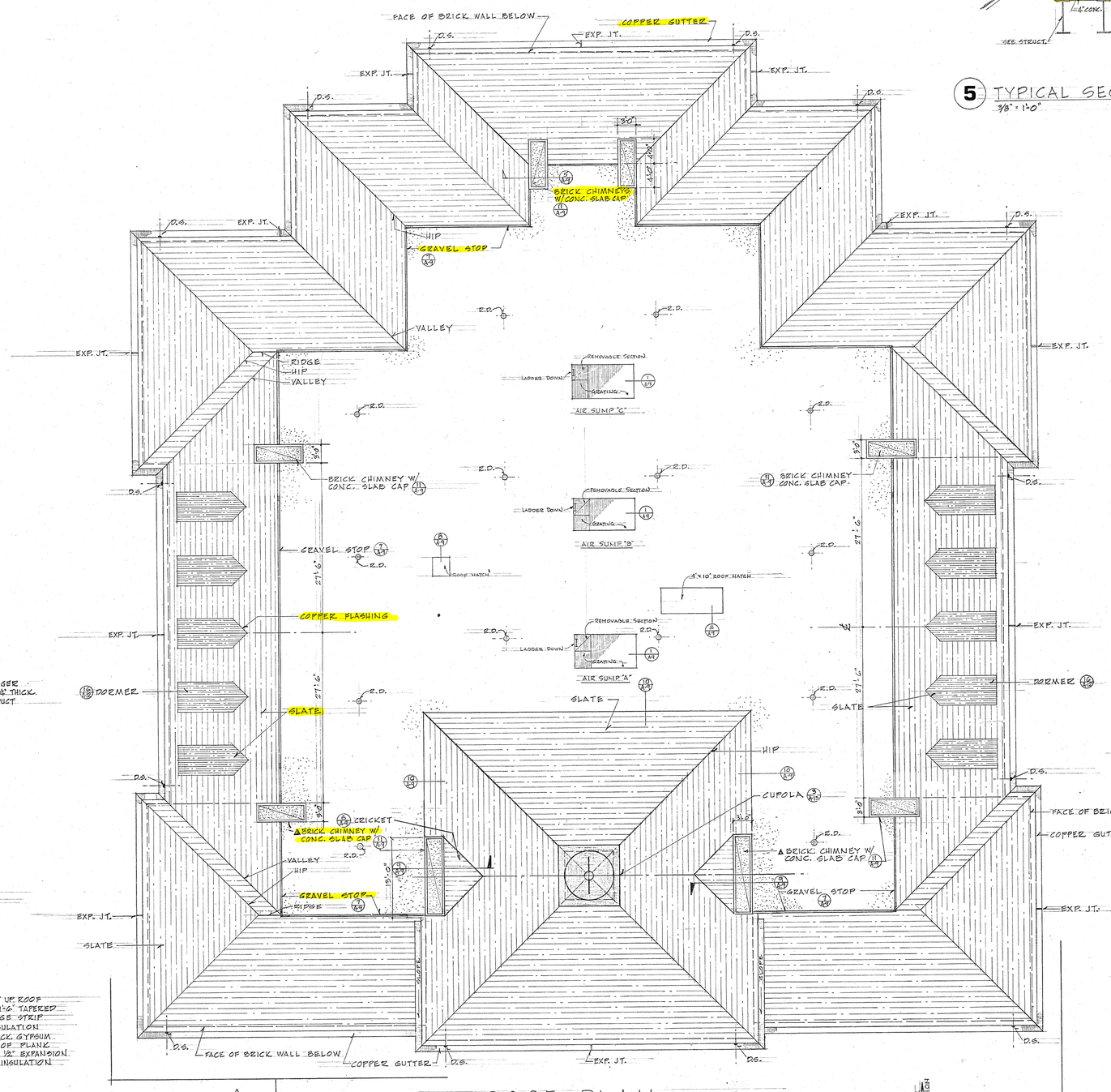

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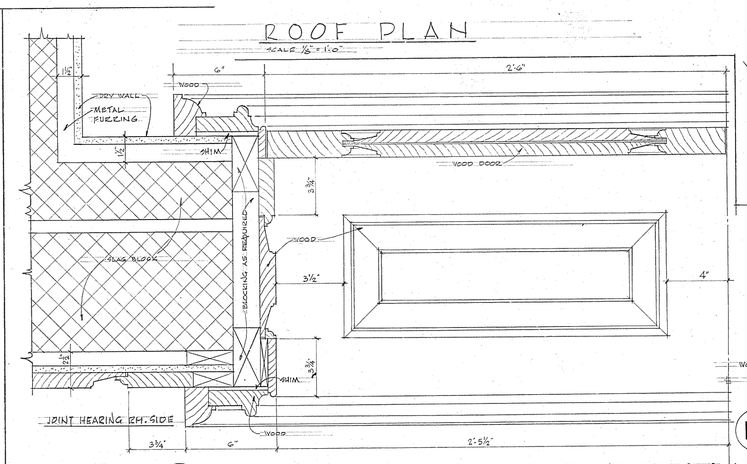

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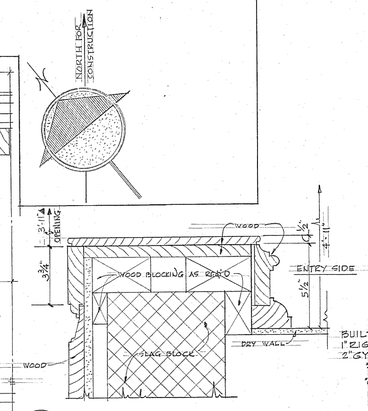

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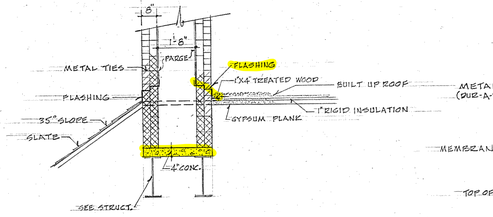

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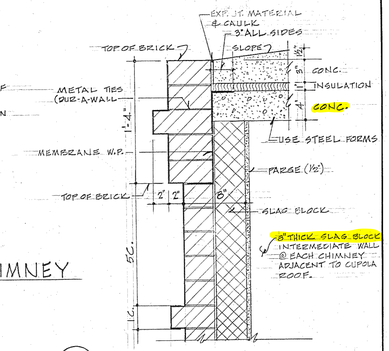

11 CHIMNEY CAP DETAIL
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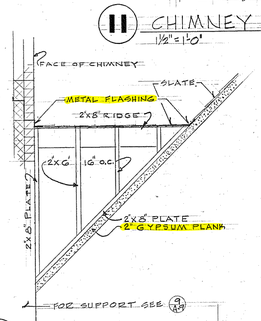

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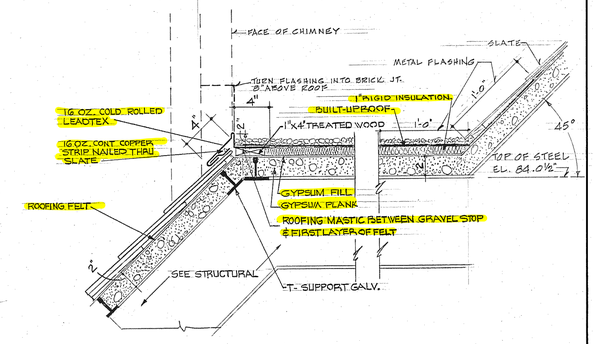

7 DETAIL OF METAL GRAVEL STOP
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10 FLASHING DETAIL OF 45° ROOF TO FLAT ROOF
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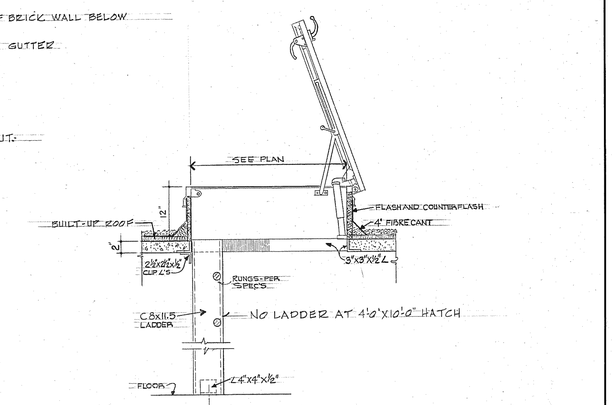
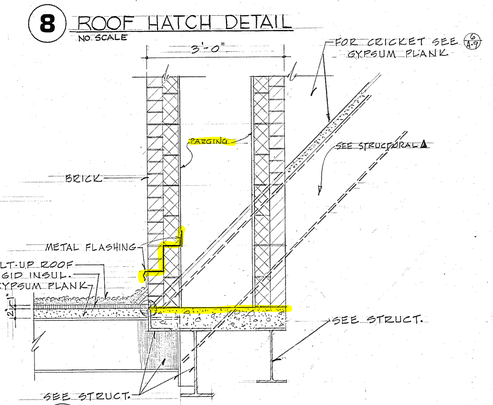


8 ROOF HATCH DETAIL
NO SCALE



9 CHIMNEY SUPPORT
3/4" = 1'-0"

NO.	DATE	REVISIONS
4	4-29-76	AS-BUILT DATA

DEPARTMENT OF GENERAL SERVICES
OFFICE OF DESIGN & CONSTRUCTION
APPROVED

PRINC. ARCH.	PRINCIPAL S. FUNC.	PRINCIPAL MECH.

S.E.	M.E.	E.E.	C.E.	S.PLNG.

DATE 10/10/72

BOARD OF EXAMINERS AND REGISTRATION OF ARCHITECTS — SCD-A — STATE OF MARYLAND

TITLE OF DRAWING: **roof & related details**

LEGISLATIVE SERVICES BUILDING
STATE CIRCLE COMPLEX
ANNAPOLIS, MARYLAND

HENRY POWELL HOPKINS & ASSOCIATES
WARREN, LEY & JENKINS
ARCHITECTS ASSOCIATED
BALTIMORE, MARYLAND

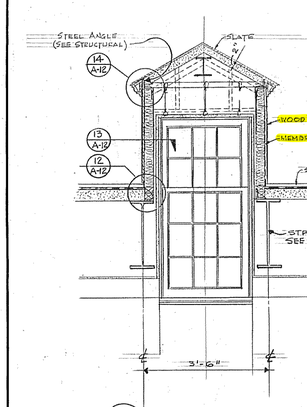
A I A

MECHANICAL ENGINEERS
ELECTRICAL ENGINEERS
STRUCTURAL ENGINEERS

A-9

SEPT. 1973

FILE: 26 DRAWING: 2536



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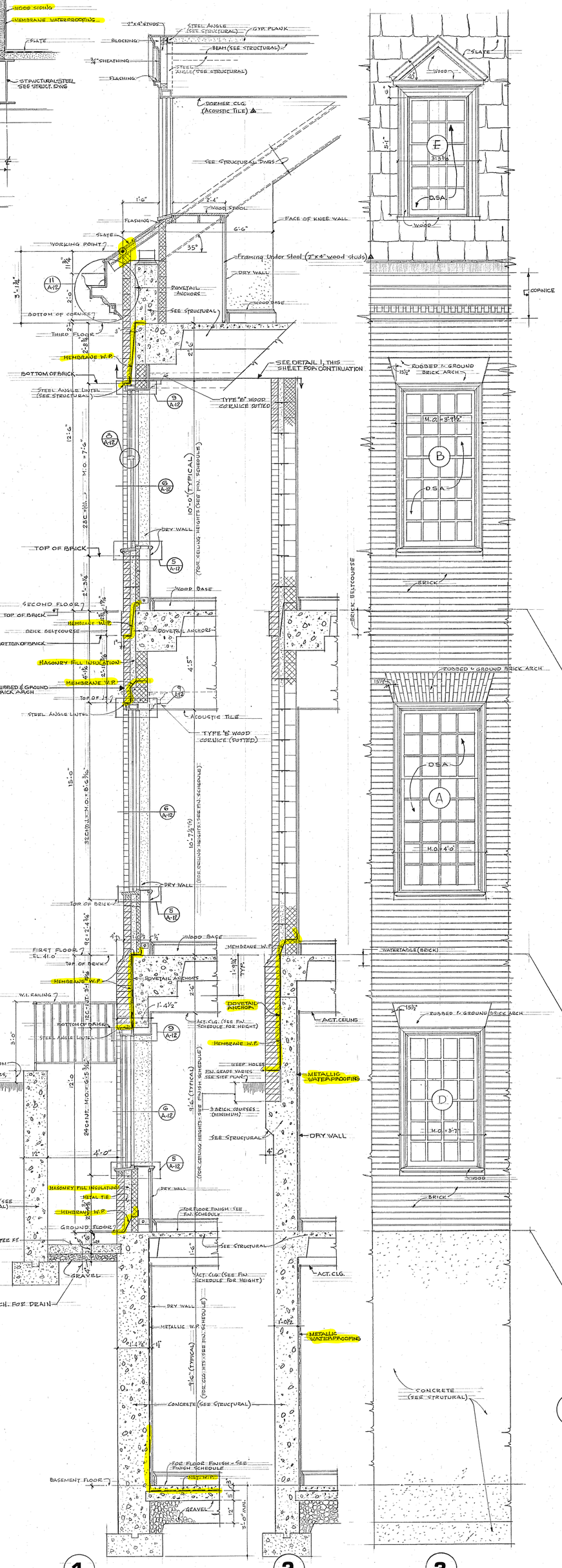

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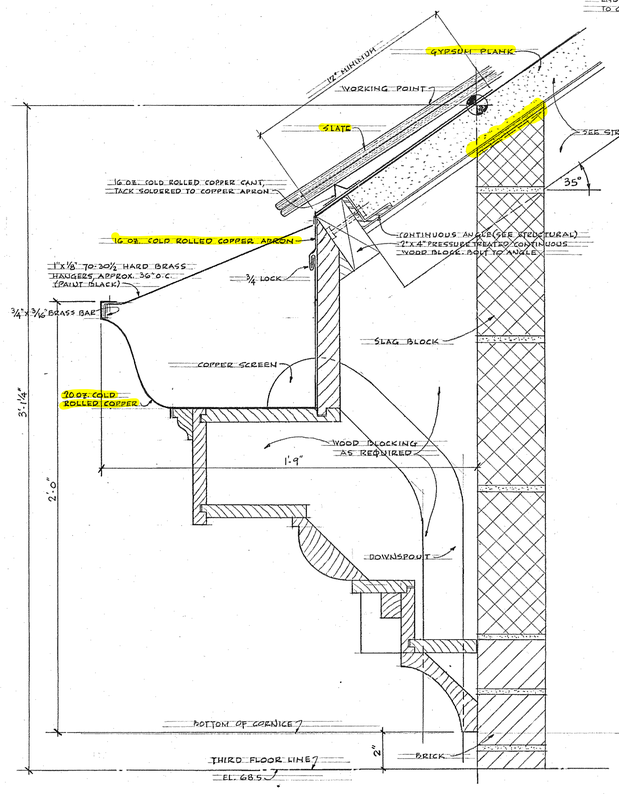
2

3 ELEVATION
SCALE 1/2" = 1'-0"



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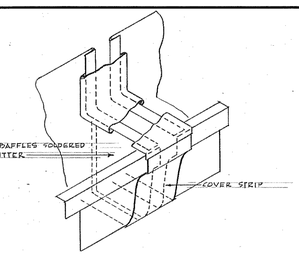
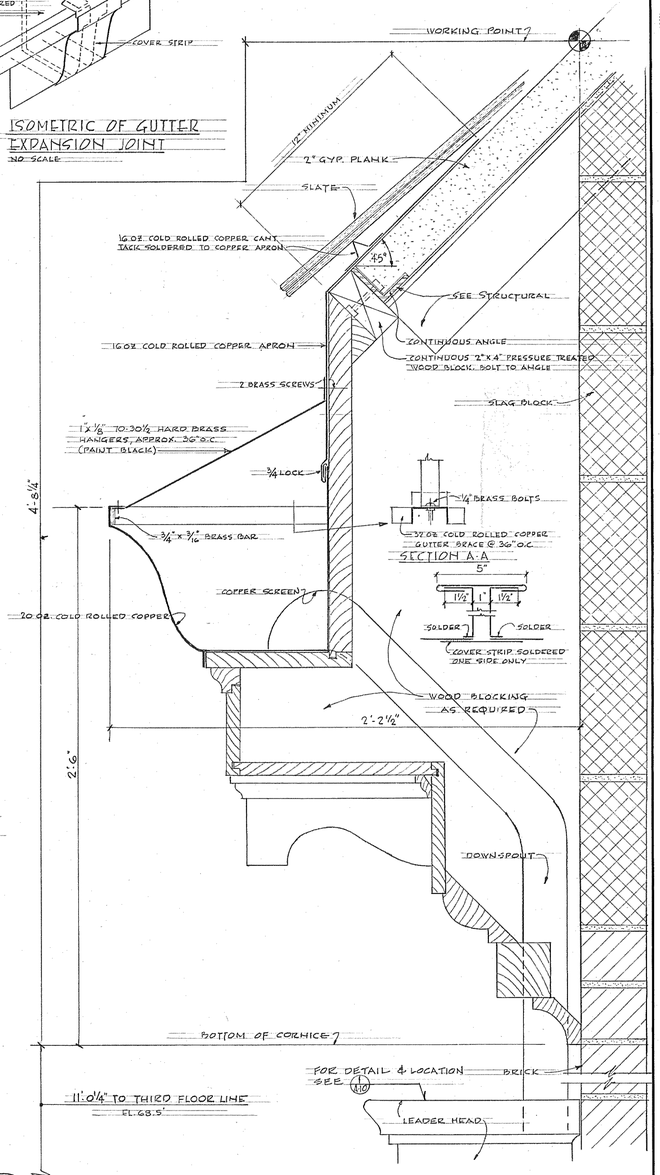


ISOMETRIC OF GUTTER EXPANSION JOINT
NO SCALE

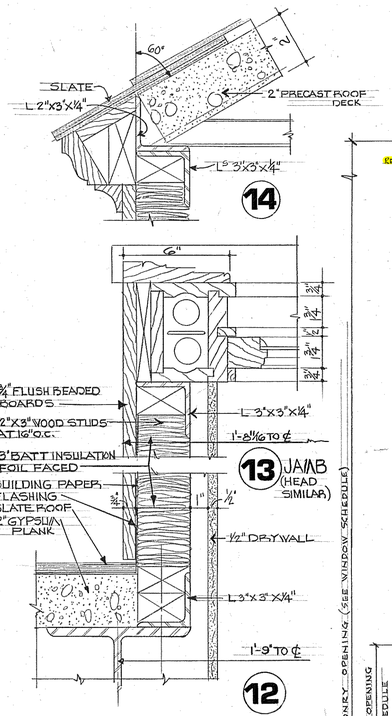


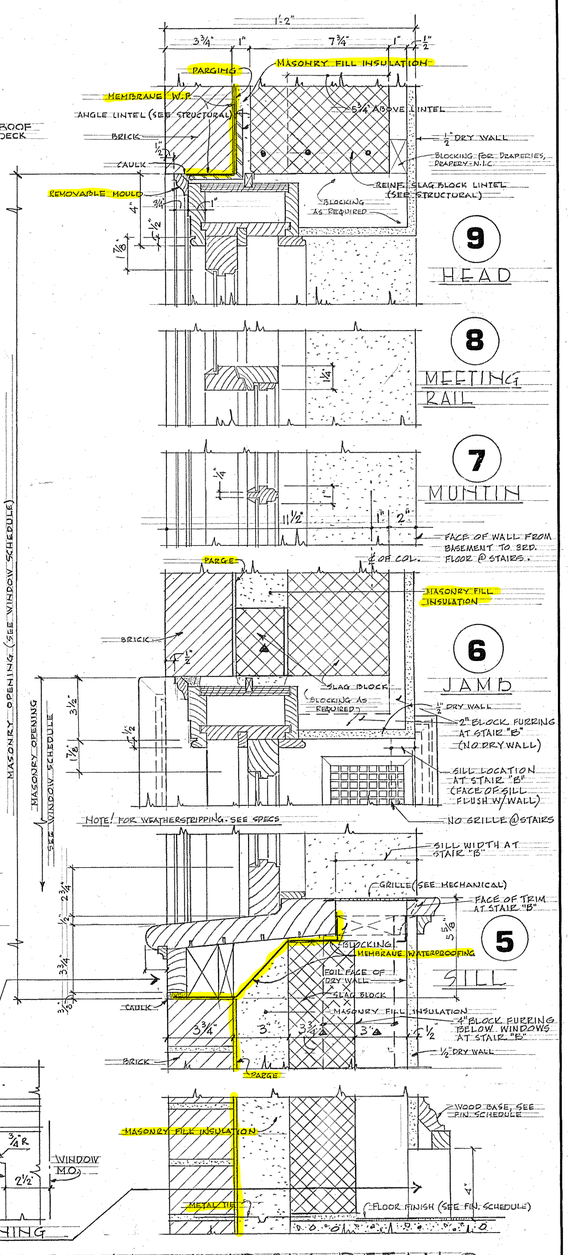
10 DETAIL OF LARGE WOOD CORNICE
SCALE 3" = 1'-0"

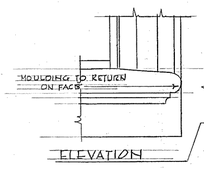
WINDOW SCHEDULE

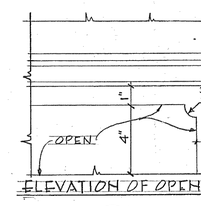
TYPE	LOCATION	SILL	JAMB	HEAD	MASONRY OPENING HEIGHT	MASONRY OPENING WIDTH	REMARKS
A	FIRST FLOOR	5/A12	6/A12	9/A12	8'-6 3/16"	4'-0"	
B	SECOND FLOOR	5/A12	6/A12	9/A12	7'-6"	3'-9 1/2"	
C	THIRD FLOOR	5/A12	6/A12	9/A12	6'-5 3/16"	3'-7"	
D	GROUND FLOOR	5/A12	6/A12	9/A12	6'-5 3/16"	3'-7"	
E	ROOF (DORMER)	1/A12	13/A12	13/A12	*	*	*SEE DETAILS 14-2/A-12
F	FIRST FLOOR	5/A12	6/A12	9/A12	8'-6 3/16"	6'-8 3/4"	
G	GROUND FLOOR	5/A12	6/A12	9/A12	2'-11 3/16"	3'-7"	
H	CUPOLA	16/A13	10/A13	12/A13	*	*	*SEE DETAILS, DWG A-13

4 ELEVATIONS - WINDOWS "F" & "G"
SCALE 1/2" = 1'-0"









ELEVATION OF OPENING

A TYPICAL WINDOW DETAILS
SCALE 3" = 1'-0"

BOARD OF EXAMINERS AND REGISTRATION OF ARCHITECTS STATE OF MARYLAND
500-A

DEPARTMENT OF GENERAL SERVICES OFFICE OF PROJECT MANAGEMENT
APPROVED
PROJECT ARCH. | PROJECT ENGR. | PROJECT MGR.
DATE 10/01/75

NO.	DATE	REVISIONS
1	4-27-76	AS-BUILT DATA

TITLE OF DRAWING
wall sections & window details

LEGISLATIVE SERVICES BUILDING
STATE CIRCLE COMPLEX
ANNAPOLIS, MARYLAND

ARCHITECTS: HENRY POWELL HOPKINS & ASSOCIATES
WRENN, LEWIS & JENCKS
BALTIMORE, MARYLAND
MECHANICAL ENGINEERS: BURNS & McDONNELL
STRUCTURAL ENGINEERS: VAN WINSELEN & BAKE
JOHN CORPIS NO. 1

DRAWING NO. A-12
C.P. A-22
B.L.S. PROJECT NO. 8-0317
DATE SEPT. 1975

FILE: 26 DRAWING: 2539

K&E BALTIMORE 17 0513 PHOENIX 4073H

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Appendix D

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A PHASE IA INTENSIVE BACKGROUND INVESTIGATION OF THE DEPARTMENT OF LEGISLATIVE SERVICES BUILDING 90 STATE CIRCLE PROPERTY

ANNAPOLIS, ANNE ARUNDEL COUNTY, MARYLAND

Prepared For

Murphy & Dittenhafer Architects
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Annapolis, MD 21401

Applied Archaeology and History Associates, Inc.
615 Fairglen Lane
Annapolis, Maryland 21401
(410) 224-3402
FAX (410) 224-3470

March 2020

A PHASE IA INTENSIVE BACKGROUND INVESTIGATION OF THE DEPARTMENT OF LEGISLATIVE SERVICES BUILDING 90 STATE CIRCLE PROPERTY

ANNAPOLIS, ANNE ARUNDEL COUNTY, MARYLAND

By
W. Brett Arnold, RPA
Mandy Melton, RPA
Kristen Browne

Jeanne A. Ward, RPA – Principal Investigator

Prepared For

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March 2020

ABSTRACT

In February 2020, Applied Archaeology and History Associates, Inc. conducted a Phase IA intensive background investigation of the 90 State Circle Property (Study Area) in downtown Annapolis, Maryland. The property currently houses the Department of Legislative Services Building (DLS), as well as a pedestrian walkway connecting Bladen Street with the Maryland State House known as Lawyers Mall. The Maryland Stadium Authority (MSA) has proposed improvements to the DLS building to meet the evolving needs of the Maryland State Legislature. AAHA conducted this Phase IA intensive background investigation under contract with Murphy & Dittenhafer Architects to determine the likelihood of the presence of archaeological resources within the Study Area.

The Study Area is located in the heart of the Colonial Annapolis Historic District (MIHP AA-137), which is listed on the National Register of Historic Places. It lies directly across the street from both the Maryland State House and the Governor's Mansion. Dozens of historic residences and commercial structures are in the Study Area's direct vicinity, as well as some more recent government buildings such as the James Senate Office Building and the House of Delegates Office Building. The site of the demolished Maryland Court of Appeals Building (MIHP AA-695) lies within the southwestern portion of the Study Area.

The Study Area is in a lowland terrace surrounded by three navigable waterways with easy access to water in three directions and a prime position for exploiting terrestrial, estuarine, and marine food resources. A structure was located in the Study Area by 1695, and additional houses were constructed as the lot was subdivided throughout the eighteenth and nineteenth centuries. A Methodist congregation purchased part of the property in 1817 and built a brick building there in 1859. The property underwent major reconfigurations around 1903 when several residences were demolished to construct the Court of Appeals Library and Office, and later around 1973 when the current Legislative Services building was built. Nearby archaeological investigations show that levels of disturbance around State Circle vary widely. The Study Area has a naturally high probability for both precontact and historic archaeological resources, although it is likely these resources have been in part or whole impacted by modern construction episodes.

Historic maps and records document extensive disturbance within the Study Area beginning in the early twentieth century and continuing to the ca. 1973 construction of the existing Legislative Services building. Precontact sites tend to contain perishable materials that do not survive the kind of extensive disturbance created by large construction episodes. Historic features, on the other hand, tend to be more durable and may have survived the twentieth-century construction episodes. While the 1970s construction could have disturbed archaeological resources within the footprint of the existing building, there is a moderate to high probability that intact archaeological resources exist in the northeast section of the property. Traditional archaeological survey methods are unlikely to be effective in this environment and, as such, archaeological monitoring of ground disturbing activity is recommended to document possible in situ cultural features and contexts.

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1. INTRODUCTION

During February 2020, Applied Archaeology and History Associates, Inc. (AAHA) conducted a Phase IA intensive background investigation of the 90 State Circle Property (Study Area) located in downtown Annapolis, Anne Arundel County, Maryland. The property currently houses the Department of Legislative Services Building (DLS). The Maryland Stadium Authority (MSA) has proposed improvements to the DLS building to meet the evolving needs of the Maryland State Legislature. AAHA conducted this Phase IA intensive background investigation under contract with Murphy & Dittenhafer Architects to determine the likelihood of the presence of archaeological resources within the Study Area.

This report represents the results of the Phase IA investigation. It includes an examination of available primary and secondary historic documents, land records, historic maps, and records of previous sites and surveys in the Study Area vicinity. All work was conducted in accordance with the Maryland Historical Trust's *Standards and Guidelines for Archeological Investigation in Maryland* (Shaffer and Cole 1994), as well as the various standards and guidelines set forth by the Secretary of the Interior in the *Standards and Guidelines for Archaeology and Historic Preservation* (Federal Register 1983) and Section 106 Archaeology Guidance (ACHP 2009). The background research was conducted by W. Brett Arnold, Kristen Browne, and Jason Elder. Jeanne A. Ward served as principal investigator and project manager.

The 90 State Circle Property is located in downtown Annapolis just north of the Maryland State House (Figure 1-3). The Study Area comprises approximately 1.28 acres and is bounded to the northwest by College Avenue, the southeast by State Circle, and the east by North Street. Nearly the entire property is occupied by the Department of Legislative Services building and an associated parking lot, with a small area of open lawn along North Street. A portion of the Study Area extends into Lawyers Mall, a paved pedestrian walkway connecting the end of Bladen Street with State Circle. The Study Area falls within Maryland Archaeological Research Unit 7, the Gunpower-Middle-Back-Patapsco-Magothy-Severn-South-Rhode-West River Drainages (Figure 4).

The Study Area is located in the heart of the Colonial Annapolis Historic District (MIHP AA-137), which is listed on the National Register of Historic Places (NRHP). It lies directly across the street from both the Maryland State House and the Governor's Mansion. Dozens of historic residences and commercial structures are located in the Study Area's direct vicinity, as well as some more recent government buildings such as the James Senate Office Building and the House of Delegates Office Building. The site of the demolished Maryland Court of Appeals Building (MIHP AA-695) lies within the southwestern portion of the Study Area.

This report presents four (4) chapters and a list of references cited. Following this introduction, which includes a brief description of the project, Chapter 2 provides an overview of the environmental conditions. Chapter 3 discusses the cultural context and previous research within the Study Area, as well as the results of the background investigation. Chapter 4 summarizes the

findings and provides recommendations. References cited are followed by appendices presenting the property Chain of Title (Appendix A) and Qualifications of the Investigators (Appendix B).

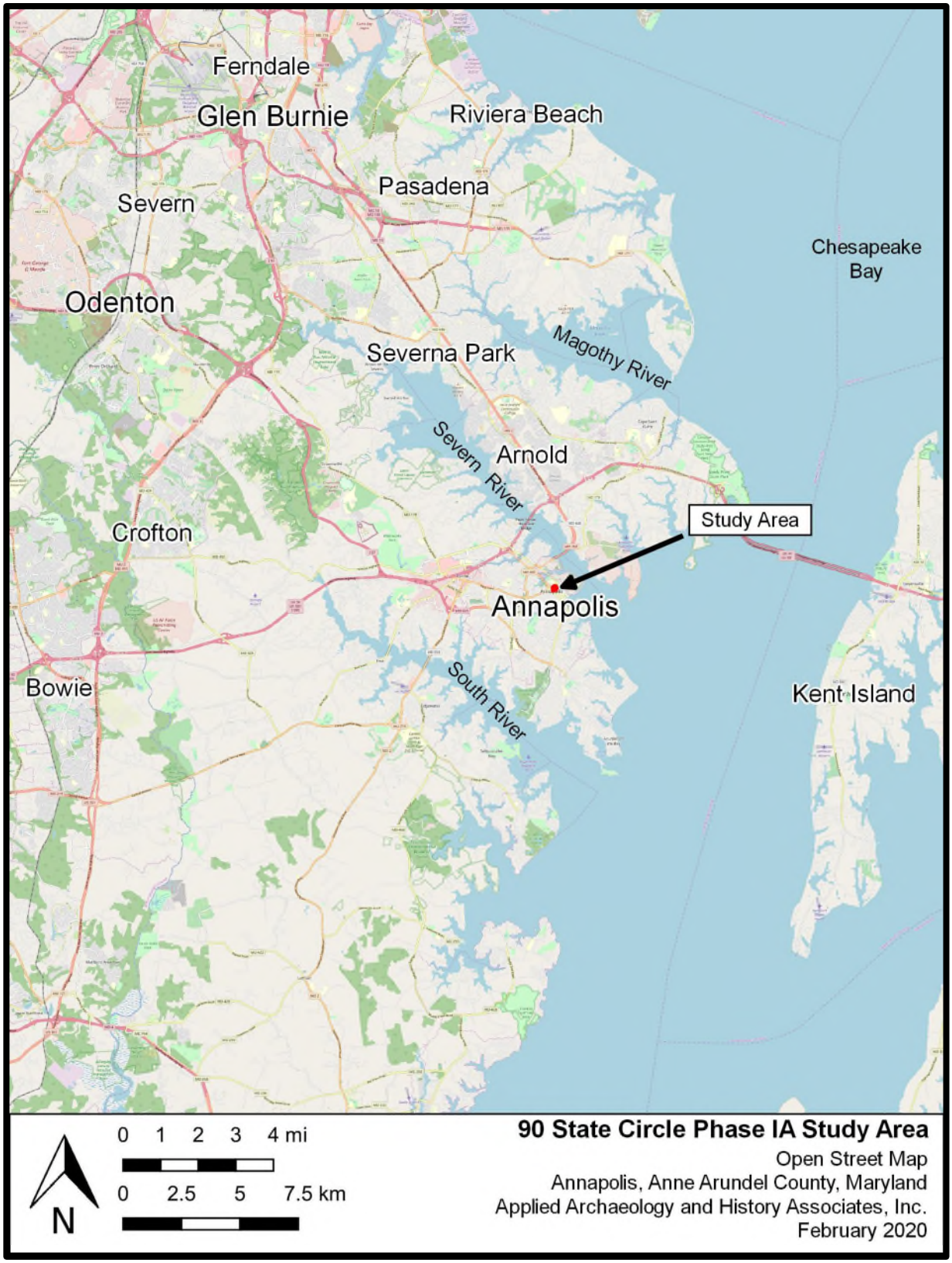

Figure 1. Location of the Study Area in Annapolis, Maryland on the 2016 Open Street Map basemap.

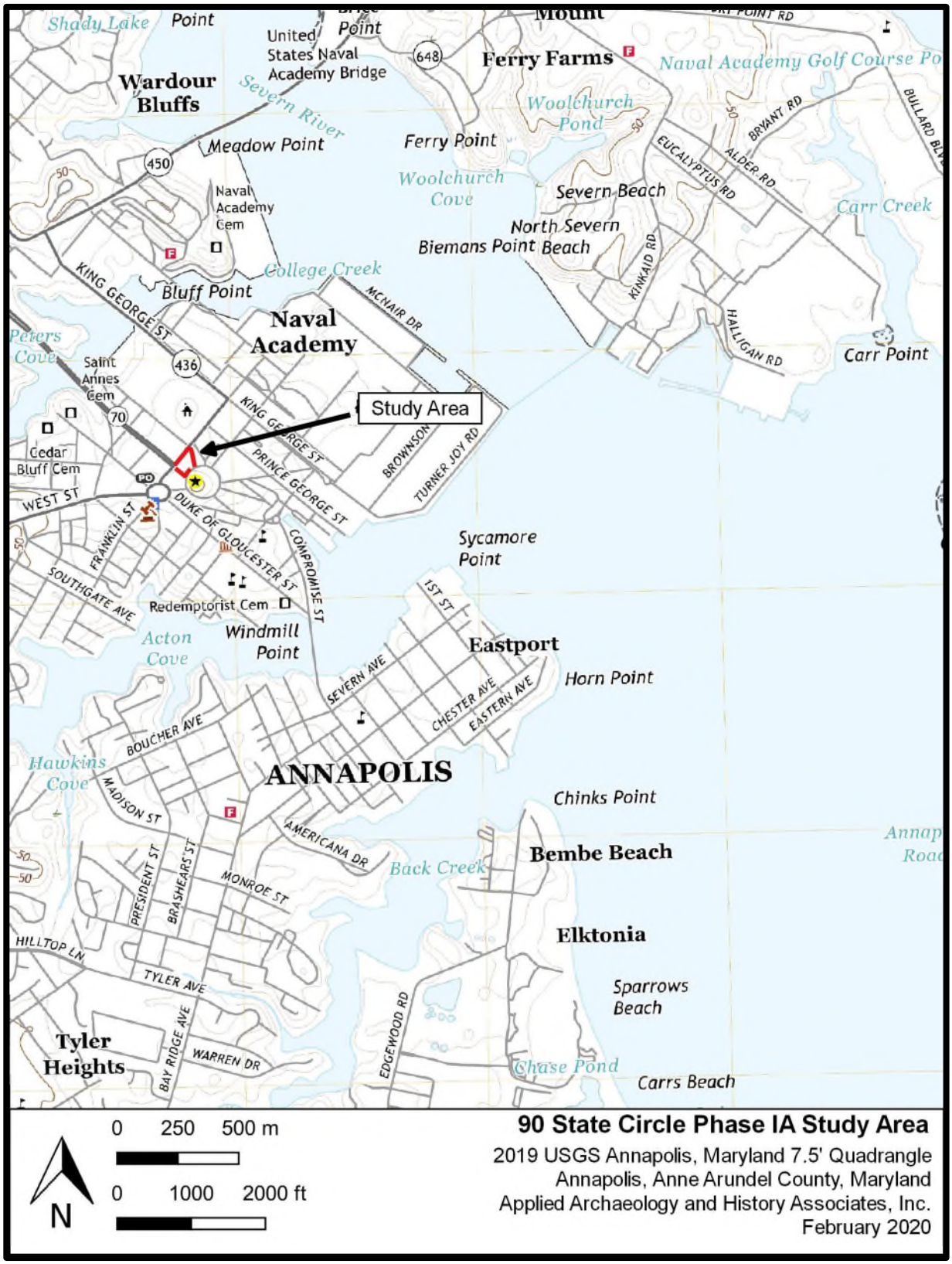

Figure 2. Detail of the 2019 USGS Annapolis, Maryland 7.5-minute quadrangle showing the location of the Study Area in Annapolis, Maryland.

Figure 3. Aerial photograph showing existing conditions within the Study Area.

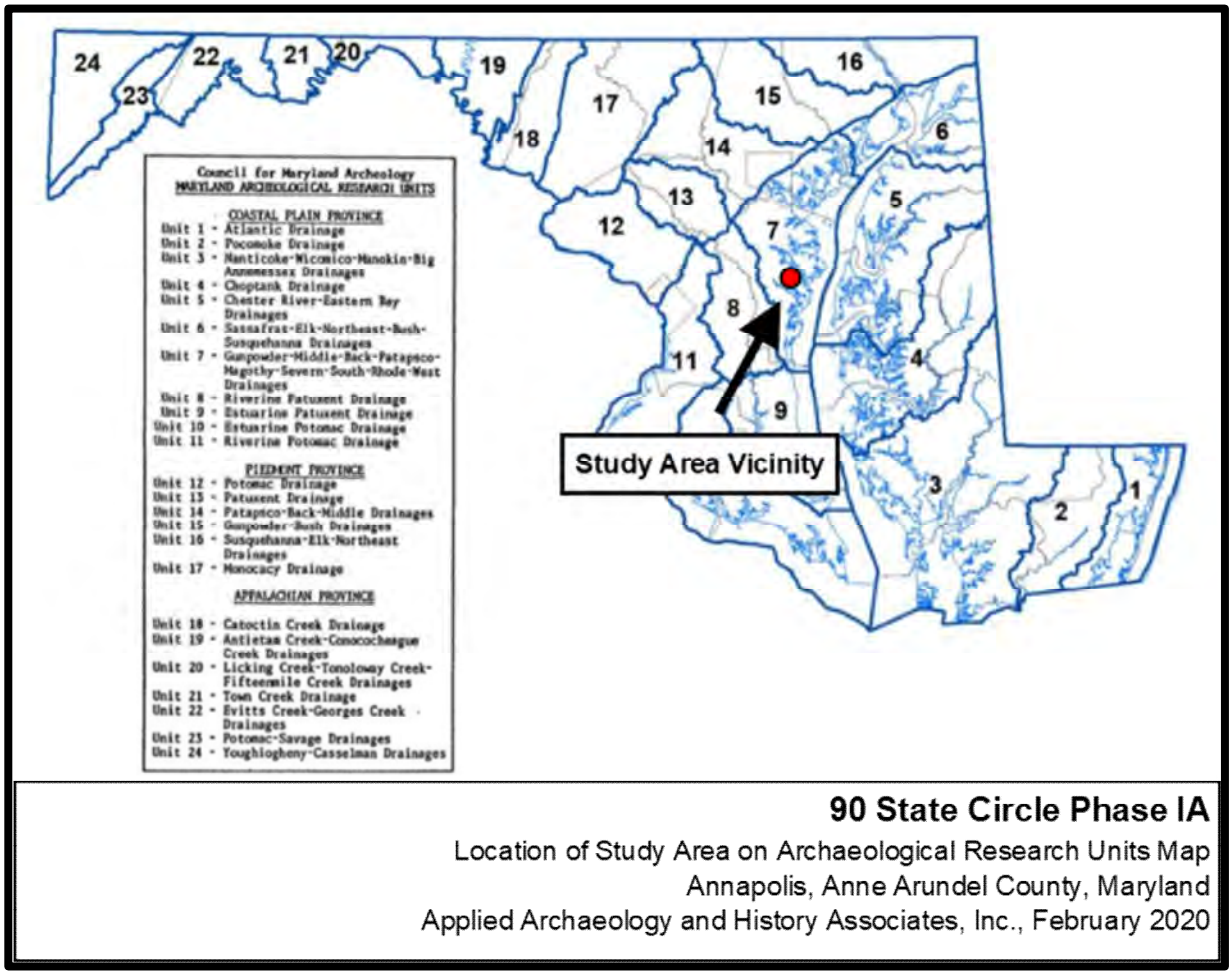

Figure 4. Map of Archaeological Research Units in Maryland showing the Study Area vicinity in Research Unit 7.

2. Environmental Context

The Study Area is located on a 1.28-acre property bounded by State Circle, North Street, and College Avenue just north of the Maryland State House in downtown Annapolis. It occupies a modified terrace projecting out toward the mouth of the Severn River between Spa Creek and College Creek. The property is almost entirely covered by the footprint of the Department of Legislative Services building, an associated parking lot, and a pedestrian walkway connecting Bladen Street and State Circle called Lawyers Mall.

Physiography and Geology

The Study Area is located in the Atlantic Coastal Plain, Western Shore physiographic province within an area consisting of broad and gently sloping upland surfaces and stream terrace settings (Figure 5). The Study Area is situated on a level lot near the Maryland State House within the Annapolis streetscape. The lot is flat and has an elevation of about 10.5 meters (m) (34.4 feet [ft]) above mean sea level (amsl). Geological strata underlying the Study Area are included within the Lowland Deposits Formation composed of silt, clay, and sand sediments. The age of these sediment deposits range from the Wisconsin to the Holocene period. Lowland Deposits consist of gray to buff sand and gravel, gray to brown lignitic silt and clay, occasional boulders, and rare shell beds. The sediments are frequently interbedded with gravels of various sizes. The gravel deposits in the project region, quartz and quartzite in particular, are of particular interest as they provided lithic source material for the manufacture of stone tools during the precontact period.

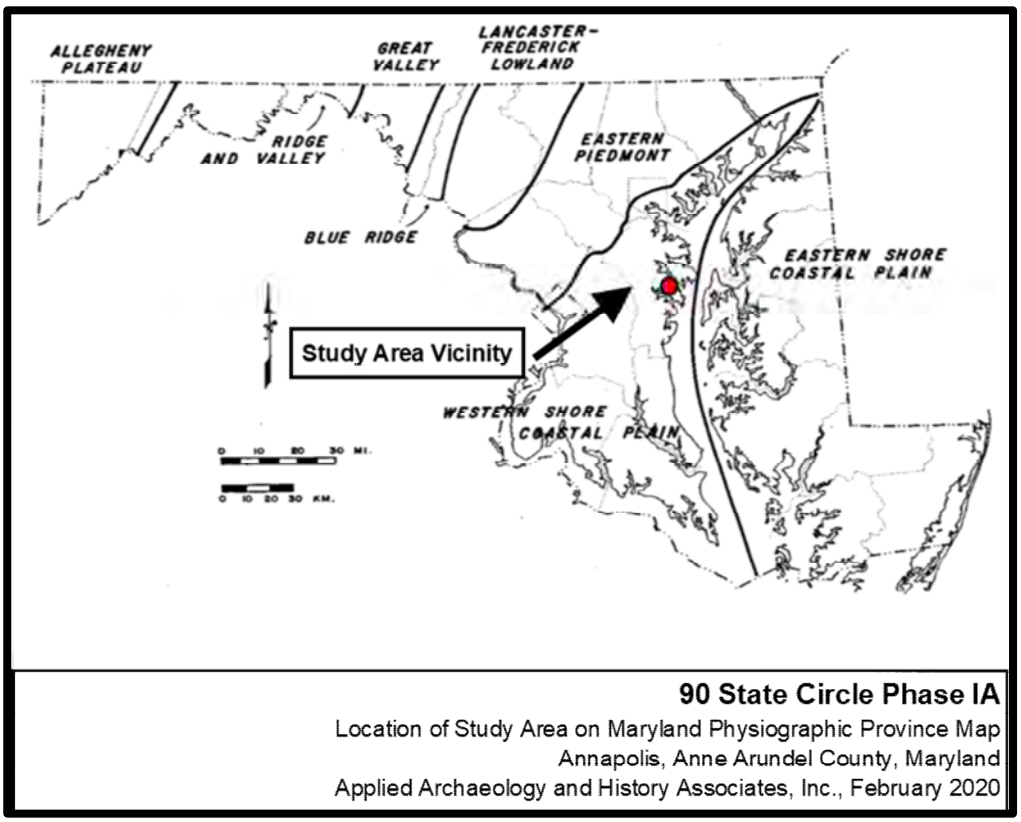

Figure 5. Map of physiographic provinces in Maryland showing the Study Area vicinity in the Western Shore Atlantic Coastal Plain.

Though quartz, quartzite, and rhyolite predominate on many western Coastal Plain precontact sites, cherts and jaspers are not uncommon. In many areas of the Coastal Plain, jaspers occur principally in secondary deposits of stream cobbles (Custer and Galasso 1980). Rhyolite distributions on archaeological sites have been thoroughly documented by Stewart (1989) for areas in central and eastern Maryland. Stewart's studies include an examination of trends in rhyolite usage at various distances from outcrops. The use of rhyolite is evident in assemblages from the Late Archaic in the Coastal Plain and the Piedmont, when the first clear evidence of trade is found in the region.

Soils

Soil analysis utilized the USDA Web Soil Survey (WSS) as seen in Figure 6. The Study Area incorporates soils from the Collington-Wist-Urban land complex (CpB, 0-5% slopes).

Collington-Wist-Urban land complex soils are classified as very deep and well drained. Collington soils are generally encountered on northern Atlantic coastal plain broad interfluves, hills, and ridges and are formed from glauconite bearing eolian and fluviomarine deposits. Wist soils are generally encountered on northern coastal plain interfluves and are formed from glauconite bearing fluviomarine deposits. Urban land consists of soils that have been disturbed by anthropomorphic activity and may have had some or all of its natural soil column truncated.

Paleoenvironment

Approximately 15,000 years ago, sea levels began rising and transgressing the exposed Atlantic continental shelf. By 10,000 BP ocean waters extended to the Cape Charles paleochannel located at the mouth of the Chesapeake Bay (Dent 1995:75). During this same time period, the vegetational landscape consisting of coniferous forests associated with the late Pleistocene was being displaced by a mixed coniferous-deciduous forest with reduced open character (Owens et al 1974:399-400). Pollen cores obtained from the Dismal Swamp in the southern margins of the Chesapeake region show a transition from pine and spruce trees to oak, chestnut, and hickory around 8,200 years ago (Whitehead 1972:308). After 3,500 years ago the local flora and fauna assume a relatively modern character.

Before the arrival of Europeans, the environment was primarily wooded in deciduous hardwoods (Hall 1973:73). The dominant tree species included red and white oak, sweetgum, swamp maple, holly, beech, white cedar, and bald cypress. Following European settlement, the area gained an evergreen component, including Virginia, shortleaf, and loblolly pines. Dominant species in this habitat included white and southern red oak, tulip poplar, loblolly pine, American holly, sweet pepper bush, arrowwood, Japanese honeysuckle, poison ivy, and Virginia creeper. Food sources available to precontact inhabitants in the late summer, fall, and early winter of this region include fruits, seeds, greens, and tubers (Steponaitis 1986:79). Tubers, fruits, greens, and seeds would have been available in the spring, summer, and fall seasons, with dominant species of silky dogwood, bald cypress, seaside alder, narrow-leaved cattail, spotted touch-me-not, buttonbush, sedges, and skunk cabbage.

Figure 6. Aerial photograph showing soils and soil complexes in the Study Area.

Modern Climate

Annapolis, Maryland currently experiences an average of 39.03 inches (in) of precipitation per year. Snowfall averages 14.4 in (City of Annapolis n.d.). Average daily maximum temperature is 65.8 degrees Fahrenheit and the average daily minimum temperature is 44 degrees Fahrenheit (United States Department of Agriculture 1973). The growing season lasts for an average of 245 days (WeatherSpark 2016).

Flora and Fauna

Animal life along the Chesapeake Bay region reported by early explorers at the time of contact included deer, squirrels, badgers, opossums, rabbits, bears, beavers, otters, foxes, martins, minks, weasels, and numerous fish and bird species (Hughes 1980:66). At present, the region is characterized by three different habitats: terrestrial, wetland, and aquatic. Wildlife commonly found in the terrestrial habitats includes songbirds, red fox, white-tailed deer, woodchuck, raccoon, gray squirrel, eastern chipmunk, Virginia opossum, and black rat snake. The aquatic and wetland habitats are home to a variety of birds (great blue heron, mallard, wood duck, red-winged black bird), muskrat, bullfrog, common musk turtle, and northern water snake. Freshwater streams provide a spawning environment for migratory fish species such as white and yellow perch, herring, and alewife. Resident species include largemouth bass, chain pickerel, and blue spotted sunfish. Seasonally abundant species such as migratory waterfowl were also common.

3. BACKGROUND RESEARCH

This section presents a cultural context for the Study Area. Background research methods are presented followed by the results, including deed and census research.

Cultural Context

Precontact Context

The prehistory of eastern North America traditionally has been divided into three major cultural/temporal periods: Paleo-Indian, Archaic, and Woodland. These broad designations in turn have been divided into various sub-periods. The generalized periods approximately cultural and environmental changes associated with the precontact and contact period cultures of the Middle Atlantic region.

Paleo-Indian populations (ca. 12,000-8,000 BC) began to migrate into the study region at the end of the Late Glacial to early Post Glacial climate episodes. Climatic conditions at that time differed significantly from those of today and Paleo-Indian cultures would have adapted to a tundra or Jack Pine-Spruce forest (Hatch *et al*. 1986:100). Consequently, the Paleo-Indians were highly mobile hunters who tracked the large game that inhabited the region. Most documented sites that have yielded Paleo-Indian material consist only of an isolated fluted projectile point or two, which is the prime diagnostic artifact of the period (Funk 1969; Gardner 1974; Adovasio et al. 1977; Dent and Kauffman 1978). These points are almost always recovered from the surface of plowed fields.

The beginning of the Archaic Period (ca. 8,000-1,000 BC) is approximately coeval with the shift from cool, wet Pleistocene climates and environments to those of the essentially modern Holocene. Climatic conditions did fluctuate during the period, however, resulting in changes in the forest composition and faunal communities. By ca. 3,000 BC essentially modern climatic conditions were established with the onset of the Sub-Atlantic episode, although minor fluctuations persisted. Archaic groups modified their adaptive strategies in response to environmental changes, changes which are reflected in the archaeological record by the appearance of more diverse tool styles. Included among these are specialized tools such as manos, metates, and pitted stones, which indicate a more intensive exploitation of edible plant foods, and netsinkers and fishhooks, which signify a greater dependence on fish resources (Bryan 1980:363). These peoples also procured an increased quantity of smaller mammals, as well as birds. Diagnostic projectile point forms are recognized for the Early, Middle, and Late Archaic, and include notched-, bifurcated-, and stemmed-base styles.

The appearance of ceramic technology traditionally has marked the beginning of the Woodland Period (ca. 1,000 BC-Contact) (Gardner 1980:3). The Early Woodland Period was characterized by a continuation of terminal Late Archaic settlement/subsistence systems, although populations were increasingly sedentary and continued to expand in size and density. The use of cultigens became more prevalent (Curry and Custer 1982:4; Cushman 1981:14). The Middle Woodland is characterized by an expansion of regional and extra-regional exchange networks and the

apparent development of ethnic boundaries based on regional variations in pottery styles (Wanser 1982:142).

By the Late Woodland Period (ca. AD 900-1630) there is evidence for the cultivation of corn, beans, and squash and also for the establishment of semi-permanent villages. By at least AD 900, corn and squash were cultivated in the Piedmont. Horticulture played a major role in subsistence; however, gathering and fishing remained important, although these activities were scheduled around the horticultural cycle (Hatch et al. 1986:103). During this period, settlements shifted away from estuaries to floodplains that featured the large expanses of arable land necessary for a horticultural-village lifeway (Gardner 1980). Some village sites were fortified with stockades, and smaller hamlets were dispersed as satellites, usually no more than a few kilometers from the village. Small hunting and gathering sites were located farther afield (Hatch *et al*. 1986:103). This pattern of land use was observed at the time of European contact. Material culture influences during this time reflect the development of ceramic and cultural traditions specific to localized geographic areas.

After A.D. 1500 there was an increase in social and political action among native tribes in Maryland and Virginia, and it has been suggested that an alliance of coastal plain Algonquian groups had formed prior to European contact (Potter 1993:151). Spanish missionaries may have explored parts of southern Maryland during the sixteenth century, but it was not until John Smith's voyages on the Potomac in 1608 that documented contact occurred between Europeans and Native Americans in the region. At this time, the material culture of the natives began to shift away from stone and bone tools, toward brass arrow points, glass trade beads, and other iron and brass objects. The relations between Native Americans and Europeans in southern Maryland were strained from the start and deteriorated as colonists continually encroached upon the land of the natives. By the beginning of the eighteenth century most local Native American tribes had either migrated out of Maryland or had been decimated by disease.

Historic Context

In 1588, Captain Vincente Gonzales became what is believed to be the earliest European to enter the Chesapeake Bay when he sailed from Florida to survey areas thought to be English settlements. While none were observed in the Chesapeake, he did find remnants of the Roanoke Colony along the Carolina Outer Banks (Quinn 1977). In 1608, John Smith sailed along the lower portions of the bay and documented a number of Indian villages along the Patuxent River. Most of the Native American groups residing in the Chesapeake Bay region were of the Algonquin linguistic stock. Trade was established with these groups, but later in the seventeenth century and the early eighteenth century, conflicts between the colonists and the Indians resulted in the Indians eventually moving away from the bay area.

The colony of Maryland was established in 1634, when 150 English colonists settled at St. Mary's City in the lower tidewater area of Maryland (Fausz 1984:12). Cecilius Calvert, second Lord Baltimore, was proprietor of the colony. In 1632, he inherited the charter for the region from his father, George Calvert, who had secured the Maryland grant from Charles I. The success of

tobacco cultivation in the colony of Virginia encouraged early Maryland colonists to adopt this agricultural focus, requiring a large labor force of indentured servants and slaves.

The first recorded settlement in what is now Anne Arundel County took place in 1649 when Richard Bennett settled at Greenberry's Point on the Chesapeake Bay north of the mouth of the Severn River. At this location, a group of Puritans, led by Bennett, took residence after having moved from Nansemond, Virginia to escape the state's lack of regard for their religious practices. They named their settlement Providence (Riley 1905). In less than ten years they had founded five additional settlements at Broad, or Town Neck, Herring Creek, Middle Neck, South River, and West River. By 1650, Anne Arundel County was formally established with a population of 200. As can be seen on Herrmann's 1673 *Map of Virginia and Maryland* settlement initially took place along the lower reaches of the major rivers and later extended into the interior. The largest settlement illustrated is "Arundeltown" which is depicted along the Severn River.

During its initial period of settlement, most of the settlers were attracted to the county by its well-drained fertile soils that were suitable for growing tobacco. By the mid-seventeenth century at least 30 patents for land were granted in the Anne Arundel County area (Riley 1905:28); these land grants were mostly concentrated in the estuarine zones. By 1650, Anne Arundel County ranked as the third most populous county in the colony (Wesler et al. 1981:93).

The plantation became the basic component of settlement in the Chesapeake Bay area. The early plantation usually consisted of widely dispersed, modest complexes which included a residence, hen house, servant's quarters, and tobacco houses, as well as an assortment of other outbuildings. However, some plantations were of considerable size and complexity. One such site located in Anne Arundel County, known as Middle Plantation (18AN46), suggests a more highly ordered system of organization. Most of the daily activities of the residents took place on the self-sufficient plantations. As a result, towns and urban centers were slow to become established during this time with the exception of those centers (such as Indian Landing situated at the headwaters of the Severn River) established for selling and shipping tobacco.

Between 1650 and 1667, settlement in the county greatly increased, with most estuarine sites occupied by 1664 (Wesler et al. 1981). The county continued to grow rapidly during the latter part of the seventeenth century and by 1694 had become the most heavily populated county in the colony (Wesler et al. 1981).

In 1683, because of a northward expansion of the county's population, Governor Charles Calvert supported the movement of the seat of government from St. Mary's City to Londontown. In 1694, a bill was approved calling for the acquisition of a parcel of land then known as the "Town Land att Seavern in Anne Arundel County" to be the location of the new capital (Reps 1972:118). In 1695, the town was officially named Annapolis (Reps 1972:121). By 1699, Annapolis was the largest town in the colony, with about 40 residences (Earle 1975:79), and was chartered as a city in 1708 (Riley 1901:39).

Colonial Annapolis was initially slow to grow, owing mainly to the decentralized nature of settlement in the Maryland Colony. The original plan of the city was focused on the new state

house and a large Anglican church, with most of the newly-created city lots fronting the shorelines (Baker 1986:192). Over the ensuing half century, Annapolis benefited from maritime trade and related industries, eventually eclipsing nearby Londontown. Key to the city's success were the tobacco and slave trades, and the wealth that began flowing through the port attracted wealthy businessmen and the luxury goods they brought (Leone and Shackel 1986).

Annapolis' ascendancy proved to be short-lived, as economic fluctuations caused the trade that sustained the city to subside considerably following the American Revolution. Other important Colonial ports, such as Chestertown on the Eastern Shore and Londontown on the South River, suffered simultaneous declines. At the same time, the port at Baltimore, with its easier access to the increasingly important farm territories opening further west, rose to dominate shipping in the Chesapeake Bay region (Riley 1887). Annapolis unsuccessfully petitioned for the permanent seat of the new Federal government in the 1780s but lost to the District of Columbia in 1791 (Reps 1965:241). All this caused Annapolis' economic prominence to decline over the first half of the nineteenth century, and it remained in a state of depression during the Antebellum period.

Until 1839, Annapolis was connected to the rest of the state via the many broad, navigable waterways that reach into the Atlantic Coastal Plain. This left it somewhat behind the rest of the country economically, as lucrative shipping markets from the Ohio Valley emerged and the tobacco market declined. The Annapolis and Elkridge Railroad opened in 1839, connecting Annapolis to the Baltimore and Ohio line at Annapolis Junction in northern Anne Arundel County. Partly because of the railroad and partly because of its central location and prime harbor, Annapolis was chosen as the site of the U.S. Naval Academy in 1846.

At the onset of the Civil War in April 1861, Annapolis was involved in a dramatic scramble by New York and Massachusetts volunteers to reach Washington, D.C. (Toomey 2013:23-26). A firsthand account by one of the New Yorkers characterizes Annapolis as a "sleepy fishing village" (Winthrop 1861), but also states that Southern sympathies ran high in the city. This was especially true of its businessmen, who partially dismantled the only railroad servicing the city to slow the U.S. troops' progress. Despite its Confederate sympathies, there was no serious attempt to wrest control of the city from the U.S. provost forces stationed at the Naval Academy, which were led by a local man named Capt. Thomas H. Watkins (Ruffner 1997:265). The Civil War served to grant a temporary boost to Annapolis' economy, but the effects quickly faded after the war's end.

The late nineteenth century saw considerable growth in the city and growing ground-based transportation networks serviced by more and better roads and a second railroad, the Baltimore and Annapolis Short Line, opened in 1885. Many of the current buildings along Maryland Avenue, Market Street, Conduit Street, Prince George Street, and King George Street date to this period, as previously consolidated lots were subdivided and sold (Baker 1986:197). These trends continued into the early twentieth century, when the railroads between Annapolis, Baltimore, and Washington were consolidated and modernized to provide high-speed rail connections between the three cities. Coupled with the onset of automobile travel, this ensured a brisk flow of tourists seeking to escape the vagaries of big-city life in the relatively small city of Annapolis or one of its surrounding beach communities.

The late twentieth century would see the expansion of state services, requiring the acquisition of properties and construction or expansion of existing state buildings to accommodate Maryland's growing bureaucracy. This trend continues to the present, as Annapolis continues to expand its services and it develops its own system of suburbs to complement those of Baltimore or Washington. The Naval Academy continues to be a major employer. The city's tourism industry remains strong, no doubt because the downtown has maintained its historic charm and offers Marylanders an authentic gateway to interact with their shared past.

90 State Circle Property

Land Records

The full chain of title for the 90 State Circle Study Area is presented as Appendix A. A brief synopsis of the chain of title, as well as information about the Calvary Methodist Church and other buildings and residences that have occupied the property since the late seventeenth century is presented below.

The Study Area is located on a parcel designated Lot 75 on a 1718 Map of the City of Annapolis prepared by Benjamin Stoddert (Read 1990:280). The property was bounded by State Circle (formerly Public Circle) to the south, North Street to the east, College Avenue (formerly Tabernacle Street and Bank Street) to the northwest, and Bladen Street (formerly Lawyer Street) to the west. Various sources place a structure at the corner of North Street and College Avenue by at least 1715. In a 1936 map prepared by Traders and Beavins for the restoration of Colonial Annapolis, the structure is labeled "Dorsey-Nicholson-Gross" and has a construction date of 1694, although the source for this date is unknown (Read 1990:280). This was likely the same structure referred to in *Governor's Houses and State Houses of British Colonial America*, which states that Maryland Governor Francis Nicholson resided at the home of Major Edward Dorsey between 1695 and 1698 in a "40 foot wide brick house circa 1695" located on Lot 75 (Kimball & Henson 2017:167).

It is unclear who the lot's original owner was or how the property passed from Major Edward Dorsey in the 1690s to John Carpenter, who owned the entire lot by 1717. Carpenter constructed a house in the center of the lot in 1716. John Carpenter conveyed a portion of Lot 75 to Jane Burnell, who had already been residing on the land before its official sale, in 1717 (Anne Arundel County Land Records [AAC Land Rec] IB 2:373; Read 1990:280). Edward Dorsey, different from the aforementioned Major Edward Dorsey, obtained the Burnell purchase in 1742 and the remaining property from Carpenter in 1754 (AAC Land Rec B 1:84). The land remained in the Dorsey family until Thomas Dorsey subdivided the property, conveying the eastern portion to William Paca (AAC Land Rec NH 2:95) and the western portion to Joseph Wilkins in 1784 (Read 1990:281). The conveyance to Wilkins included the house that John Carpenter had built. Prior to the subdivision, various leases granted by Thomas Dorsey make mention of houses, buildings, gardens, and fences throughout the property. There is also reference to a house located along Lawyer Street in a lease granted to Reverdly Ghislin between 1762 and 1765 (Read 1990:280-282).

The parcel conveyed to Joseph Wilkins fronted Lawyer Street and was later divided into two main parcels. Wilkins conveyed the portion of his property running the length of Bladen Street to John Callahan in 1785, and the remainder of Joseph Wilkins' property, situated in the center of Lot 75, would eventually pass to John Rofs. Callahan constructed a two-story brick house between 1785 and 1790 on the corner of College Avenue and Lawyer Street. The 1789 Federal Direct Tax Assessment of the property describes the presence of a brick kitchen, a single-story brick smoke house, a milk house, a frame house, and a frame stable in addition to the main house (National Register of Historic Places AA-680). According to later a later deed (AAC Land Rec WSG1:359), Rofs would build a house on his portion of the property before he conveyed it to Nicholas Harwood in 1806 (AAC Land Rec NS 12:737).

The portion of Lot 75 fronting North Street and College Avenue was conveyed to William Paca by Thomas Dorsey in 1784 (AAC Land Rec NH 2:95) and sold to Sarah Joice the next year (Read 1990:281-282). Joice had a house on the property adjacent to John Rofs' house, but whether she built this house or occupied a preexisting house is unclear. Nicholas Harwood obtained this portion of the property from Joice in 1810 (AAC Land Rec NH 16:219), at which point he possessed all of Lot 75 except for the Callahan property. The portion of Harwood's property he acquired from Sarah Joice was ultimately conveyed to the First Methodist Episcopal Church (later known as the Calvary Methodist Church) in 1817 (AAC Land Rec WSG 5:322). The portion he acquired from Joseph Wilkins remained under private ownership throughout the rest of the nineteenth century, most prominently by the Gates family.

The Calvary Methodist Church originally began in 1777 as a "small class of females" that would meet at the residence of Charlotte Small in Annapolis, Maryland (Calvary United Methodist Church 2017). The group grew to include a number of black, white, male, and female members and, after raising sufficient funds, erected a small frame meeting house on the present property of the United States Naval Academy. Bishop Francis Asbury, the "founder of American Methodism," began preaching at this building in November 1785 (Calvary United Methodist Church 2017). In 1789 the congregation, which had grown to include 195 white and 244 black members, moved to a meeting house they had built on State Circle near Maryland Avenue. In 1818 they acquired another lot near North Street, within Lot 75, and constructed a "neat brick church" which would, in 1859, be replaced with "an impressive church with a large sanctuary, an organ and choir loft, and a bell tower" (Calvary United Methodist Church 2017). The John Carpenter house fell within this property and was likely demolished in 1817 in preparation for the 1818 church building (Read 1990:282-283). The lavishness of the 1859 church building and the practice of renting pews to pay for its upkeep caused a portion of the congregation to secede in 1863 to form the Wesley Chapel on Maryland Avenue.

In 1833, the Callahan parcel passed to Somerville and Mary Pinkney (AAC Land Rec WSG 18:269) who, with their descendants, occupied the Callahan house and made various structural improvements to it up until and after the house was moved to St. John Street in 1901 (Read 1990:284-285). In 1840, the Pinkneys were conveyed the same property from Richard Key Watts (AAC Land Rec WSG 25:421) who, prior to the sale, patented a 9,062-square-foot property called "Watts Recovery" located in the same tract situated along Bladen Street where the Pinkneys already resided (Read 1990:284-285). The circumstances of Watts' patent are unclear, however,

it is possible he was repatenting a property in escheat (Read 1990:284-285). In 1841, the Pinkneys sold a 2,668 square foot portion of Watts Recovery (AAC Land Rec WSG 25:423), which subsequently passed to Marshal and Fanny Oliver in 1883, at which point it contained a three-story brick and frame dwelling (AAC Land Rec SH 21:552). It is unclear who built this three-story brick and frame dwelling and when it was constructed.

At the beginning of the twentieth century, the State of Maryland purchased lots from the Pinkneys, Olivers, and part of the Methodist Church property for the construction of the Court of Appeals Library and Offices along Bladen Street between 1901 and 1903 (Read 1990:285). The remaining portions of Lot 75 remained under the ownership of the Methodist Church and the Gates family. The Gates subdivided their property into six lots, Lots A-F, as shown in a plat map dated 1903 (AAC Land Rec GW 30:433). Lots A-F and a portion of Lot E (AAC Land Rec GW 30:433) were subsequently conveyed to the Calvary Methodist Church (AAC Land Rec WNW 27:375, AAC Land Rec LNP 1803:450, AAC Land Rec GTC 1224:196) in a series of transactions between 1919 and 1964.

The Calvary Methodist Church congregation continued to meet in the stately brick building they had constructed on the lot in 1859. In 1921, the congregation from the Wesley Chapel rejoined this congregation to become the largest white Methodist church in Annapolis. By the 1960s, the congregation had sold its property on Maryland Avenue and had purchased land along North Street and College Avenue to expand the church building. However, under pressure from the State of Maryland, the congregation sold their portion of Lot 75 in 1969 (AAC Land Rec MSH 2290:156) and moved to a new building on Rowe Boulevard in 1972 (Calvary United Methodist Church 2017). The portion of Lot E that was not sold to the church was held by the Quenstedt family until it was also sold to the State of Maryland in 1969 (AAC Land Rec MSH 2304:528). The Court of Appeals Library and Offices and the Methodist Church were then demolished in the early 1970s for the construction of the present Department of Legislative Services Building.

Historic Maps

Early historic maps show the Study Area as a city lot bounded by State Circle and College Avenue, formerly known as Tabernacle Street. Tabernacle Street is located adjacent to the Northwest and State House Circle is located adjacent to the Southeast of the Study Area. The Study Area is depicted as Lot 75 on the eighteenth-century Stoddert Map of Annapolis just north of the public space reserved for the state house (Figure 7). The Study Area is visible in the 1846 *USGS Coastal Geodetic Survey* map and buildings appear to be present, but the size and function of these buildings are unclear (Figure 8). While the 1846 *USGS Coastal Geodetic Survey* map depicts the city's roadways and rough location of some buildings, it does not label them. The detail of Annapolis on Simon Martenet's 1860 *Map of Anne Arundel County* depicts the Study Area in greater detail and shows four concentrations of buildings that cluster in the southern half of the Study Area (Figure 9). It labels one of the buildings as a Methodist Church but does not label any of the surrounding buildings. The Study Area appears to have a much lower level of development than other areas around State House Circle, possibly due to the presence of the Methodist Church.

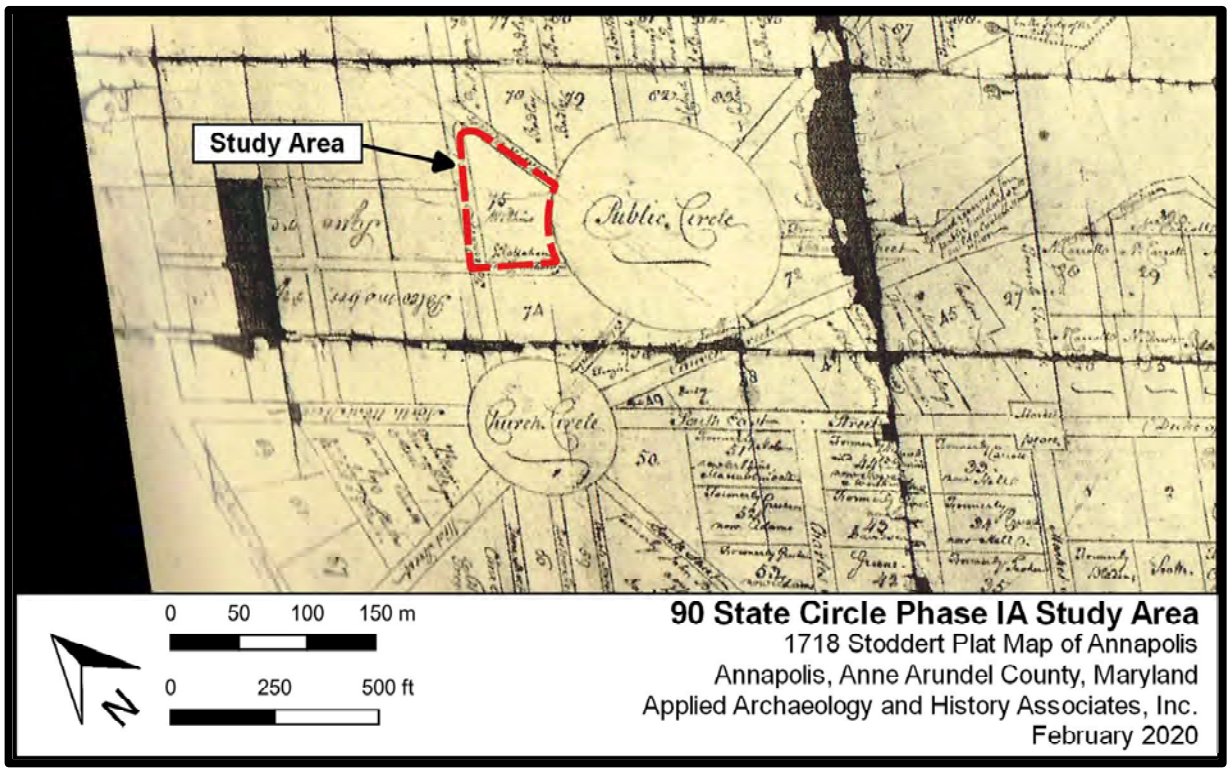

Figure 7. Location of the Study Area on a detail of the Benjamin Stoddert's 1718 *Plat Map of Annapolis* (Stoddert 1718).

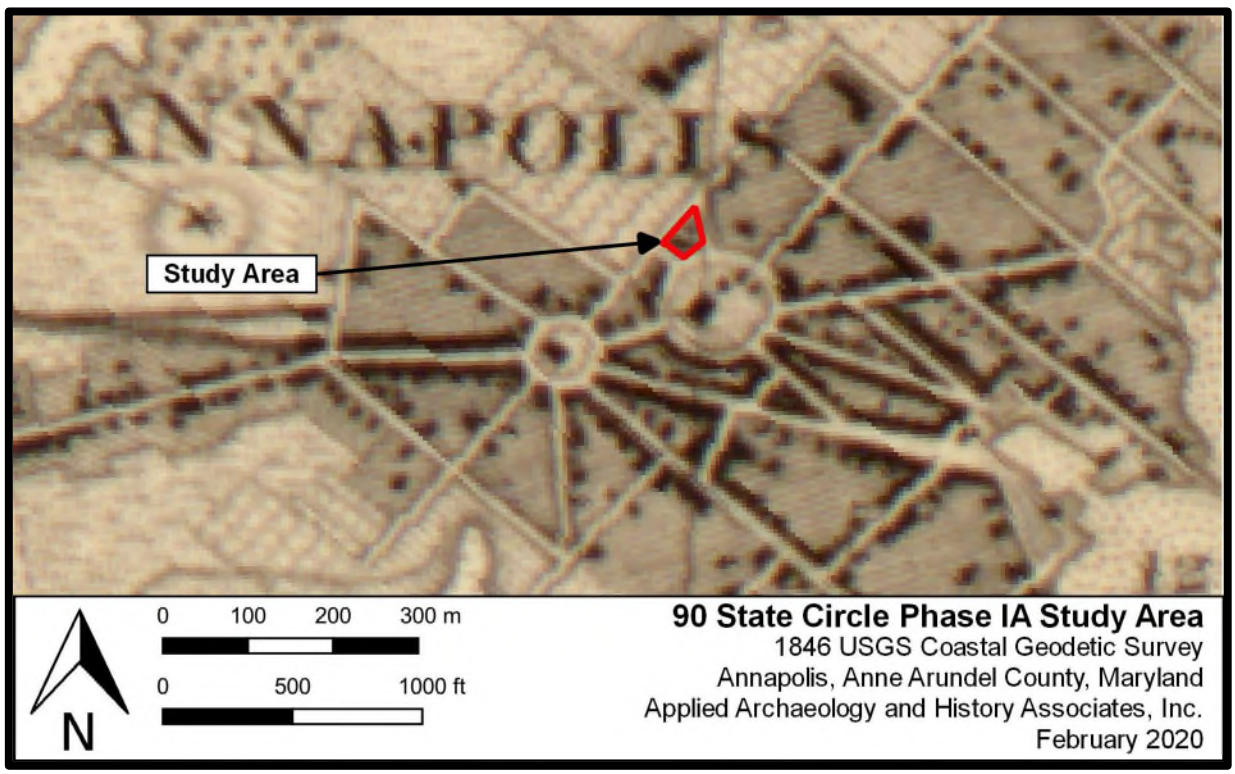

Figure 8. Location of the Study Area on a detail of the 1846 USGS *Coastal Geodetic Survey Map* of the Annapolis Harbor (USGS 1846).

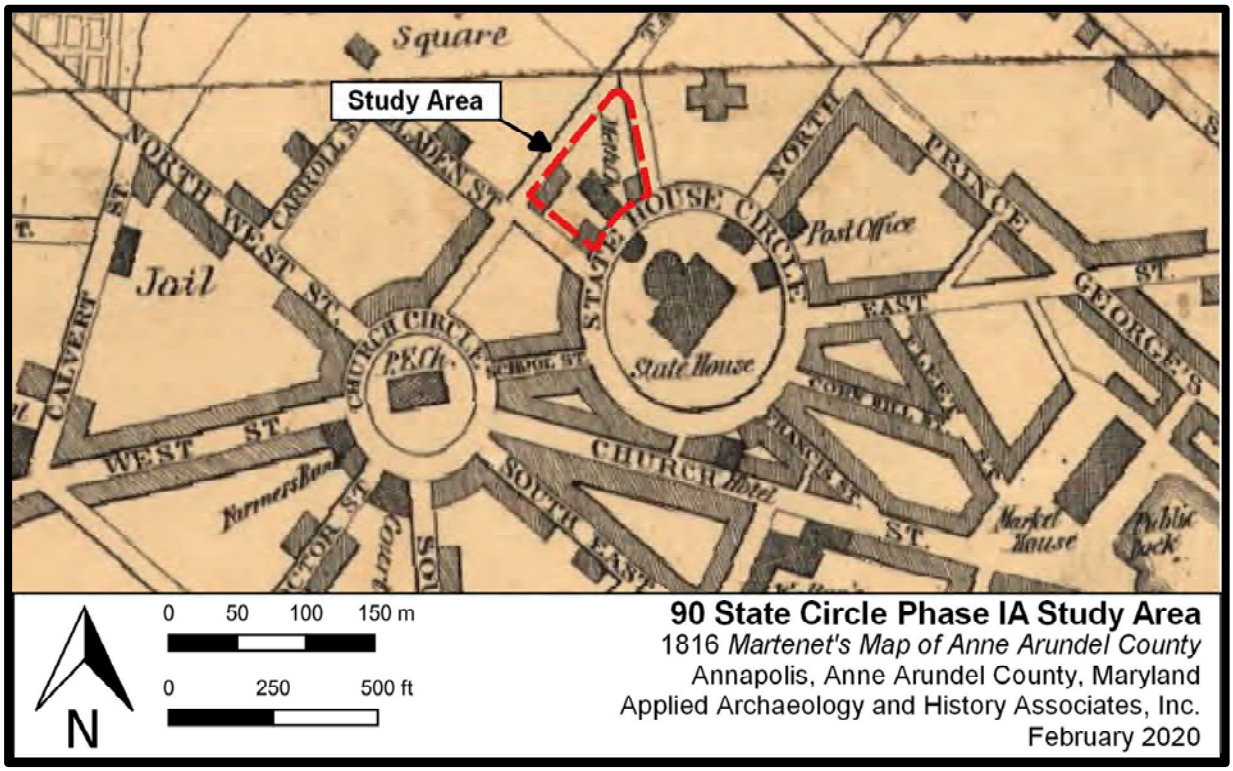

Figure 9. Location of the Study Area on a detail of Simon Martenet's 1860 Map of Anne Arundel County, Maryland (Martenet 1860).

The first detailed map of the Study Area is found in the detail of Annapolis in G. M. Hopkins' 1878 *Atlas of Fifteen Miles around Baltimore* (Figure 10). This map depicts both buildings and property lines, showing that the Study Area was divided into seven parcels. Of these, one parcel appears to have belonged to a Mrs. Pickney, two appear to have been associated with the Salem Methodist Episcopal Church, and four may have been associated with an E.E. Gates, although that is unclear. Development of these parcels appears to have occurred between 1860 and 1878 where the Study Area is depicted as having at least 11 buildings. Of these roughly 11 buildings, three are associated with the Methodist Church, including the church, a parsonage, and a frame shed or stable. The church fronts State Circle, facing the State House.

Detailed depictions of buildings, urban features, and streets became more common with the Sanborn Fire Insurance Maps of the late nineteenth and early twentieth centuries. Comparing the 1878 *Hopkins Atlas* with the 1885 Sanborn Fire Insurance Map, an increase in residential development can be seen in the northern half of the Study Area, with one of the clusters of buildings being labelled as "tenements" and the majority of other surrounding buildings being residential, as well (Figure 11). Several buildings from 1878 appear to have been expanded with frame additions by 1885. A brick addition appears to have been added to the church by this time, and the church's spire is specifically drawn as wood-framed, different from the rest of the church building.

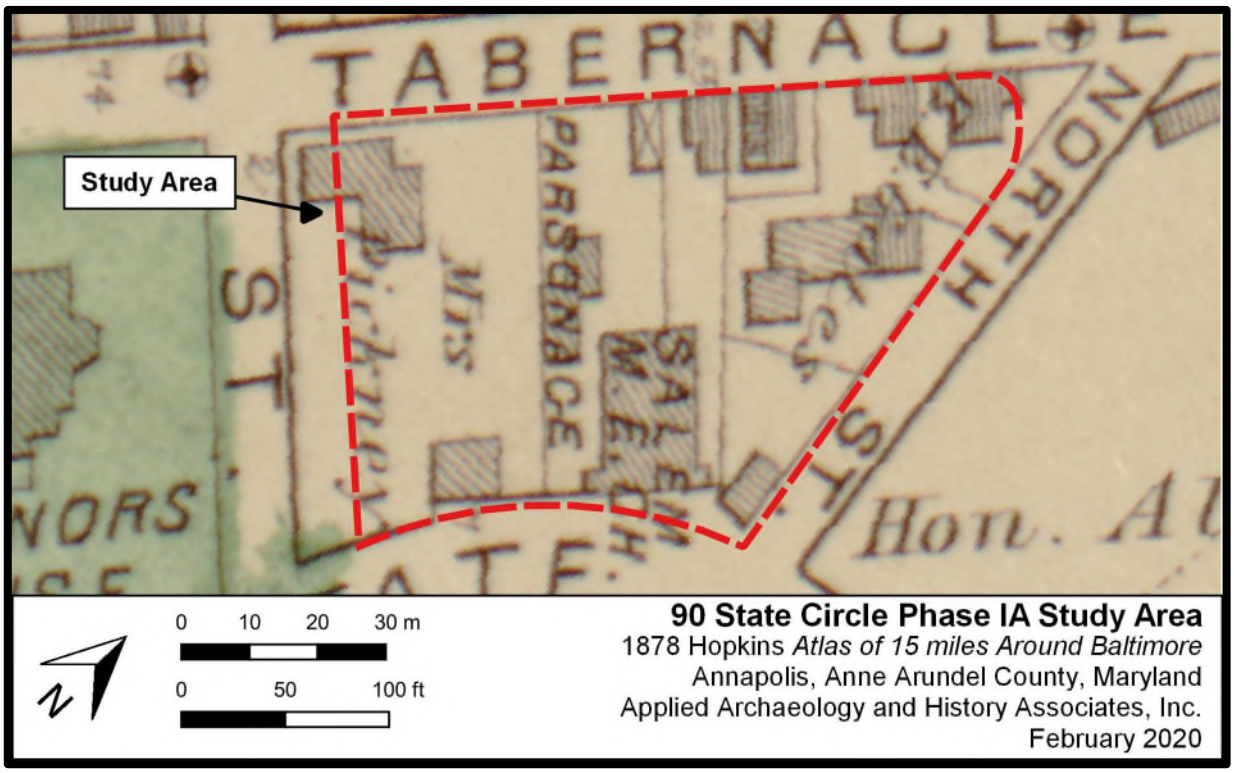

Figure 10. Location of the Study Area on a detail of the 1878 *Atlas of 15 miles Around Baltimore Including Anne Arundel County, Maryland* (Hopkins 1878).

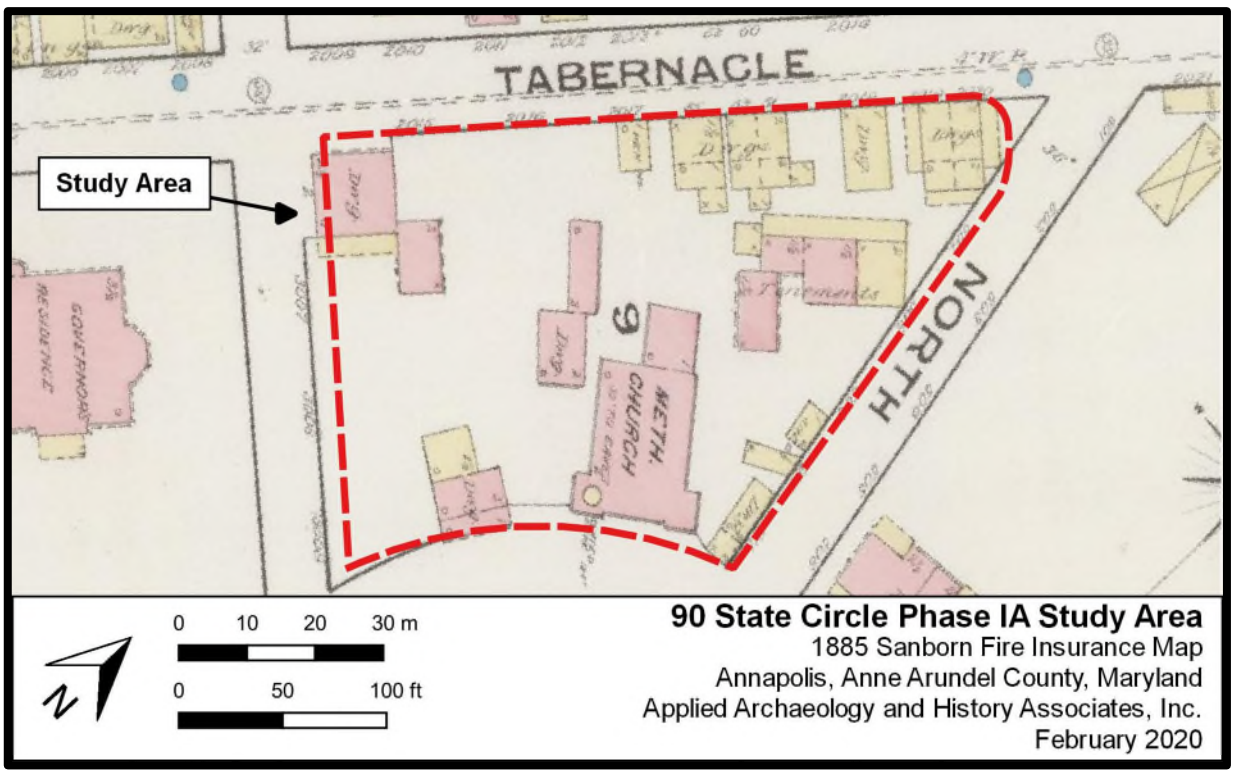

Figure 11. Location of the Study Area on a detail of the 1885 *Sanborn Fire Insurance Map of Annapolis, Maryland* (Sanborn 1885).

In 1891 the Sanborn Fire Insurance map shows an addition had been made to the outbuilding associated with the Methodist Church, and that a stone masonry building had been built fronting North Street southeast of the tenements (Figure 12). Between 1891 and 1897, several buildings were constructed in the Study Area, and the number of distinct parcels dropped from seven to six (Figure 13). Two brick buildings and one frame building were added to Mrs. Pickney's property. A frame addition, possibly a porch, was also added to the parsonage along with alterations made to the church's shed or outbuilding.

Major alterations to the Study Area as well as surrounding areas occurred in the next six years, as shown in the 1903 Sanborn map. The parcels on either side of Church Street (present day Main Street) saw massive growth between this short period of time. Businesses and offices were the primary focus of this development. Property lines show the Study Area divided into three parcels rather than the previous six. One parcel contains a frame building on the corner of Tabernacle and North Streets. The next parcel, between the first parcel and the church, contains three frame buildings including the tenements previously mentioned. The last parcel starts on the north side of the church and extends south to Bladen Street. This parcel includes three buildings, two of which were newly constructed between 1897 and 1903.

Where there were roughly 17 structures standing in the Study Area in 1897, there were only seven by 1903 (Figure 14). Four structures had been demolished in the parcel containing the tenements, including three frame buildings and one stone building. The parsonage and shed/stable associated with the church had also been demolished, as well as one structure fronting Tabernacle Street behind the church. A new brick rectory with a frame addition, possibly a front porch, was constructed behind the church and likely fronted Tabernacle Street. The 1903 map labels the church as the First Methodist Episcopal Church, changing from its previous name of Salem Methodist Episcopal Church. The greatest alterations occurred in what was previously two residential parcels south of the church, which had been torn down to make room for the Court of Appeals State Library and Offices still under construction. The demolished buildings included two residences and three outbuildings.

By 1908, the Court of Appeals State Library and Offices had been finished, and the building is labeled on the Sanborn Fire Insurance map as fire proof (Figure 15). The only other changes occurred in the residential section on the northern end of the Study Area. A frame building on the corner of North Street and State House Circle was demolished and a new frame building was constructed fronting Tabernacle Street. It is unclear whether the structure north of the church in 1908 is the same tenement building shown on the 1903 Sanborn Fire Insurance map, however it is worth noting that the 1903 map labelled part of the tenements as "very old and dilapidated," which suggests that they had been demolished or extensively reconstructed.

The only changes to the area between 1908 and 1913 were the addition of two outbuildings behind the residential structures along Tabernacle Street (Figure 16). The property line in the area also moved, now running directly adjacent to these outbuildings and parallel with Tabernacle Street. The Methodist Episcopal Church's frame spire is shown to be brick in 1913, however this may be a mistake as the 1921 Sanborn Fire Insurance map once again shows it as frame.

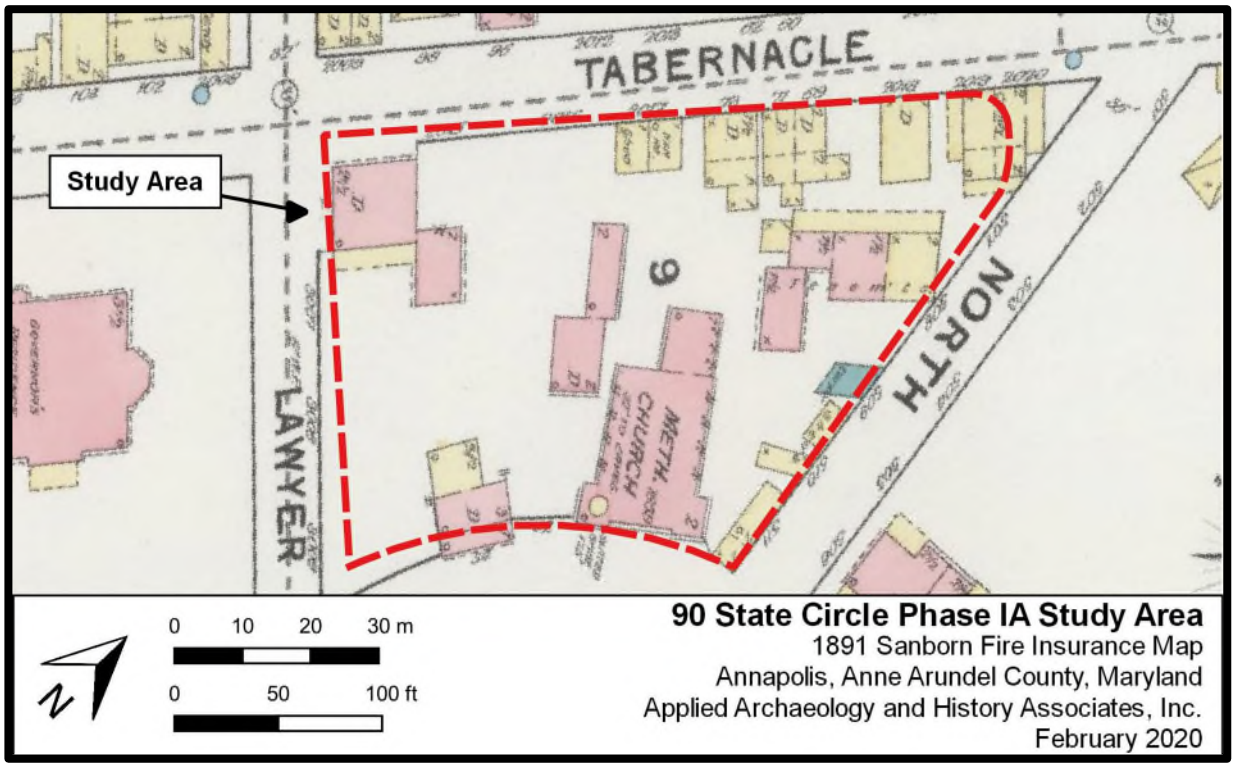

Figure 12. Location of the Study Area on a detail of the 1891 *Sanborn Fire Insurance Map of Annapolis, Maryland* (Sanborn 1891).

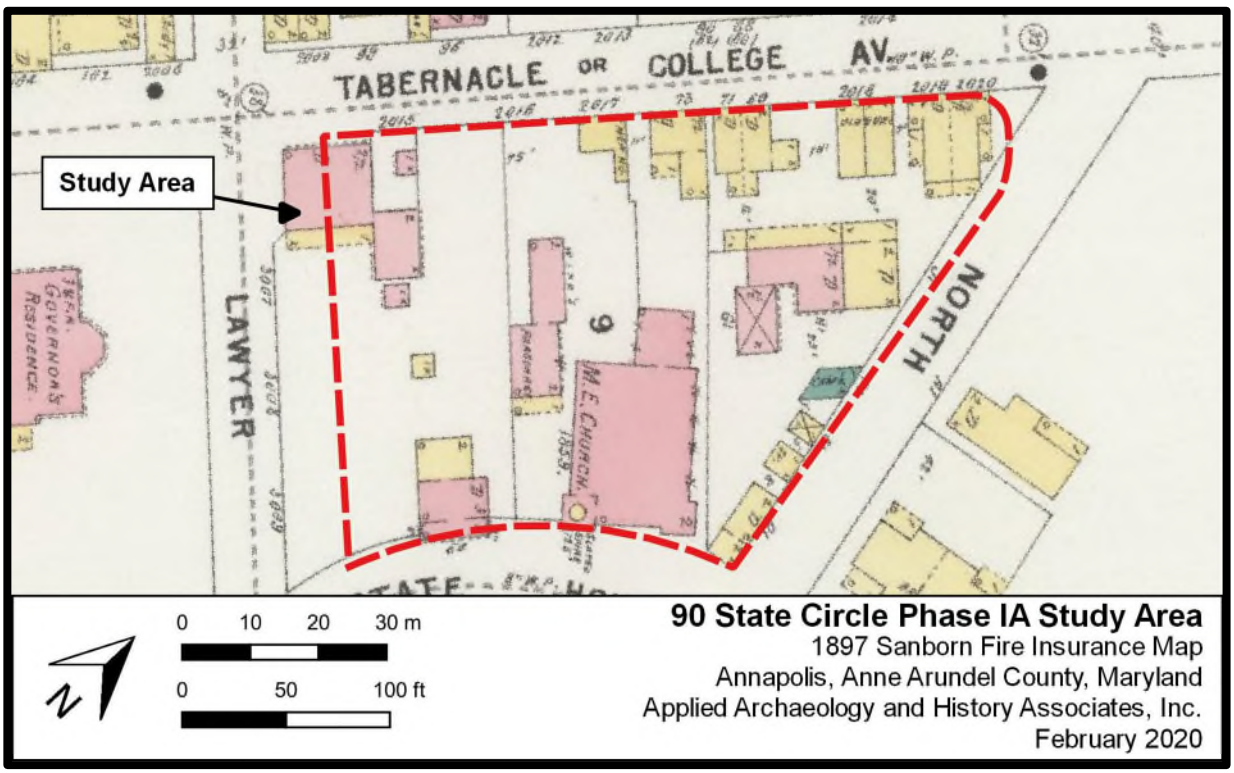

Figure 13. Location of the Study Area on a detail of the 1897 *Sanborn Fire Insurance Map of Annapolis, Maryland* (Sanborn 1897).

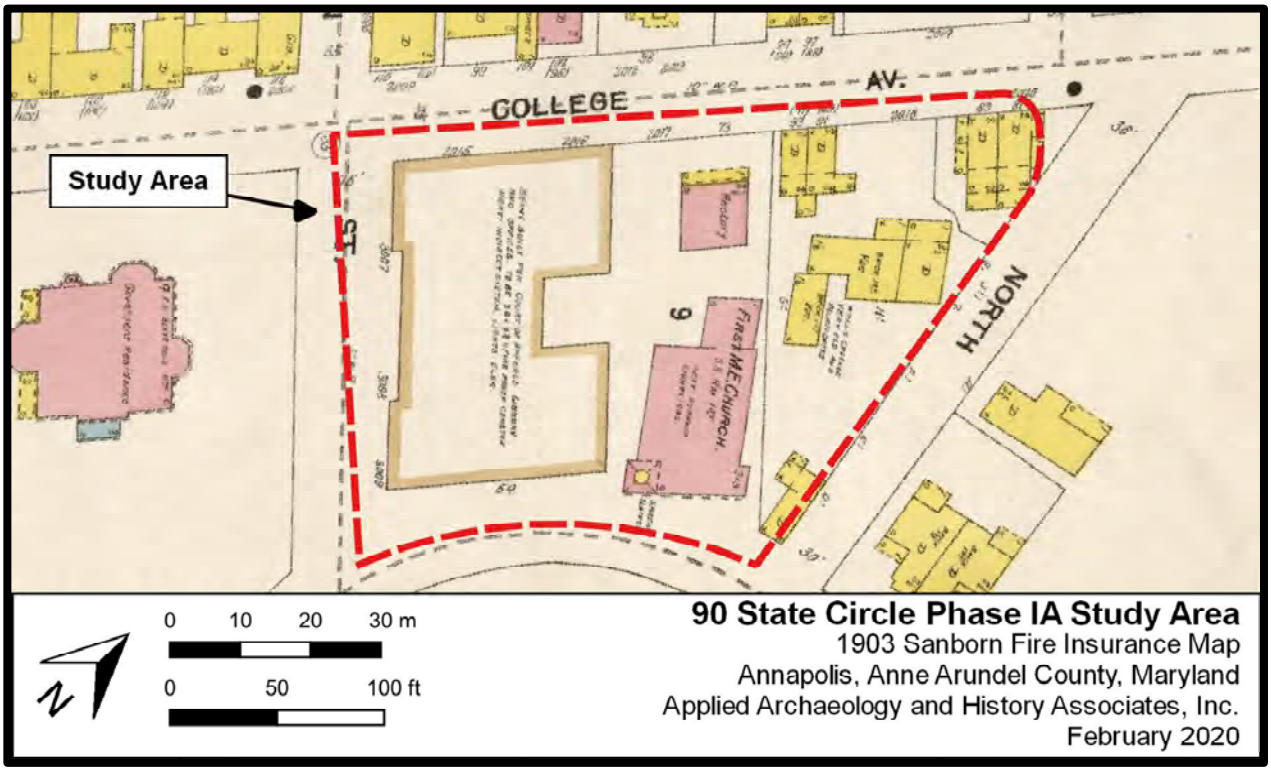

Figure 14. Location of the Study Area on a detail of the 1903 *Sanborn Fire Insurance Map of Annapolis, Maryland* (Sanborn 1903).

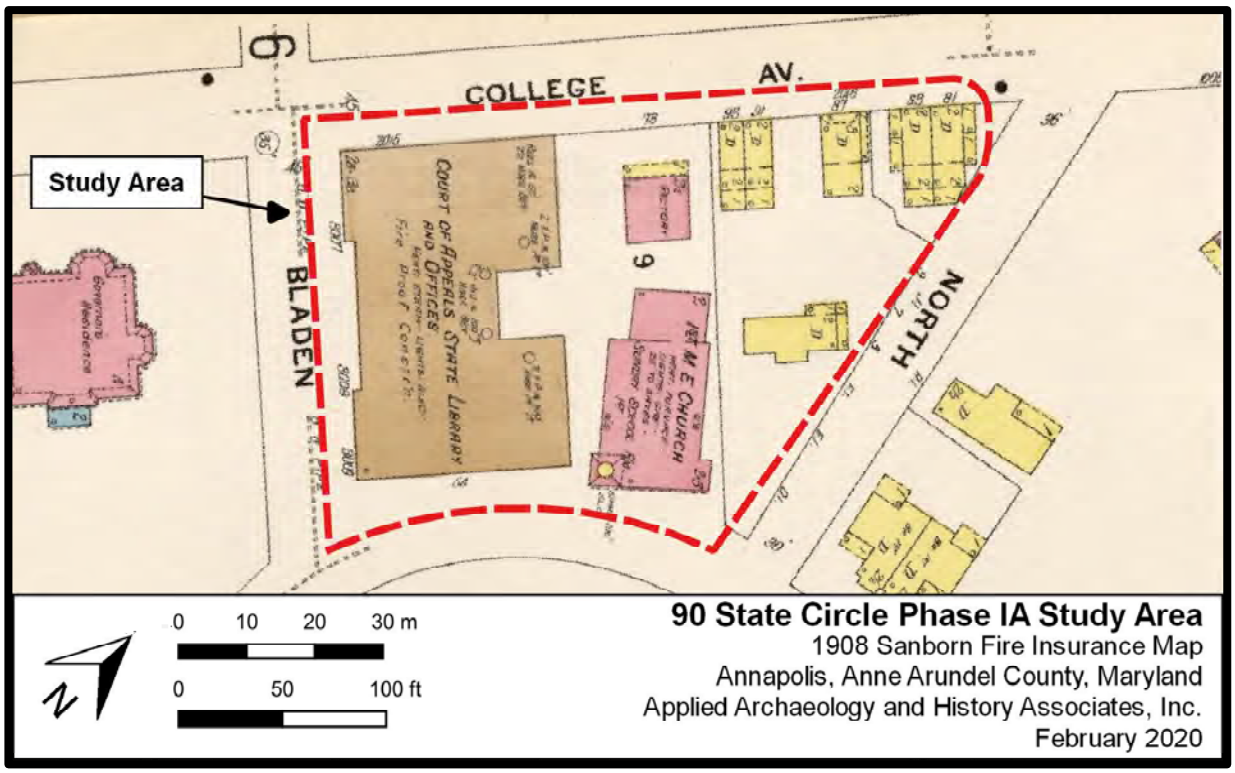

Figure 15. Location of the Study Area on a detail of the 1908 *Sanborn Fire Insurance Map of Annapolis, Maryland* (Sanborn 1908).

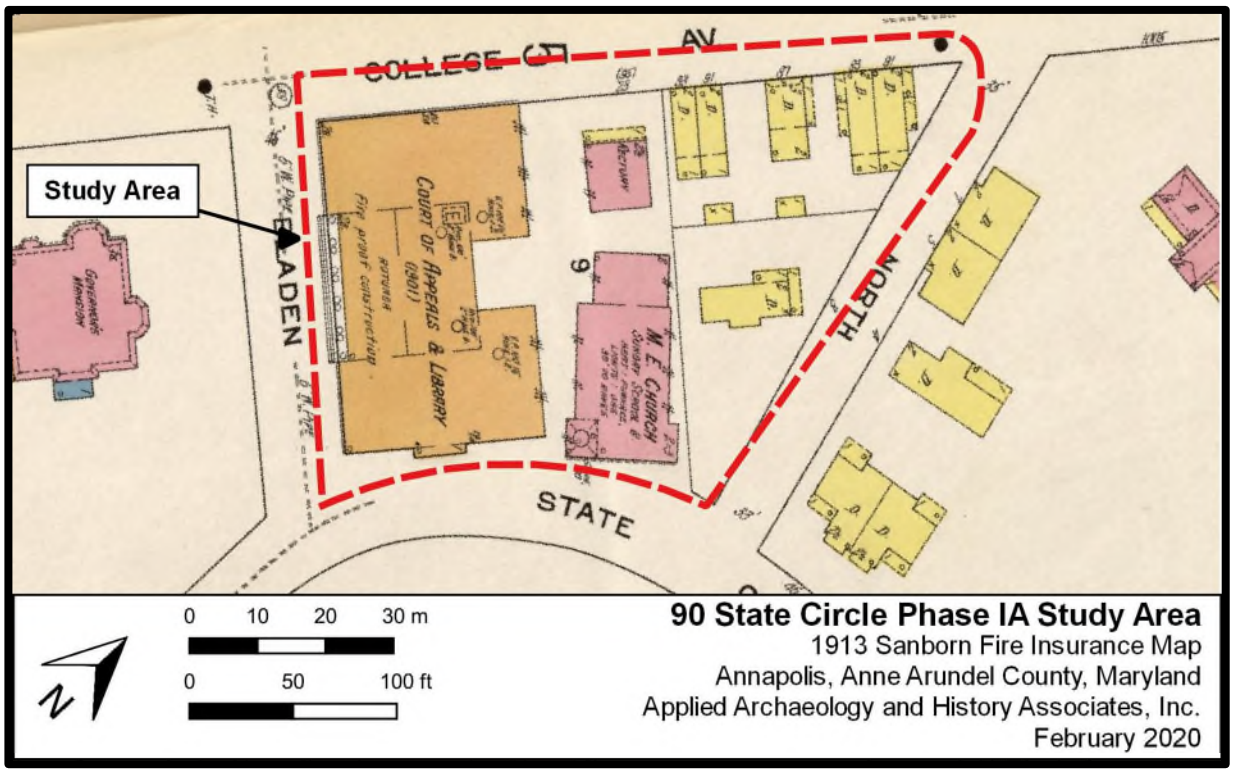

Figure 16. Location of the Study Area on a detail of the 1913 *Sanborn Fire Insurance Map of Annapolis, Maryland* (Sanborn 1913).

The 1921 Sanborn Fire Insurance map shows no substantial changes to the lot, but does label the church by its modern name, the Calvary Methodist Church. A new frame building was constructed between the three dwellings fronting Tabernacle Street and the possible tenements. Property lines also once again changed in this residential area in response to the new construction, bringing the total number of parcels to seven.

USGS quadrangles from the late nineteenth and early twentieth centuries contain little detail within urban areas, with the 1892 and 1902 Annapolis, Maryland 15-minute quadrangles showing only that the areas fronting State Circle and Tabernacle Street were developed at this time (Figure 17). The first USGS map to show the Study Area in any detail is the 1953 *Annapolis, Maryland* 7.5-minute quadrangle, which shows a single building in the western part of the Study Area, roughly where the Court of Appeals State Library and Offices are shown on the Sanborn Fire Insurance maps. Curiously, the church does not appear on the 1953 USGS map (Figure 18), but does appear on the 1957 *Annapolis, Maryland* 7.5-minute quadrangle (Figure 19). While it is possible the church had been demolished and rebuilt during the 1950s, this is more likely an oversight on the part of the 1953 survey. The church continues to appear on USGS maps until 1988, though the property had been transferred to the State of Maryland in 1964 and the church building had presumably been demolished shortly after the sale. Construction plans for the Legislative Services building show the footprints of earlier structures on the property in relation to the footprint of the existing building (Figure 20).

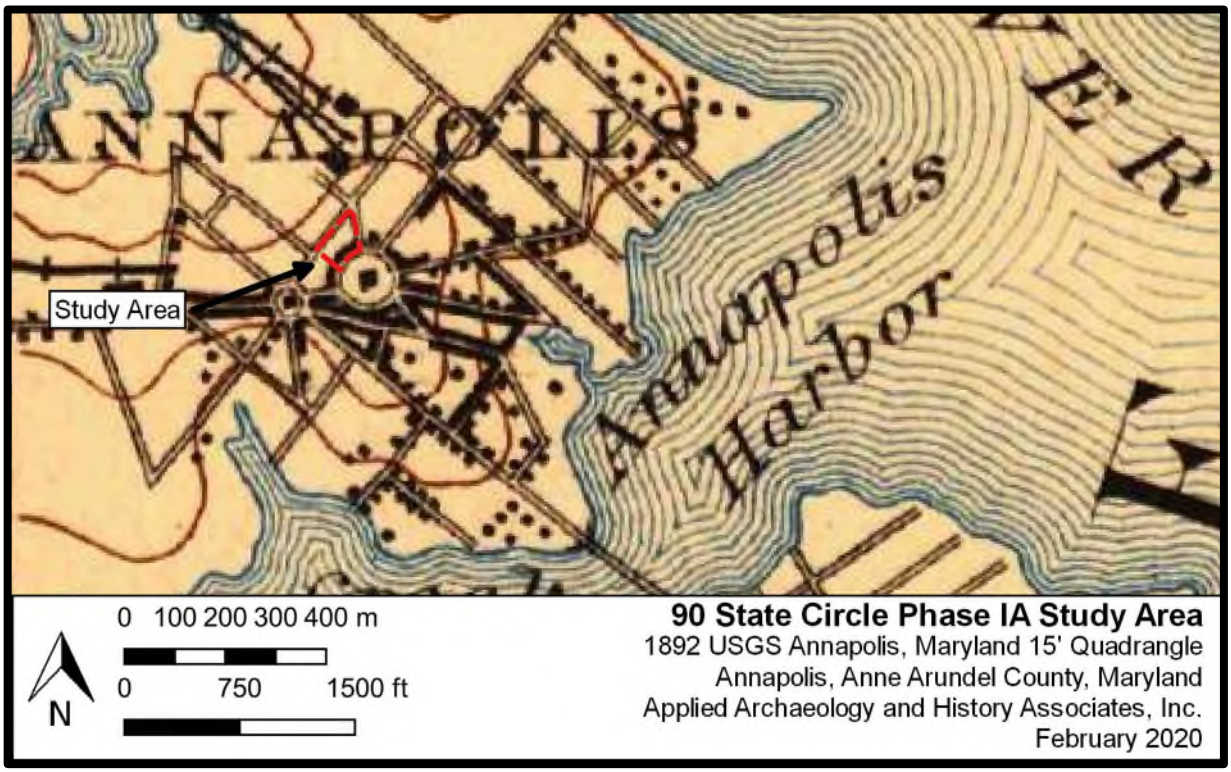

Figure 17. Location of the Study Area on a detail of the 1892 USGS *Annapolis, Maryland* 15-minute quadrangle (USGS 1892).

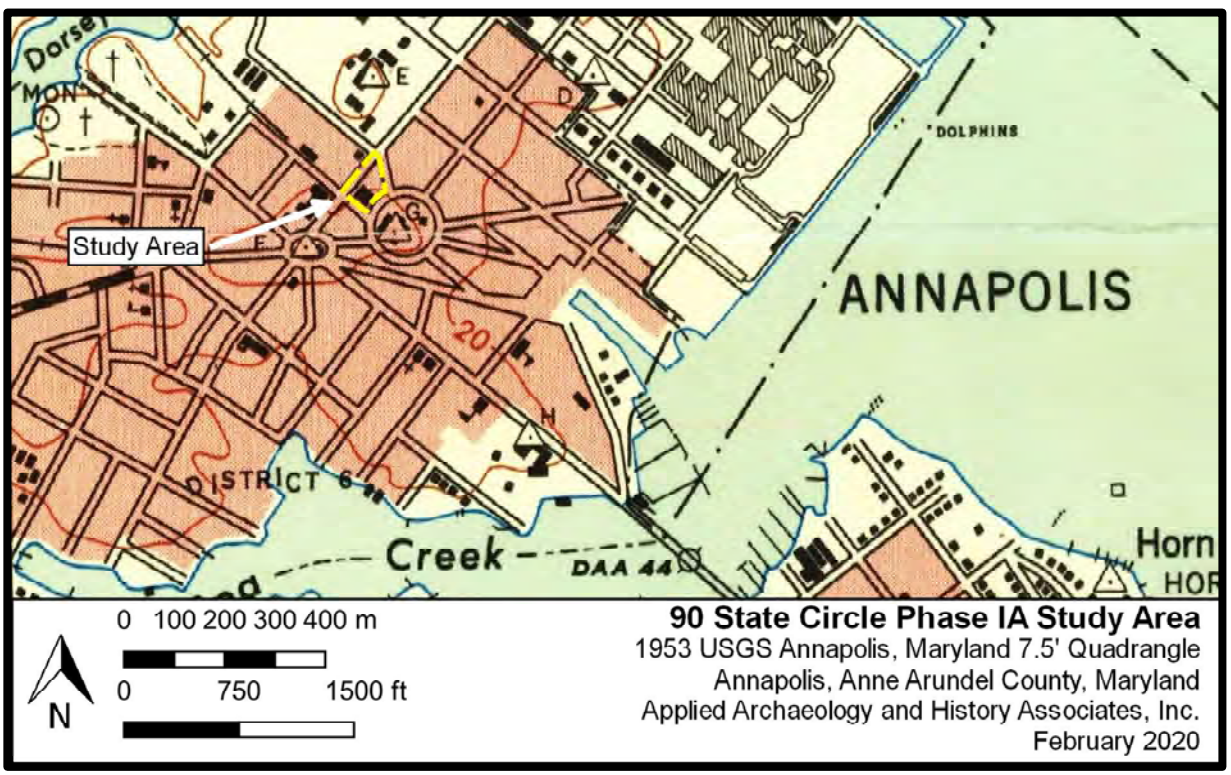

Figure 18. Location of the Study Area on a detail of the 1953 Annapolis, Maryland 7.5-minute quadrangle (USGS 1953).

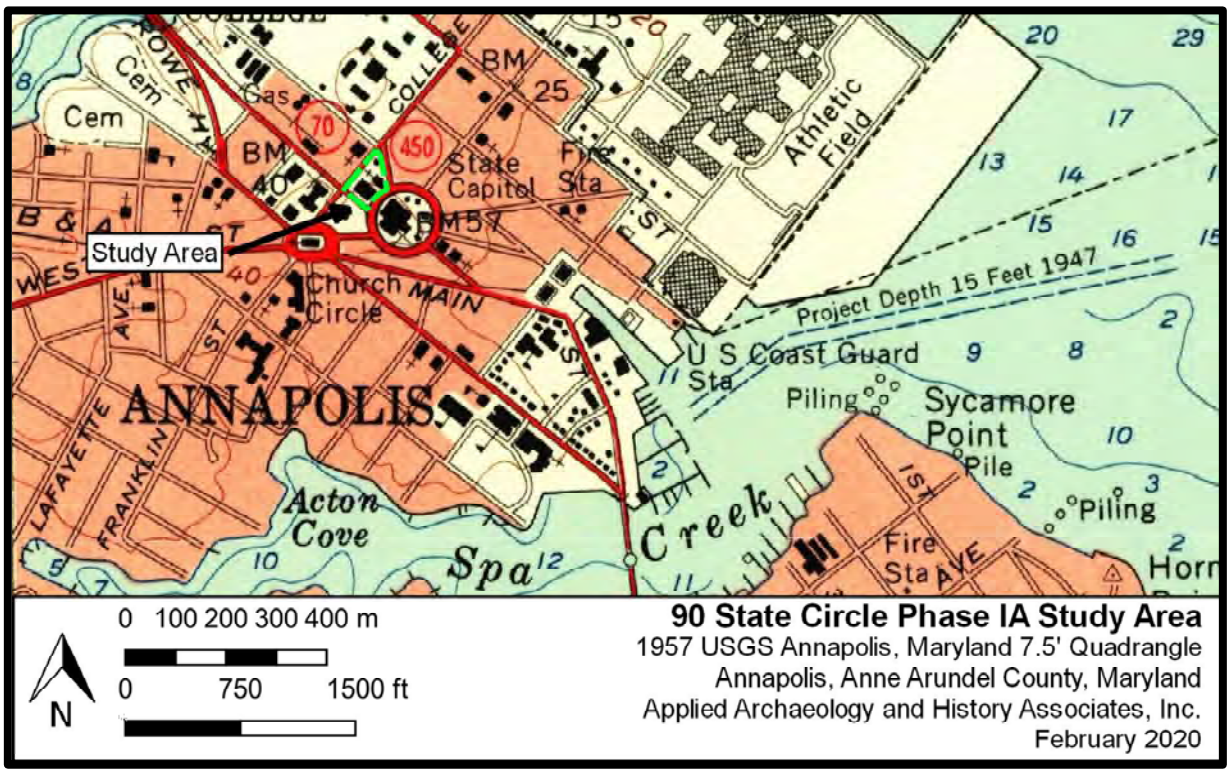

Figure 19. Location of the Study Area on a detail of the 1957 USGS *Annapolis, Maryland* 7.5-minute quadrangle (USGS 1957).

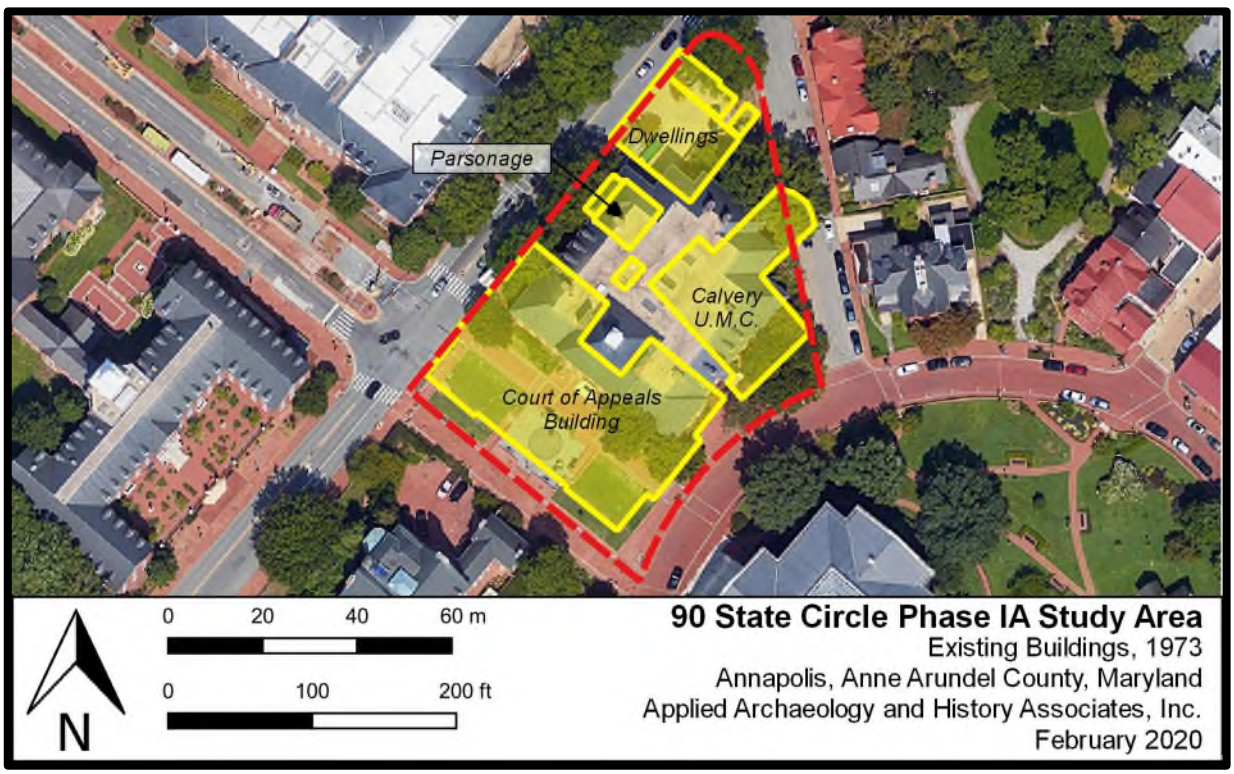

Figure 20. Aerial photograph showing existing buildings in the Study Area as documented in plans for the current Legislative Services building dated 1973 (Hopkins, Henry Powell and Associates 1973).

The first available aerial photograph of the Study Area in 1970 shows the original Court of Appeals State Library and Offices building in its former location, but does not show a standing church building (Figure 21). Subsequent aerial photographs are available beginning in 1981, depicting the Study Area in its current state with the current Legislative Services office building (Figure 22).

Previous Research and Recorded Sites

No archaeological surveys have previously been conducted within the Study Area, though one archaeological survey of other areas on State Circle included background research related to Lot 75 (Read et al. 1990). Within a quarter-mile of the Study Area, 70 archaeological surveys have been previously conducted. Jointly, these surveys variably demonstrate Annapolis' rich archaeological potential as well as the extent of disturbance that has occurred within the urban setting.

Sites surrounding the Study Area reveal a range of integrity from completely disturbed to containing intact buried horizons. Excavations at the State House Site (18AP22) which encompasses all of State Circle revealed extensive disturbance in the area extending a maximum of 1.39m within the units excavated. The stratigraphic analysis concluded that historic horizons pre-dating 1858 had been completely graded away during construction of the road.

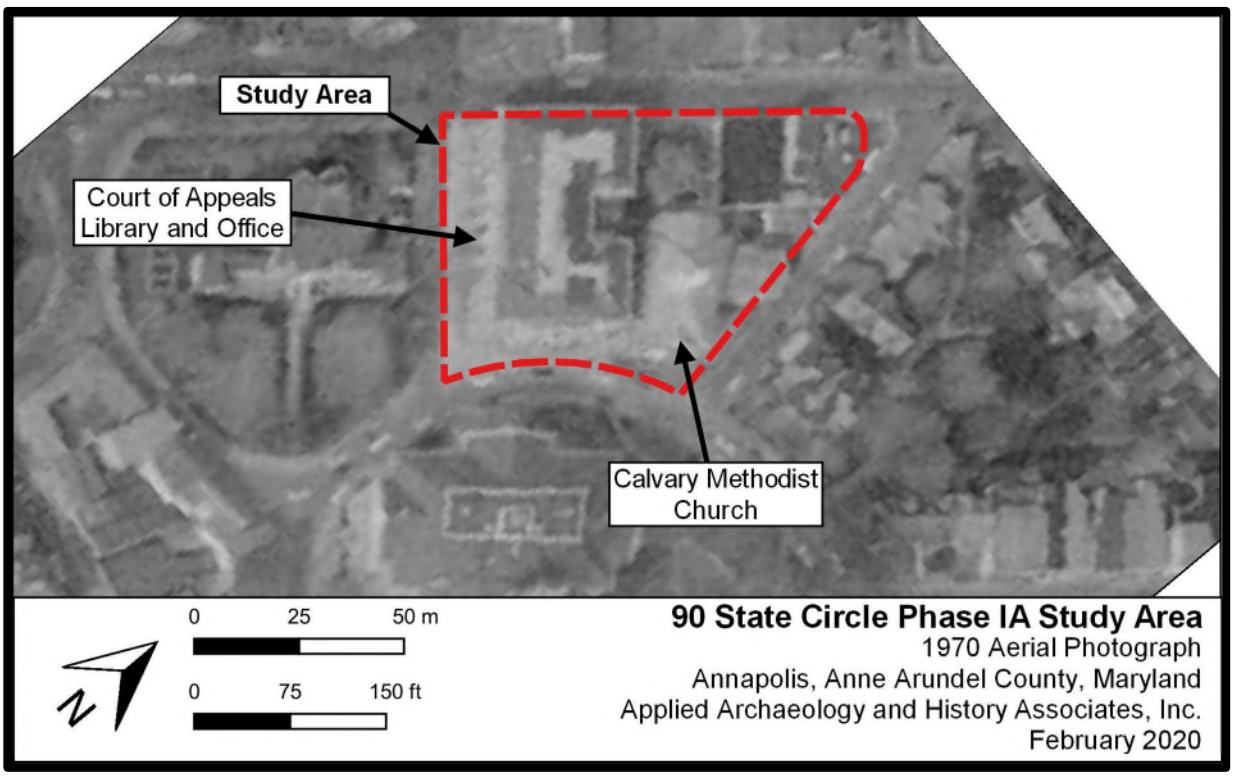

Figure 21. Detail of a 1970 aerial photograph showing the mid-twentieth-century configuration of buildings, just after the State of Maryland acquired all of Lot 75 (Historic Aerials 2020a).

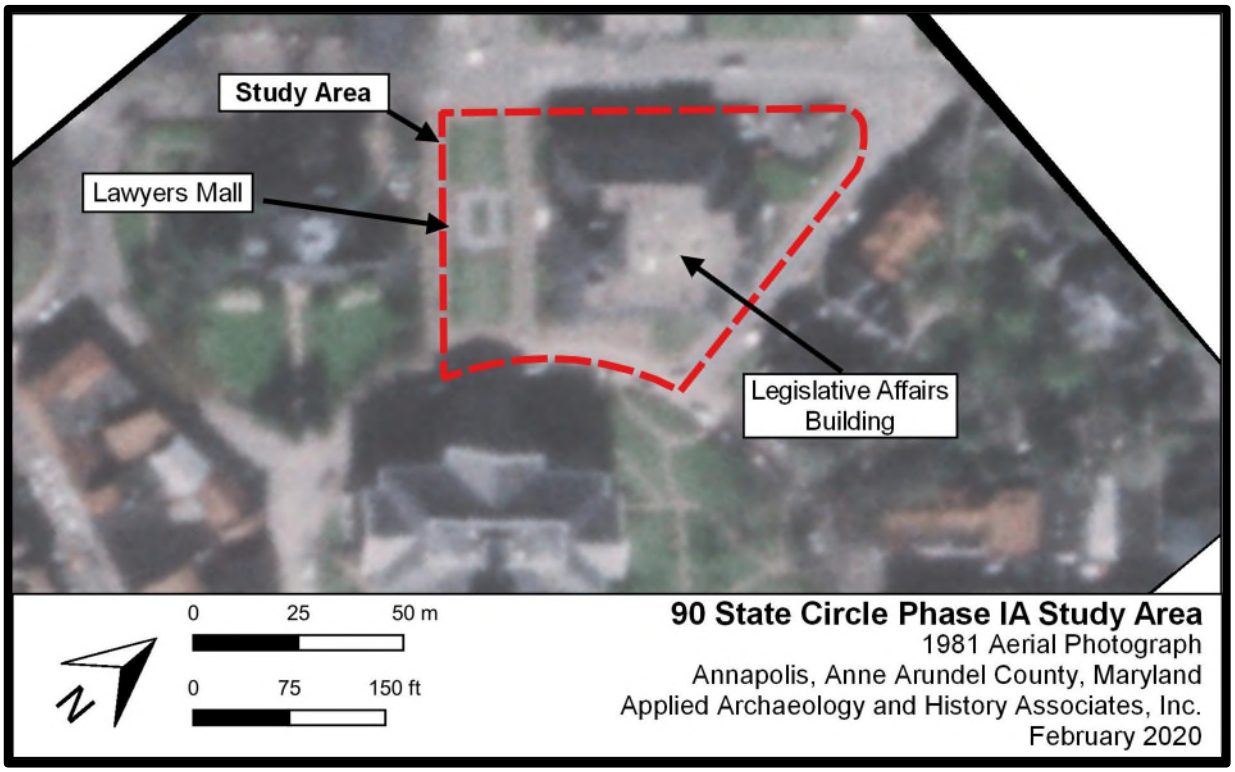

Figure 22. Detail of a 1970 aerial photograph showing the configuration of buildings in the Study Area shortly after the construction of the extant Legislative Services building (Historic Aerials 2020b).

Although buried demolition debris likely blankets the city, deeply intrusive archaeological features are occasionally encountered. For instance, foundation remnants of a demolished nineteenth century building (18AP92) were identified beneath the James Senate Office Building west of the Study Area. Excavations at the nearby Bordley-Randall House Site (18AP50) also encountered an eighteenth-century feature-bearing cultural horizon buried under several fill horizons in portions of the site. The features all appeared to be associated with the extant eighteenth-century house standing on the property.

Similarly, at the Queen Anne's House Site (18AP58), archaeological investigations focused on identifying the development of State Circle encountered various iterations of the early circle, including a nineteenth century shell walkway, which was underlain by a possible late eighteenth to early nineteenth-century horizon interpreted as part of the Bordley-Randall estate.

Notably, because of the variable isolated and widespread development projects occurring within Annapolis throughout time, the state of the sites close to the Study Area are not necessarily reflective of the Study Area's integrity.

A total of 64 archaeology sites have been recorded within one quarter mile of the Study Area but none have been identified within the Study Area. Historic components are represented at all of the sites. Only one site recorded a precontact component.

The historic components represented within a quarter mile of the Study Area date as early as the late seventeenth century through the twentieth century. The seventeenth century components include a churchyard and cemetery, dwellings, a forge, and two streetscapes. These resources concentrate around State and Church Circle and reflect the early development of the city. The remaining resources exhibit the further expansion and urban development of the city after it was designated the capital of Maryland in 1694. Archaeological sites of note include deposits and features surrounding various substantial eighteenth century residences many of which are still standing, townhouses utilized for residential and commercial purposes, taverns, inns, a buried eighteenth-century corduroy road, a theater, public well, and loci of industrial development.

Directly adjacent to the Study Area is the nineteenth century Governor's Mansion Site (18AP48), the eighteenth to twentieth century State House Site (18AP22), and the late nineteenth to twentieth century Queen Anne's House Site (18AP58). The Governor's Mansion Site was identified during renovations to the standing house which encountered artifacts during construction of an elevator shaft in the basement. The State House Site incorporates all of the land encompassed by State Circle including the standing State House, which is the third state capitol building constructed in the circle. Archaeological investigations at the site sought to gather data pertaining to the evolution of the road system surrounding the State House. Queen Anne's House Site represents a standing duplex house that was once of the first residential structures built facing State Circle. Archaeological investigations were conducted at the site to identify early expressions of the roundabout surrounding the state capitol building.

TABLE 1. PREVIOUSLY IDENTIFIED ARCHAEOLOGICAL SITES WITHIN ONE QUARTER MILE OF THE STUDY AREA

Site Number	Site Name	Site Type	Investigation Summary	NRHP Status
18AP1	Paca House and Gardens	18th-20th century standing urban mansion house and formal gardens	Phase I, II, and III: Backhoe trenches, unit excavations	Listed 1972
18AP2	Hammond-Harwood House	18th-20th century standing urban house and formal gardens	Phase III: Test units and shovel test pits	Listed 1966
18AP13	Artisan's House	Early 19th-20th century standing frame house	Phase III: test trenches	Listed 1972
18AP16	Depot Cemetery	African American historic cemetery (possibly 18th cen)	Phase III: one burial excavated	Not evaluated
18AP17	Mann's Tavern	18th-19th century demolished structure, tavern, hotel site	Phase III: Salvage excavation	Not evaluated
18AP22	State House	18th-20th century state house	Phase III: Trench excavations	Listed 1966
18AP23	Reynold's Tavern	18th-20th century tavern, stable	Phase III: Trench and test unit excavations	Not evaluated
18AP28	Calvert House	18th-20th century standing town home	Phase III: test units	Not evaluated
18AP29	Jonas Green House	18th century standing town house, print shop	Phase III: Test units	Not evaluated

Site Number	Site Name	Site Type	Investigation Summary	NRHP Status
18AP30	Shiplap House	18th century standing structure	unknown	Not evaluated
18AP31	Hyde Alley	brick foundation, possibly late 18th century	one STP	Not evaluated
18AP34	Patrick Creagh	18th-early 20th century standing town home	Phase II: shovel test pits	Listed 1973
18AP35	20 West Street	18th-early 20th century standing town home	Phase III: Test units	Not evaluated
18AP37	Retallick-Brewer House	late 18th century standing frame town home	Phase II and Phase III: test units, auger testing	Not evaluated
18AP38	Brice House	18th century standing structure and associated remains, Woodland unknown	Salvage Excavation: test units	Listed 1970
18AP41	25-27 West Street	historic standing structure and previous structure remains in basement	Phase I: test units	Not evaluated
18AP42	State House Inn	19th-20th century standing hotel/inn, possible 18th century structures	Phase III: test units	Not evaluated
18AP43	St. Anne's Church	17th-19th century cemetery, 17th-18th century churchyard, 19th century standing church	Archival Investigation, Phase II: Test units, mechanical trenching	Not evaluated
18AP44	193 Main Street	18th century structure	Phase III: test units	Not evaluated
18AP48	Governor's Mansion	19th century standing mansion, governor's house	Phase I: Surface search	Not evaluated
18AP49	Feldmeyer-Gassaway House	19th century standing town house	Phase II: test units	Not evaluated
18AP50	Bordley-Randall House	18th-20th century standing house with later additions	Phase III: test units	Not evaluated
18AP51	22-26 West Street	18th-20th century urban backlots, residential and commercial	Phase II Salvage excavations: Test units	Not evaluated
18AP52	Gott's Court	18th-early 20th century domestic and industrial urban lot	Phase II and III: test units	Not eligible (1991)
18AP53	John Brice II House	late 17th (possibly),18th-20th century standing town home	Phase II: Salvage excavation	Not evaluated
18AP54	Annapolis Federal Savings Bank	18th-20th century standing masonry structure, domestic, commercial	Phase II: Salvage excavation, test units	Not evaluated
18AP55	Donaldson House	18th-20th century standing town home	Phase II: test units	Not evaluated
18AP56	Edwards	late 17th-20th century standing town home	Phase II: test units	Not evaluated
18AP57	Shaw House	18th-20th century standing town home	Phase II: test units	Not evaluated
18AP58	Queen Annes House	late 19th-20th century town home	Phase II: test units	Not evaluated

Site Number	Site Name	Site Type	Investigation Summary	NRHP Status
18AP59	Johnson	mid-19th century standing structure on urban lot	Phase II: test units	Not evaluated
18AP60	Nicholson's Lot	18th-19th century store/residence,20th century theater	Phase II: test units	Not evaluated
18AP61	Public Well	18th-19th century public well	Phase II: test units, core samples	Not evaluated
18AP62	YWCA	18th century domestic deposits,19th century standing structure	Phase II: test units	Not evaluated
18AP63	Courthouse	Mid-19th-Mid-20th century townhouses, city block, 17th & 18th century forge and houses, & African-American	Phase I, II, and III: Backhoe trenches, mechanical striping, unit excavations	Eligible (2001)
18AP64	Maynard-Burgess House	19th-20th century standing African-American town home	Phase I, II, and III: Trenches, test units, STPs	Not evaluated
18AP70	Chase-Lloyd House	late 18th-20th century standing town home	unknown	Not evaluated
18AP75	209 Main Street	late 17th-early 18th century possible structure, tavern	Phase I, test units and mechanical excavation	Not evaluated
18AP76	141/143 Main Street	18th century artifact concentration	Phase I, test units and mechanical excavation	Not evaluated
18AP84	Dunn	18th-20th century commercial buildings	Phase II: Backhoe trenches	Not evaluated
18AP85	Martin Street	late 18th-late 19th century garden terrace, late 19th century rowhouses	Phase III: backhoe trenches	Not evaluated
18AP91	24 Fleet Street	late 18th-early 19th century tenement cellar hole	Phase I test unit, monitoring	Not evaluated
18AP92	112 College Avenue	late 19th-early 20th century urban masonry structure site	Monitoring	Not evaluated
18AP95	Lincoln Park	early 20th century artifact concentration/possible structure	Phase I: Backhoe trenches	Not eligible (2002)
18AP96	Railroad Repair Shop	early 20th century railroad repair shop site	Phase I: mechanical stripping	Not eligible (2002)
18AP97	10 Cornhill Street	rear yard sheet midden behind late 18th century standing brick house	Phase I test unit, one STP	Not evaluated
18AP98	Fleet Street Park	late 18th-early 20th century artifact concentration	Monitoring	Not evaluated
18AP99	Ogle Hall	Mid-18th century Palladian inspired mansion	Phase I limited shovel testing	Not evaluated
18AP104	209 Duke of Gloucester	Two 19th-20th century frame houses	Phase I: shovel tests	Not evaluated
18AP107	Adams-Kilty House	Late 18th-19th century urban house lot	Phase II and III: test units	Not evaluated
18AP109	26 Market Space	Last quarter 17th-20th century streetscape in market space near	Phase II: test unit	Eligible (2009)

Site Number	Site Name	Site Type	Investigation Summary	NRHP Status
		residential and commercial space; waterfront		
18AP110	40 Fleet Street	Late 19th-Early 20th century urban house lot; Mid-Late 18th century artifact scatter related to rental	Phase II: test units	Not evaluated
18AP111	Fleet Street Streetscape	Last quarter 17th-20th century streetscape in residential neighborhood; log road/corduroy road	Phase II: test units	Eligible (2009)
18AP112	Cornhill Street Streetscape	18th-20th century streetscape in residential neighborhood	Phase II: test units	Eligible (2009)
18AP113	West Street Lot 26, backyard	18th-20th century urban house lot	Phase II: test units	Not evaluated
18AP114	30 Cornhill Street	Late 18th - 20th century residential domestic	Phase II: test units	Not evaluated
18AP115	41 Cornhill Street	Late 18th-20th century brick tavern/house	Phase II: test units	Not evaluated
18AP116	99 East Street	Early 19th-20th century brick town house, owned by African American family since 1850, with Filipino assoc.	Phase I: test units	Not evaluated
18AP118	Maryland Inn	Late 18th century standing brick inn	Phase I: test units	Not evaluated
18AP119	49 Pinkney Street	19th and 20th century African-American row house and tenement, with Filipino association	Phase II: test units	Not evaluated
18AP120	Schwar's East and West	19th and 20th century row house and tenement	Phase I: test units	Not evaluated
18AP121	Brewer's Tavern Property	Mid-18th century brick domestic dwelling once used as a tavern, with associated stable	Monitoring	Not evaluated
18AP122	Annapolis Post Office	Mid-late 19th century urban residential; 20th century Post Office	Phase I: shovel tests	Not eligible (2015)
18AP125	Jacob Blum	Late 19th century stone foundation, frame commercial and residential building	Monitoring	Not evaluated

Historic Properties within one quarter mile of the Study Area

A total of 587 historic properties are listed in the MIHP within one-quarter mile of the Study Area. All but one of the properties are within the Colonial Annapolis Historic District (AA-137) or its extension designated the Annapolis Historic District (AA-2046), and 12 of the properties are listed on the NRHP (Table 2).

The Annapolis historic districts incorporate the original city boundaries as they were planned in the last decade of the seventeenth century and its immediate peripheral settlements which developed into the early twentieth century. The city adopted a baroque style layout with a large public circle containing the State House and a smaller circle, nearby, containing an Anglican church. By the mid-eighteenth century the city "emerged …as the focal point of Maryland government, politics, and commercial activity and as a center of provincial wealth, culture, and taste" (MHT form for AA-137; Heintzelman 1974).

TABLE 2. NRHP-LISTED PROPERTIES AND HISTORIC DISTRICTS WITHIN ONE QUARTER MILE OF THE STUDY AREA

MIHP #	Name	Date	Type	NRHP Status
AA-137	Colonial Annapolis Historic District	1694	District	Listed
AA-359	United States Naval Academy	1845	Military	Listed
AA-485	Brice House	1766-1773	Dwelling	Listed
AA-506	Mount Moriah African Methodist Episcopal Church	1875	Church	Listed
AA-581	Old City Hall and Engine House	1821-1822	Government Building	Listed
AA-626	Hammond-Harwood House	1774	Dwelling	Listed
AA-628	Chase-Lloyd House	1769-1774	Dwelling	Listed
AA-645	Artisan's House	18th century	Dwelling	Listed
AA-654	Patrick Creagh House	1735-1747	Dwelling	Listed
AA-657	Governor William Paca House and Garden	1765	Dwelling	Listed
AA-680	Pinkney-Callahan House	1785	Dwelling	Listed
AA-685	Maryland State House	1772	Government Building	Listed
	Annapolis Historic District	1694-Present	District	Listed
AA-695*	Court of Appeals (site)	1902	Government Building	Not Eligible (Demolished)

* Indicates resources fully or partially within the Study Area

One property, the Court of Appeals Building Site (AA-695) is recorded within the Study Area. The Court of Appeals building was built in 1901 at which time it served as state offices. The building was demolished ca.1972. The original building footprint overlapped the west half of the extant Legislative Services building (see Figure 20).

In the immediate vicinity of the Study Area is the nineteenth-century Governor's Mansion (AA-684), the eighteenth-century Maryland State House (AA-685), the 1903 College Avenue Baptist Church site (demolished; AA-414), and various late nineteenth to mid twentieth-century dwellings (AA-415, AA-1319, AA-1318, AA-1317, and AA-694). Of the properties within one quarter mile of the Study Area, 13 are listed in the NRHP. Including the two Annapolis historic districts are seven prominent eighteenth-century mansions/residences, the mid-nineteenth-century Naval Academy,

the 1874 Mount Moriah African Methodist Episcopal Church, the aforementioned Maryland State House, and the ca. 1821 Old City Hall and Engine House.

4. Summary and Recommendations

Summary

In February 2020, AAHA conducted a Phase IA intensive background investigation of the 90 State Circle Property (Study Area) in downtown Annapolis, Maryland. The property currently houses the Department of Legislative Services Building (DLS), as well as a pedestrian walkway connecting Bladen Street with the Maryland State House known as Lawyers Mall. The Maryland Stadium Authority (MSA) has proposed improvements to the DLS building to meet the evolving needs of the Maryland State Legislature. AAHA conducted this Phase IA intensive background investigation under contract with Murphy & Dittenhafer Architects to determine the likelihood of the presence of archaeological resources within the Study Area. All work was conducted in accordance with the Maryland Historical Trust's *Standards and Guidelines for Archeological Investigation in Maryland* (Shaffer and Cole 1994), as well as the various standards and guidelines set forth by the Secretary of the Interior in the *Standards and Guidelines for Archaeology and Historic Preservation* (Federal Register 1983) and Section 106 Archaeology Guidance (ACHP 2009).

The Study Area is located in the heart of the Colonial Annapolis Historic District (MIHP AA-137), which is listed on the National Register of Historic Places (NRHP). It lies directly across the street from both the Maryland State House and the Governor's Mansion. Dozens of historic residences and commercial structures are in the Study Area's direct vicinity, as well as some more recent government buildings such as the James Senate Office Building and the House of Delegates Office Building. The site of the demolished Maryland Court of Appeals Building (MIHP AA-695) lies within the southwestern portion of the Study Area.

Archaeological Potential of the Study Area

Precontact Potential

The Study Area is located in a lowland terrace surrounded by three navigable waterways near the highest, most defensible position on the terrace, which currently houses the Maryland State House. Nearby access to water is available in three directions, and the bank of the Severn River would have been closer to the Study Area in the precontact period before the Naval Academy expanded the northeastern tip of the peninsula. The mouth of Spa Creek is a bountiful natural harbor, and the Study Area's position is prime for exploiting terrestrial, estuarine, and marine food resources. As such, the Study Area has a high probability for precontact archaeological resources, although the urban development of Annapolis during the historic and modern periods may have significantly impacted precontact site integrity within the Study Area.

Historic Potential

The Study Area has been part of the historic City of Annapolis since its founding in the 1690s, and by 1718, had been designated as urban Lot 75. This lot contained a house belonging to Major Edward Dorsey by 1695, which was occupied by Governor Francis Nicholson in the late

seventeenth century. A second house had been constructed on the lot by 1717. Additional houses were constructed as the lot was subdivided throughout the eighteenth and nineteenth centuries. A Methodist congregation purchased part of the property in 1817 and would eventually build a large, ornate brick building there in 1859. The property underwent two major reconfigurations in the twentieth century, first around 1903 when several residences were demolished to construct the Court of Appeals Library and Office, and later around 1973 when the Court of Appeals Library and Office, the Methodist church, and all remaining residences were demolished to construct the current Legislative Services building. Nearby archaeological investigations show that levels of disturbance around State Circle vary widely. Because of this, the Study Area has a high probability for the presence of historic archaeological resources. The integrity of these potential resources is unknown due to impacts by modern construction episodes.

Recommendations

Historic maps and records document extensive construction disturbance within the Study Area beginning in the early twentieth century and continuing to the ca. 1973 construction of the existing Legislative Services building. Precontact sites tend to contain perishable materials that do not survive the kind of extensive disturbance created by large construction episodes. Historic features, on the other hand, tend to be more durable and may have survived the twentieth-century construction. While the 1970s construction may have disturbed archaeological resources within the footprint of the existing building, there is a moderate to high probability that intact archaeological resources exist in the northeast section of the property. Traditional methods of archaeological survey are unlikely to be effective in this environment. As such, archaeological monitoring of ground disturbing activities is recommended to document possible in situ cultural features and contexts.

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APPENDIX A

CHAIN OF TITLE

90 State Circle Phase IA Deed Research

MSH 2290:156 Deed **May 7, 1969**

Grantee: State of Maryland for the use of the Board of Public Works
Grantor: Calvary Methodist Church, Annapolis, Maryland

Nominal consideration. This deed conveyed five lots of land in the 6th Election District of Anne Arundel County, Maryland from the Calvary Methodist Church to the Board of Public Works in fee simple. The Calvary Methodist Church was formerly known as the Calvary Methodist Episcopal Church and the Trustees of the Methodist Episcopal Church in the City and Precincts of Annapolis, Maryland.

Lot 1 was described as "beginning at a post on the southwest corner of Lot 75 belonging to Nicholas Harwood" bounding along Tabernacle Street, presently College Avenue (Hopkins 1878), and intersecting with Public Circle (State Circle). Lot 1 contained the parcel of land conveyed on December 24, 1833 to the Trustees of the Methodist Episcopal Church in the City and Precincts of Annapolis from Louis Gassaway et al Trustees (WSG 18:480). Lot 1 was often referred to as the "Church Property" and was bounded by College Avenue (also called Tabernacle or Bank Street) to the north, the Callahan/Pinkney/Oliver to the southwest, Public Circle to the south, and the Gates Property (GW 30:433) to the east.

Lot 2 consisted of Lot A and Lot B, designated on the Gates Property Plat map constructed on June 26, 1903 (GW 30:433). Lot A began on State Circle with North Street to the east and the eastern property boundary of the First Methodist Episcopal Church to the west. Lot B of Lot 2 ran along the northern boundary of Lot A with North street to the east and the Church property to the west. Lot 2 was the same property conveyed on July 30, 1919 from Annie E. Amos to the Trustees of the Methodist Episcopal Church in the City and Precincts of Annapolis (WNW 27:375).

Lot 3 was designated as Lot D on the Gates Property Plat map (GW 30:433) and began at the intersection of College Avenue and North Street. Lot 3 was bounded by College Avenue to the north, North Street to the east, and Lot E, the property of Charles Gates in 1903, to the southwest. Lot 3 contained all land conveyed on October 16, 1964 from Dorothy V. and Charles W. Callahan to the Calvary Methodist Church (LNP 1803:450) excluding a parcel designated on a plat attached to a deed dated June 7, 1965. Said deed conveyed a small parcel from Calvary Methodist Church to the Mayor and Aldermen of the City of Annapolis (LNP 1870:509).

Lot 4 was described as the easternmost corner beginning at an iron pipe which "also marks the corners of Lot F and E" on the Gates Property Plat map (GW 30:433). Lot 3 was also described as bounding along the northwest outline of a property conveyed from Samuel Schenker to the Guaranteed Realty Corporation on October 5, 1951 (JHH 648:237), with North Street to the east, and intersecting with College Avenue to the north. It also shares boundaries with the land of Walter E. Quenstedt, Annie B. Gates, Annie E. Amos and Calvary Methodist Church. Lot 4 contained all of part of Lots C and F designated on the 1903 Gates Plat. The land was the same property conveyed from Henry E. and Elizabeth M. Ciccarone to the Guaranteed Realty Corporation on September 15, 1951 (JHH 644:369).

Lot 5 was the same lot conveyed from Reinhart Achenback, et al to Annie B. Gates on May 19, 1903 (GW 30:438). The southeast corner of Lot 5 began at the same pipe that marked the northernmost corner of the property conveyed from Samuel Schenker to the Guaranteed Realty

Corporation, the easternmost corner of the property described above as Lot 4, and the southernmost corner of land conveyed from Charles B. and Annie B. Gates to Walter E. and Mary Quenstedt on May 9, 1922 (WNW 56:116). The northern boundary of the property runs along College Avenue and neighbors the property of Jacqueline E. Qualey. Lot 5 contained all or part of Lot E designated on the 1903 Gates Plat. Lot 5 was the same land described in an August 1, 1958 deed conveying the land from the Baltimore Federal Savings and Loan Association to the Calvary Methodist Church, Annapolis Maryland.

Lot 1

Lot 1, Parcel A:

GW 19:278 Deed **November 20, 1900**

Grantee: State of Maryland
Grantor: Trustees of the Methodist Episcopal Church in the City and Precincts of Annapolis

Consideration of $8,000. This deed conveyed a portion of property on State Circle and College Avenue to the State of Maryland. The land was described as a portion of the land conveyed to the Trustees of the Church by Louis Gassaway, Basil Shephard, and Nicholas I. Watkins on December 24, 1833 (WSG 18:480).

WSG 18:480 Deed **December 24, 1833**

Grantee: Trustees of the Methodist Episcopal Church in the City and Precincts of Annapolis
Grantor: Louis Gassaway, Basil Shephard, and Nicholas I. Watkins

Nominal consideration. This deed conveyed the property previously conveyed by Lewis and Sarah Duvall, William L. and Mary Green, and Ann Harwood to Absalom Ridgely, Joseph Evans, George Wells, John Miller, Louis Gassaway, Basil Shephard, and Nicholas I. Watkins on November 27, 1817 (WSG 5:322). At the time of this 1833 deed, Ridgely, Wells, and Miller were no longer living and Evans was no longer a member of the Church corporation which sold the property. The parcel was also described as the same land marked as Lot 75, belonging to Nicholas Harwood on the 1718 Stoddard plat map of the city of Annapolis.

WSG 5:322 Deed **November 27, 1817**

Grantee: Absalom Ridgely, Joseph Evans, George Wells, John Miller, Louis Gassaway, Basil Shephard, and Nicholas I. Watkins

Grantor: by Lewis and Sarah Duvall, William L. and Mary Green, and Ann Harwood
Consideration of $500. This deed conveyed the same parcel of land and stipulates that the land will be used to erect a place of worship. The deed also sets certain rules and regulations for the operation of the church. This was the same parcel of land conveyed to Nicholas Harwood from John Rofs on January 16, 1806 (NH 12:737).

WSG 1:359 Deed **April 2, 1812**

Grantee: Lewis Duvall
Grantor: Henry Harwood, son of Nicholas Harwood

Consideration of $3500. Upon the death of Nicholas Harwood, his son Henry Harwood became entitled to a 1/6 portion of his father's real, personal, and mixed estate. Then, following the death of his brother, James Harwood's, Henry was entitled to a 1/5 portion of the real, personal, and mixed estate of James. The deed states that said properties which Henry Harwood is entitled to are a 565 ¼ acre property in Anne Arundel County called "Tudor Hall," a house and lot in Annapolis purchased by Nicholas Harwood from Sarah Joice, and a lot and "old house" adjoining that of the Joice property purchased from John Rofs. The deed thus conveys Henry's portion of said properties to Lewis Duvall.

WSG 1:76 Deed **April 8, 1811**

Grantee: William Sanders Green
Grantor: Nicholas Harwood, possibly Junior

Consideration of $350. This deed conveyed two portions of Lot 75 from Nicholas Harwood to William S. Green. The first parcel was conveyed to Harwood on September 6, 1810 by Thomas and Henrietta Maria Addison as representatives of the late Sarah Joice (NH 16:219). The other was conveyed to Harwood on January 6, 1806 by the late John Rofs.

<u>Lot 1, Parcel A, John Wilkins Property:</u>

NS 12:737 Deed **January 16, 1806**
Grantee: Nicholas Harwood
Grantor: John Rofs

Consideration of $320. This deed conveyed the same tract of land described previously as a portion of Lot 75.

NH 12:396 Deed **June 29, 1804**

Grantee: John Rofs
Grantor: William Alexander, collector of Anne Arundel County
Consideration of $70. This deed conveyed the portion of Lot 75 conveyed from Thomas Dorsey to Joseph Wilkins in 1784 (Read 1990:281). The deed describes the property as that conveyed to Henry and Reason Daridge from Onner Wilkins (Read 1990) and that it began at a post at the southwest corner of the property of Nicholas Harwood, ran along Tabernacle Street to intersect with the "Public Circle" and back along Harwood's property to the beginning. The property was sold in public auction to John Rofs for 26 pounds and 5 shillings and Rofs then received a clean tile for $70.

Lot 1, Parcel A, William Paca Property:

NH 16:219 Deed **September 6, 1810**

Grantee: Nicholas Harwood
Grantor: Thomas G. Addison and Henrietta Maria Addison, his wife

Nominal consideration. Articles of agreement from October 13, 1802 agreed that Nicholas Harwood pay the late Sarah Joice a consideration of $700 with one half to be paid immediately and the other half within a year for a portion of Lot 75 which was conveyed to her by William Paca (Read 1990). The last will and testament of Sarah Joice was recorded on May 23, 1803 and upon her death this parcel was granted to Henrietta Maria Addison, her daughter. As the originally agreed upon amount was paid by Harwood by the time of Joice's death, the land was officially conveyed from the Addison's to Harwood. The meets and bounds of said parcel are described as beginning at a post on Public Circle, running in line with "the gravel wall of the house called Carpenters house" to Tabernacle Street, moving east along this street, to an intersect with an alley that leads to the Public Circle back to the beginning.

NH 2:95 Deed **September 24, 1784**

Grantee: William Paca, Esquire
Grantor: Thomas Dorsey, Esquire

Consideration of 500 pounds. In 1784, Thomas Dorsey subdivided Lot 75 into two parcels which he sold to William Paca and Joseph Watkins (Read 1990). The portion acquired by Paca was the same plot described in the 1810 Deed to Nicholas Harwood from Sarah Joice (NH 16:219).

Lot 1, Parcel B:

GW 19:276 Deed **November 3, 1900**

Grantee: State of Maryland
Grantor: Fanny M. Oliver and Marshal Oliver, her husband

Consideration of $7500. This deed conveyed Fanny M. and Marshal Oliver's portion of the 2,668 square foot parcel patented as "Watts Recovery" granted to Fanny M. Oliver, Marshal Oliver, Annie F. Pinkney, and Mary F. Pinkney on October 26, 1900.

SH 21:554 Deed **June 16, 1883**

Grantee: Fanny M. Oliver, wife of Marshal Oliver
Grantor: Marshal Oliver

Nominal consideration. This deed conveyed the property conveyed to Marshal Oliver from William and Lucy Jeffers on June 16, 1883 to Marshal's wife, Fanny W., in consideration of all his "love and affection."

SH 21:552 Deed **June 16, 1883**

Grantee: Marshal Oliver, Professor of Mathematics in the United States Navy
Grantor: William N. Jeffers, Commander in the United States Navy, and Lucy Le Grand Jeffers, his wife

Consideration of $2300. This deed conveyed the same 2,668 square foot portion of Watts Recovery conveyed to Aaron Duvall by Somerville and Mary Pinkney. It was also the same property conveyed to William N. Jeffers by Anne E. Duvall on October 17, 1856 (NHG 6:28) and deed of release dated September 19, 1870 (SH 5:39).

NHG 6:28 Deed **October 28, 1856**

Grantee: William N. Jeffers
Grantor: Anne E. Duvall

Consideration of $1200. This deed conveyed the portion of Watts Recovery left to Anne A. Duvall in the last will and testament of Aaron Duvall on December 8, 1842 (JJS 1:462).

WSG 25:423 Deed **January 5, 1841**

Grantee: Aaron Duvall
Grantor: Somerville Pinkney and Mary Franklin Pinkney, his wife

Consideration of $650. This deed conveyed part of the property described as Watts Recovery totaling 2,668 square feet.

WSG 25:421 Deed **December 8, 1840**

Grantee: Somerville Pinkney
Grantor: Richard Key Watts

Consideration of $650. This deed conveyed a 9062 square foot parcel called “Watts Recovery” which was surveyed on September 29, 1840 for a land patent granted to Richard Key Watts (MSA S1189-1741). The parcel appears to be the same one described in the 1833 deed conveyance from Sarah Callahan to Anne Franklin, trustee of Somerville and Mary Pinkney.

MSA S1189-1741 Patent Certificate 1663 **October 1840**

Grantee: Richard Key Watts

On August 27, 1840 Richard Key Watts applied for a resurvey of the plot described in the deed from December 1840 (WSG 25:421) containing 9062 square feet. A plat of the property was drawn and describes the property as being a 51ft x 186 ft x 46 ft x 189 ft rectangular property with the first 51 ft running along Tabernacle Street.

GW 19:274 Deed **November 23, 1900**

Grantee: State of Maryland
Grantor: Annie F. Pinkney and Mary F. Pinkney, sisters

Consideration of $15,000. This deed conveyed Annie and Mary Pinkney's portion of the parcel patented as "Watts Recovery" granted to Fanny M. Oliver, Marshal Oliver, Annie F. Pinkney, and Mary F. Pinkney on October 26, 1900. It was the same property conveyed to the Pinkney's from Thomas Franklin in August 1900 (GW 19:258).

GW 19:258 Deed **August 2, 1900**

Grantee: Annie F. Pinkney and Mary F. Pinkney, sisters
Grantor: Thomas Franklin

Nominal consideration. This deed conveyed a portion of the land granted from Sarah Callahan to Anne Franklin in trust of Somerville and Mary Pinkney. A deed made December 1828 (WSG 14:46) upon the marriage of Somerville Pinkney and Mary Deale conveyed all of Mary's property to Anne Franklin, in trust. In 1841, Somerville and Mary Pinkney sold a portion of Watts Recovery to Aaron Duvall, the property conveyed in this deed refers to the remainder of that land. Upon the death of Anne Franklin, this property was left to her heir Thomas Franklin, and after the death of their parents, Annie and Mary F. Pinkney purchased the property from Thomas.

WGS 18:269 Deed **October 31, 1833**

Grantee: Anne Franklin, trustee for Somerville Pinkney and Mary F. Deale, his wife
Grantor: Sarah Callahan

Consideration of $2500. This deed conveyed a portion of Lot 75 described as beginning at the intersection of Lawyer Street (Bladen Street) and Tabernacle Street, running along Tabernacle 60 ft, then across Lot 75 running parallel to Lawyer Street to State Circle, bounding along the Circle back to Lawyer Street, then along Lawyer back to the beginning. It was a portion of the property conveyed from Joseph Wilkins to John Callahan. Callahan then willed the property to the aforementioned Sarah Callahan upon his death (Read 1990).

Lots 2-5

<u>Lot 2:</u>

MSH 2290:156 **May 7, 1969**

Grantee: State of Maryland for the use of the Board of Public Works
Grantor: Calvary Methodist Church

Nominal consideration. This deed conveys the same property conveyed from Annie E. Amos to the Trustees of the Methodist Episcopal Church in the City and Precincts of Annapolis in 1919 (WNW 27:375).

WNW 27:375 Deed **July 30, 1919**

Grantee: Trustees of the Methodist Episcopal Church in the City and Precincts of Annapolis
Grantor: Annie E. Amos, widow

Consideration of $4500. This deed conveyed all land designated as Lot A and Lot B on the 1903 Plat of the Gates Property to the Trustees of the Methodist Episcopal Church in the City and Precincts of Annapolis from Annie E. Amos. This was the same land conveyed to Amos by Reinhardt Achenbach, Maggie Achenbach, Charles Gates, Anna B. Gates, and Emma Graff on May 19, 1903 (GW 30:435).

GW 30:435 Deed **May 19, 1903**

Grantee: Annie Amos
Grantor: Rheinhart Achenback, Maggie Achenback, his wife, Charles Gates, Anna B. Gates, his wife, Emma Graff

Nominal Consideration. Upon the death of Susanna Gates, previously Susanna Achenback, on November 7, 1899, her estate was left to and her husband, Emanuel E. Gates, and her children, Rheinhart Achenback, Charles Gates, Emma Graff, and Annie Amos. At the time of her death she "seized and possessed certain real estate situated on College Avenue, North Street, and State Circle." This was the same land conveyed to Susanna from the heirs of Mary A. Glover on August 9, 1865 (AC 1:376). Emanuel Gates was left a "life estate" in 1/3 of the property (GW 30:434) but his interest was ultimately acquired by the children who decided to subdivide the property amongst themselves. This subdivision was recorded as the 1903 Plat map of the Gates Property (GW 30:433) and each child was deeded a Lot of the property from the other children and their respective spouses. This deed conveyed Annie Amos Lots "A" and "B" outlined on the 1903 Plat. Lot A was bordered by North Street to the east, State Street to the south, the First Methodist Episcopal Church Property to the west, and Lot B to the north. Lot B was also bordered by North Street to the east and the Church property to the west but was bordered by Lot A to the south and Lot C to the north.

<u>Lot 3:</u>

MSH 2290:156 **May 7, 1969**

Grantee: State of Maryland to the use of the Board of Public Works
Grantor: Calvary Methodist Church

Nominal consideration. This deed conveys a portion of Lot D on the 1903 Gates Property Plat conveyed to the Calvary Methodist Church from Dorothy V. and Charles W. Callahan in 1964 (LNP 1803:450). Excluding a portion of the property conveyed from the Church to the Mayor and Aldermen of the City of Annapolis in 1965 (LNP 1870:509).

LNP 1870:509 Deed **June 7, 1965**

Grantee: Mayor and Aldermen of the City of Annapolis
Grantor: Calvary Methodist Church

Nominal Consideration. This deed conveyed an approximately 12'x25'x28' triangle of land at the corner of College Avenue and North Street. The parcel was designated in the City of Annapolis Right-of-Way Plat No.10-C attached to the deed and was part of Lot D from the 1903 Gates Property Plat. It was a portion of the land conveyed to the Calvary Methodist Church from Dorothy V. and Charles W. Callahan on October 16, 1964 (LNP 1803:450).

LNP 1803:450 Deed **October 16, 1964**

Grantee: the Calvary Methodist Church
Grantor: Dorothy V. Callahan and Charles W. Callahan, her husband

Nominal consideration. This deed conveyed Lot D in the 1903 Gates Property Plat at the corner of College Avenue and North Street, still designated 81 College Avenue. This was the same property conveyed to Dorothy V. Phipps, widow, by Jacqueline E. Qualey, Estelle M. Goddard, and Laura V. Trott on March 16, 1961 (GTC 1462:276). Following the 1961 deed Dorothy V. Phipps married Charles W. Callahan.

GTC 1462:276 Deed **March 14, 1961**

Grantee: Dorothy V. Phipps
Grantor: Jaqueline E. Qualey, divorced, Estelle M. Goddard, widow, Laura V. Trott, unmarried

Nominal consideration. This deed conveyed the tract of land called Lot D and known as 81 College Avenue. It was the same land conveyed to Jacqueline E. Qualey, subject to a life estate for Estelle M. Goddard and Laura V. Trott, from Charles E. Gates on June 16, 1947 (JHH 414:144).

JHH 414:144 Deed **June 16, 1947**

Grantee: Jaqueline E. Qualey
Grantor: Charles E. Gates, Anna B. Gates, his wife, Annie Amos, widow
Nominal consideration. The land was conveyed to Qualey subject to a life estate for her mother, Estelle M. Goddard, and her aunt, Laura V. Trott. This was the same Lot D conveyed to Emma Graf in a May 19, 1903 deed from Rheinhart Achenback, Maggie Achenback, Charles Gates, Anna B. Gates, Annie Amos, James Amos (GW 30:437). The property was left to the grantors as the sole heirs of Albert E. Graff after his death on October 9, 1946. Graff originally obtained the estate through the Orphan's Court of Anne Arundel County Administration Book RGP 2, Docket 242, Folio 89 following the death of Emma Graff.

GW 30:441 Mortgage **May 20, 1903**

Grantee: Emma Graff
Grantor: Martin M. Smith

Loan of $1200. This mortgage states that Emma Graff received a loan of $1200 from Martin M. Smith for a portion of the property designated "Lot D" on the 1903 Plat map of the Gates Property. The mortgage stipulates that the principle sum must be paid back within five years as well as

interest in the form of ten promissory notes, "each for the payment of the sum of $36, being for the semi-annual interest on the said principle sum reserved." For a nominal consideration, Lot D was thus conveyed to Smith, however, as long as the Graff continued to pay her mortgage she would be in possession of the property.

GW 30:437 Deed **May 19, 1903**

Grantee: Emma Graff
Grantor: Rheinhart Achenback, Maggie Achenback, his wife), Charles Gates, Anna B. Gates, his wife, Annie Amos, James Amos, her husband

Nominal consideration. In the subdivision of the property obtained by the children of the late Susanna Gates, Emma Graff was conveyed Lots "C" and "D" outlined by the 1903 Plat Map of the gates Property (GW 30:433). Lot D was also described as being separated from Lot "E" to the west by a "partition wall of double houses" and was bordered by North Street to the east and College Avenue to the north. Lot C was bordered by North Street to the east, the Church property to the west, Lot B to the south, and Lots E and F to the north.

Lot 4:

MSH 2290:156 **May 7, 1969**

Grantee: State of Maryland to the use of the Board of Public Works
Grantor: Calvary Methodist Church

Nominal consideration. The parcel in question was the fourth: Beginning at an iron pipe at the easternmost corner of that conveyance from Henry E. Ciccarone and Elizabeth M. Ciccarone, his wife, to the Guaranteed Realty corporation in 1951 (JHH 644:369). The pipe also marks the easternmost corner of Lot F and the southernmost corner of Lot E as shown on plat of the "Gates Property". Parcels four and five being the same lots of ground in a deed from 1958 (GTC 1224:196) from Baltimore Federal Savings and Loan Association to Calvary Methodist Church.

GTC 1224:196 Deed **August 1, 1958**

Grantee: Calvary Methodist Church, Annapolis
Grantor: Baltimore Federal Savings and Loan Association

Nominal consideration. Conveying all those pieces or parcels of land in Annapolis. Being the fourth and fifth parcels of land described in a deed from Walter S. Calwell to Baltimore Federal Savings and Loan Association on May 1958 (GTC 1212:462)

GTC 1212:462 Mortgage **May 21, 1958**

Grantee: Baltimore Federal Savings and Loan Association
Grantor: Walter S. Calwell, of Baltimore City, attorney named in mortgage

Consideration of $150,000. At a public auction on April 9, 1958 by Walter S. Calwell in pursuance of the power vested in him as Attorney in and by a certain mortgage from All States Corporation to Baltimore Federal Savings and Loan Association bearing date of June 15, 1956 (GTC 1038:503), which sale was made after default had occurred on said mortgage (Equity 12,524). The parcel in question was one of many parcels being conveyed in this deed. Being the same lot

of ground conveyed to All States Corporation by Guaranteed Realty Corporation in 1956 (GTC 1038:496)

GTC 1038:496 Deed **June 15, 1956**

Grantee: All States Corporation
Grantor: Guaranteed Realty Corporation

Nominal consideration. The property was indented to be the identical property conveyed by the following three deeds

A. From Samuel Shenker in 1951 (JHH 648:237)
B. From Henry E. Ciccarone and Elizabeth M. Ciccarone in 1951 (JHH 644:369)
C. From Margaret Baker in 1952 (JHH 664:532)

<u>Lot 4, Parcel A:</u>
JHH 648:257 Deed **October 5, 1951**

Grantee: Guaranteed Realty Corporation of the third part
Grantor: Samuel Schenker, attorney for Jennie Bier, of the city of Annapolis of the first part; Samuel Schenker, attorney for Leo Bier of Anne Arundel County of the second part

Nominal consideration. The property was all that lot of ground situated on the west side of North Street which was designated as “Lot C” in a deed to Emma Graff from Reinhart Achenback and other in 1903 (GW 30:437), saving and excepting a strip of said lot fronting 1 foot 6 inches on North Street which was sold by Emma Graff to Annie Amos in 1903 (GW 34:288). Being the same lot of ground described in a deed from 1941 (JHH 244:78) from William Small, widower, to Jennie Bier, in fee simple.

JHH 244:78 Deed **August 28, 1941**

Grantee: Jenny Bier
Grantor: William H. Small, widower

Nominal consideration. The property was all that lot of ground situated on the west side of North Street which was designated as “Lot C” in a deed to Emma Graff from Reinhart Achenback and other in 1903 (GW 30:437), saving and excepting a strip of said lot fronting 1 foot 6 inches on North Street which was sold by Emma Graff to Annie Amos in 1903 (GW 34:288). Being the same property conveyed to William H. Small and wife by Emma Graff, widow in 1915 (GW 115:168).

GW 115:168 Deed **March 23, 1915**

Grantee: William H. Small and Anna L. Small, his wife
Grantor: Emma Graff, widow

Nominal consideration. The property was all that lot of ground situated on the west side of North Street which was designated as “Lot C” in a deed to Emma Graff from Reinhart Achenback and other in 1903 (GW 30:437), saving and excepting a strip of said lot fronting 1 foot 6 inches on North Street which was sold by Emma Graff to Annie Amos in 1903 (GW 34:288).

GW 30:437 Deed **May 19, 1903**

Grantee: Emma Graff
Grantor: Rheinhart Achenback, Maggie Achenback, his wife, Charles Gates, Anna B. Gates, his wife, Annie Amos, James Amos, her husband

Nominal consideration. In the subdivision of the property obtained by the children of the late Susanna Gates, Emma Graff was conveyed Lots "C" and "D" outlined by the 1903 Plat Map of the gates Property (GW 30:433). Lot D was also described as being separated from Lot "E" to the west by a "partition wall of double houses" and was bordered by North Street to the east and College Avenue to the north. Lot C was bordered by North Street to the east, the Church property to the west, Lot B to the south, and Lots E and F to the north.

Lot 4, Parcel B:

JHH 644:369 Deed **September 15, 1951**

Grantee: Guaranteed Realty Company
Grantor: Henry E. Ciccarone and Elizabeth M. Ciccarone, his wife

Nominal consideration. The property conveyed was Lot F in the plat map, saving and excepting all that lot of ground conveyed by the Ciccarones to Margaret A. Baker in 1949 (JHH562:454) which was approximately the western half of Lot F. Being a part of the land described in a deed from 1947 from Katharine T. Samaras (JHH 435:160).

JHH 435:160 Deed **October 6, 1947**

Grantee: Henry E. Ciccarone and Elizabeth M. Ciccarone, his wife
Grantor: Katherine T. Samaras, widow

Nominal consideration. The property conveyed was Lot F on the plat map, bounded by College Avenue to the west and the First Methodist Episcopal Church property to the south. Being the same property conveyed from Walton W. Achenback et al to Katherine T. Samaras and Theodore N. Samaras, her husband in 1941 (JHH 237:254).

JHH 237:254 Deed **June 18, 1941**

Grantee: Katherine T. Samaras
Grantor: Walton W. Achenback and Kathryn Achenback, his wife, and Dolores Achenback Vanyo and Stephen R. Vanyo, her husband

Nominal consideration. Whereas Rheinhart Achenback died intestate with Walton Achenback and Dolores Achenback Vanyo as his only heirs. The property conveyed to Samaras was Lot F in the plat map, bounded by College Avenue to the west and the First Methodist Episcopal Church property to the south. Being the same property which was conveyed to the said Rheinhart Achenback by Charles Gates and others in 1903 (GW 30:440).

GW 30:449 Mortgage **May 20, 1903**

Grantee: Rheinhart Achenback and Maggie Achenback, his wife
Grantor: Martin M. Smith

Loan of $1200. This mortgage states that Rheinhart and Maggie Achenback received a loan of $1200 from Martin M. Smith for a portion of the property designated "Lot F" on the 1903 Plat map of the Gates Property. The mortgage stipulates that the principle sum must be paid back within five years as well as interest in the form of ten promissory notes, "each for the payment of the sum of $36, being for the semi-annual interest on the said principle sum reserved." For a nominal consideration, a portion of Lot F was thus conveyed to Smith, however, as long as the Achenback's continued to pay their mortgage they would be in possession of the property. The meets and bounds of this particular parcel begin 119.74 ft southwest of North Street along College Avenue along the northern boundary of Lot F. This beginning point was 21.5 ft northwest of the northernmost point of Lot F where it meets with the northwest corner of Lot E. The parcel then runs 33 ft southwest along College Avenue to the boundary of the Church property, then southeast 70 ft along the boundary between Lot F and the Church Property to intersect with Lot C. The boundary then runs northeast 33 ft along the boundary of Lot F and Lot C, then northeast 70 ft to the point of beginning.

GW 30:440 Deed **May 19, 1903**

Grantee: Rheinhart Achenback
Grantor: Charles Gates, Anna B. Gates, his wife, Annie Amos, James Amos, her husband, Emma Graff, widow

Nominal consideration. In the subdivision of the property obtained by the children of the late Susanna Gates, Rheinhart Achenback was conveyed Lot "F" outlined by the 1903 Plat Map of the gates Property (GW 30:433). Lot F was bordered by College Avenue to the north, Lot E to the east, Lot C to the south, and the Church property to the west.

<u>Lot 4, Parcel C:</u>

JHH 664:532 **January 25, 1952**

Grantee: Guaranteed Realty Corporation
Grantor: Bessie B. Baker, unmarried, Lottie E. Lee and Charles F. Lee, her husband, and W. Bruen Baker and Margaret Baker, his wife

Nominal consideration. The property conveyed was within Lot F on the plat map, bounded in the north by College Avenue and the west by the First Methodist Episcopal Church property, and in the east by an alleyway. This property takes up about the western half of Lot F. The right of ingress and egress to and over the alleyway was also conveyed. Being the same lot of ground conveyed to Margaret A. Baker in 1949 by the Ciccarones (JHH 562:454).

JHH 562:454 Deed **November 1, 1949**

Grantee: Margaret A. Baker
Grantor: Henry E. Ciccarone and Elizabeth M. Ciccarone, his wife

Nominal consideration. The property conveyed was within Lot F on the plat map, bounded in the north by College Avenue and the west by the First Methodist Episcopal Church property, and in the east by an alleyway. This property takes up about the western half of Lot F. The right of ingress and egress to and over the alleyway was also conveyed. Being a part of the same property which was conveyed by Katherine T. Samaras, widow, to the grantors in 1947 (JHH 435:160). *See Parcel B.*

JHH 435:160 Deed **October 6, 1947**

Grantee: Henry E. Ciccarone and Elizabeth M. Ciccarone, his wife
Grantor: Katherine T. Samaras, widow

Nominal consideration. The property conveyed was Lot F on the 1903 plat map. Being the same property conveyed from Walton W. Achenback et al to Katherine T. Samaras and Theodore N. Samaras, her husband in 1941 (JHH 237:254).

Lot 5:

MSH 2304:528 Deed **September 4, 1969**

Grantee: The State of Maryland for the use of the Board of Public Works
Grantor: May L. Quenstedt, widow

Nominal consideration. This deed conveyed the property conveyed to the Quenstedt's by Charles Gates in 1922. Walter E. Quenstedt passed away on September 10, 1958, leaving his property solely to his wife, May.

WNW 56:117 Mortgage **May 9, 1922**

Grantee: Walter E. Quenstedt and Mary L. Quenstedt, his wife
Grantor: Charles L. Gates

Nominal consideration. This mortgage attests to the loan of $3000 given to the Quenstedt's from Charles L. Gates. The document stipulates that the loan must be paid, with semi-annual interest, within three years of the date of the document. There are two additional handwritten amendments to this mortgage added at a later date. The first assigning the mortgage to Annie B. Gates on May 23, 1955 and the second assigning it to Howard E. Gates and Minnie E. Curtis on October 3, 1961.

WNW 56:116 Deed **May 9, 1922**

Grantee: Walter E. Quenstedt and Mary L. Quenstedt, his wife
Grantor: Charles Gates and Annie B. Gates, his wife

Nominal consideration. This deed conveyed a portion of the property conveyed to Charles Gates from Reinhart Achenback, et al in 1903 (GW 30:438). The particular parcel was described as beginning at a line on College Avenue that was 75.41 feet west of North Street, running along College Avenue, then southwest 22.83 feet, then southeast 70 feet, then northeast 22.83 feet, then northwest and parallel to the second line 70 feet to the beginning. It was the plot of land that contains the dwelling designated No. 87 College Avenue.

MSH 2290:156 **May 7, 1969**

Grantee: State of Maryland to the use of the Board of Public Works
Grantor: Calvary Methodist Church

Nominal consideration. The parcel in question was the fifth: Beginning at a point on the west side of North Street at the southeasternmost corner of Lot E on the plat map, running southwest 27 feet, then northwest about 70 feet to the south side of College Avenue, then northeast about 27 feet to the boundary of Lot D, then along the western boundary of Lot D, running southwest to the south corner of Lot D to North Street, then 6 feet south along North Street back to the beginning. Along with the fourth parcel, being the same lots of ground conveyed in 1958 from Baltimore Federal Savings and Loan Association to Calvary Methodist Church (GTC 1224:196).

GTC 1224:196 Deed **August 1, 1958**

Grantee: Calvary Methodist Church, Annapolis
Grantor: Baltimore Federal Savings and Loan Association

Nominal consideration. Conveying all those pieces or parcels of land in Annapolis. Being the fourth and fifth parcels of land described in a deed from Walter S. Calwell to Baltimore Federal Savings and Loan Association on May 1958 (GTC 1212:462).

GTC 1212:462 Mortgage **May 21, 1958**

Grantee: Baltimore Federal Savings and Loan Association
Grantor: Walter S. Calwell, of Baltimore City, attorney named in mortgage

Consideration of $150,000. At a public auction on April 9, 1958 by Walter S. Calwell in pursuance of the power vested in him as Attorney in and by a certain mortgage from All States Corporation to Baltimore Federal Savings and Loan Association bearing date of June 15, 1956 (GTC 1038:503), which sale was made after default had occurred on said mortgage (Equity 12,524). The parcel in question was one of many parcels being conveyed in this deed. Being the same parcel of ground which All States Corporation acquired in 1956 (GTC 1038:490) and by confirmatory deed (GTC 1038:493).

GTC 1038:493 Confirmatory Deed **June 12, 1956**

Grantee: All States Corporation
Grantor: Annie B. Gates

Nominal consideration. Whereas by deed dated April 23, 1956, Annie B. Gates, widow conveyed the property to All States Corporation, but the property has been resurveyed and the more complete and accurate survey was in this deed. Being part of the same property from Reinhart Achenback, et al to Annie B. Gates in 1903 (GW 30:438) and being the same property conveyed by Reinhart Achenback et al to Charles Gates, also known as Charles E. Gates, now deceased, and by his last will and testament (Wills RGP 5:327), having devised said property to his widow the said Annie B. Gates.

GTC 1038:490 Deed **April 23, 1956**

Grantee: All States Corporation
Grantor: Annie B. Gates, widow

Nominal consideration. Being Lot E on the plat map, saving and excepting all that piece or parcel of land conveyed by Charles Gates and Annie B. Gates, his wife, to Walter E. Quenstedt and May L. Quenstedt, his wife in 1922 (WNW 56:116). Being the same property devised to Annie B. Gates by the last will and testament of Charles E. Gates.

GW 30:445 Mortgage **May 20, 1903**

Grantee: Charles Gates and Anna B. Gates, his wife
Grantor: Martin M. Smith

Loan of $1200. This mortgage states that Charles and Anna B. Gates received a loan of $1200 from Martin M. Smith for a portion of the property designated “Lot E” on the 1903 Plat map of the Gates Property. The mortgage stipulates that the principle sum must be paid back within five years as well as interest in the form of ten promissory notes, “each for the payment of the sum of $36, being for the semi-annual interest on the said principle sum reserved.” For a nominal consideration, a portion of Lot E was thus conveyed to Smith, however, as long as the Gates’ continued to pay their mortgage they would be in possession of the property. The meets and bounds of this particular parcel begin at the northernmost corner of Lot E, running southwest along College Avenue 24 ¼ ft, then 70 ft southeast to intersect Lot C, then along the southern boundary of Lot E 23.17th to North Street, along North Street for 6 ft, and then along the boundary between Lot E and Lot D to the place of beginning.

GW 30:438 Deed **May 19, 1903**

Grantee: Charles Gates
Grantor: Rheinhart Achenback, Maggie Achenback, his wife, Annie Amos, James Amos, her husband, Emma Graff, widow

Nominal consideration. In the subdivision of the property obtained by the children of the late Susanna Gates, Charles Gates was conveyed Lot “E” outlined by the 1903 Plat Map of the gates Property (GW 30:433). Lot E was bordered by College Avenue to the north, Lot D to the east, Lot C to the south, and Lot F to the west.

1903 Subdivision of Gates Property

GW 30:435 Deed **May 19, 1903**

Grantee: Annie Amos
Grantor: Rheinhart Achenback, Maggie Achenback, his wife, Charles Gates, Anna B. Gates, his wife, Emma Graff

Nominal Consideration. Upon the death of Susanna Gates, previously Susanna Achenback, on November 7, 1899, her estate was left to her husband, Emanuel E. Gates, and her children, Rheinhart Achenback, Charles Gates, Emma Graff, and Annie Amos. At the time of her death she "seized and possessed certain real estate situated on College Avenue, North Street, and State Circle." This was the same land conveyed to Susanna from the heirs of Mary A. Glover on August 9, 1865 (AC 1:376). Emanuel Gates was left a "life estate" in 1/3 of the property (GW 30:434) but his interest was ultimately acquired by the children who subdivided the property amongst themselves. This subdivision was recorded as the 1903 Plat map of the Gates Property (GW 30:433) and each child was deeded a Lot of the property from the other children and their respective spouses. This deed conveyed Annie Amos Lots "A" and "B" outlined on the Plat. Lot A was bordered by North Street to the east, State Street to the south, the First Methodist Episcopal Church Property to the west, and Lot B to the north. Lot B was also bordered by North Street to the east and the Church property to the west but was bordered by Lot A to the south and Lot C to the north.

GW 30:437 Deed **May 19, 1903**

Grantee: Emma Graff
Grantor: Rheinhart Achenback, Maggie Achenback, his wife, Charles Gates, Anna B. Gates, his wife, Annie Amos, James Amos, her husband

Nominal consideration. In the subdivision of the property obtained by the children of the late Susanna Gates, Emma Graff was conveyed Lots "C" and "D" outlined by the 1903 Plat Map of the gates Property (GW 30:433). Lot D was also described as being separated from Lot "E" to the west by a "partition wall of double houses" and was bordered by North Street to the east and College Avenue to the north. Lot C was bordered by North Street to the east, the Church property to the west, Lot B to the south, and Lots E and F to the north.

GW 30:438 Deed **May 19, 1903**

Grantee: Charles Gates
Grantor: Rheinhart Achenback, Maggie Achenback, his wife, Annie Amos, James Amos, her husband, Emma Graff, widow

Nominal consideration. In the subdivision of the property obtained by the children of the late Susanna Gates, Charles Gates was conveyed Lot "E" outlined by the 1903 Plat Map of the gates Property (GW 30:433). Lot E was bordered by College Avenue to the north, Lot D to the east, Lot C to the south, and Lot F to the west.

GW 30:440 Deed **May 19, 1903**

Grantee: Rheinhart Achenback
Grantor: Charles Gates, Anna B. Gates, his wife, Annie Amos, James Amos, her husband, Emma Graff, widow

Nominal consideration. In the subdivision of the property obtained by the children of the late Susanna Gates, Rheinhart Achenback was conveyed Lot "F" outlined by the 1903 Plat Map of the gates Property (GW 30:433). Lot F was bordered by College Avenue to the north, Lot E to the east, Lot C to the south, and the Church property to the west.

Before Subdivision of Gates Property:

GW 30:434 Deed **May 19, 1903**

Grantee: Rheinhart Achenback, Charles Gates, Emma Graff, and Annie Amos
Grantor: Emanuel E. Gates, widower

Consideration of $1000. Upon the death of Susanna Gates, her property was left to her children and husband, Emanuel Gates. This deed conveyed Emanuel's portion, a "life estate" in 1/3 of the property, to Susanna's children and grants them "all his right, title, interest, and estate in and to the said property." The property in question was the same property granted to Susanna from the heirs of Mary A. Glover on August 9, 1865 (AC 1:376).

AC 1:376 (NHG 13:376) Deed **August 29, 1865**

Grantee: Susanna Achenback
Grantor: Richard E. Glover, Susan Glover, his wife, Jonathan Glover, and Mariam Glover, his wife

Consideration of $3500. This deed conveyed the tract of land situated on "State House Circle," Tabernacle Street, and North Street to Susanna Achenback. This was the same tract of land conveyed to William Brewer Senior in by deeds from Sarah Duvall on August 20, 1834 (WSG 19:124) and from William S. Green on August 24, 1844 (WSG 27:462). These deeds were subject to two mortgages, one from J.J. Gray? of $1000 and one from John J. Wright of $1000, totaling $1500.

WSG 27:462 Deed **August 24, 1844**

Grantee: William Brewer
Grantor: William S. Green, Nicholas H. Green, Mary Augusta, his wife, John Nickllealrens? Matilda, his wife, James H.? Iglehart, Eliza, his wife, Emily Green

Nominal consideration. This deed conveyed a portion of Lot 75 to William Brewer Senior for the use of Mary Ann Glover. This was the same land conveyed to Nicholas Harwood from Thomas G. Addison and wife on September 6, 1810 (NH 16:219). The deed stipulates that the land be used by Marry Ann Glover "for and during the term of her natural life" and she may have the right to convey any or all parts of the property and be entitled to the proceeds from such sale. It also states that "the rents, issues, and profits thereof to take and enjoy to her sole and separate use free from control of her present or any future husband."

WSG 19:124 Deed **August 20, 1834**

Grantee: William Brewer Senior
Grantor: Sarah Duvall, Grafton B. Duvall, Elizabeth, his wife

Consideration of $500. This deed conveyed a portion of Lot 75 to William Brewer Senior for the use of Mary Ann Glover. This was the same land conveyed to Nicholas Harwood from Thomas G. Addison and wife on September 6, 1810 (NH 16:219). The deed stipulates that the land be used by Marry Ann Glover "for and during the term of her natural life" and she may have the right to convey any or all parts of the property and be entitled to the proceeds from such sale. It also states that "the rents, issues, and profits thereof to take and enjoy to her sole and separate use free from control of her present or any future husband."

WSG 1:76 Deed **April 8, 1811**

Grantee: William Sanders Green
Grantor: Nicholas Harwood, possibly Junior

Consideration of $350. This deed conveyed two portions of Lot 75 from Harwood to William S. Green. The first parcel was conveyed to Harwood on September 6, 1810 by Thomas and Henrietta Maria Addison as representatives of the late Sarah Joice (NH 16:219). The other was conveyed to Harwood on January 6, 1806 by the late John Rofs.

NH 16:219 Deed **September 6, 1810**

Grantee: Nicholas Harwood
Grantor: Thomas G. Addison and Henrietta Maria Addison, his wife

Nominal consideration. Articles of agreement from October 13, 1802 agreed that Nicholas Harwood pay the late Sarah Joice a consideration of $700 with one half to be paid immediately and the other half within a year for a portion of Lot 75 which was conveyed to her by William Paca (Read 1990). The last will and testament of Sarah Joice was recorded on May 23, 1803 and upon her death this parcel was granted to Henrietta Maria Addison, her daughter. As the originally agreed upon amount was paid by Harwood by the time of Joice's death, the land was officially conveyed from the Addison's to Harwood. The meets and bounds of said parcel are described as beginning at a post on Public Circle, running in line with "the gravel wall of the house called Carpenters house" to Tabernacle Street, moving east along this street, to an intersect with an alley that leads to the Public Circle back to the beginning. This was the same parcel of land conveyed to Joice from William Paca in 1794 (Read 1990). With this conveyance and the conveyance to him from John Rofs, Harwood at this point owned 2/3 of the Lot 75 property, save for the portion owned by the Callahans/Pinkneys.

NS 12:737 Deed **January 16, 1806**

Grantee: Nicholas Harwood
Grantor: John Rofs

Consideration of $320. This deed conveyed the same tract of land described previously as a portion of Lot 75.

NH 12:396 Deed **June 29, 1804**

Grantee: John Rofs
Grantor: William Alexander, collector of Anne Arundel County

Consideration of $70. This deed conveyed the portion of Lot 75 conveyed from Thomas Dorsey to Joseph Wilkins in 1784 (Read 1990). The deed describes the property as that conveyed to Henry and Reason Daridge from Onner Wilkins, wife of Joseph (Read 1990). The property began at a post at the southwest corner of the property of Nicholas Harwood, ran along Tabernacle Street to intersect with the "Public Circle" and back along Harwood's property to the beginning. The property was sold in public auction to John Rofs for 26 pounds and 5 shillings and Rofs then received a clean tile for $70.

NH 2:95 Deed **September 24, 1784**

Grantee: William Paca, Esquire
Grantor: Thomas Dorsey, Esquire

Consideration of 500 pounds. In 1784, Thomas Dorsey subdivided Lot 75 into two parcels which he sold to William Paca and Joseph Wilkins (Read 1990). The portion acquired by Paca was the same plot described in the 1802 Deed to Nicholas Harwood from Sarah Joice (NH 16:219). Thomas Dorsey was willed Lot 75 from Henrietta Maria Chew Dorsey (Read 1990).

B 1:84 Deed **December 31, 1754**

Grantee: Edward Dorsey
Grantor: Joseph Elliot and wife Mary, of Great Britain, and John Burnett and wife Dorothy, of Great Britain

Consideration of 190 pounds sterling silver. This deed was granted by the husbands of Mary and Dorothy, the surviving daughters of the late John Carpenter. Together with their husbands they conveyed the property described as Lot 75 in Annapolis, saving for the portion conveyed to Jane Burnell, and a 60-acre property in Severn River, Anne Arundel County called "Dorsey." Burnell's portion of the property was willed to Caleb Dorsey in 1728 who then conveyed the property to the same Edward Dorsey in 1742, thus he obtained the entirety of Lot 75. Edward Dorsey holds the entire Lot until his death in 1760, upon which time he wills it to his wife, Henrietta Maria Chew Dorsey (Read 1990:280-281).

IB 2:373 Deed **July 3, 1717**

Grantee: Jane Burnell
Grantor: John Carpenter

Consideration of 10 shillings. This deed conveyed a portion of the property owned by John Carpenter which was here described as being bound by Bank Street (College Avenue) and North Street to the north and Public House Circle and Lawyer Street to the south. The meets and bounds for the specific parcel granted to Jane Burnell are difficult to decipher, however, it was described as beginning at the corner of Bank Street and North Street, so the parcel was probably contained within the northeast corner of Lot 75.

APPENDIX B

QUALIFICATIONS OF INVESTIGATORS

W. Brett Arnold, M.S., R.P.A.
RPA 28887637
APPLIED ARCHAEOLOGY AND HISTORY ASSOCIATES, INC.
615 FAIRGLEN LANE
ANNAPOLIS, MD 21401
410.224.3402

Mr. W. Brett Arnold serves as a project archaeologist at Applied Archaeology and History Associates, Inc. (AAHA). He received his B.A. in Archaeology and German Studies from the College of Wooster, graduating cum laude. He received his M.S. in Anthropology from the University of Wisconsin—Milwaukee, where he studied under European prehistorian Dr. Bettina Arnold. Mr. Arnold has experience conducting archaeological compliance and research projects for a variety of agencies, with duties including overseeing Phase I and II cultural resources surveys, construction monitoring, GIS and total station survey, and testing buried soil horizons in urban environments. He also has experience with burial excavation and recovery at historic cemeteries. Mr. Arnold's professional qualifications meet all U.S. Department of the Interior criteria for archaeologists and historians (36 CFR 61) and he is a member of the Register of Professional Archaeologists.

EDUCATION

Master of Science in Anthropology
2011 - 2014 University of Wisconsin, Milwaukee, Milwaukee, WI.

Bachelor of Arts in Archaeology and German Studies
2007 - 2011 College of Wooster, Wooster, OH.

ARCHAEOLOGICAL FIELD EXPERIENCE AND EMPLOYMENT

2018-Present	PROJECT ARCHAEOLOGIST, Applied Archaeology and History Associates, Inc., Annapolis, Maryland, USA
2016-2018	PROJECT ARCHAEOLOGIST, Commonwealth Heritage Group, Inc., Alexandria, Virginia, USA
2014-2016	RESEARCH ARCHAEOLOGIST, Lost Towns Project/Anne Arundel County, Annapolis, Maryland, USA
2013-2014	FIELD TECHNICIAN, Applied Archaeology and History Associates, Inc., Annapolis, Maryland, USA
2013	FIELD TECHNICIAN, Historic Resources Management Service, Milwaukee, Wisconsin, USA
2011-2013	PAID INTERN/FIELD TECHNICIAN, Commonwealth Cultural Resources Group, Inc., Milwaukee, Wisconsin, USA
2011	LAB TECHNICIAN, Great Lakes Archaeological Research Center, Milwaukee, Wisconsin, USA

PROFESSIONAL MEMBERSHIPS
Register of Professional Archaeologists – 28887637

MANDY MELTON, M.A., R.P.A.
APPLIED ARCHAEOLOGY AND HISTORY ASSOCIATES, INC.
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Mandy Melton is an archaeologist for Applied Archaeology and History Associates, Inc. (AAHA). Melton has six years of professional archaeological experience and has received her M.A. in Archaeology and Heritage from the University of Leicester and holds a B.S. in Sociology and Anthropology from Towson University. She has extensive experience in prehistoric and historic archaeological site identification, evaluation, and data recovery in the Mid-Atlantic region. As a former independent archaeological consultant, she has piloted and contributed to research projects funded by numerous local, state and federal organizations including the Maryland State Highway Administration, the National Park Service, and the Maryland Historical Trust. Her work has involved, in addition to archaeological surveys, public engagement, mentoring volunteers and interns, architectural documentation and survey, magnetometer surveys, and managing/coordinating small-medium scale projects. In the compliance sector, Melton has been involved in numerous monitoring, field surveys, and mitigation projects for pipelines and superfund sites across the Mid-Atlantic and portions of the northeast region. She is also experienced in using GPS, total station data, and GIS in archaeological contexts. Melton meets the professional qualifications of the U.S. Department of the Interior criteria for archaeologists and historians and she is a member of the Register of Professional Archaeologists.

EDUCATION

2014 M.A. IN ARCHAEOLOGY AND HERITAGE, University of Leicester, Leicester, U.K.
2011 B.S. IN SOCIOLOGY, ANTHROPOLOGY, AND CRIMINOLOGY, Towson University, Towson, MD.

ARCHAEOLOGICAL FIELD EXPERIENCE AND EMPLOYMENT

2019 - Present PROJECT ARCHAEOLOGIST, Applied Archaeology and History Associates, Inc. Annapolis, MD.
2017 - 2019 ASSISTANT PROJECT MANAGER, R. Christopher Goodwin & Associates, Inc. Frederick, MD.
2016 - 2017 FIELD TECHNICIAN (INDIVIDUAL SURVEYS), TRC Environmental. Lanham, MD.
2016 FIELD TECHNICIAN (INDIVIDUAL SURVEYS), Commonwealth Heritage Group, Inc. Alexandria, VA.
2013 - 2017 INDEPENDENT ARCHAEOLOGICAL CONSULTANT, Anne Arundel County's Lost Towns Project. Annapolis, MD.

SELECTED CULTURAL RESOURCES PROJECTS

Archaeological Assessment of the National Institute of Standards and Technology (NIST) Gaithersburg Campus, Gaithersburg, Maryland. Submitted to Metropolitan Architects & Planners (2019).

Archaeological Monitoring for the Parking Lot Installation at St. Paul's Episcopal Church, Point of Rocks, Frederick County, Maryland. Submitted to Vestry of St. Paul's Parish (2018).

Phase I Archaeological Survey for the Proposed Whitewood Farm Mitigation Bank, The Plains, Fauquier County, Virginia. Submitted to Mogensen Mitigation, Inc (2018).

Excavations at the Aldridge Site (18AN1500). Emergency Excavation and Documentation of Five Endangered Archaeological Sites in Anne Arundel County, Maryland. Submitted to the Maryland Historical Trust (2017).

Anne Arundel County's Historic Beach Destinations: Report for the Learn S'Mores History Project: A Heritage Research and Public Outreach Initiative, focusing on Anne Arundel County's early 20th Century Beach Resorts and Communities. Submitted to the Anne Arundel County Trust for Preservation (2016).

JEANNE A. WARD, RPA
APPLIED ARCHAEOLOGY AND HISTORY ASSOCIATES, INC.
615 FAIRGLEN LANE
ANNAPOLIS, MD 21401
410.224.3402

Ms. Jeanne A. Ward, RPA, a cultural resources management consultant with over 40 years of professional experience, is President of Applied Archaeology and History Associates, Inc. (AAHA). Ms. Ward's academic credentials include a BA in anthropology from the University of Georgia and an MA in anthropology from the University of Tennessee, Knoxville. Her experience encompasses both historic and prehistoric archaeology and historic structure identification and evaluation. Projects have ranged from cultural resource sensitivity studies, through location/identification surveys, evaluations of significance, National Register of Historic Places nominations, and large-scale data recovery excavations. Ms. Ward's professional qualifications exceed all U. S. Department of the Interior criteria for archaeologists and historians (36 CFR 61). In addition, she is a Registered Professional Archaeologist (RPA), a national evaluation and certification of professional qualifications. Ms. Ward is the author, co-author, or contributor to over 350 cultural resources management reports and has presented numerous papers at professional conferences.

EDUCATION

1985 **M.A. IN ANTHROPOLOGY,** University of Tennessee, Knoxville, TN.
1978 **B.A. IN ANTHROPOLOGY,** University of Georgia, Athens, GA.
Cum Laude

ARCHAEOLOGICAL FIELD EXPERIENCE AND EMPLOYMENT

2000 - Present	PRESIDENT, Applied Archaeology and History Associates, Inc. Annapolis, MD.
1998 – 1999	SOLE PROPRIETOR, Applied Archaeology and History Associates, Annapolis, MD
1995 – 1998	SENIOR ARCHAEOLOGIST/HISTORIAN/WETLANDS SCIENTIST, IMA Consulting, Inc., Minneapolis, MN.
1994 - 1995	PRESIDENT, Jeanne A. Ward, Inc. Consultant, Stony Creek Mills, Reading, PA.
1991 - 1993	SOLE PROPRIETOR, Archaeologist and Cultural Resources Consultant, in Private Practice, Stony Creek Mills, Reading, PA.
1989 - 1991	PROJECT ARCHAEOLOGIST, John Milner Associates, Inc., West Chester, PA.
1986 - 1989	ASSISTANT ARCHAEOLOGIST, John Milner Associates, Inc., West Chester, PA.
1984 - 1986	EDITORIAL ASSISTANT, Institute for Community and Area Development, University of Georgia, Athens, GA.
1982 - 1984	FIELD DIRECTOR, University of Florida, Gainesville, FL.
1982 - 1983	FIELD ARCHAEOLOGIST, Jeffrey Brown Institute of Archaeology, University of Tennessee, Chattanooga, TN.
1979 - 1981	LABORATORY TECHNICIAN, University of Tennessee, Knoxville, TN.
1977 - 1980	FIELD ARCHAEOLOGIST,

PROFESSIONAL MEMBERSHIPS

Society for Historical Archaeology
Council for Maryland Archaeology (Secretary – 2000 to 2004)
Council for Northeast Historical Archaeology
Preservation Maryland
Civil War Trust
American Cultural Resources Association (Board of Directors – 2001 – 2007, Executive Board 2008 - 2012)

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Appendix E

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NEW BUILDING PROJECT CHECKLIST
MD Department of Legislative Services – New Building Project

Item #	Item	YES	No	N/A	Narrative in:
A	Architectural style preferences	x			*Part II Program*
B	Work Schedules or phases	x			*Part I/II Program*
C	Coordination with Master Development Plan	x			*Part I Program*
D	Funding Constraints	x			*Part I Program*
E	Site selected	x			*Part I/ II Program*
F	Preferred Vistas	x			*Part II Program*
G	Excavation, clearing, razing constraints	x			*Part II Program*
H	Other Construction in Area	x			*Part I/ II Program*
I	Utilities on site	x			*Part I/ II Program*
J	Special design features	x			*Part I/II Program*
K	Space Needs - Present and Future:	x			*Part I/ II Program*
	Entire Facility	x			*Part I/ II Program*
	Functional areas	x			*Part I/II Program*
	Rooms	x			*Part I/II Program*
L	Space Needs - Net Sq. Footage:	x			*Part I/II Program*
	Entire Facility	x			*Part I/II Program*
	Functional areas	x			*Part I/II Program*
	Rooms	x			*Part I/II Program*
M	Special dimension and space requirements	x			*Part II Program*
N	Nature of work and services described	x			*Part I/II Program*
O	Functional and spatial layouts	x			*Part II Program*
P	Workload projects	x			*Part II Program*
Q	Special working hours or shifts	x			*Part II Program*
R	Work flow described	x			*Part I/II Program*
S	Clerical - professional ratio	x			*Part I Program*
T	Client - staff ratio	x			*Part I Program*
U	Client - staff traffic preferences	x			*Part I Program*
V	Office layout preferences	x			*Part II Program*
W	Special room/area features	x			*Part II Program*
X	Climate control considerations	x			*Part II Program*
Y	Furniture and equipment needs	x			*Part II Program*
Z	Special lighting needs	x			*Part II Program*
AA	Information technology needs (voice, video, data, wireless)	x			*Part II Program*
BB	Special access/egress requirements	x			*Part II Program*
CC	Preferred Floor, wall or ceiling material	x			*Part II Program*
DD	Security Considerations:				
	Electrically controlled doors	x			*Part II Program*
	TV-monitoring system	x			*Part II Program*
	Secured utilities	x			*Part II Program*
	Secured windows	x			*Part II Program*
	Motion Detectors	x			*Part II Program*
	Door and window alarm	x			*Part II Program*
EE	Alarm links to offsite locations	x			*Part II Program*
FF	Considerations to be given to:				
	Equipment storage and maintenance	x			*Part II Program*
	Heat and sound insulation	x			*Part II Program*
	Linen and janitor closets	x			*Part II Program*
	Utility area	x			*Part II Program*
	Physical plant needs	x			*Part I/II Program*
	Trash removal	x			*Part II Program*
	Delivery dock	x			*Part II Program*
	Escalator, elevator, stairways	x			*Part II Program*
	Fire protection and sprinklers	x			*Part II Program*
	Food preparation and delivery			x	
	Dining Facilities			x	
	Client and staff transportation systems			x	
	Signage and entranceway needs	x			*Part II Program*
	Accommodations for youth, aged, and handicapped	x			*Part II Program*
	Restroom and shower facilities	x			*Part II Program*
	Special water supply or utility needs	x			*Part II Program*
	Recreation/play areas			x	

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Appendix F

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UTILITY PROJECT CHECKLIST
MD Department of Legislative Services - Building Project

Item #	Item	YES	No	N/A
a.	Zoning Consideration			x
b.	Energy management and conservation consideration	x		
c.	Temperature control system described (preferably DDC)	x		
d.	Condition and capacity of underground items / lines	x		
e.	Central or individual steam service	x		
f.	Condition and capacity of existing sewage system	x		
g.	Fuel oil storage (tank capacity in gallons)	TBD		x
h.	Service road for fuel deliveries			x
i.	Facility for bulk fuel deliveries			x
j.	Present water lines adequate	x		
k.	Special size and location of water lines			x
l.	Special water supply and treatment			x
m.	140 F water to dishwashers, janitor slop sinks	x		
n.	110° F water to patient rooms, rest rooms, other areas			x
o.	Visual/audible alarm and automatic shut off for hot water	x		
p.	Sinks provided in special areas	x		
q.	System for handling trash and garbage explained	x		
r.	Incinerator requirements			x
s.	Life-cycle costs analysis required for HVAC system	x		
t.	Compliance with ASHRAE 90.1-1989	x		
u.	HVAC designed to allow repairs to one component without affecting entire system (distribution zone isolation valves)	x		
v.	Need to convert boilers to gas or dual fuel (ASHRAE 62-1989)			x
w.	Special ventilation requirements	x		
x.	Attic ventilation required			x
y.	Electronic Data Processing area considerations			x
z.	Storm window installation			x
aa.	Thermopane and tinted glass installation	x		
bb.	Security grilles for duct work	x		
cc.	Kitchen and lab hoods supplied with independent sources of makeup area			x
dd.	Fuseable links in dampers resettable and accessible	x		
ee.	Voltage capacity identified	x		
ff.	Amperage services identified	x		
gg.	Adequate transformer capacity	x		
hh.	Capacity of emergency generators identified	x		
ii.	Overhead or underground distribution system	x		
jj.	Looped (reverse return) or non-looped distribution system	x		
kk.	Electrical code service performance	x		
ll.	Service power factor specified	x		
mm.	Lighting system described (high efficiency lamps & ballasts	x		
nn.	Intercom system required	x		
oo.	Smoke detectors installed	x		
pp.	Fire alarm system adequate:	x		
	Tied into local Fire Department	x		
	Coded alarm system	x		
	Testable	x		
	Trouble alarm	x		
qq.	Describe type and condition of communication distribution system (Fiber optic, data, voice)	x		

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Appendix G

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1. SITE DEVELOPMENT CHECKLIST

(a) Land Use and Acquisition Criteria Checklist

Project: MD Department of Legislative Services (DLS) Building Project DGS Project No: N/A

Requesting Agency: MD Department of Legislative Services (DLS) Date: May 11, 2020

This check list shall be used by the Department of General Services (DGS) to determine the feasibility and suitability of land for construction sites for proposed State of Maryland facilities.

This form shall be completed for programs which exclusively involve a site improvement or as a supplement to projects involving the construction of a new building. This form will generally not be required for programs involving the alteration, conversion, renovation or restoration of an existing structure or for utility projects.

This list shall be completed in its entirety by the Requesting Agency and submitted with the recommendation of the Requesting Agency for acceptance or rejection of the site, to the Secretary of DGS prior to consideration of the site for acquisition.

Should technical assistance be required to complete this checklist, the Requesting Agency should contact DGS for staff assistance.

I. SITE LOCATION:

1. County: Anne Arundel, City/Town: Annapolis, Street Address 90 State Circle, Annapolis, MD 21401
2. Boundaries (streets, steams, etc.) Intersection of College Avenue and North Street.
3. SHA County Map (Scale: 1" = miles): Attach copy showing property and surrounding area to a five-mile radius. Indicate property in red.

II. SITE DESCRIPTION:

1. Size of property: 1.18 Acres

2. Existing Easements and Rights-of-Way (check and indicate on property plat):

There are no easements indicated on the property. The following are located on the property as shown on the site exhibit.

gas transmission	X	mineral rights	
electrical	X	storm drainage	X
sanitary sewers	X	other (specify)	X (Steam)
water	X	Other (specify)	X (CW, HW)
telecom cable	X		

SITE DEVELOPMENT CHECKLIST (continued)

3. Existing Improvements (check):

   A. Building(s) X ; Paved Roads X ; Paved Parking Lots X ; Wells ; Walks X ; Retaining Walls X ; Fences X ; Septic System(s) ; Existing Building: Owner Occupied X Tenant Occupied Length of Lease Other (specify).

   B. Building: No. of Stories 6 ; Gross Area 141,500 sq. ft.; Length N/A ft.; Width N/A ft.

   C. Paved Areas: Length N/A ft.; Width N/A ft.; Area 21,000 sq. ft.

4. Present Zoning and Land Use:

   A. Existing Zoning (specify): N/A
   B. Existing land Use (check): Farmland ; Commercial ; Industrial ; Residential ; Other Government/Institutional .

5. Surface Characteristics:

Wetlands	
Wooded	
Lakes, Streams or Ponds	
Swamps	
Agricultural	
Improved Land	X
with Structures	(parking and roadways)
Other	

6. Surface Soil Characteristics: Residual (Approx.) 75 %; Alluvial %; Artificial Fill (Approx.) 25 %; Marine Clays % Hydric %;

7. Underlying Geologic Strata (check): Alluvial Deposit (Approx.) 90 %; Artificial Fill (Approx.) 10 %; Crystalline Rocks %; Sedimentary Rocks %; Limestone %;

8. Depth and Type of Rock Below Surface: Depth N/A Type
   Depth and Type of Water Table Surface: Depth N/A Type

9. Topography:

   A. Variance in Grades: precipitous % steep % rolling % moderate to flat 0-5 %

   B. Supplemental Information:

SITE DEVELOPMENT CHECKLIST (continued)

	Attached	Not Available
Photogrammetry (obtain from Dept./Agriculture; DGS)		
USDA Photos (obtain from Dept./Agriculture)		X
USCGS (National Geodetic Survey) Maps		
Field Survey - Topographical		X
Flood Plain/Wetlands (FEMA)	X	

10. Existing Drainage Characteristics (check): Inlets/storm drains X ; nearby streams_; on-site streams_; lakes_; roadway ditches___; adjacent properties drain to subject site__; other_____(specify).

11. Wildlife Habitat (check): Flyway N/A ; Wetland N/A ; Woodland N/A .

12. Accessibility to Site (check): Direct access from improved road X ; direct access from unimproved road_____; direct access from improved right-of-way_____; direct access from unimproved right-of-way_____; single access_____; multiple access_____.

III. PROPERTY PLAT AND DEED

1. Plat (copy attached) X (check)
2. Deed (copy attached) X (check)
3. Liber & Folio (copy attached) if plat & deed are not available (check)
4. Ownership (check)

Federal	_____(Agency)	_____
State	X (Agency)	DGS
County	_____(Agency)	_____
City/Town	_____(Agency)	_____
Private	_____(Single/Joint/Estate)	__ Corporate
_____Other (specify)	_____	

IV. UTILITIES & SERVICES:

1. Indicate on property plat and location map the availability of the following:

Type	Capacity/Size	Distance from Site (If on-site, designate "o.s.")
Electric	X	o.s.
Storm System	Varies	o.s.
Sanitary Sewer	6"	o.s.
Water (public)	6"	o.s
Gas	X	o.s
Telephone	Exist	o.s
Telecommunications	Exist	o.s

SITE DEVELOPMENT CHECKLIST (continued)

2. Nearest Fire Department: Location 620 Taylor Avenue - Fire Station
   Distance to site: 1.1 Miles

3. Public Parking available (check) Yes X ; No _____;
   Distance from site 0.4 Miles; No. spaces available 496
   Describe Parking Garage – Gott's Court Garage

4. Well Water (check): Available N/A (public) Not Available _____; Potable _____
5. Percolation Tests: Indicate areas on property plat where they have been performed and circumstances whereby testing was accomplished. Furnish available supporting data or information:
   Test performed N/A (public). Satisfactory _____. Unsatisfactory _____.

6. Drainage Outfall: Indicate on property plat and location to the nearest location for the disposal of storm water from the subject site.

V. PROPOSED LAND USE COMPATIBILITY:

1. Proposed Zoning (specify) N/A.

2. Proposed parking requirements (number): Autos N/A : Other _____.

3. Floodplain Management (check): N/A
   5-year Floodplain _____
   10-year Floodplain _____
   25-year Floodplain _____
   50-year Floodplain _____
   100-year Floodplain _____

4. Project Coordination (check):

	Yes	No	Not Applicable
Local Government Acceptance County	X		
Government Acceptance Compatible			X
with State Highway Administration Plans			X
Community Acceptance			
Approved Dept. Budget and Management	X		
Other_____			

5. Aircraft-Landing Flight Path (check):
   On site _____; adjacent to site _____(_____); N/A X

SITE DEVELOPMENT CHECKLIST (continued)

6. Indicate on property plat:

   A. Present ownership and development of each surrounding property.

   B. Proposed development of surrounding undeveloped property. N/A

7. Historical, Archaeological or Unusual Features (check): none

landmarks	_____	unusual geologic formations	_____
historic site	_____	unusual large trees that might be	_____
historic buildings	_____	recorded in State or National registry	_____

Mr. Donald L. Lissau (410) 946.5180
(Prepared by and Phone)

Manager
(Title)

Attachments (check):

1. X SHA County Map (with information indicated thereon)
2. X Property Plat (with information indicated thereon)
3. X Property Deed
4. X Topographical
5. _____ Other_____

(b) Site Development Checklist Supplement

This form is a supplement to the "Checklist: Land Use and Acquisition Criteria" form and shall likewise be submitted for programs which exclusively involve a site improvement or as an attachment to projects which pertain to the construction of a new building.

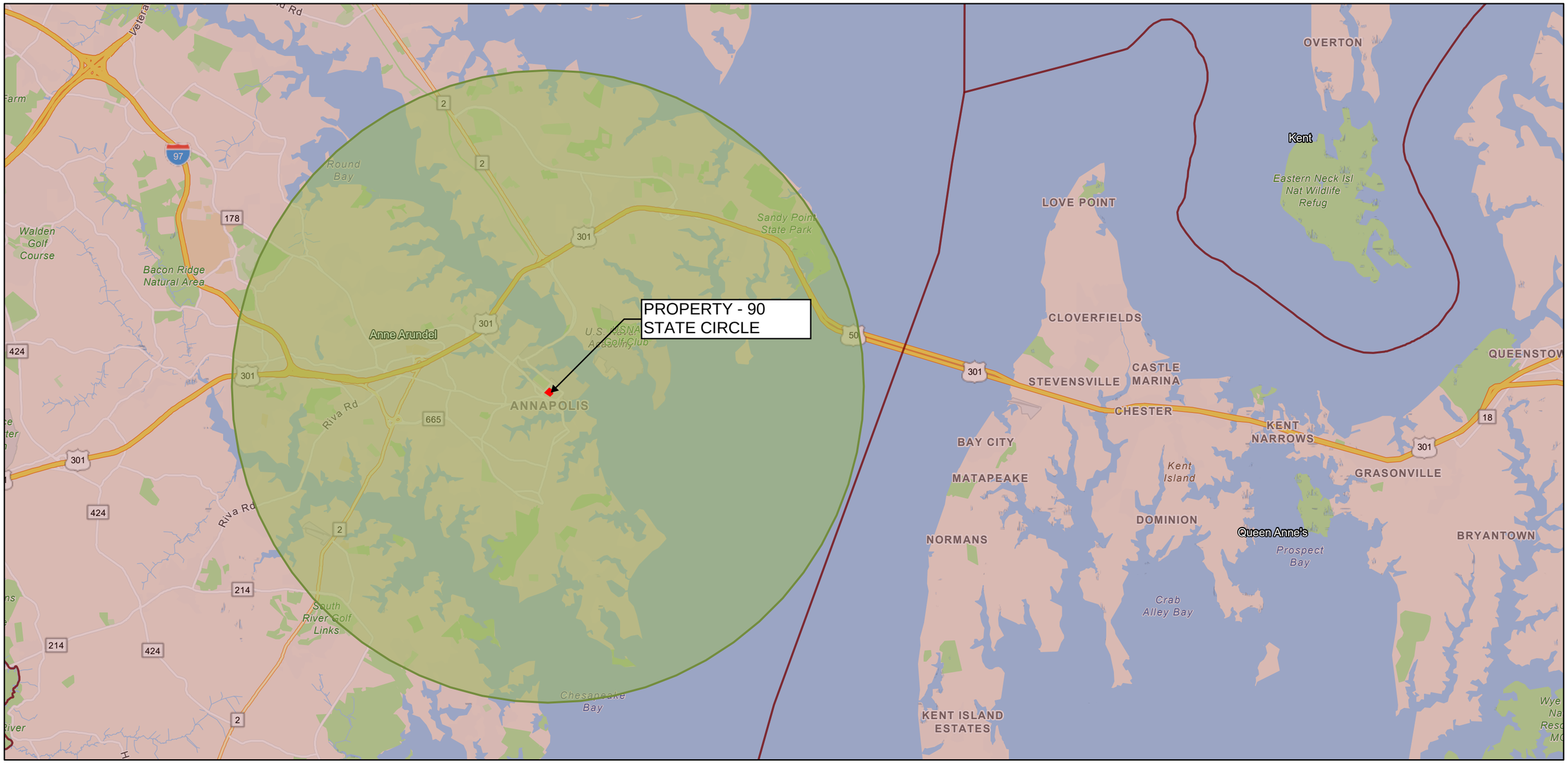
	Yes	No	N/A
1. Site selected	x		
2. State-titled property	x		
3. Map, plat or sketch provided	x		
4. Land/space needs estimated	x		
5. Estimates on number of occupants, participants or visitors at site	x		
6. Other construction in the area	x		
7. Special work scheduling requirements	x		
8. Excavation, demolition, clearing work required	x		
9. Unusual site considerations explained	x		
10. Hazards on/near site		x	
11. Curb or guttering required for drainage	x		
12. Special sediment control considerations		x	
13. Turn-around space for trucks considered	x		
14. Construction storage area available	x		
15. Sanitary sewer at site	x		
16. Potable water at site	x		
17. Electric power at site	x		
18. Irrigation needs		x	
19. Seeding or sodding requirements	x		
20. Parking considerations:			x
No. of present spaces			x
No. of new spaces			x
Special vehicle space			x
Handicapped parking			x
22. Special construction material requirements		x	
23. Lighting considerations:	x		
Sidewalks			x
Parking area			x
Roads Play/activity			x
area Sign			x
Flag	x		
24. Accommodations for handicapped	x		
25. Telecommunication needs	x		
26. Security requirements	x		
27. Fencing needs	x		
28. Fire protection system			x
29. Play/outdoor area provided	x		
			x

(b) Site Development Checklist Supplement(continued)

	Yes	No	N/A
30. Seating and furniture needs	x		
31. Restroom and shower facilities Seasonal/Year Round			x
32. Special equipment requirements			x
33. Special storage space needs			x
34. Underground or above ground tanks; new/planned			x
35. Archeological significant features		x	
36. Clearing house approval	x		

NOTE: For each item checked yes, ensure an explanatory narrative is included in the body of the program.

MDOT/SHA County Maps



4/13/2020, 1:51:47 PM

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0 1.25 2.5 5 mi

0 2 4 8 km

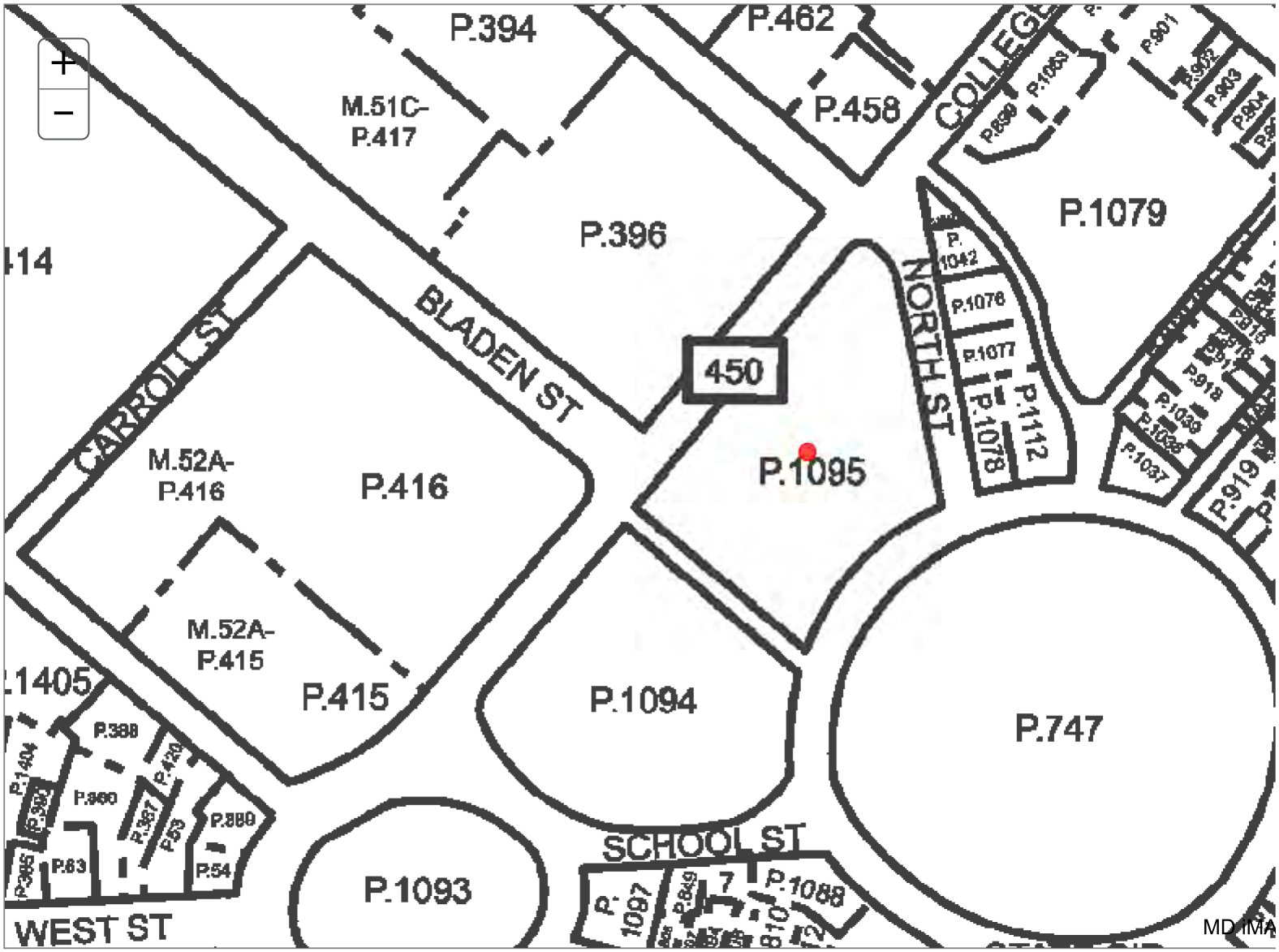
Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

Maryland Department of Transportation (MDOT)
This information is provided “as is” without warranty, MDOT assumes no responsibility for errors or omissions of any kind.

Anne Arundel County

New Search (https://sdat.dat.maryland.gov/RealProperty)

District: 06 Subdivision: 000 Account Number: 07679409



The information shown on this map has been compiled from deed descriptions and plats and is not a property survey. The map should not be used for legal descriptions. Users noting errors are urged to notify the Maryland Department of Planning Mapping, 301 W. Preston Street, Baltimore MD 21201.

If a plat for a property is needed, contact the local Land Records office where the property is located. Plats are also available online through the Maryland State Archives at **www.plats.net (http://www.plats.net)**.

Property maps provided courtesy of the Maryland Department of Planning.

For more information on electronic mapping applications, visit the Maryland Department of Planning web site at **http://planning.maryland.gov/Pages/OurProducts/OurProducts.aspx (http://planning.maryland.gov/Pages/OurProducts/OurProducts.aspx)**.

Real Property Data Search (w2)

Search Result for ANNE ARUNDEL COUNTY

View Map | View GroundRent Redemption | View GroundRent Registration

Special Tax Recapture: None

Account Identifier: **District -** 06 **Subdivision -** 000 **Account Number -** 07679409

Owner Information

Owner Name:	STATE OF MARYLAND	**Use:**	EXEMPT COMMERCIAL
		Principal Residence:	NO
Mailing Address:	BOARD OF PUBLIC WORKS ANNAPOLIS MD 21401	**Deed Reference:**	/02290/ 00156

Location & Structure Information

Premises Address:	COLLEGE AVE ANNAPOLIS 21401-0000	**Legal Description:**	1.18 ACRES COLLEGE AVE ANNAPOLIS

Map:	Grid:	Parcel:	Neighborhood:	Subdivision:	Section:	Block:	Lot:	Assessment Year:	Plat No:
052A	0013	1095	36000.02	000			*	2018	Plat Ref:

Town: ANNAPOLIS

Primary Structure Built	Above Grade Living Area	Finished Basement Area	Property Land Area	County Use
			1.1800 AC	

Stories	Basement	Type	Exterior	Quality	Full/Half Bath	Garage	Last Notice of Major Improvements
			/				

Value Information

	Base Value	Value As of 01/01/2018	Phase-in Assessments As of 07/01/2019	As of 07/01/2020
Land:	1,062,000	1,062,000		
Improvements	9,868,600	9,868,600		
Total:	10,930,600	10,930,600	10,930,600	10,930,600
Preferential Land:	0			0

Transfer Information

Seller:	**Date:**	**Price:**
Type:	**Deed1:** /02290/ 00156	**Deed2:**
Seller:	**Date:**	**Price:**
Type:	**Deed1:**	**Deed2:**
Seller:	**Date:**	**Price:**
Type:	**Deed1:**	**Deed2:**

Exemption Information

Partial Exempt Assessments:	**Class**	07/01/2019	07/01/2020
County:	200	10,930,600.00	10,930,600.00
State:	200	10,930,600.00	10,930,600.00
Municipal:	200	10,930,600.00|10,930,600.00	10,930,600.00|10,930,600.00

Special Tax Recapture: None

Homestead Application Information

Homestead Application Status: No Application

Homeowners' Tax Credit Application Information

Homeowners' Tax Credit Application Status: No Application **Date:**

1. This screen allows you to search the Real Property database and display property records.
2. Click **here** for a glossary of terms.
3. Deleted accounts can only be selected by Property Account Identifier.

4. The following pages are for information purpose only. The data is not to be used for legal reports or documents. While we have confidence in the accuracy of these records, the Department makes no warranties, expressed or implied, regarding the information.

T-102

LIBER 2290 PAGE 156

Application No. H-67048
Written by LCJ:ljs

THIS DEED, Made this 7th day of May in the year one thousand nine hundred and sixty nine, by and between CALVARY METHODIST CHURCH, ANNAPOLIS, MARYLAND, a body corporate of the State of Maryland, party of the first part, Grantor; and STATE OF MARYLAND, to the use of the BOARD OF PUBLIC WORKS, party of the second part, Grantee.

WITNESSETH: That in consideration of the premises and the sum of Five Dollars, the receipt of which is hereby acknowledged, the said Grantor does hereby grant and convey unto the said Grantee, its successors and assigns, in fee simple, all those lots of ground situate in the Sixth Election District of Anne Arundel County, the City of Annapolis, State of Maryland, and described as follows, that is to say:

BEGINNING FOR THE FIRST, at a post, the southwest corner of that part of said Lot No. 75 belonging to Nicholas Harwood, running from thence and binding on Tabernacle Street, south 41 degrees west 5 perches and 3/10ths of a perch to a post, thence south 47 degrees 7 minutes east till it intersects the public Circle, thence running with and binding on said Circle till it intersects a line drawn south 45 degrees 30 minutes east from the southwest corner of Nicholas Harwood's part of said Lot aforesaid, thence with that line 10-7/10ths perches to the beginning.

SAVING AND EXCEPTING from the above described lot of ground, all that property conveyed by Deed dated November 20, 1900 and recorded among the Land Records of Anne Arundel County in Liber G.W. No. 19, folio 278, from Trustees of the Methodist Episcopal Church in the City and Precincts of Annapolis, to The State of Maryland, which is described as follows, that is to say:

Beginning for the same at the southwest corner of the Tower of the First Methodist Episcopal Church Building belonging to said corporation, and running thence north 42 degrees west 180 feet and 8/10ths of a foot to the southeast line of College Avenue, thence with the said Streetline of said Avenue, south 47 degrees west 18 feet and 9/10ths of a foot to the divisional line between the property of said Church Corporation and that of the Misses Pinkney; thence with the said divisionalline and that between the property of the said Church Corporation and the property of Mrs. Fannie M. Oliver, south 42 degrees east 182 feet and 65/100ths of a foot to the line of the State Circle, thence with the line of the said Circle, north 57 degrees east 18 feet and 9/10ths of a foot to a point on the said Circle opposite to the said Tower and the point of beginning, thence north 47 degrees west 6 feet to the point of beginning.

BEING the balance of the property described in a Deed dated December 24, 1833 and recorded among the Land Records of Anne Arundel County in Liber W.S.G. No. 18, folio 480, from Louis Gassaway, et al, Trustees, to Trustees of the Methodist Episcopal Church in the City and precincts of Annapolis.

BEGINNING FOR THE SECOND, being all that lot of ground in two parts designated as Lot A and Lot B, situate in the City of Annapolis and described as follows, that is to say: Beginning for Lot A on State Circle where the same is intersected by the west line of North Street; and running thence with State Circle 12.25 feet to the property of the First Methodist Episcopal Church, thence with said property, north 40 degrees (erroneously set forth as North 10 degrees in the Deed recorded in W.N.W. 27/375) west 65 feet, thence north 64 degrees east 50 feet to the line of North Street, thence with

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CIRCUIT COURT COUNTY

69 AUG -1 PM 3:36

the line of said Street, south 6½ degrees east 70 feet to the place of beginning; and Beginning for Lot B at a point on the west side of North Street at a distance 70 feet from State Circle and running thence south 64 degrees west 50 feet to the property of The First Methodist Episcopal Church, thence with the line of said property, north 40 degrees west 29.80 feet; thence north 52½ degrees east 74.25 feet to the line of said North Street; thence south 6½ degrees east 47.83 feet to the place of beginning. Being Lots A and B on a Plat made by E. Lacy Chinn and filed among the Land Records of Anne Arundel County in Liber G.W. No. 30, folio 433.

BEING the same property described in a Deed dated July 30, 1919 and recorded among the Land Records of Anne Arundel County in Liber W.N.W. No. 27, folio 375, from Annie E. Amos, widow, to the Trustees of the Methodist Episcopal Church in the City and Precincts of Annapolis, Md.

BEGINNING FOR THE THIRD, Being known and designated as Lot D on a Plat of the Gates Property which is recorded among the Land Records of Anne Arundel County in Liber G.W. No. 30, folio 433, and more particularly described as follows: Beginning for the same at the intersection of College Avenue and North Street, and running thence with the line of said Avenue, south 46 degrees west 47.16 feet; thence south 41½ degrees east with the partition wall of the double house 65 feet to the line of North Street; thence with the line of said Street, north 6½ degrees west 81.50 feet to the place of beginning. Being known and designated as No. 81 College Avenue in the City of Annapolis.

SAVING AND EXCEPTING from the above described property, all that property shown on a Plat attached to a Deed dated June 7, 1965 and recorded among the Land Records of Anne Arundel County in Liber L.N.P. No. 1870, folio 509, from Calvary Methodist Church to The Mayor and Aldermen of the City of Annapolis.

BEING the balance of the property described in a Deed dated October 16, 1964 and recorded among the Land Records of Anne Arundel County in Liber L.N.P. No. 1803, folio 450, from Dorothy V. Callahan and Charles W. Callahan, her husband, to The Calvary Methodist Church.

BEGINNING FOR THE FOURTH at an iron pipe here found which marks the easternmost corner of that conveyance from Henry E. Ciccarone and Elizabeth M. Ciccarone, his wife, to the Guaranteed Realty Corporation, by Deed dated September 15, 1951 and recorded among the Land Records of Anne Arundel County in Liber J.H.H. No. 644, folio 369; said pipe also marks the easternmost corner of Lot F, and the southernmost corner of Lot E, as shown on a Plat of the "Gatee property", recorded among the Land Records of Anne Arundel County in Liber G.W. No. 30, folio 433; thence from the point of beginning so fixed, leaving said conveyance from Ciccarone and Lot F and binding on part of the northwest outline of that conveyance from Samuel Shenker to the Guaranteed Realty Corporation by Deed dated October 5, 1951 and recorded among the Land Records of Anne Arundel County in Liber J.H.H. No. 648, folio 237, reversely, north 46 degrees 00 minutes 00 seconds east 49.91 feet to intersect the west side of North Street; said last mentioned line is the common boundary between the land of Walter E. Quenstedt, the land of Annie B. Gates and the land of the Guaranteed Realty Corporation; thence leaving said westernmost outline and binding on said side of said North Street, and still with the outlines of said conveyance from Schenker, south 6 degrees 30 minutes 30 seconds east 51.75 feet to a point which marks the easternmost corner of the aforementioned conveyance from Schenker said point also marks the northernmost corner of that conveyance from Emma Groff, widow, to Annie E. Amos, by Deed dated October 30, 1903 and recorded among the Land Records of Anne Arundel County in Liber G.W. No. 34, folio 288; thence leaving said North Street and binding on the southernmost outline of the aforementioned conveyance from Schenker, and also the northernmost outline of the aforementioned conveyance to Annie E. Amos, south 52 degrees 09 minutes 40 seconds west 75.32 feet to a point; said point marks the southernmost corner of the aforementioned conveyance from Schenker, said point also marks the westernmost corner of said conveyance to Annie Amos; said last mentioned line is the common boundary between the land of the Calvary Methodist Church and the Guaranteed Realty Corporation; thence leaving said conveyance to Annie Amos, still binding on the outlines of said conveyance from Schenker, reversely as now surveyed, north 40 degrees 25 minutes 00 seconds west 32.95 feet to a point which marks the westernmost corner of said last mentioned conveyance; said last mentioned line is the common boundary between the land of the Calvary Methodist Church and the land of the said Guaranteed Realty Corporation, said point also marks the southernmost corner of that conveyance from

Margaret Baker, et al, to The Guaranteed Realty Corporation, by Deed dated January 25, 1952 and recorded among the Land Records of Anne Arundel County in Liber J.H.H. No. 664, folio 532; thence leaving said conveyance from Schenker and binding on the southwest outline of said conveyance from Baker, reversely as now surveyed, north 40 degrees 25 minutes 00 seconds west 69.92 feet to intersect the southeast side of College Avenue, said last mentioned line is the common boundary between the land of the Calvary Methodist Church and the land of the said Guaranteed Realty Corporation; thence binding on the northwest outline of said conveyance from Baker, reversely, and also binding on the northwest outline of the aforementioned conveyance from Ciccarone, reversely, and binding on the southeast side of said College Avenue, north 46 degrees 00 minutes 00 seconds east 54.50 feet to a point which marks the northernmost corner of said conveyance from Ciccarone; thence leaving said College Avenue and binding on the aforementioned northeast outline of said conveyance from Ciccarone, reversely, as now surveyed, and with the common boundary between the land of Walter E. Quenstedt and the land of the Guaranteed Realty Corporation, south 40 degrees 25 minutes 00 seconds east 69.92 feet to the point of beginning.

BEGINNING FOR THE FIFTH at a point on the west side of North Street, said point marks the southeasternmost corner of that conveyance from Reinhart Ackenback, et al, to Annie B. Gates, by Deed dated May 19, 1903 and recorded among the Land Records of Anne Arundel County in Liber G.W. No. 30, folio 438, said point also marks the northernmost corner of that conveyance from Samuel Schenker to Guaranteed Realty Corporation by Deed dated October 5, 1951 and recorded among the Land Records of Anne Arundel County in Liber J.H.H. No. 648, folio 237, said point being located north 46 degrees 00 minutes 00 seconds east 49.91 feet measured along the northwest outline of said conveyance from Schenker from an iron pipe here found in said northwest outline which marks the easternmost corner of that conveyance from Henry E. Ciccarone and Elizabeth M. Ciccarone, his wife, to the Guaranteed Realty Corporation by Deed dated September 15, 1951 and recorded among the Land Records of Anne Arundel County in Liber J.H.H. No. 644, folio 369, said pipe also marks the southernmost corner of that conveyance from Charles B. Gates and Annie B. Gates, his wife, to Walter E. Quenstedt and Mary Quenstedt, his wife, by Deed dated May 9, 1922 and recorded among the Land Records of Anne Arundel County in Liber W.N.W. No. 56, folio 116; thence from the point of beginning so fixed, leaving said North Street and binding on the common boundary between the land of said Guaranteed Realty Corporation and the land of the said Annie B. Gates with part of the southeast outline of the aforementioned conveyance to Annie B. Gates from Reinhart Ackenback, et al, south 46 degrees 00 minutes 00 seconds west 27.08 feet to a point which marks the easternmost corner of the aforementioned conveyance to Quenstedt; thence leaving the outlines of said Guaranteed Realty Corporation and binding on the northeast outline of the aforementioned conveyance to Quenstedt, as now surveyed, north 40 degrees (erroneously referred to as North 45 in a Deed recorded in G.T.C. No. 1224, folio 196) 25 minutes 00 seconds west 69.92 feet to intersect the southeast side of College Avenue, said point marks the northernmost point of the aforementioned conveyance to Quenstedt, said last mentioned line is the common boundary between the land of said Walter E. Quenstedt and the said Annie B. Gates; thence leaving said conveyance to Quenstedt, binding on a part of the northwest outline of the aforementioned conveyance to Annie B. Gates, and binding on the southeast side of said College Avenue, north 46 degrees 00 minutes 00 seconds east 28.25 feet to a point which marks the northernmost corner of the said conveyance to Annie B. Gates from Reinhart Ackenback, et al, said point also marks the westernmost corner of that conveyance from Charles B. Gates and Annie B. Gates, his wife, to Jacqueline Qualey, by Deed dated June 16, 1947 and recorded among the Land Records of Anne Arundel County in Liber J.H.H. No. 414, folio 144; said point also marks the intersection formed by the southeast side of said Avenue with the partition wall of the existing double house; thence leaving said Avenue binding on the northeast outline of said conveyance to Annie B. Gates as now surveyed, and binding on the partition wall of the existing double house and the prolongation thereof, and also with the common boundary between the lands of Annie B. Gates and the land of said Jacqueline Qualey, south 42 degrees 22 minutes 40 seconds east 65 feet to intersect the west side of North Street; thence leaving said conveyance to Qualey, still binding on the outlines of said conveyance to Annie B. Gates, as now surveyed and with the west side of said North Street, south 6 degrees 30 minutes 30 seconds east 6.05 feet to the place of beginning.

T-102

BEING the same lots of ground described in a Deed dated August 1, 1958 and recorded among the Land Records of Anne Arundel County in Liber G.T.C. No. 1224, folio 196, from Baltimore Federal Savings and Loan Association, to Calvary Methodist Church, Annapolis, Md.

THE said Trustees of the Methodist Episcopal Church in the City and Precincts of Annapolis was incorporated by Certificate of Incorporation dated November 6, 1833 and recorded among the Charter Records of Anne Arundel County in Liber W.S.G. No. 18, folio 477; by Articles of Consolidation dated March 28, 1922 and recorded among the Charter Records of Anne Arundel County in Liber W.N.W. No. 1, folio 380, the said Trustees of the Methodist Episcopal Church in the City and Precincts of Annapolis changed its name to the Calvary Methodist Episcopal Church of Annapolis, Maryland; and by a Confirmatory Agreement and Consolidation dated July 18, 1924 and recorded among the Charter Records of Anne Arundel County in Liber W.N.W. No. 2, folio 98; the Calvery Methodist Episcopal Church of Annapolis, Maryland changed its name to the Trustees of Calvery Methodist Episcopal Church of Annapolis, Maryland, which by Amendment of Charter dated December 1, 1943 and recorded among the Charter Records of Anne Arundel County in Liber J.H.H. No. 4, folio 338, changed its name from the Trustees of Calvary Methodist Episcopal Church of Annapolis, Maryland, to Calvary Methodist Church, Annapolis, Maryland the Grantor herein.

TOGETHER WITH the buildings and improvements thereon, and the rights, alleys, ways, waters, privileges, appurtenances and advantages to the same belonging or in anywise appertaining.

TO HAVE AND TO HOLD the said described property unto and to the use of the said Grantee, its successors and assigns, in fee simple.

THE Pastor of said Grantor Corporation and the District Superintendent join in the execution of this instrument for the purpose of indicating their consent to the conveyance of the above described properties to the Grantee herein.

THE said Grantor covenants to warrant specially the property hereby granted and conveyed, and to execute such further assurances of said land as may be requisite.

WITNESS: the signature of said body corporate by the hand of its President and Treasurer, Attested to by its Secretary.
WITNESS ALSO: the hand and seal of its Pastor and the District Superintendent.

CALVARY METHODIST CHURCH, ANNAPOLIS, MARYLAND.

ATTEST:

James F. Blose

James F. Blose, Secretary

BY: Henry Ortland Jr.

Henry Ortland Jr., President

BY: Howard C. Will

Howard C. Will, Treasurer

Charles I. Wallace (SEAL)

Charles I. Wallace, Sr., Pastor

Lewis F. Rancom (SEAL)

District Superintendent

SEAL CORPORATE CHURCH OF CALVARY METHODIST ANNAPOLIS, MARYLAND

SEAL CORPORATE CHURCH OF CALVARY METHODIST ANNAPOLIS, MARYLAND

T-102

LIBER 2290 PAGE 160

STATE OF MARYLAND, Baltimore City TO WIT:

I HEREBY CERTIFY, that on this 7th day of May 1969 before me, a Notary Public of the State aforesaid, personally appeared HENRY ORTLAND [illegible] JR., President, and HOWARD C. WILL, Treasurer, of CALVARY METHODIST CHURCH, ANNAPOLIS, MARYLAND, and that they, as such Officers, executed the same for the purposes therein contained by signing, in my presence, the name of the said Corporation by themselves, as Officers thereof.

WITNESS: My hand and Notarial Seal.

Marie M. Mumford
Notary Public

My Commission expires June 30, 1969

MARIE M. MUMFORD NOTARY PUBLIC BALTIMORE, MD.

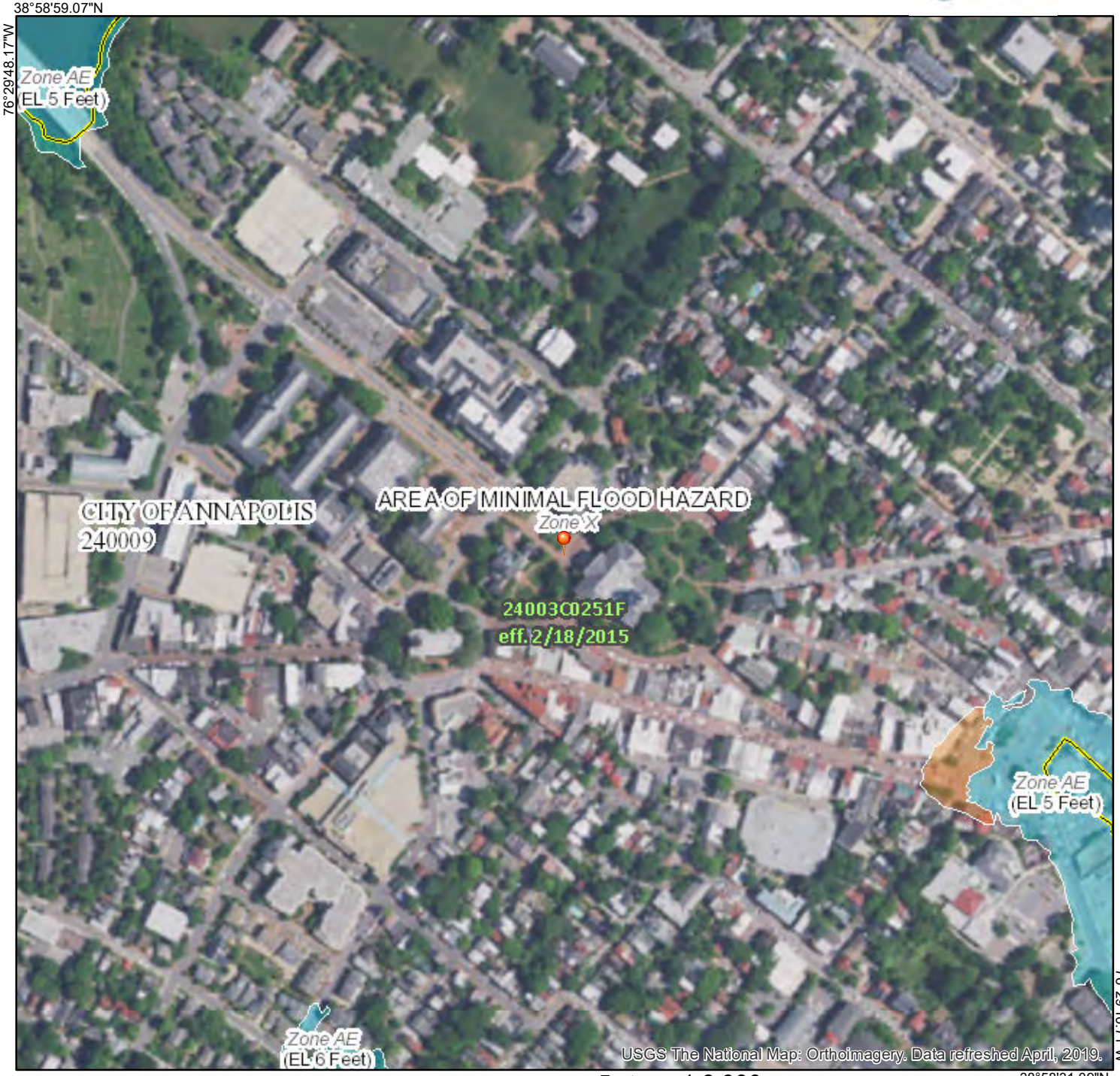
THE TITLE GUARANTEE CO.
ST. PAUL & LEXINGTON STS.
Mailed to BALTIMORE 2, MD

National Flood Hazard Layer FIRMette

FEMA

38°58'59.07"N

76°29'48.17"W



76°29'10.71"W

38°58'31.09"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS

- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD

- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS

- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES

- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES

- B 20.2 17.5 Cross Sections with 1% Annual Chance Water Surface Elevation
- 8 Coastal Transect
- 513 Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS

- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 5/11/2020 at 8:41:03 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

Appendix H

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PROJECT REVIEW CHECKLIST

Project Title: Maryland Department of Legislative Services (DLS) New Building Project

Project Location: 90 State Circle, Annapolis, MD 21401; Intersection of College Avenue and North Street.

Project Description: The DLS building project, as proposed, is for the demolition of the existing 94,000 sf building located at 90 State Circle and redevelop the site with the design and construction of a new 141,500 sf building. The primary purpose is to consolidate and provide additional facilities to address existing space deficiencies and meet future growth needs in support of operations and service delivery.

Approximate Funding Share

LOCAL	STATE	FEDERAL	OTHER
	$108,373,500 - $113,534,000		

TIER I

Y	N		
X	□	1.	Does the project add capacity to an existing facility or provide new capacity for an area not currently served by the facility?
□	**X**	2	Does the project facilitate changes in the existing pattern of growth?

If answer to either question is "yes," proceed to Tier 2.

TIER 2

X	□	1.	Is the project consistent with the local comprehensive plan?
X	□	2.	Does the project support development in a suitable area, a designated development area, or a redevelopment area?
X	□	3.	Can the project be designed to prevent adverse impacts to sensitive areas?
N/A		4.	If in a rural area, does the project promote compact growth in existing population centers?
X	□	5.	Does the project provide opportunities to conserve resources?
X	□	6.	Does the project promote economic growth and development in accord with the other elements of the State's Growth Policy?

Explain "no" answer on reverse. If determination is that the project is "inconsistent," proceed to Tier 3.

TIER 3

□	□	1.	Do extraordinary circumstances exist which make the project or action necessary to construct despite a finding of inconsistency in Tier 2? If so, document.
□	□	2.	Is there no reasonably feasible alternative to the project? If so, document.

Determination: **X** Consistent □ Inconsistent with extraordinary circumstances

Sponsor Agency Contact: Mr. Donald L. Lissau **Phone:** 410.946.5180

PROJECT CONSISTENCY REPORT

This review is undertaken by the State of Maryland pursuant to §5-7A-02 of the State Finance and Procurement Article. Projects or actions are evaluated for consistency with the State's Economic Growth, Resource Protection, and Planning Policy in accord with Executive Order 01.01.1992.27.

Project Title: Maryland Department of Legislative Services (DLS) New Building Project

Project Location: 90 State Circle, Annapolis, MD 21401; Intersection of College Avenue and North Street.

Project Description: The DLS building project, as proposed, is for the demolition of the existing 94,000 sf building located at 90 State Circle and redevelop the site with the design and construction of a new 141,500 sf building. The primary purpose is to consolidate and provide additional facilities to address existing space deficiencies and meet future growth needs in support of operations and service delivery.

Approximate Funding Share (Total: Design, Construction and F&E)

LOCAL	STATE	FEDERAL	OTHER
	$108,373,500 - $113,534,000		

Determination:

X Consistent

□ Inconsistent with extraordinary circumstances

Brief description of extraordinary circumstances:

Sponsor Agency: Maryland Department of Legislative Services (DLS) **Date:** May 01, 2020

Sponsor Agency Contact: Mr. Donald L. Lissau **Phone:** 410.946.5180

Return to:
State Clearinghouse
Maryland Department of Planning
301 West Preston Street
Baltimore MD 21201-2365
410-767-4490; FAX 410-767-4480

Appendix I

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ENVIRONMENTAL ASSESSMENT FORM (EAF)

This form is to assist the reviewers in determining whether a proposed action could cause significant natural and socio-economic environmental effects and thus require an Environmental Effects Report.

DEPARTMENT: Maryland Department of Legislative Services
DIVISION: _____
AGENCY: Maryland General Assembly
PROJECT TITLE: Maryland Department of Legislative Services (DLS) New Building
PREDICTED DATES: COMMENCEMENT: May 2020 (Design)
COMPLETION: September 2023 (Construction)
PROJECTED COST: $108,373,500 - $113,534,000 (Design, Construction and F&E)

1. Background Information
   a. ***Give a brief description of the proposed action/project.***
      The DLS building project, as proposed, is for the demolition of the existing 94,000 sf building located at 90 State Circle and redevelop the site with the design and construction of a new 141,500 sf building. The primary purpose is to consolidate and provide additional facilities to address existing space deficiencies and meet future growth needs in support of operations and service delivery.
   b. ***Describe the geographical area(s) which will be affected by the action/project.***
      The project site is located adjacent to the Maryland State House at 90 State Circle, Annapolis, MD 21401. The center of the building is approximately N: 1456897.50, E: 478553.00 of the Maryland Grid system NAD83/91.

2. Assessment of Significant Environmental Effects
   a. The following questions should be answered by placing a check in the appropriate column(s). If desirable, the "comments attached" column can be checked by itself or in combination with an answer of "yes" or "no" to provide additional information or to overcome an affirmative presumption.

      In answering the questions, the significant beneficial and adverse, short and long term, effects of the proposed action, on-site and off-site, during construction and operation should be considered.

A.	LAND USE CONSIDERATIONS	YES	NO	Comments
1	Will the action be within the 100 year flood plain?		x	
2	Will the action require a permit for construction or alteration within the 50-year flood plain?		x	
3	Will the action require a permit for dredging, filling, draining or alteration of a wetland?		x	
4	Will the action require a permit for the facilities for solid waste disposal including dredge and excavation spoil?		x	
5	Will the action occur on slopes exceeding 15%?		x	
6	Will the action require a grading plan or a sediment control permit?	x		See below
7	Will the action require a mining permit for deep or surface mining?		x	
8	Will the action require a permit for drilling a gas or oil well?		x	
9	Will the action require a permit for airport construction?		x	
10	Will the action require a permit for the crossing of the Potomac River by conduits, cables or other like devices?		x	
11	Will the action affect the use of a public recreation area, park, forest, wildlife management area, scenic river or wild land?		x	
12	Will the action affect the use of any natural or man-made features that are unique to the Country, State, or Nation?		x	
13	Will the action affect the use of an archaeological or historical site or structure?		x	
B.	WATER USE CONSIDERATIONS	YES	NO	Comments
14	Will the action require a permit for the change of the course, current, or cross-section of a stream or other body of water		x	
15	Will the action require the construction, alteration or removal of a dam, reservoir or waterway obstruction?		x	
16	Will the action change the overland flow of storm water or reduce the absorption capacity of the ground?	x		See below
17	Will the action require a permit for the drilling of a water well?		x	
18	Will the action require a permit for water appropriation?		x	
19	Will the action require a permit for the construction and operation of facilities for treatment or distribution of water?		x	
20	Will the action require a permit for the construction and operation of facilities for sewage treatment and/or land disposal of liquid waste derivatives?		x	
21	Will the action result in any discharge into surface or sub-surface water?		x	
22	If so, will the discharge affect ambient water quality parameters and/or require a discharge permit?		x	
C.	AIR USE CONSIDERATIONS	YES	NO	Comments
23	Will the action result in any discharge into the air?		x	
24	If so, will the discharge affect ambient air quality parameters or produce a disagreeable order?		x	
25	Will the action generate additional noise which differs in character of level from present conditions?		x	
26	Will the action preclude future use of related air space?		x	
27	Will the action generate any radiological, electrical, magnetic, or light influences?		x	
D.	PLANT AND ANIMALS	YES	NO	Comments
28	Will the action cause the disturbance, reduction or loss of any rare, unique or valuable plant or animal?		x	
29	Will the action result in the significant reduction or loss of any fish or wildlife habitats?		x	
30	Will the action require a permit for the use of pesticides, herbicides or other biological, chemical or radiological control agents?		x	

E.	SOCIO-ECONOMIC	YES	NO	Comments
31	Will the action result in a preemption or division of property or impair their economic use?		x	
32	Will the action cause relocation of activities, structures or result in a change in the population density or distribution?		x	
33	Will the action alter land values?	x		See below
34	Will the action affect traffic flow and volume?		x	
35	Will the action affect the production, extraction, harvest or potential use of a scarce or economically important resource?		x	
36	Will the action require a license to construct a sawmill or other plant for the manufacture of forest products?		x	
37	Is the action in accord with federal, state, regional and local comprehensive or functional plans - including zoning?	x		
38	Will the action affect the employment opportunities for persons in the area?		x	
39	Will the action affect the ability of the area to attract new sources of tax revenue?		x	
40	Will the action discourage present sources of tax revenue from remaining in the area, or affirmatively encourage them to relocate elsewhere?		x	
41	Will the action affect the ability of the area to attract tourism?		x	
F.	OTHER CONSIDERATIONS	YES	NO	Comments
42	Could the action endanger the public health, safety or welfare?		x	
43	Could the action be eliminated without deleterious effects to public health, safety, welfare or the natural environment?		x	Not applicable
44	Will the action be of statewide significance?	x		See below
45	Are there any other plans or actions (federal, state, country or private) that in conjunction with the subject action could result in a cumulative or synergistic impact on the public health, safety, welfare or environment?		x	
46	Will the action require additional power generation or transmission capacity?		x	
G.	CONCLUSION	YES	NO	Comments
47	This agency will develop a complete environmental effects report on the proposed action.		x	

Notes:

6: The project will disturb existing land area most of which is improved to date with impervious surfaces with small perimeter areas of in lawn with some trees. A grading plan and sediment and erosion control plan will be developed in accordance with applicable regulatory requirements and a permit obtained for the project.

16: The existing site is predominantly impervious and the renovated site will be similar. Storm Water Management (SWM) will be required in accordance with Maryland Department of the Environment regulations for a “redevelopment” condition hence the runoff into the municipal system will be improved as compared to the present which includes no SWM.

33: The project will result in new facilities and infrastructure that will increase the value of the land.

37: This State project is not subject to local zoning requirements; however, the building will be designed to fit within the context of the adjacent buildings and will conform to the requirements of the City of Annapolis.

44: The project will be state funded. This investment will result in dollars to local and state design and construction companies and vendors for development and completion of the project resulting in positive economic impacts. In addition, the project will result in additional capacity to meet the operational needs and service demands of the Maryland General Assembly.

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Appendix J

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Office of Capital Budgeting

Growth and Conservation Criteria - Planning Areas and Overlays

Agency: MD Department of Legislative Services

Fiscal Year: 2022

Date Completed: May 11, 2020

Program Name (if applicable)	Project Title	Address (Street, City, Zip)	Longitude*	Latitude*	Targeted Growth	Established Community	Future Growth	Large Lot Development	Rural Resource	Does the project support the Place Objectives?	Priority Preservation -Ag	Natural Resource Area	Water Resources Area	Climate Impact Area	Historic and Cultural Resource Area	Does the project support the Overlay Objectives?
		Location			Places						Overlays					
MD Department of Legislative Services	New DLS Building	90 State Circle, Annapolis, MD 21401	76° 29'29.16"W	38° 58'46.34"N		X				Y				X	X	Y

X = Indicates Project is located in this Planning Area

Y or N = Indicates that the project either supports or does not support the Place/Overlay Objectives

*Please use the attached instructions to get Longitude and Latitude from the Mapping Tool

NOTE: The completion of this form is not a substitute for compliance with Section 106 of the National Historic Preservation Act of 1966.

NOTE: The following agencies are not required to submit this form: Agriculture, Disabilities, DHCD, DoIT, Public School Construction, and SHA. Separate review processes are in place for these agencies.

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Appendix K

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DLS BUILDING IMPROVEMENTS -
PROGRAM LEVEL PROJECT ALTERNATIVE, SCHEDULE AND BUDGET RANGE SUMMARY

Project Scenario	**Alternative 1 - Do Nothing Approach**	**Alternative 2 - Renovate Existing Building**	**Alternative 3 - Renovate Existing Building and Construct New Addition**	**Alternative 4 - Raze and Rebuild 5-Stories**	**Alternative 5 - Raze and Rebuild 6-Stories**
Description:	Baseline approach that makes no physical changes to the existing building.	Comprehensive "gut" renovation of the existing building. Includes infilling the floor at the double-height Joint Hearing Room and the replacement of all building systems such as vertical transportation, mechanical, electrical, life safety, etc.	Comprehensive "gut" renovation as described in Alternate 2. Construct a new five-level addition (approximately 19,000 GSF) at the north corner of the site.	Demolish the existing building. Construct a new building with two (2) stories below grade and three (3) stories above grade. (5 Stories Total)	Raze Existing Building. Construct new building with 2 stories below grade and 4 stories above grade (6 Stories Total)
Achievable Building Size (GSF):	94,000	98,000	117,000	117,000	141,500
Observations/ Conclusions:	Inadequate quantity of space to accommodate the programmatic needs of DLS. Underlying building issues such as water infiltration at subgrade levels as well as aged and deteriorated windows, elevators, mechanical, electrical, and plumbing systems are not addressed.	Inadequate quantity of space to accommodate the programmatic needs of DLS.	Accommodates the short-term programmatic needs of DLS but does not accommodate all future expansion needs. Does not maximize the build-out of the existing site. Significant challenges exist with building efficiencies (lower net to gross square foot area ratio).	Achieves the same overall square footage as Alternate 3. Accommodates the short-term programmatic needs of DLS. Does not accommodate all future expansion needs. Does not maximize the build-out of the existing site. Building efficiencies improve as a result of new construction versus the renovation and expansion approach in Alternate 3.	Fully accommodates the short-term programmatic and the future expansion needs of DLS. Maximizes the build-out of the existing site. High building efficiency. Floorplate layout allows all programmatic space needs and spatial adjacencies to be achieved.
Estimated Duration of Design:	Not Applicable	12 - 14 Months	12 - 14 Months	12 - 14 Months	12 - 14 Months
Estimated Duration of Construction:	0 Months	18-21 Months	21-24 Months	24-27 Months	27-30 Months
Project Budget:	NOT APPLICABLE				
Cost of Construction:		$65,160,500 to $68,263,500	$79,452,000 to $83,236,000	$82,561,000 to $86,492,000	$95,063,000 to $99,589,000
Soft Costs:		$9,123,000 to $9,555,000	$11,125,000 to $11,655,000	$11,560,000 to $12,110,000	$13,310,000 to $13,945,000
Estimated Project Budget Range:*		***$74,283,500 to $77,818,500***	***$90,577,000 to $94,891,000***	***$94,121,000 to $98,602,000***	***$108,373,000 to $113,534,000***
Cost per Square Foot:		$758 to $794	$774 to $811	$804 to $843	$766 to $802

*Project budgets and estimates are conceptual at this time and will be refined in the subsequent Study Design and Project Design phases

STUDY DESIGN PHASE SUBMISSION
NEW BUILDING DESIGN

for

Maryland Department of Legislative Services
90 State Circle
Annapolis, MD

for

Maryland Stadium Authority

February 5, 2021

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Study Design Phase Summary

The Study Design Phase of work for the new Maryland Department of Legislative Services (DLS) building makes up approximately fifteen percent of the schematic design services. The plans, sections, three-dimensional images, and other illustrations included in this Summary document are diagrammatic early design concepts, which will be developed further in the next phases of work. The Design Team effort includes architectural design, civil engineering, site surveying, transportation studies, geotechnical studies, structural engineering, mechanical, plumbing, electrical, and fire protection engineering, low voltage design, building enclosure design, cost estimating, and hazardous material investigations.

The Design Team utilized the information gathered during the Programming and Due Diligence Phase to establish the shape and size of the new building on the existing site at 90 State Circle and to further develop the relationships between spaces within the new building, both in plan and in section. The Study Design Phase began with research, site visits, precedent analysis, and testing. The site survey work is ongoing; a summary of the work performed to this point is included in the narrative below. As part of the Study Design Phase, a hazardous materials survey was conducted at the existing DLS building in consideration of its demolition. The full report is included in Appendix B. A full geotechnical report is included in Appendix C.

The Design Team architects and engineers worked collaboratively to identify and quantify space to incorporate building structure, infrastructure, circulation, and other life-safety elements into the overall six-story building design. The rich architectural language of the existing buildings within the historic district of downtown Annapolis, and more specifically, those of the Capitol campus, directly informed the exterior design of the new DLS building. The following narrative, along with illustrative figures, outlines the proposed concept design for the new DLS building; the Summary is broken down into six sections to capture all elements of the building and site design.

Section 1 – Architectural Design

1.01 Site Plan and Context

The existing site for the DLS building at 90 State Circle is surrounded by a diverse group of neighbors, which impact the exterior building design in different ways. The prominent historic Maryland State House is located southeast of the DLS building across State Circle (see Figure 1.01 below). The new DLS building will frame the view (on the north side) to the State House along Bladen Street. The Governor's Residence sits back from the street edge on the southwest side of the DLS building directly across Lawyers' Mall. The House of Delegates building to the west across College Avenue is a modern (1970s) building designed in the Georgian style. Across North Street, the scale and rhythm of the neighborhood context changes to private residences, which are mostly two stories tall.

The footprint of the new DLS building maximizes the use of the existing site, but each of the four facades responds directly to the site context in subtle ways. The southeast corner of the building angles back slightly to open up the view corridor to the State House from Bladen Street. The east elevation curves gently along State Circle. The longer north and west elevations are articulated in different ways to break down the long brick walls and address the human scale; this is particularly important on the North Street elevation directly across from the smaller scale private residences. The main building entrance is at the most prominent façade, the south elevation, and is directly off Lawyers' Mall. The new building design must be sensitive to the design of Lawyers' Mall, which is currently undergoing major renovations to be completed in 2021.

1.02 Floor Plans

The new DLS building has six floors, two below grade and four above grade. Refer to Figures 1.02 through 1.04 for the floor plan diagrams. The floor plan maximizes the building footprint on the site and is organized around a central core that stacks on all six levels. The core includes vertical circulation, both elevators and stair, restrooms, mechanical space, and other small service closets. As shown, the floor plans illustrate all required departmental office spaces as well as some additional future growth space as required by DLS and as was identified in the Part I and Part II Programming document.

The main entrance to the building for both DLS staff and the public is at the south end of the first floor; it includes a secure vestibule. The more public spaces of the building are accessed directly from the central core, while the private office suites have secured access points off the central core. The Joint Hearing Room is located at the heart of the first floor, a portion of its floor slopes down toward the ground floor.

A loading, receiving, and trash service court is internal to the building at the north end of the first floor. It is accessed directly from College Avenue. A freight elevator is located off the service court and is accessible at all six floors.

The upper three floors are predominantly dedicated to private office space. A two-story light well cuts through the center of the building mass at the third and fourth floors to bring natural light down through the offices. The fourth floor has a slightly smaller footprint as it is tucked beneath the sloping roofline. The perimeter is lined with dormer windows.

1.03 Building Sections

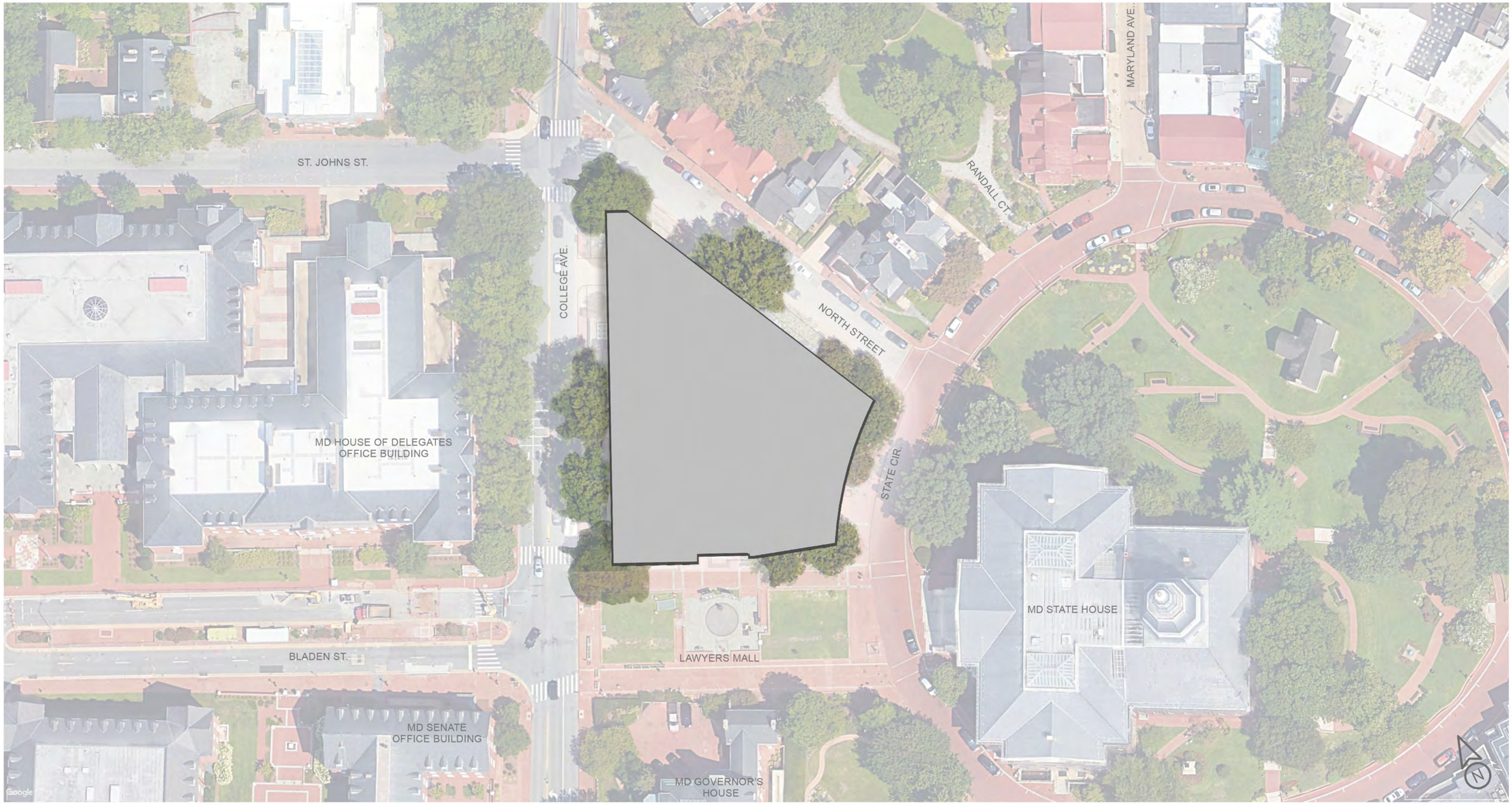
Building sections were developed for the new DLS building to study the floor-to-floor height of the new structure, which structural system to use, how to integrate building systems, where to set the first floor relative to the exterior grade, and how to detail the top floor/ roof to address the neighborhood context. The building sections illustrate how the two-story light well brings natural light into the core of building mass. The sections begin to study how the public and staff access and circulate around the one-and-a-half story Joint Hearing Room; this will be further developed in the next phases of work. Refer to Figures 1.05 and 1.06 for the building sections.

1.04 Building Exterior

The exterior building design is represented in this Summary document with hand-drawn sketches as well as computer-generated three-dimensional modeling; each tool illustrates ideas differently. The sketches in Figures 1.07 and 1.08 provide a dynamic concept for the exterior building design. Figures 1.09 through 1.13 are images taken from the BIM model. These views are accurately scaled but only represent an early level of building detail.

In considering the architectural massing of the new DLS building it was important for the Design Team to understand the language of the buildings in the immediate neighborhood of the State Capitol campus. Most of the nearby buildings are three or four stories above grade and almost exclusively clad in brick. White double-hung windows, corbelling, decorative cornices, water tables, and roof dormers are examples of architectural features found throughout the Capitol campus. These and other details bring a human scale to the Annapolis streetscape. The Design Team looked at precedents for detailing contemporary architectural features within the historic context, such as large expanses of glazing, and how to accommodate necessary services like deliveries and trash collection.

The Design Team understands the significance of the Thurgood Marshall Memorial and redesign of Lawyers' Mall at the south side of the DLS building; the construction of which is nearing completion. The new DLS building design, and the south façade in particular, will be respectful of the work that has already been done. In the next phases of work the Design Team plans for open communication with the Lawyers' Mall and Thurgood Marshall Memorial designers and will continue to develop appropriate articulation of the south façade.



SITE PLAN

FIGURE 1.01

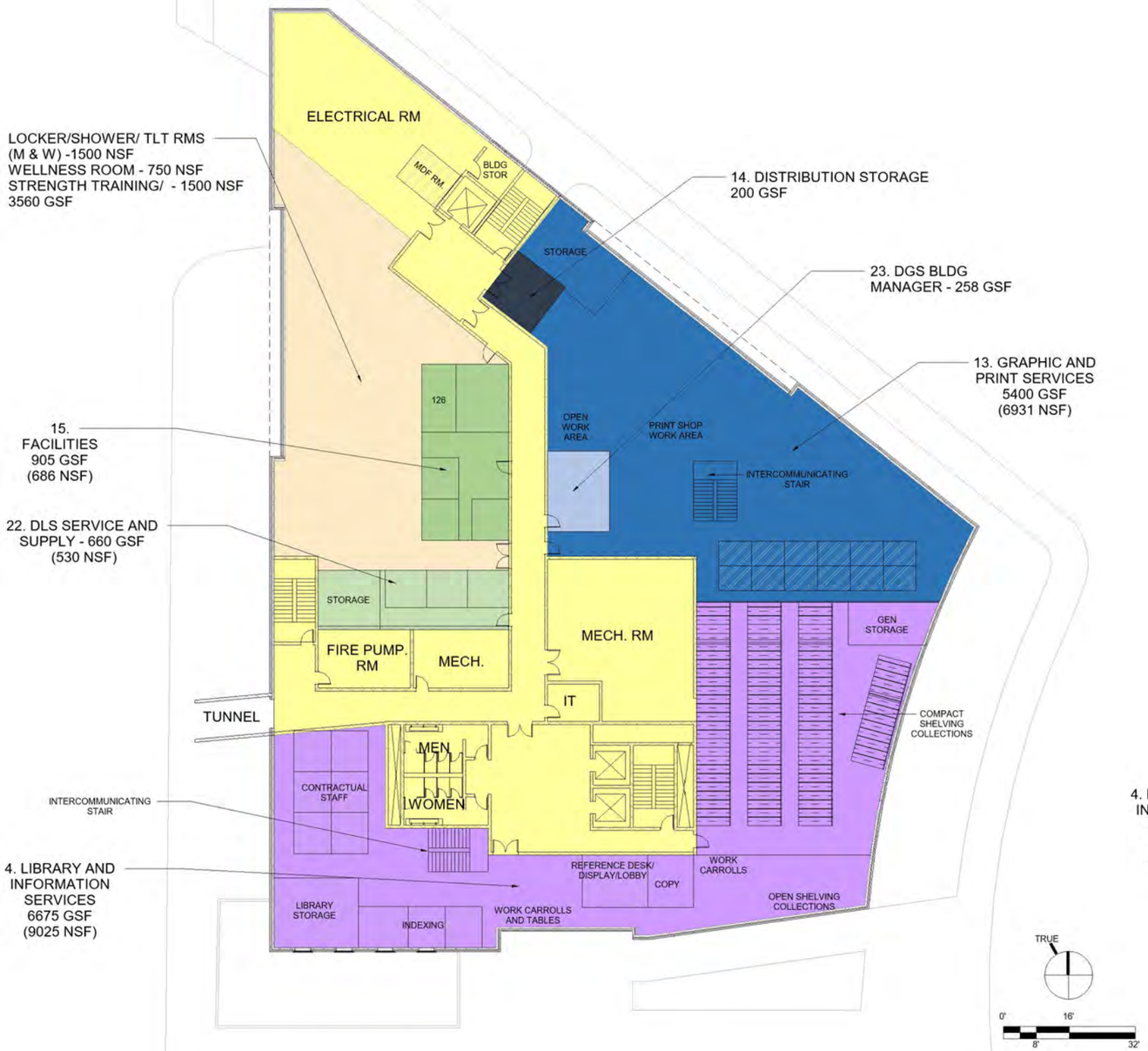
DEPARTMENT OF LEGISLATIVE SERVICES

90 STATE CIRCLE
ANNAPOLIS, MD

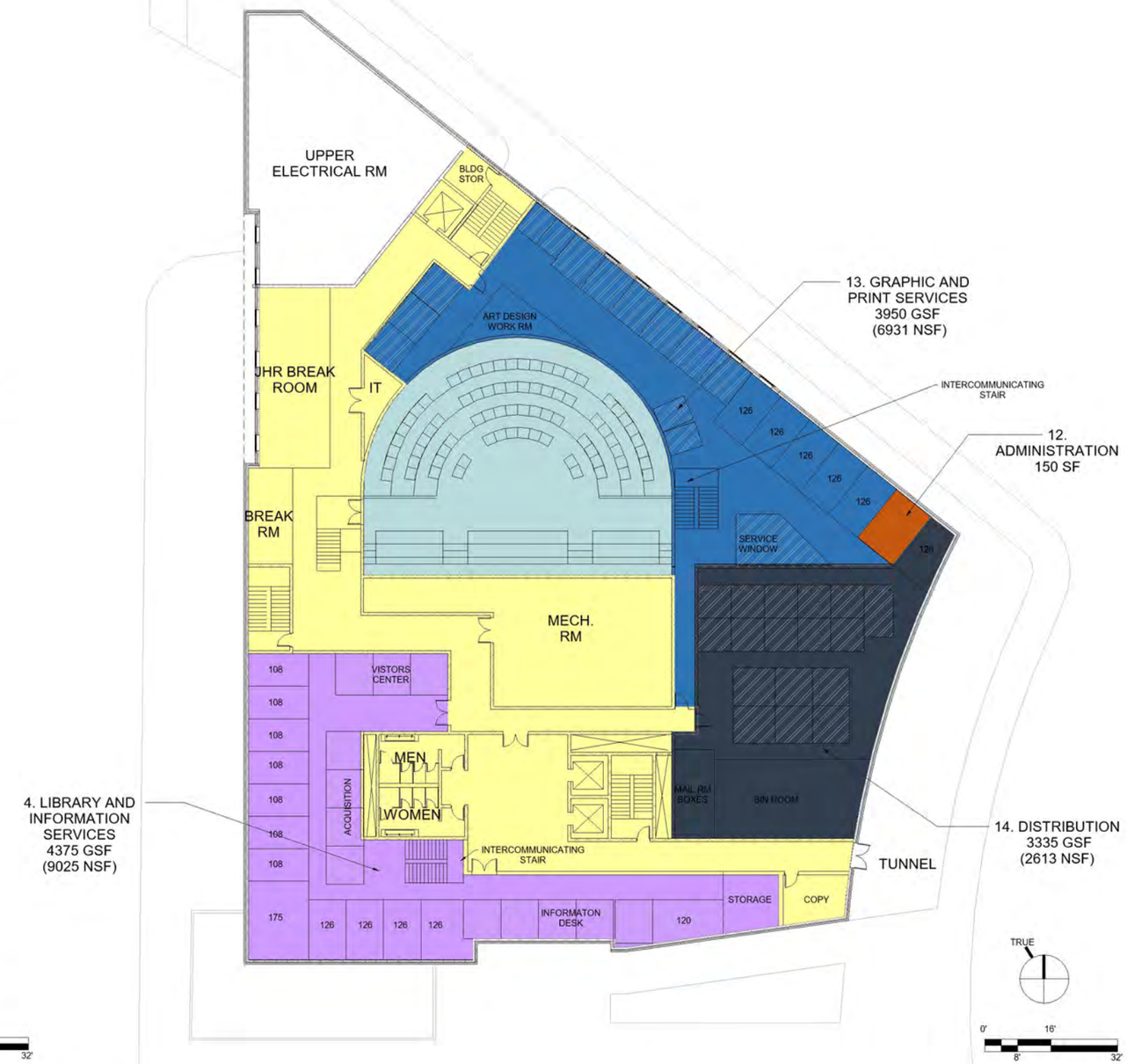
MARYLAND STADIUM AUTHORITY

DEPARTMENT OF LEGISLATIVE SERVICES

Murphy & Dittenhafer ARCHITECTS



BASEMENT



GROUND FLOOR

FIGURE 1.02

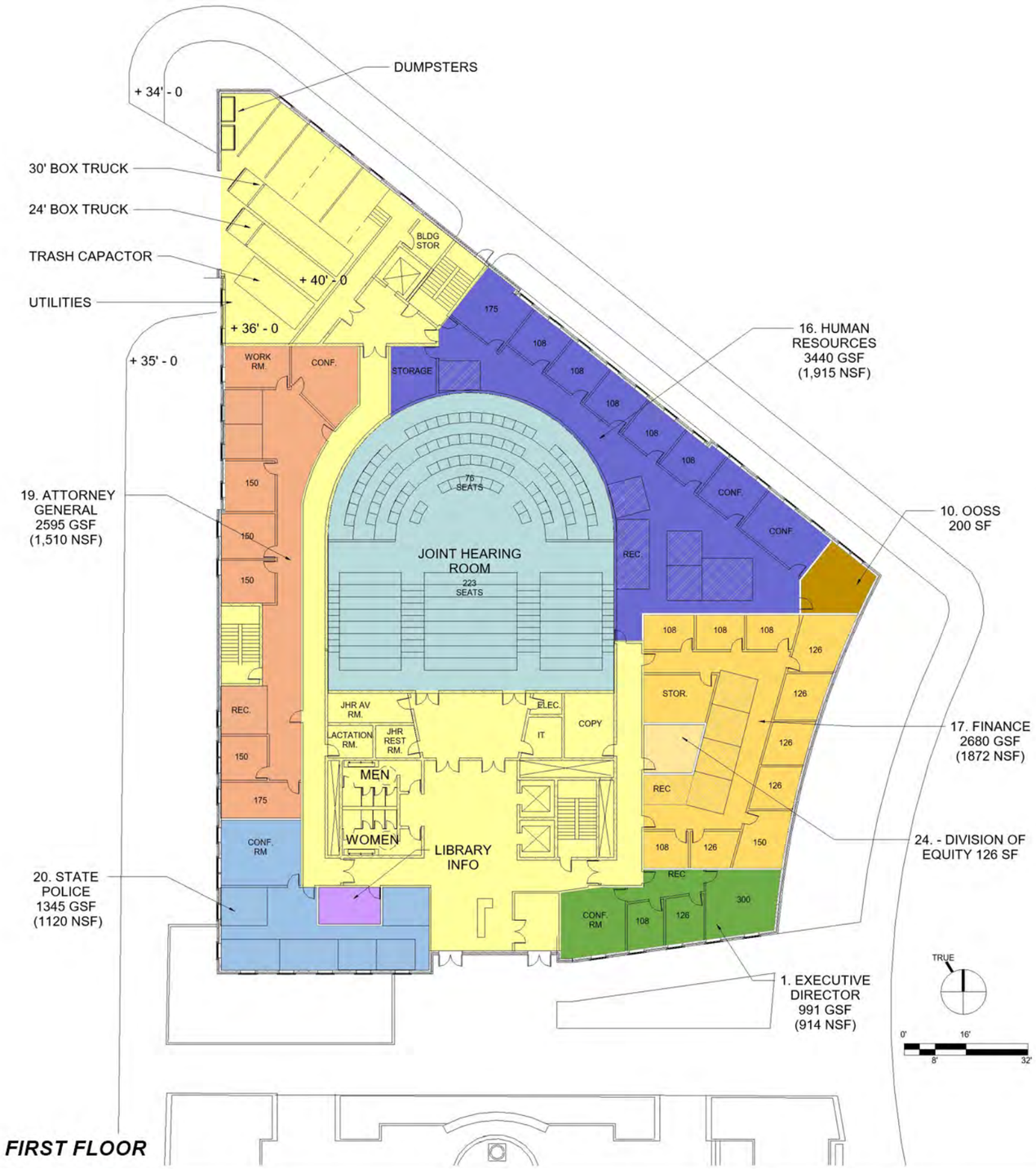
DEPARTMENT OF LEGISLATIVE SERVICES

90 STATE CIRCLE
ANNAPOLIS, MD

MARYLAND STADIUM AUTHORITY

DEPARTMENT OF LEGISLATIVE SERVICES

Murphy & Dittenhafer ARCHITECTS



FIRST FLOOR

SECOND FLOOR

FIGURE 1.03

DEPARTMENT OF LEGISLATIVE SERVICES

90 STATE CIRCLE
ANNAPOLIS, MD

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DEPARTMENT OF LEGISLATIVE SERVICES

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THIRD FLOOR

FOURTH FLOOR

FIGURE 1.04

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90 STATE CIRCLE
ANNAPOLIS, MD

MARYLAND STADIUM AUTHORITY

DEPARTMENT OF LEGISLATIVE SERVICES

Murphy & Dittenhafer ARCHITECTS

BUILDING SECTION - NORTH - SOUTH DIRECTION

FIGURE 1.05

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90 STATE CIRCLE
ANNAPOLIS, MD

MARYLAND STADIUM AUTHORITY

DEPARTMENT OF LEGISLATIVE SERVICES

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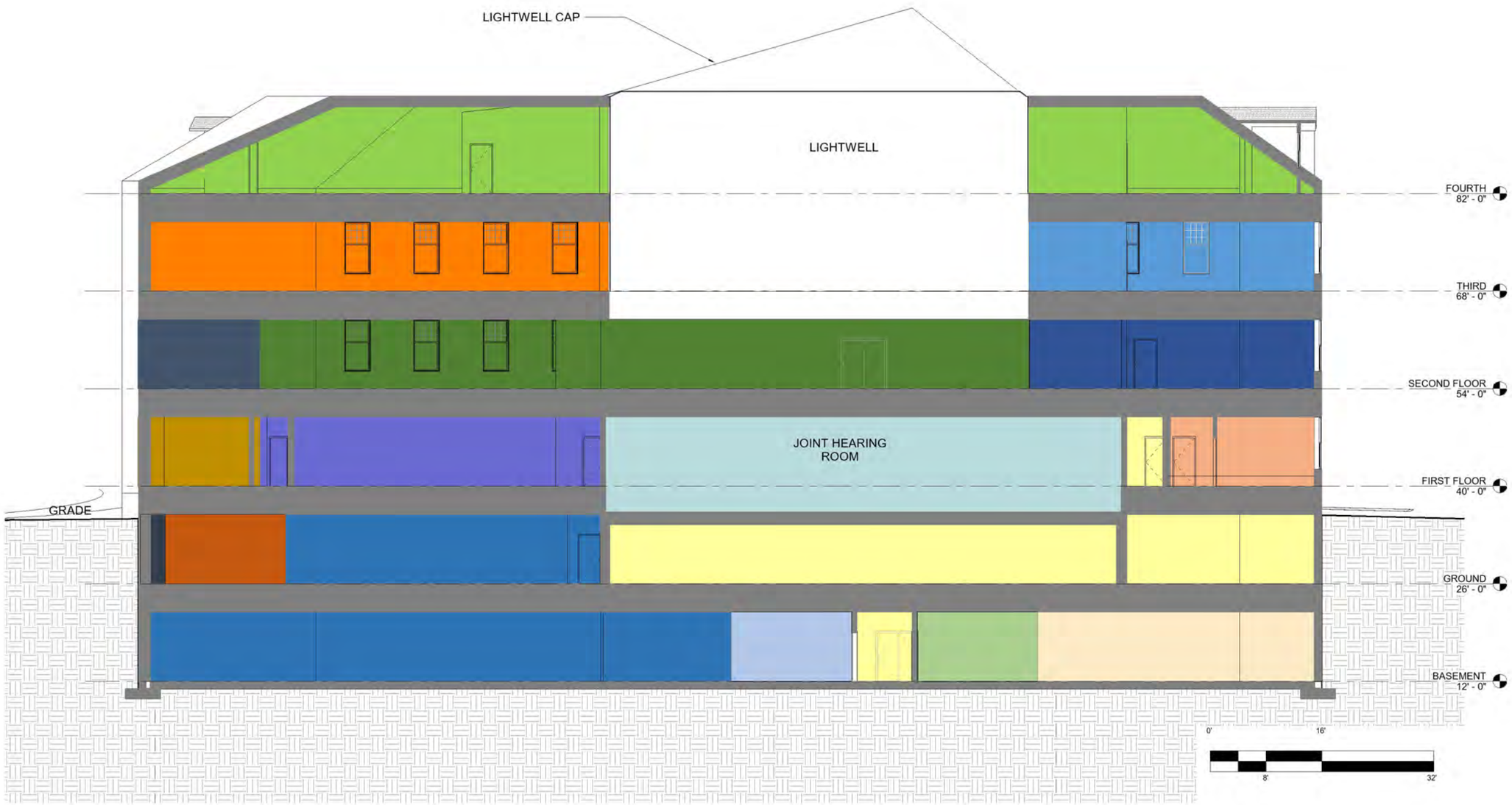


BUILDING SECTION - EAST - WEST DIRECTION

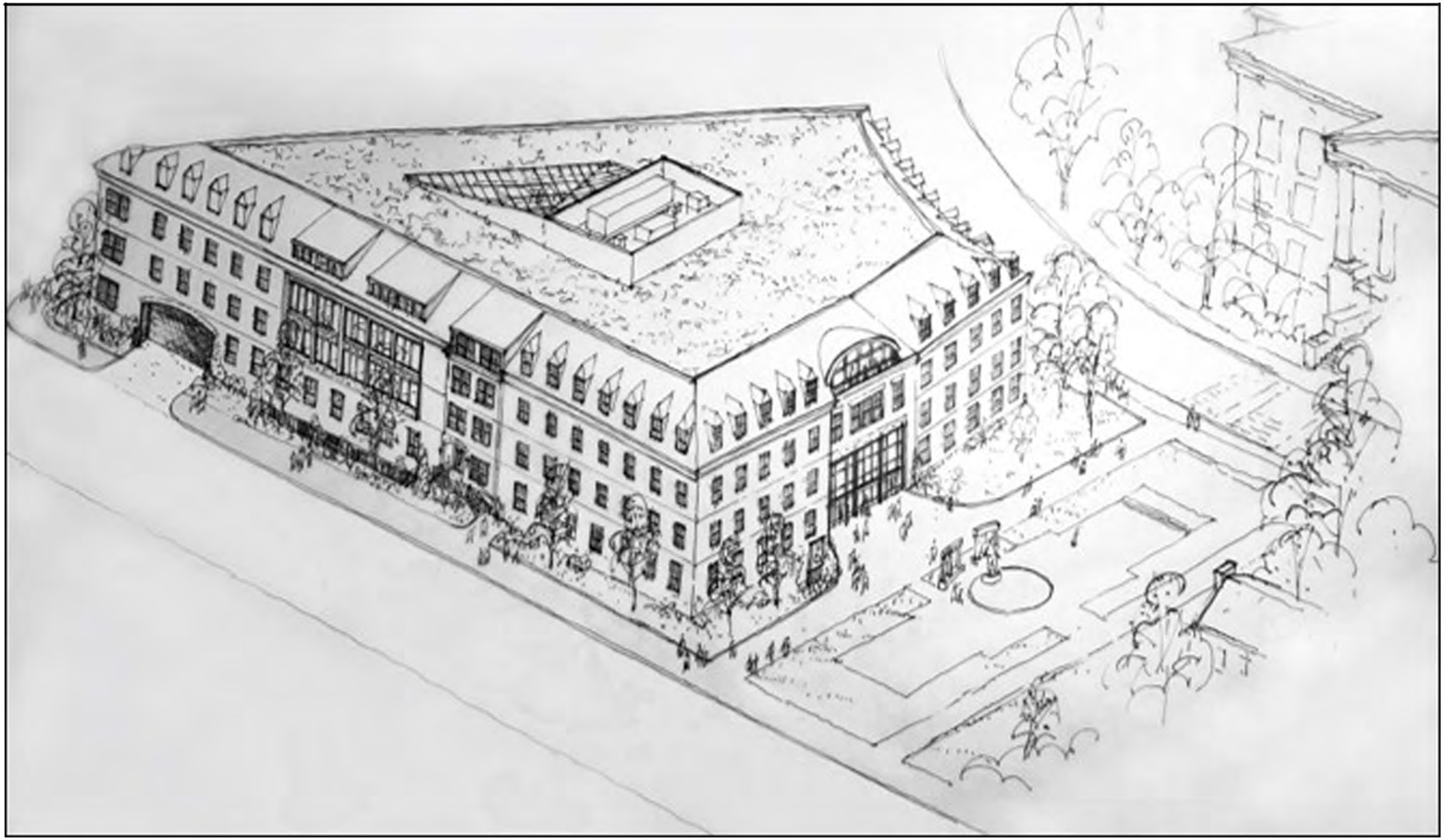
FIGURE 1.06

DEPARTMENT OF LEGISLATIVE SERVICES

90 STATE CIRCLE
ANNAPOLIS, MD

DEPARTMENT OF
LEGISLATIVE SERVICES

Murphy & Dittenhafer
ARCHITECTS

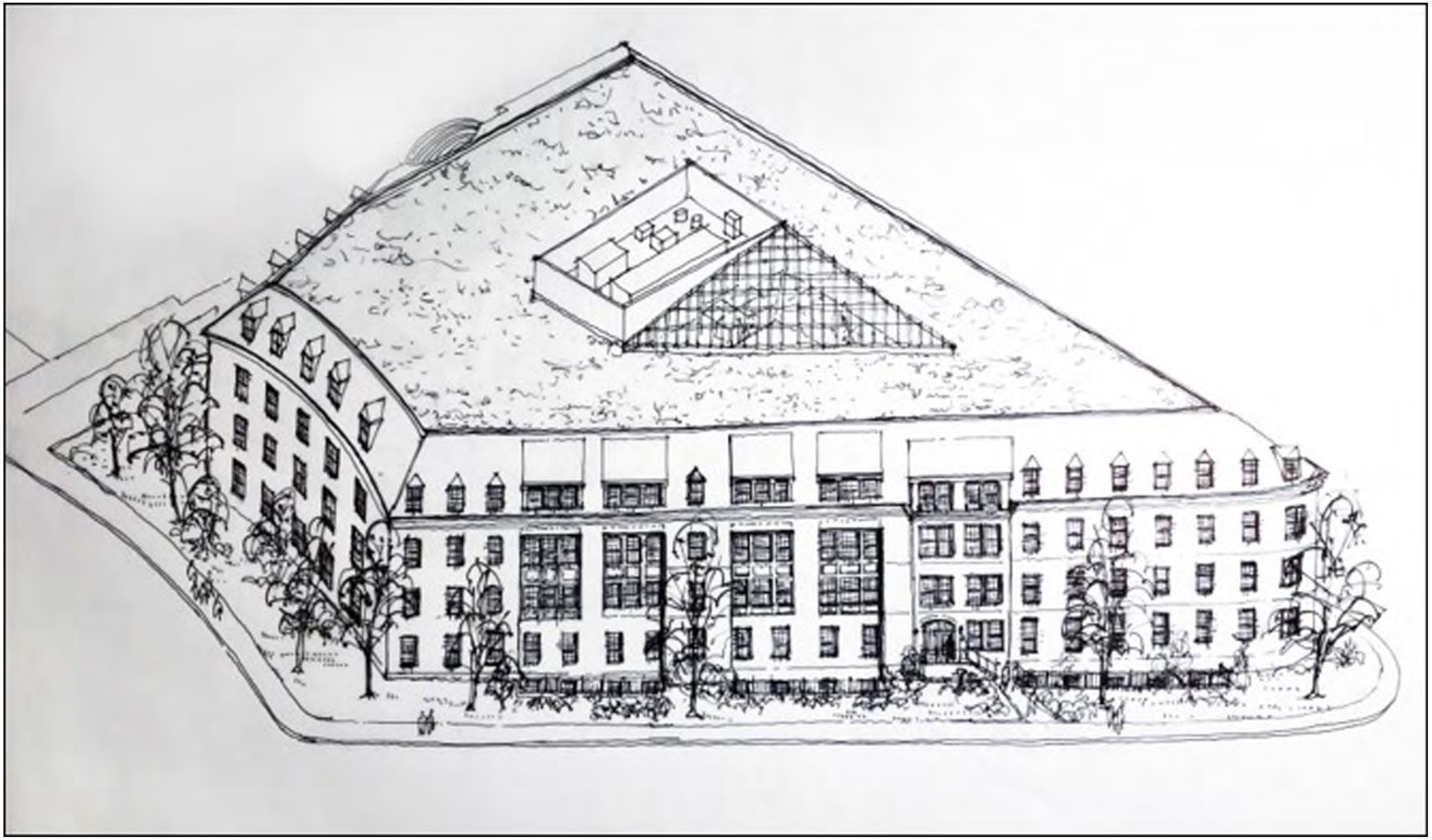


CONCEPT SKETCH - SOUTHWEST VIEW

FIGURE 1.07

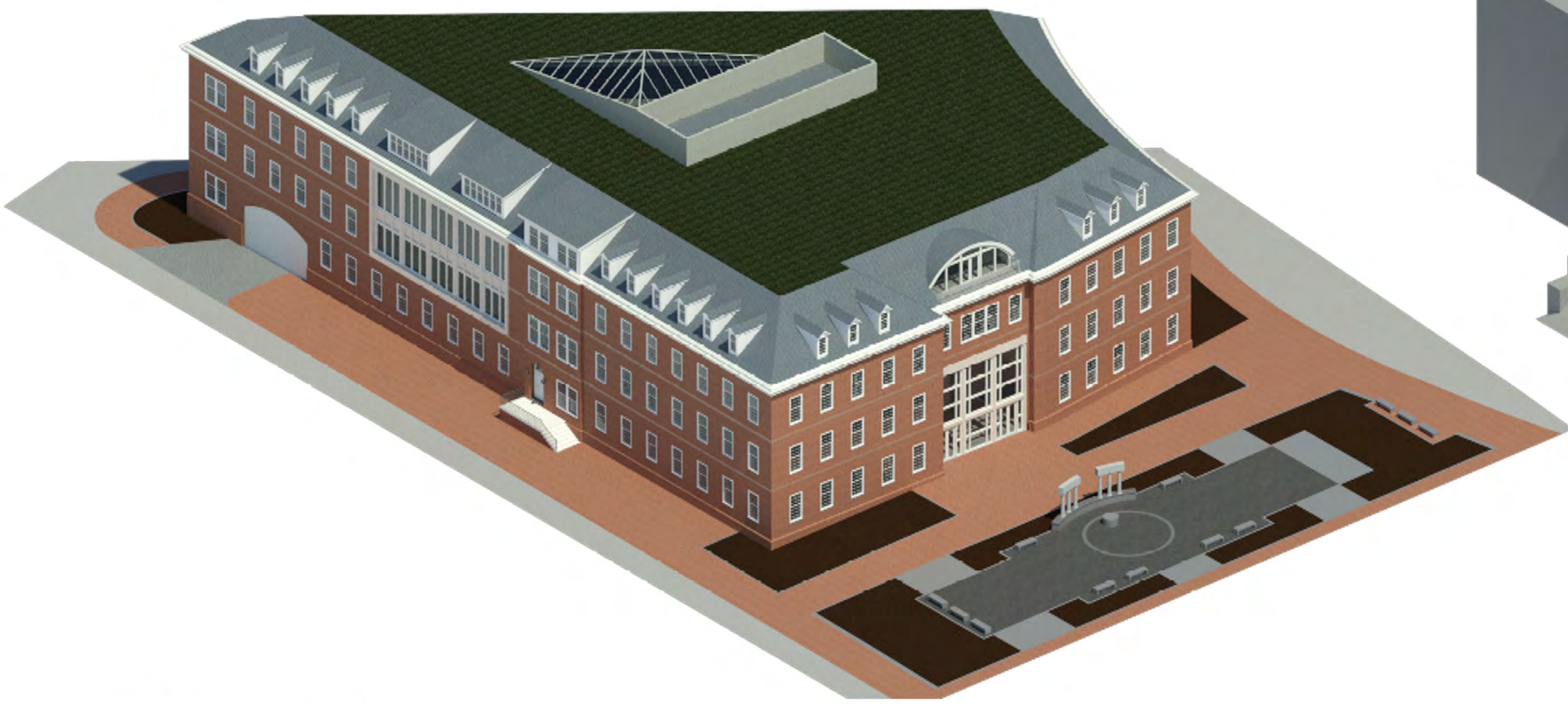
DEPARTMENT OF LEGISLATIVE SERVICES

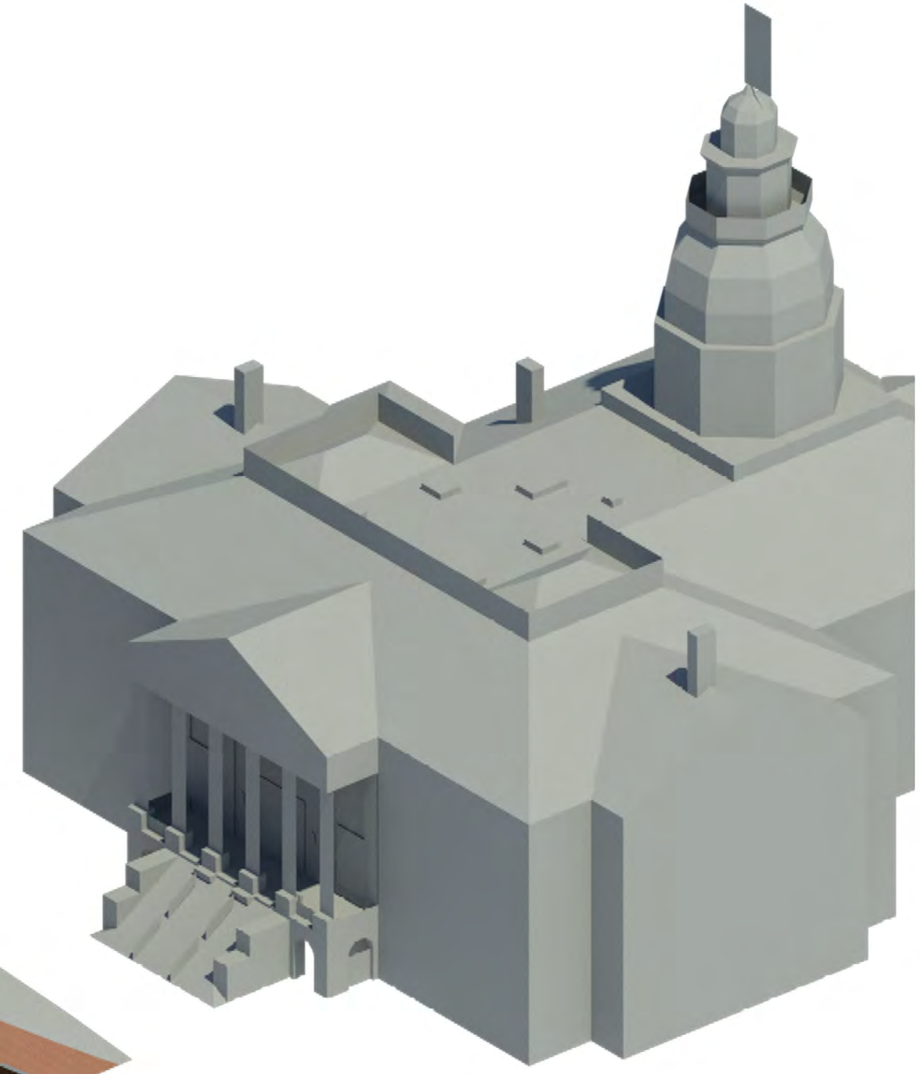
90 STATE CIRCLE
ANNAPOLIS, MD



CONCEPT SKETCH - NORTHEAST VIEW

FIGURE 1.08





SOUTHWEST AERIAL VIEW

FIGURE 1.09

DEPARTMENT OF LEGISLATIVE SERVICES

90 STATE CIRCLE
ANNAPOLIS, MD

SOUTHWEST STREET VIEW

FIGURE 1.10

MARYLAND STADIUM AUTHORITY

DEPARTMENT OF LEGISLATIVE SERVICES

DEPARTMENT OF LEGISLATIVE SERVICES

90 STATE CIRCLE
ANNAPOLIS, MD

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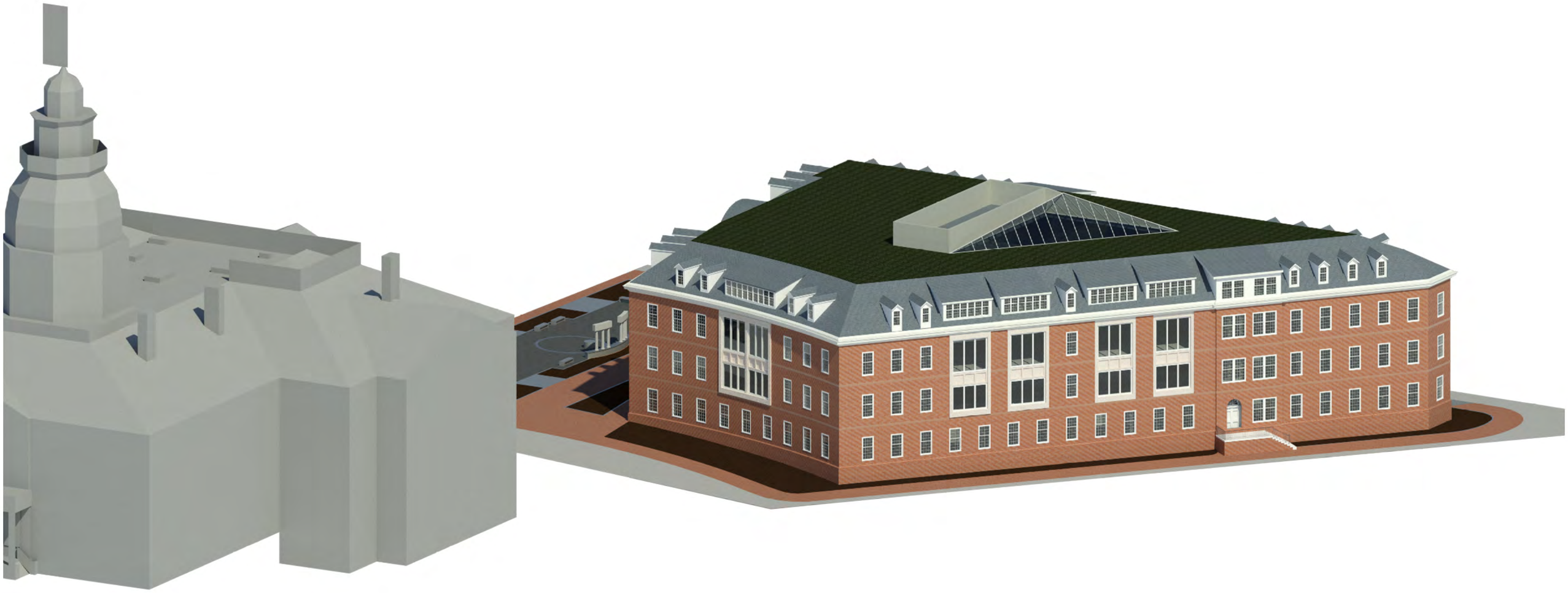
SOUTHWEST STREET VIEW

FIGURE 1.11

DEPARTMENT OF LEGISLATIVE SERVICES

90 STATE CIRCLE
ANNAPOLIS, MD



NORTHEAST AERIAL VIEW

FIGURE 1.12

DEPARTMENT OF LEGISLATIVE SERVICES

90 STATE CIRCLE
ANNAPOLIS, MD

NORTHEAST STREET VIEW

FIGURE 1.13

DEPARTMENT OF LEGISLATIVE SERVICES

90 STATE CIRCLE
ANNAPOLIS, MD

MARYLAND STADIUM AUTHORITY

DEPARTMENT OF LEGISLATIVE SERVICES

Murphy & Dittenhafer ARCHITECTS

Section 2 – Site, Utilities, and Transportation

2.01 Site Survey

A. Topographic Survey

The topographic portion of the site survey is complete. The survey was complete based on NAD 83/NAVD 88 Datum. All improvements within the topo limits were shot in high detail. The only exception is in the area of Lawyer's Mall, which is currently under construction. No other significant issues were uncovered with the topographic work.

B. Boundary Survey

The boundary portion of the site survey is in progress. The survey was performed based on NAD 83/NAVD 88 Datum. There have been significant issues finding any documentation defining ROW width along College Avenue and Lawyer's Mall area for what used to be Bladen Street. Requests have been made from Maryland SHA, Anne Arundel DPW, Annapolis City DPW, and DGS, all to no avail. The latest response from DGS stated As-Built plans should be available in January 2021. One significant obstacle is access to the archives due to COVID. When these records become accessible in person, the boundary survey will be completed.

2.02 Site Design

A. Pedestrian and Bicycle Circulation

The project will, at minimum, meet LEED Silver requirements and is located in a dense urban area. Parking is in nearby garages and surrounding streets. In front of the building is the area known as Lawyer's Mall, which is dedicated to the pedestrian experience. The entire area is highly conducive to pedestrian traffic. And while the roads do not have bicycle lanes, there is already evidence of bicycle commuters in the area.

There will be pedestrian access on all sides of the proposed building as both occupants and visitors will often be travelling between this building, the State House, and the other governmental buildings in the area. Lawyer's Mall forms the basic pedestrian spine as it fronts on the major buildings including the DLS building. It is in the process of a significant renovation and when completed, will provide not only walking areas, but gathering spaces as well for both large and small groups.

There is an existing pedestrian tunnel which crosses under College Avenue and enters the DLS existing building on the southeast corner, on the wall parallel to College Ave approximately 15-20 feet from the building corner. This allows pedestrian passage between the State Government buildings in inclement weather and will be maintained under the proposed new construction plan.

The plans presented herein do not change any of the public sidewalks but there may be some impact during construction. The City is very aware of the sensitive nature of this area and the amount of foot traffic that it sees. In addition, they are very sensitive to special events when

there are a particularly large number of tourists in the area (e.g. Naval Academy Graduation, Annapolis Boat Show, inaugurations, etc.) that must be accommodated. Any work during construction that has the possibility of affecting the public sidewalks or traffic patterns thereon must be vetted through the City of Annapolis early in the design and/or construction process. The footprint as proposed allows for adequate space to install shoring as required to construct the levels below grade while maintaining the existing streets and sidewalks.

Bicycle storage and racks will be provided as needed to encourage bicycle commuters as well as visitors to this historic area.

B. ADA Compliance

The existing site is relatively flat with gentle slopes for site drainage, generally less than 5%. The proposed finished floor elevation of the new building is at-grade with the renovated Lawyer's Mall allowing an accessible route from that public space into the building. At secondary egress and communicating doors to other public sidewalks, some nominal grading or ramping is anticipated along with some exterior stairs.

C. Vehicular Circulation

At present, and in the proposed condition, the site is bounded on three (3) sides by public roads. College Ave to the northwest, is a two-way, main thoroughfare through the City. To the southeast is State Circle which is a one-way road running in a complete circle around the Maryland State House. It is a central traffic hub and gives access to seven (7) streets that radiate out into the downtown and waterfront areas. Connecting those two is North Street to the northeast. A two-way minor street runs behind the DLS building.

The plans presented herein do not change any of the public roadways or traffic patterns but there may be some impact during construction. It is important to note that all the streets noted herein above are controlled by the City of Annapolis. The State controls Route 70, Rowe Blvd. from Route 50 southward until it crosses over the College Creek bridge at which point control reverts to the City. The City is very aware of the sensitive nature of this area and the amount of traffic that uses these roads on a daily basis. In addition, they are very sensitive to special events when roadways must remain open (e.g. Naval Academy Graduation, Annapolis Boat Show, inaugurations, etc.). Any work during construction that has the possibility of affecting the public roads or traffic patterns thereon must be vetted through the City of Annapolis early in the design and/or construction process.

D. Building Service Access, Loading, and Parking

As proposed, the building loading/service area is at the corner of College Ave and North St with access from College Ave. The area as shown on the proposed plans is adequate for small truck and van deliveries. Dumpster service will be located here also and while there is room for dumpster service, it is not likely that this area will also accommodate any vehicular parking

except for transient (e.g. “20 minute”) parking. Large truck deliveries will be required to use the street for loading/unloading.

There is no on-site parking and none is required on this urban site. Parking for the overall area is provided in several nearby garages and on smaller streets.

E. Excavation and Soils

The City of Annapolis is on the waterfront. This particular section of the City is on a peninsula surrounded by Spa Creek, College Creek, and the Severn River, all tributary to the Chesapeake Bay. As a result, the soils in the general area tend to be sandy silt with a fairly high water table but are expected to be adequate to support the new or renovated structure; refer to the geotechnical section below.

The building plans currently show levels below grade therefore excavation will be required. The use of temporary shoring will allow this excavation while still protecting the surrounding improved areas and minimizing impact to traffic-bearing roadways. Dewatering efforts are anticipated during construction of the lower levels. It is unknown at this time if it will be sufficient to require an MDE discharge permit.

F. Drainage and Stormwater Management

At present there is no stormwater management (SWM) on the site. Runoff flows overland to inlets and surrounding areas and then into the City storm drain system.

In the proposed plans, the limit of disturbance (LOD) will be 5,000 square feet or greater hence, SWM will be required. The site will be classified as “redevelopment” due to the level of impervious area existing and proposed thereby mitigating some of the treatment requirements. SWM will be provided using *Environmentally Sensitive Designs* to the *Maximum Extent Possible* as prescribed by the Maryland Department of the Environment (MDE). The plan shows green roof area for a significant portion of the roof to provide treatment. The use of a green roof will minimize the impact of SWM along the building perimeter thereby allowing more pedestrian areas. Permitting by MDE will be required.

G. Forest Stand Delineation Plan

Any land disturbance of 20,000 square feet or more, will require that the project comply with the Maryland reforestation regulations. At present there are scattered trees around the building, most of which appear to be on the State’s property and most of which are mature trees.

For this new building project, reforestation will be required. A Simplified Forest Stand Delineation Plan (FSD) will need to be prepared and submitted to the Maryland Department of Natural Resources (DNR) to determine the requirements for reforestation. It is unlikely that the required number of trees can be replanted on the site therefore a fee-in-lieu or off-site

banking will need to be explored. Given that there is an obvious attempt to have green spaces in this urban area, this new design must accommodate as many trees as can be reasonably replanted on the site.

H. Hardscapes and Open Spaces
The building fronts on a large open space known as Lawyer's Mall. This area is the gateway to the State House and the Governor's Mansion. It carries most of the pedestrian traffic in the area and is a gathering space for everything from lunch groups to the occasional Governor's press conference to state inaugurations. This area will constitute most of the hardscape and open space for the DLS building. A renovation of this area is currently under design.

Around the rest of the perimeter, there are largely sidewalks facilitating pedestrian travel. This will remain largely unchanged as a good bit of it is actually in the public rights-of-way.

I. Landscaping, Vegetation, and Soil Management
The majority of the vegetation on this site is the mature trees along the perimeters. Some lower plantings are scattered about. This concept is not intended to change in the new designs though it is likely that most of the existing trees will be lost to the new construction. As many new trees as can be accommodated are anticipated along with surface SWM plantings in those devices. Smaller shrubs and flowering plants will be used around the base of the building so as not to deter visibility or safety. Otherwise, the majority of the plantings will be in the newly renovated Lawyer's Mall.

J. Site Furnishing and Exterior Signage
Again, the Lawyer's Mall will constitute the exterior space and hence, will contain the site furnishings. We anticipate no site furnishings *per se* for this project. There is the possibility of a decorative sign either at the entrance or on the building wall identifying the building, but no other site signage is anticipated.

2.03 Utilities Design

The proposed building will be served by a full complement of utilities including a new gas service. As the first phase of the renovation of Lawyer's Mall, and a continuation of a neighborhood steam line replacement project, a number of existing utilities were replaced.

The following is the best available information based on the work at Lawyer's Mall and record drawings:

A. Water
The incoming water service to the existing building is six inches (6"), is located on the southwest corner of the building, and is served from a ten inch (10") main in College Avenue. The proposed new service will likely be of similar size but will enter the building further down

College Ave, under the loading area, and into the new mechanical room. There appears to be adequate capacity in the overall system to serve the new building. A hydrant flow test will be required at the start of design to provide more detailed information for domestic and sprinkler design.

B. Sanitary
The existing outgoing sanitary service is six inches (6”) and is located on the west wall of the building. It transitions to an eight-inch (8”) line within approximately five feet (5’) of the building wall. The proposed building will likely have an 8” outgoing service in a similar, if not the same, location. There appears to be adequate capacity in the overall system to serve the new building.

C. Storm
New storm drains will be required throughout to serve both the building roof drains and the new SWM system. It is anticipated that all of the on-site lines will be removed. New outfalls to the mains in the surrounding streets will be established.

D. Steam
The recent work in Lawyer’s Mall saw the replacement of the steam lines serving this and nearby buildings. These enter the existing building from Lawyer’s Mall to the west of the main entrance. It is anticipated that the new building will be served in exactly the same way. For more information see the Mechanical sections of this report.

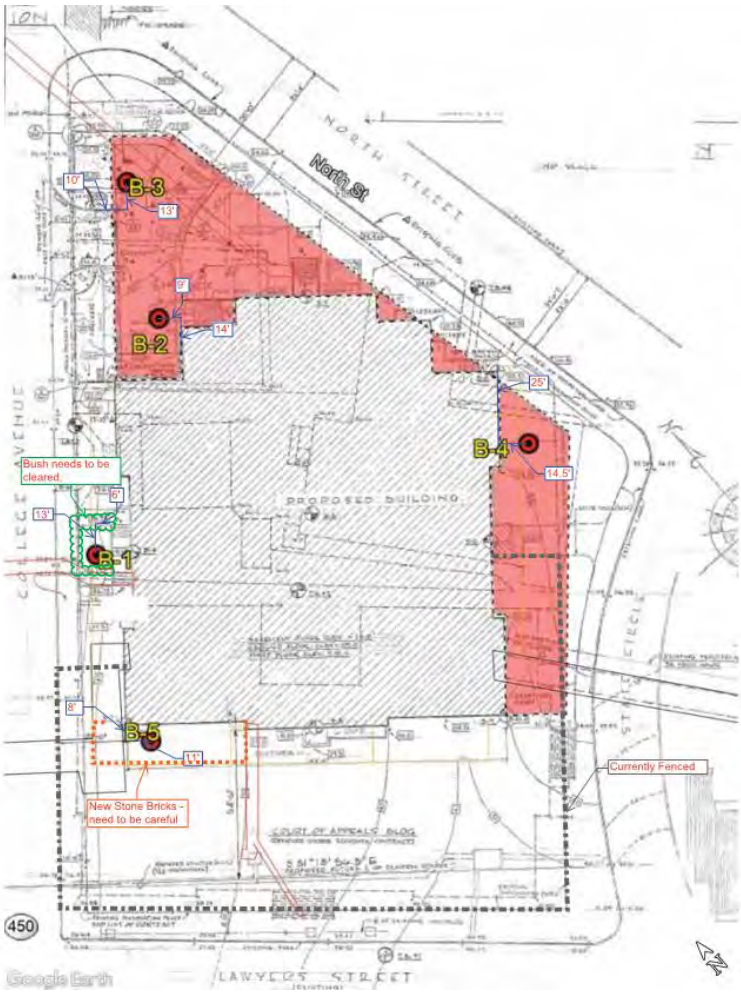
E. Hot & Chilled Water
The recent work in Lawyer’s Mall saw the replacement of the hot and chilled water supply and return lines serving this and nearby buildings. These enter the existing building from Lawyer’s Mall to the west of the main entrance adjacent to the steam lines. It is anticipated that the new building will be served in exactly the same way. For more information see the Mechanical sections of this report.

F. Underground Electric
The recent work in Lawyer’s Mall saw the replacement of the underground electric serving this building. These enter the building from Lawyer’s Mall to the west of the main entrance about halfway between that entrance and the corner of the building. It is anticipated that the new building will be served by rerouting the service ductbank to the northwest section of the building to interface with the electrical room. For more information see the Electrical sections of this report.

2.04 Geotechnical Borings

Four test boring locations were coordinated by the Design Team on the DLS site, B1, B2, B3, B4, to measure the bearing capacity of the soil (see the diagram below). The drilling at these locations

has been completed and 15 drums have been used to containerize the soil from the borings. Test results and analysis of the samples is included in a full geotechnical report in Appendix C.



Site Boring Locations

2.05 Transportation Context

A. Roadways

C. The Department of Legislative Services Building (DLS) site is surrounded by the transportation system that includes College Avenue, North Street, State Circle and the pedestrian-oriented Lawyer's Mall[1].

[1] Lawyer's Mall is currently under construction and is fenced off from public access (December 12, 2020). This project began in 2018 and is expected to be completed by the 2021 General Assembly session. The Maryland Department of General Services (DGS) began the project to address utility replacement, plaza replacement, new landscaping and other improvements to Lawyers Mall underground infrastructure. The Thurgood Marshall Statue was temporarily removed from the plaza and is being returned. Improvements to the plaza will accommodate larger gatherings and performances.

Street System Surrounding Site

These connections fit into the roadway network of downtown Annapolis, Maryland. The four major linkages around the site can be briefly described as:

- College Avenue – a four-lane major collector, providing northeast-southwest connectivity from Church Circle, Bladen Street, North Street/St John's Street and down to King George Street, with adjoining brick walkways, two southwest lanes (one thru and one right turning at Bladen Avenue), two northeastern lanes (one thru and one curb lane serving drop-offs/pick-ups, a public transportation stop and access to/from the dedicated loading dock to the DLS), with raised curbs/gutters but no on-street parking available.

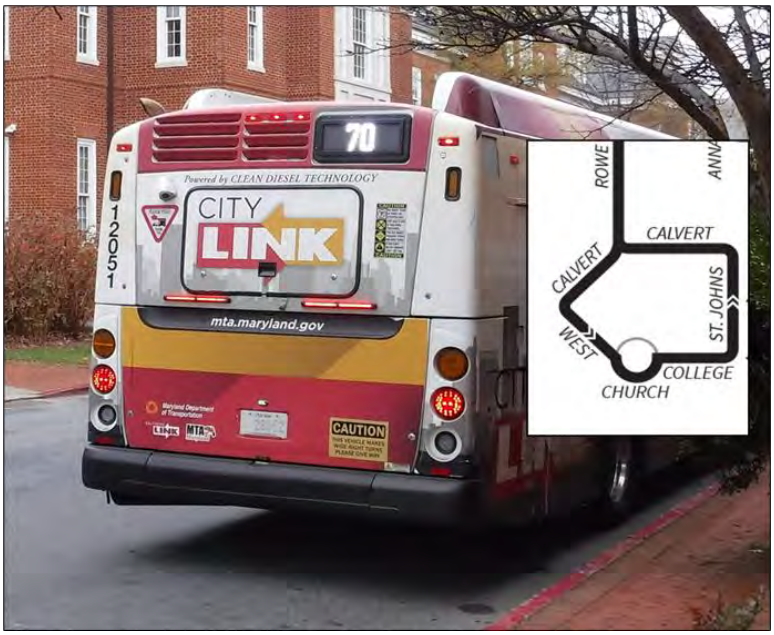
- North Street – a two-lane, north-south roadway connecting State Circle and College Avenue, with on-street parking for land uses on the eastern side of the street, adjoining brick walkways, one handicap space and several access points to driveways, with raised curbs/gutters.

- State Circle – a three-lane roadway, encircling the Maryland State House, with permit-restricted parking on the interior curb lane, and 2-hour restricted parking on the outer curb lane, with a one-way counter-clockwise inner lane traffic flow, connecting multiple streets, with 'high' raised curbs on the inner edges of the pavement surface.

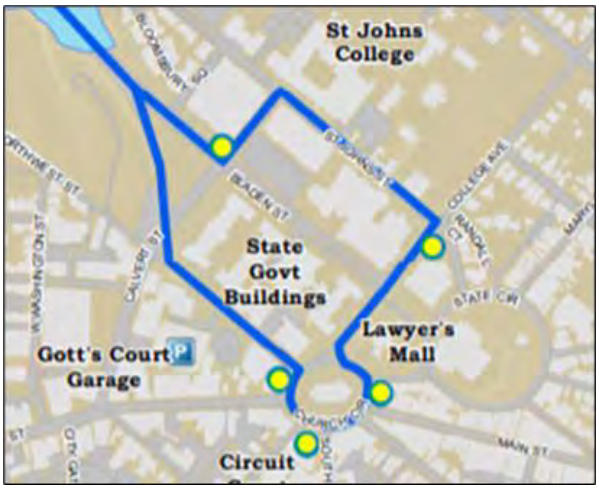
- Lawyer's Mall – a pedestrian plaza, currently under re-construction, which offers access between nearby state buildings and includes gathering places for large groups and a Thurgood Marshall memorial.

B. Public Transportation

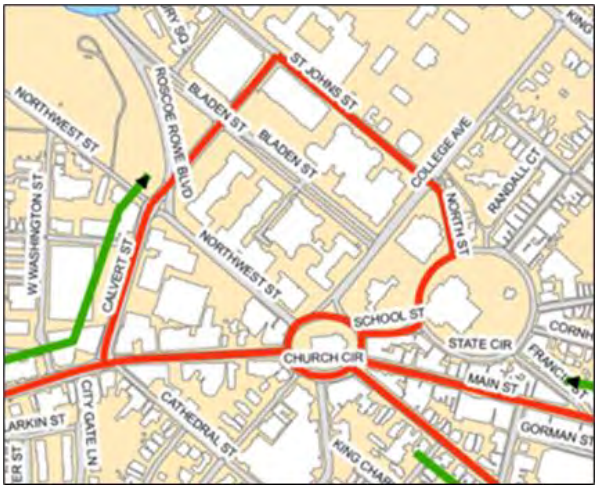
D. Transit service is provided to the DLS site along College Avenue (via the MTA LocalLink 70 and the State Shuttle) and along North Street (via the Annapolis Circulator). The transit service routings are shown on Figures 2 and 3, respectively.



Maryland Transit Administration (MTA) Bus and Routing



State Shuttle Routing



Annapolis Circulator (Trolley) Routing

C. Site Related Road Improvements

The building replacement will house only 12 percent more employees than existing, and therefore no significant increases in site trip generation are expected and no formal traffic projections or operational analysis was undertaken. With replacement of the current building, provide the following changes to transportation infrastructure and operations:

- Roadways
  a. College Avenue
     - Maintain existing traffic movements between Bladen Street and North Street/St Johns Street fronting the DLS site:
     1. Two northeastern bound lanes
        a. Thru lane between Bladen Street and North Street/St Johns Street
        b. Curb lane for public transportation pick-up/discharge, other passenger loading/unloading and arrival to loading dock
     2. Two southwestern bound lanes
        a. Thru lane between North Street/St Johns Street
        b. Curb lane + right turn lane at Bladen Street

  b. North Street
     - Maintain existing traffic movements between College Avenue and State Circle fronting the DLS site:
     1. Two northbound lanes
        a. Thru lane between State Circle and College Avenue providing access to several driveways
        b. Curb lane for on-street parking and handicap space
     2. One southbound thru connecting to State Circle with a right turn only movement

  c. State Circle
     - Maintain existing traffic movement (counterclockwise one-way operation) with permit parking only as currently designated on the inner curb lane and 2-hour parking restrictions on the outer curb lane.

  d. Lawyers Mall (under construction, as of December 12, 2020)
     - Maintain imminent constructed plans.

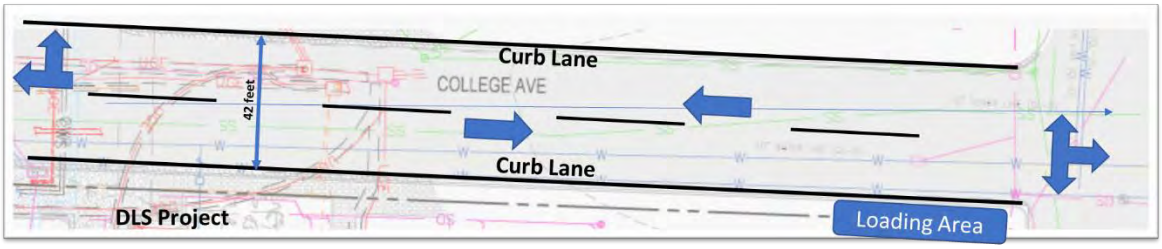
- Public Transportation
  a. College Avenue
     - Relocate bus stop to the south, nearer to Lawyers Mall and more centralized pedestrian corridor
     - Use curb lane for pick-up/discharge of passengers
     - Consider new bus shelter at new bus stop location
     - Continue to provide MTA and State Shuttle service on northeastern bound lanes between Bladen Street and North Street/St Johns Street

  b. North Street
     - Continue to provide Annapolis Circulator service on southbound lane to State Circle.

c. State Circle
   - Continue to provide Annapolis Circulator service on the State Circle.

d. Lawyers Mall (under construction, as of December 12, 2020)
   - Maintain imminent constructed plans.

D. Construction Phase
- Roadways
  a. College Avenue
     - Shift the thru traffic movements on College Avenue beside the project site providing construction access and have a lay down area during construction



Existing and Proposed

Temporary Construction Proposal

Proposed Traffic Movements for College Avenue

b. North Street (No Change)
   - Maintain existing traffic movements between College Avenue and State Circle fronting the DLS site:

1. Two northbound lanes
2. Thru lane between State Circle and College Avenue providing access to several driveways
    a. Curb lane for on-street parking and handicap space
3. One southbound thru lane to a right-turn only at State Circle

c. State Circle (No Change)
    - Maintain existing traffic movement (counterclockwise one-way operation) with permit parking only as currently designated and 2-hour restricted parking on the outer curb lane

d. Lawyers Mall (under construction, as of December 12, 2020)
    - Maintain imminent constructed plans.

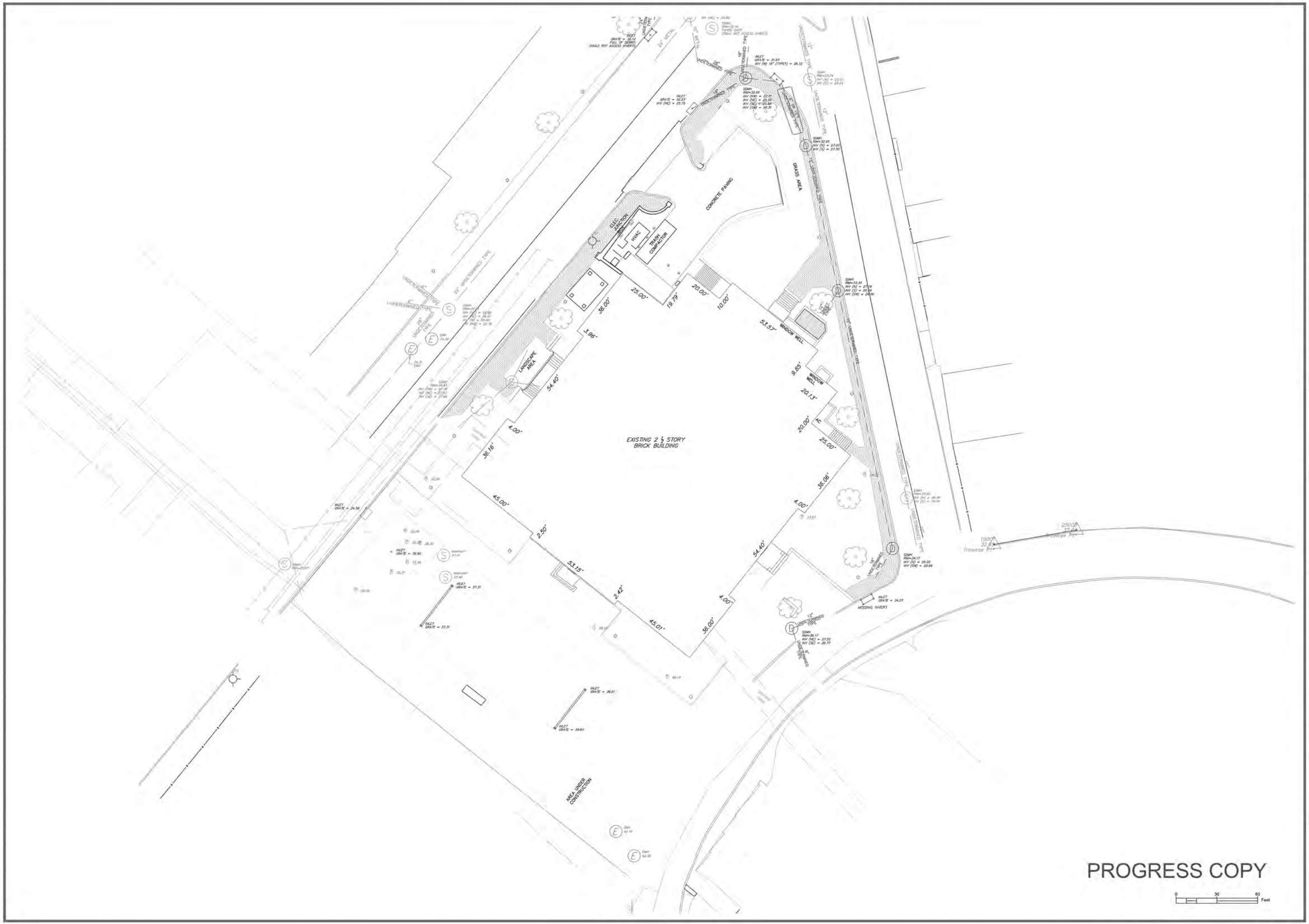
- Public Transportation
    a. College Avenue
        - Remove bus stop along College Avenue and divert passengers to other nearby stops (Bladen Street and St Johns Street)

    b. North Street
        - Continue to provide Annapolis Circulator (Trolley) service on the southbound lane to State Circle.

    c. State Circle
        - Continue to provide Annapolis Circulator service on State Circle.

    d. Lawyers Mall (under construction, as of December 12, 2020)
        - Maintain imminent constructed plans.

These concepts regarding the shifting of traffic during the construction period and the relocation of the transit stop will need to be coordinated with the City of Annapolis for approval during the design phase. Peak hour traffic along College Avenue ranges between 600 – 700 vehicles in the AM and PM. Counts will be conducted if needed for submission to the City.



DATE	REVISIONS	BY

NAVARRO & WRIGHT
CONSULTING ENGINEERS
938 RIDGEBROOK RD., SUITE B1
SPARKS, MD 21152
PHONE: (443) 595-8629
FAX: (443) 595-8662

TOPOGRAPHIC WORKSHEET
FOR
90 STATE CIRCLE
MARYLAND STADIUM AUTHORITY
ANNAPOLIS
ANNE ARUNDEL COUNTY, MD

JOB NUMBER:	2010TD261
DRAWN BY:	MAD
CHECKED BY:	SJH
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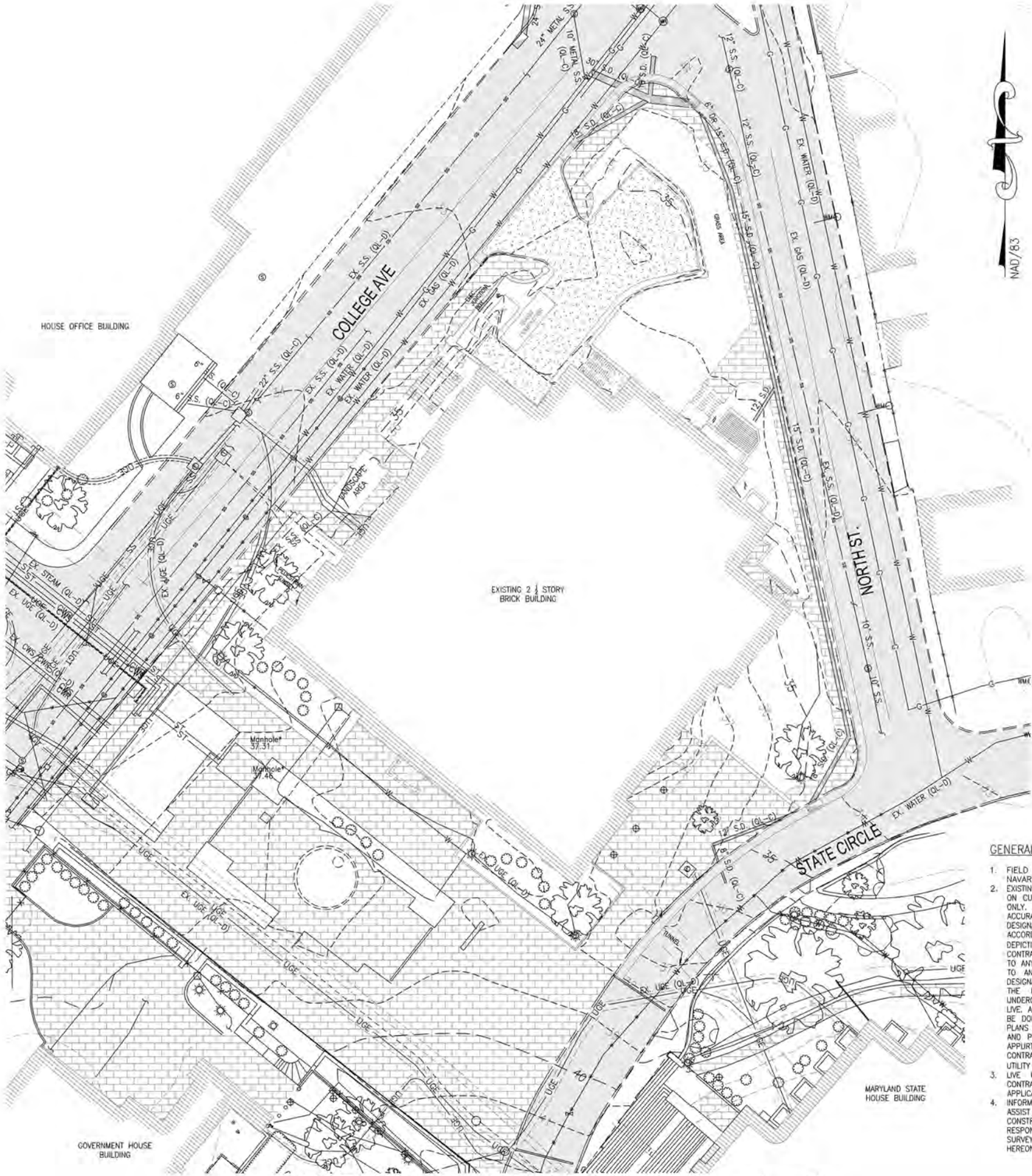
DATE:	11/12/2020
DRAWING NUMBER:	
SHEET:	1 OF 1



EXISTING CONDITIONS PLAN

SCALE: 1"=20'

20' 10' 0 20' 40'

SCALE: 1"=20'

LEGEND

- EXISTING PROPERTY LINE
- EXISTING RIGHT-OF-WAY
- EXISTING EASEMENT
- EXISTING SETBACK
- EXISTING BUILDING
- 100 EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING CURB
- EXISTING CURB & GUTTER
- EXISTING ROADWAY
- EXISTING PAVEMENT
- EXISTING ASPHALT PAVING
- EXISTING CONCRETE PAVING
- EXISTING BRICK PAVING
- EXISTING FENCELINE
- EXISTING SIGN
- EXISTING ELECTRIC HANDBOX
- EXISTING ELECTRIC MANHOLE
- OHE EXISTING OVERHEAD ELECTRIC
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- WM EXISTING WATER METER
- WV EXISTING WATER VALVE
- W EXISTING WATER MANHOLE
- EXISTING FIRE HYDRANT
- IRR EXISTING IRRIGATION LINE
- EXISTING DECIDUOUS TREE
- EXISTING EVERGREEN TREE
- EXISTING SHRUB

GENERAL NOTES:

1. FIELD RUN TOPOGRAPHICAL SURVEY HAS BEEN PERFORMED by NAVARRO AND WRIGHT ON NOVEMBER OF 2020 .
2. EXISTING UNDERGROUND UTILITIES DESIGNATED ON THE PLANS ARE BASED ON CURRENTLY AVAILABLE INFORMATION AND ARE SHOWN FOR REFERENCE ONLY. THE OWNER AND ENGINEER DISCLAIM ANY RESPONSIBILITY FOR THE ACCURACY OR COMPLETENESS OF SAID INFORMATION BEYOND THE DESIGNATION INDICATED. THE QUALITY LEVEL DESIGNATED IS IN ACCORDANCE WITH ASCE "STANDARD GUIDELINE FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA" (CI/ASCE 38-02). THE CONTRACTOR SHALL MAKE HIMSELF FAMILIAR WITH THOSE STANDARDS PRIOR TO ANY RELIANCE ON THE INFORMATION SHOWN ON THESE PLANS. PRIOR TO ANY EXCAVATION, IN THE ABSENCE OF QUALITY LEVEL A OR B DESIGNATION, THE CONTRACTOR SHALL VERIFY, TO HIS OWN SATISFACTION, THE EXISTENCE, DEPTH, SIZE, MATERIAL, AND LOCATION OF ALL UNDERGROUND UTILITIES, AND DETERMINE WHETHER THOSE UTILITIES ARE LIVE. ANY EARTHWORK IN LOCATIONS WHERE UTILITIES ARE POSSIBLE SHALL BE DONE WITH EXTREME CAUTION. THE GIVING OF INFORMATION ON THE PLANS WILL NOT RELIEVE THE CONTRACTOR OF HIS OBLIGATION TO SUPPORT AND PROTECT ALL DESIGNATED OR UNDESIGNATED EXISTING UTILITIES AND APPURTENANCES. SHOULD ANY EXISTING UTILITY BE DAMAGED BY THE CONTRACTOR, THE CONTRACTOR SHALL REPAIR THE DAMAGE CAUSED TO THE UTILITY OWNER'S SATISFACTION, AT THE CONTRACTOR'S EXPENSE.
3. LIVE UNDERGROUND UTILITIES MAY EXIST WITHIN THE WORK AREA. CONTRACTOR SHALL USE EXTREME CAUTION AND SHALL COMPLY WITH APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS.
4. INFORMATION SHOWN ON THIS DRAWING HAS BEEN PROVIDED AS A GUIDE TO ASSIST THE CONTRACTOR IN ESTABLISHING THE LOCATIONS OF PROPOSED CONSTRUCTION WITH RESPECT TO EXISTING SITE IMPROVEMENTS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ALL CONSTRUCTION SURVEY STAKEOUT REQUIRED AND TO CONFIRM ALL INFORMATION SHOWN HEREON.

UTILITY DESIGNATION DESCRIPTION:

QUALITY LEVEL D (QL-D):
INCLUDES UTILITIES DESIGNATED THROUGH RECORD DOCUMENTS. THIS DATA COULD BE DIGITAL RECORDS, PAPER RECORDS, OR GIS DATA. THE AVAILABLE DATA COULD BE LIMITED AND NOT PRODUCE A COMPLETE PICTURE OF WHAT IS ONSITE. THE COMPLETENESS AND ACCURACY OF THE INFORMATION COULD BE COMPROMISED. HOWEVER, THE DATA COLLECTED IS SHOWN AND DESIGNATED SO AS TO REFLECT THE POTENTIAL FOR THE EXISTENCE OF UTILITIES.

QUALITY LEVEL C (QL-C):
INCLUDES UTILITIES DESIGNATED THROUGH THE PROCESS OF SURVEYING THE VISIBLE UTILITY SURFACE FEATURES. THIS DATA IS COMPILED WITH THE QUALITY LEVEL D DATA TO PROVIDE AN INCREASED, NOT ABSOLUTE, LEVEL OF HORIZONTAL POSITION ACCURACY FOR UNDERGROUND, NON-VISIBLE, QUALITY LEVEL D INFORMATION.

QUALITY LEVEL B (QL-B):
INCLUDES DESIGNATING THE UNDERGROUND UTILITIES BY MARKINGS PROVIDED THROUGH AN 811 CALL, BY CONTACTING AN INDIVIDUAL UTILITY COMPANY, OR PERFORMING TRACING OR GROUND PENETRATING RADAR. THE DESIGNATED UTILITY MARKINGS ARE THEN SURVEYED AND ADDED TO THE DRAWING. THIS DATA IS ADDED TO THE DATA COLLECTED FROM QUALITY LEVELS D AND C TO PROVIDE AN INCREASED LEVEL OF HORIZONTAL POSITION ACCURACY FOR UNDERGROUND, NON-VISIBLE UTILITIES.

QUALITY LEVEL A (QL-A):
INVOLVES PHYSICALLY LOCATING THE ACTUAL UTILITY BY MEANS OF TEST PITTING OR OTHER METHODS OF EXPOSURE. ONCE THE UTILITY IS EXPOSED IT IS LOCATED HORIZONTALLY AND VERTICALLY BY SURVEY MEASUREMENTS.

RELEASED FOR

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- ☐ BIDDING
- ☐ PERMIT
- ☐ CONSTRUCTION

REVISIONS		
NO	DATE	DESCRIPTION

CARROLL ENGINEERING, INC.
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HUNT VALLEY, MD 21031
410-785-7423 PHONE
www.ceiengineering.com

EXISTING CONDITIONS

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DEPARTMENT OF GENERAL SERVICES
ANNAPOLIS, MD

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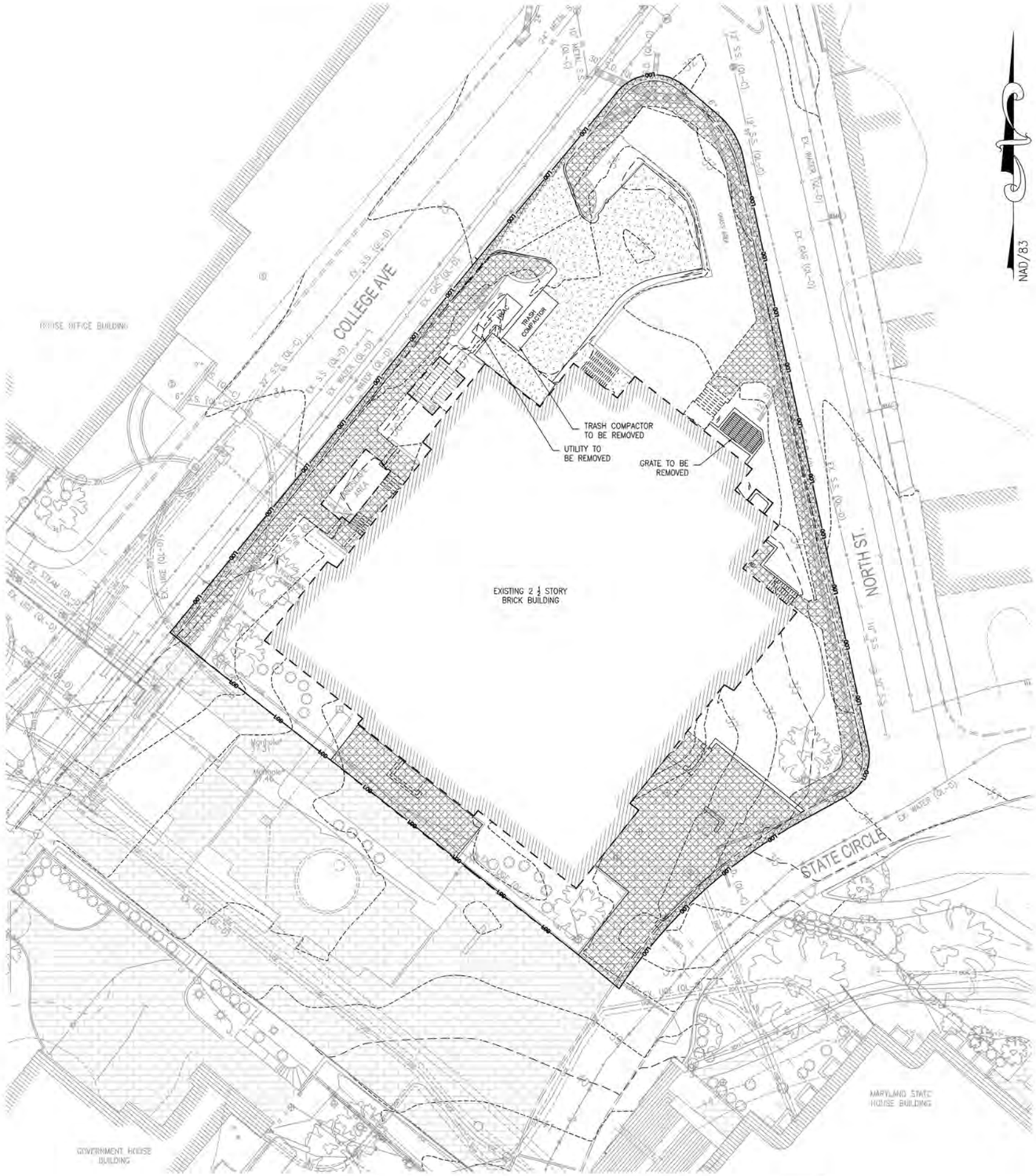

LEGEND

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- EXISTING EVERGREEN TREE
- EXISTING SHRUB
- ASPHALT TO BE REMOVED
- CONCRETE TO BE REMOVED
- PAVERS TO BE REMOVED
- LIMIT OF SAWCUT/EXCAVATION
- LOD LIMIT OF DISTURBANCE

DEMOLITION PLAN

SCALE: 1"=20'

20' 10' 0 20' 40'

SCALE: 1"=20'

RELEASED FOR

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DEMOLITION PLAN

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DEPARTMENT OF GENERAL SERVICES
ANNAPOLIS, MD

SEAL

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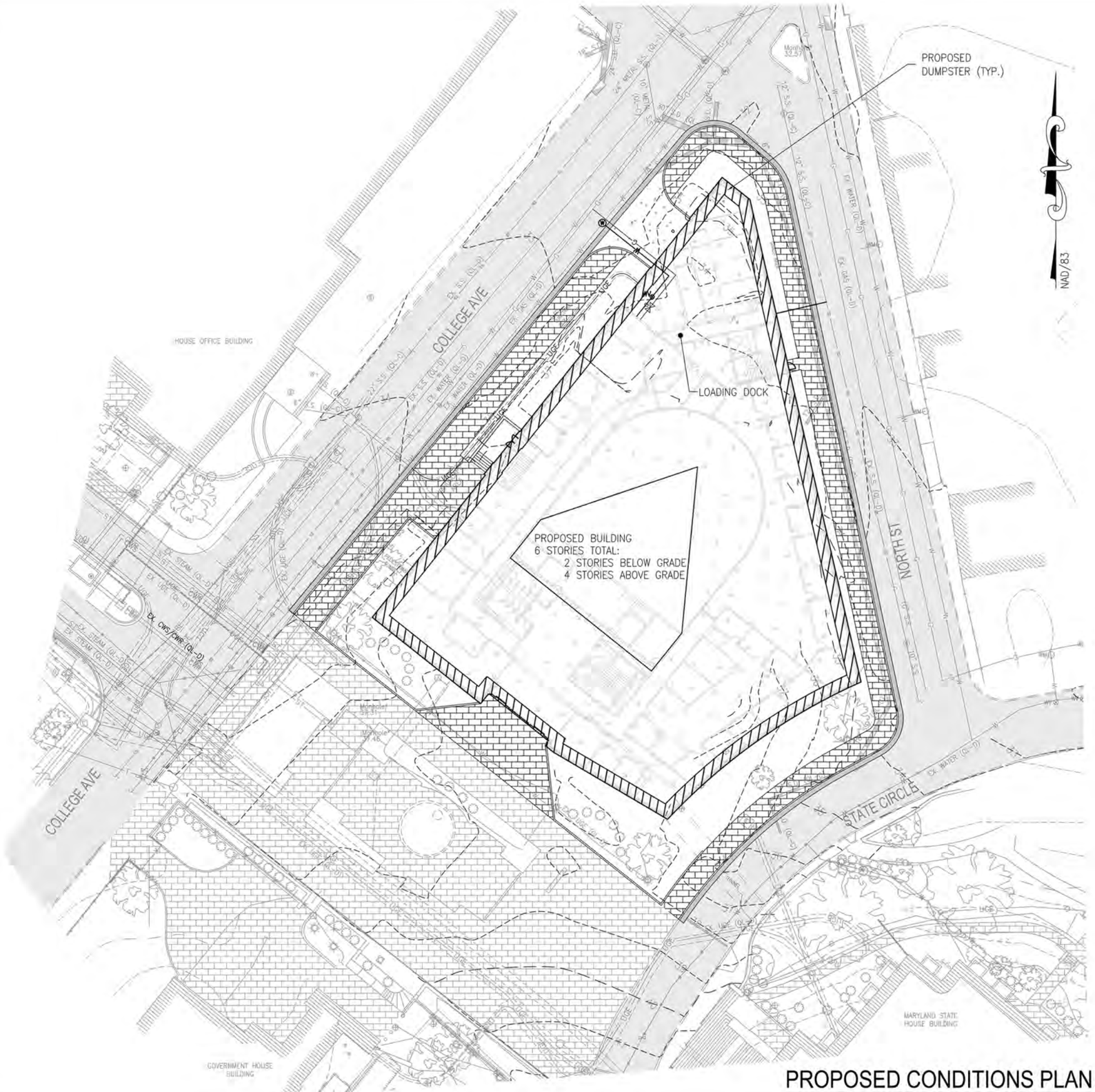

LEGEND

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- EXISTING EVERGREEN TREE
- EXISTING SHRUB
- PROPOSED BUILDING
- PROPOSED CURB
- PROPOSED CONCRETE DRIVE
- PROPOSED CONCRETE
- PROPOSED ASPHALT PAVING
- PROPOSED PAVERS
- PROPOSED GREEN ROOF
- PROPOSED RETAINING WALL
- UGE PROPOSED UNDERGROUND ELECTRIC
- UGE PROPOSED DUCTBANK
- G PROPOSED GAS LINE
- PROPOSED GAS VALVE
- W PROPOSED WATER LINE
- WV PROPOSED WATER VALVE
- PROPOSED PARKING

PROPOSED CONDITIONS PLAN

SCALE: 1"=20'

20' 10' 0 20' 40'
SCALE: 1"=20'

RELEASED FOR

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- ☐ BIDDING
- ☐ PERMIT
- ☐ CONSTRUCTION

REVISIONS		
NO.	DATE	DESCRIPTION

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PROPOSED CONDITIONS

DEPT. OF LEGISLATIVE BLDG. IMPROVEMENTS
DEPARTMENT OF GENERAL SERVICES
ANNAPOLIS, MD

PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. XXXXX. EXPIRATION DATE: XXXXXX.

SEAL

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CHECKED BY: JAC	DRAWING NUMBER
SCALE: AS SHOWN	C-3.0
DATE: DEC. 2020	SHEET 3 OF X

Section 3 – Structure

3.01 General

The existing structure on the site will be demolished and replaced with a new building consisting of two levels at or below grade, and four stories above grade. The structural framing responds to several significant architectural conditions, including:

- The Joint Hearing Room is a double-height, tall volume space with sloping and stepping floor forms. The room begins on the First Floor and slopes downward to an elevation approaching the Ground Floor below. The space is framed to be column free, which results in a long span, structural transfer condition to support the levels above.

- A double height atrium space occurs on the upper two floors of the building.

- The perimeter spaces of the building at the Fourth Floor are located under a sloping mansard roof shape.

- The typical dimension from exterior wall to interior core is approximately 40' for much of the above grade office levels. The structural system has been selected to maintain much of this space column free, to enhance space efficiency and promote future flexibility. Additional columns can be placed within the spaces planned for the below grade levels to reduce span lengths.

3.02 Superstructure

Composite structural steel framing is proposed for the building superstructure. Steel framing can efficiently provide the 40' spans desired in the office spaces, and can also provide the longer spans necessary over the Joint Hearing Room. Steel columns would bear on supporting structure at the First Floor elevation, and extend upward to the top of the building. Typical bay sizes are expected to be about 30' x 40'.

Floor construction will generally consist of a 3-1/4" thick lightweight concrete slab on 3" x 20 gage composite floor decking, for a total floor assembly thickness of 6-1/4". In typical floor bays, beam sizes would generally be W12 with W18 girders. The longer span bays will have beams sizes of W18 with W21 girders. Typical steel tonnage to frame the floors is expected to be on the order of 12 psf for primary framing (beams, girders, columns, and lateral bracing).

Deeper and heavier steel members ranging in size from W30 to W44 free span over the Joint Hearing Room space at the Second-Floor level. These members support the floor directly above, and in some cases support transferred columns as well. An additional 15 tons of steel (in addition to the 12 psf mentioned above for typical floor framing) is anticipated to frame this long span area.

Roof construction will generally consist of 3” 20 gage galvanized metal roof decking spanning to W12 steel beams and W18 girders. The steel will slope at the building perimeter to create the desired mansard shape. Typical steel tonnage to frame the roof is expected to be on the order of 10 psf for primary framing.

3.03 Substructure

Concrete framing is proposed for the Ground and First Floors of the building. The nature of the planned spaces on the lower levels allows the introduction of additional columns to reduce span lengths to about 30’. The sloping and stepping forms of the Joint Hearing Room floor are also more readily framed with a concrete solution.

Typical framing is anticipated to be a 9” thick conventionally reinforced two-way slab spanning between columns. 10’ square x 6” deep drop panels will be used at all column locations. Framing at the Joint Hearing Room sloped floor is expected to be sloping concrete beams that support 6” to 8” thick one-way concrete slabs. Concrete columns will generally be 24”x24”.

Below grade perimeter walls will generally be about 14” thick reinforced concrete.

The lowest level will be a conventional 5” thick slab on grade. A 6” thick slab will be used at higher load areas, such as the compact shelving collection and storage rooms.

3.04 Lateral Load Resisting System

Lateral load resisting elements will be located in fixed walls around stairs and elevators, so as not to impact the programmatic use of floor area. Concentrically braced frames will be provided at the upper steel framed levels. The braced frames will sit on top of concrete shear walls that will extend through the building substructure to the foundation. A total of four frames/walls (2 in each principal direction) are anticipated.

3.05 Foundations

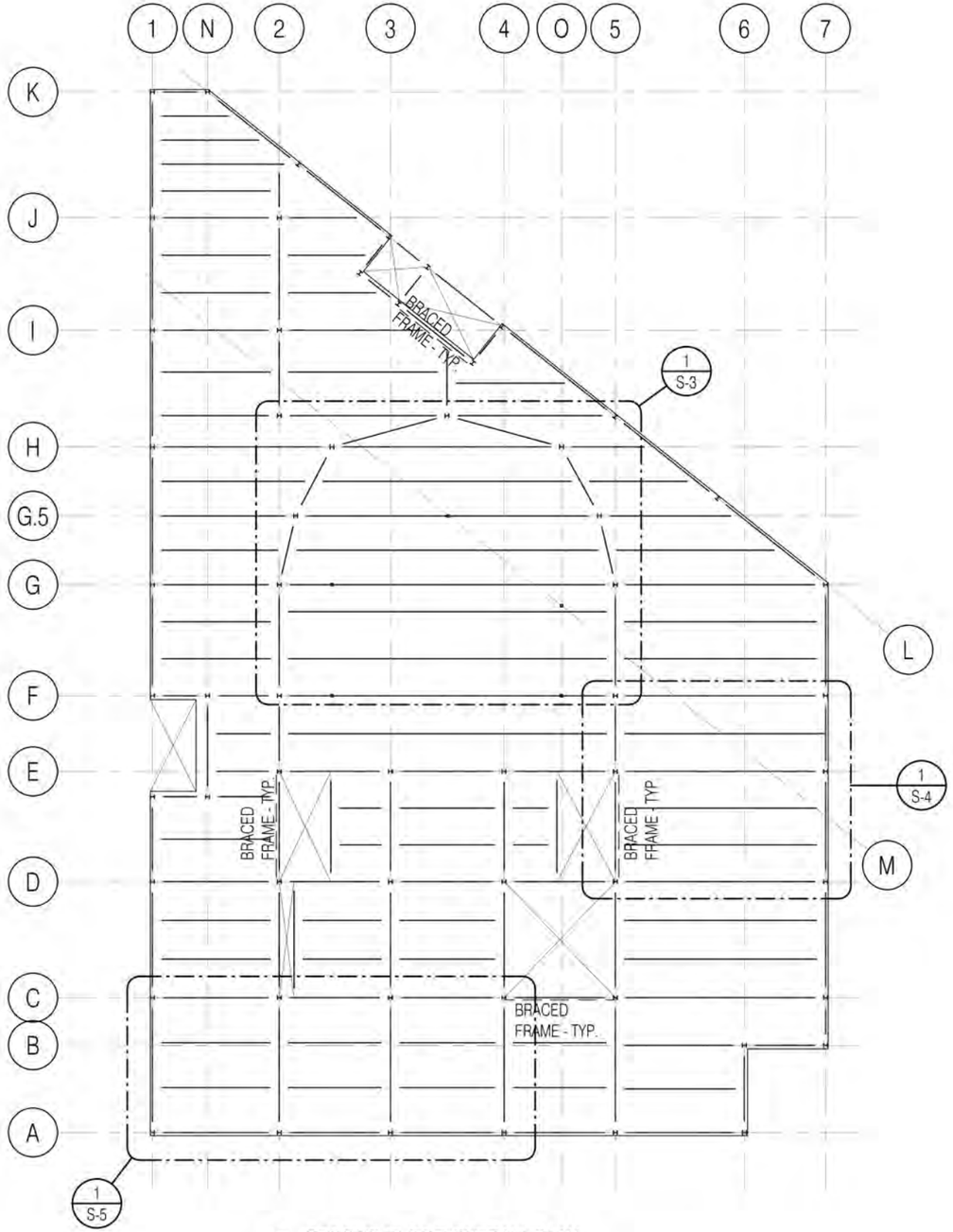
A spread footing system proportioned for a bearing capacity of 4,000 psf to match current conditions is anticipated, since the new structure will have foundations that bear at roughly the same elevation as the building being demolished.

3.06 Existing Building Demolition

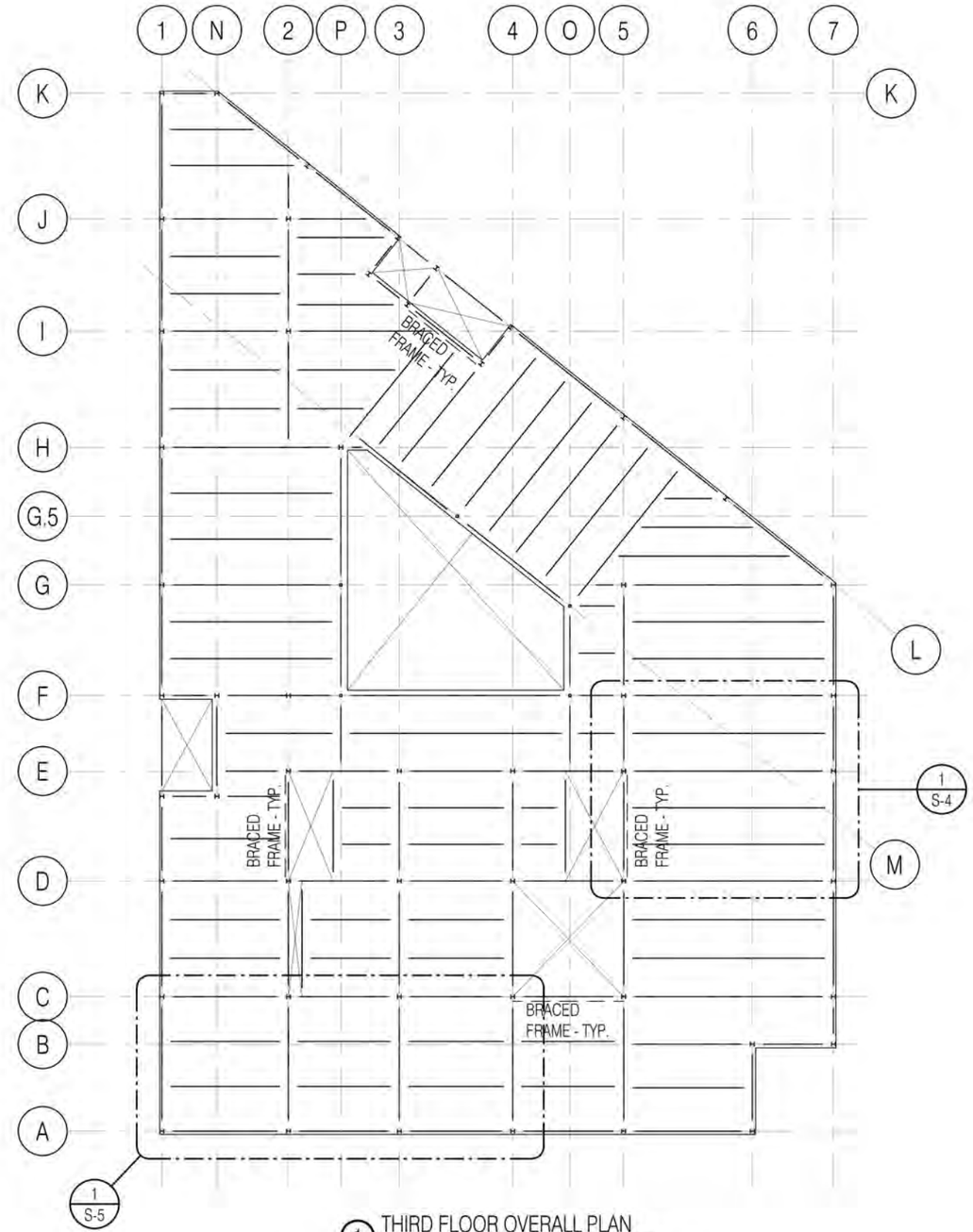
It is recommended the existing spread footings be removed in their entirety so that new foundations can be located and placed in a structurally efficient and economical way.

The existing concrete basement walls could potentially be used as part of the support of excavation system, eliminating the need for a new sheeted wall in some places. This would require the new building walls and waterproofing systems to be placed inside of the existing wall

locations. New tiebacks would need to be installed through the existing walls as demolition progresses to provide the necessary load capacity and stability. This approach needs to be studied further in future phases of the project to determine viability, and impact upon construction schedule and budget.



1 SECOND FLOOR OVERALL PLAN



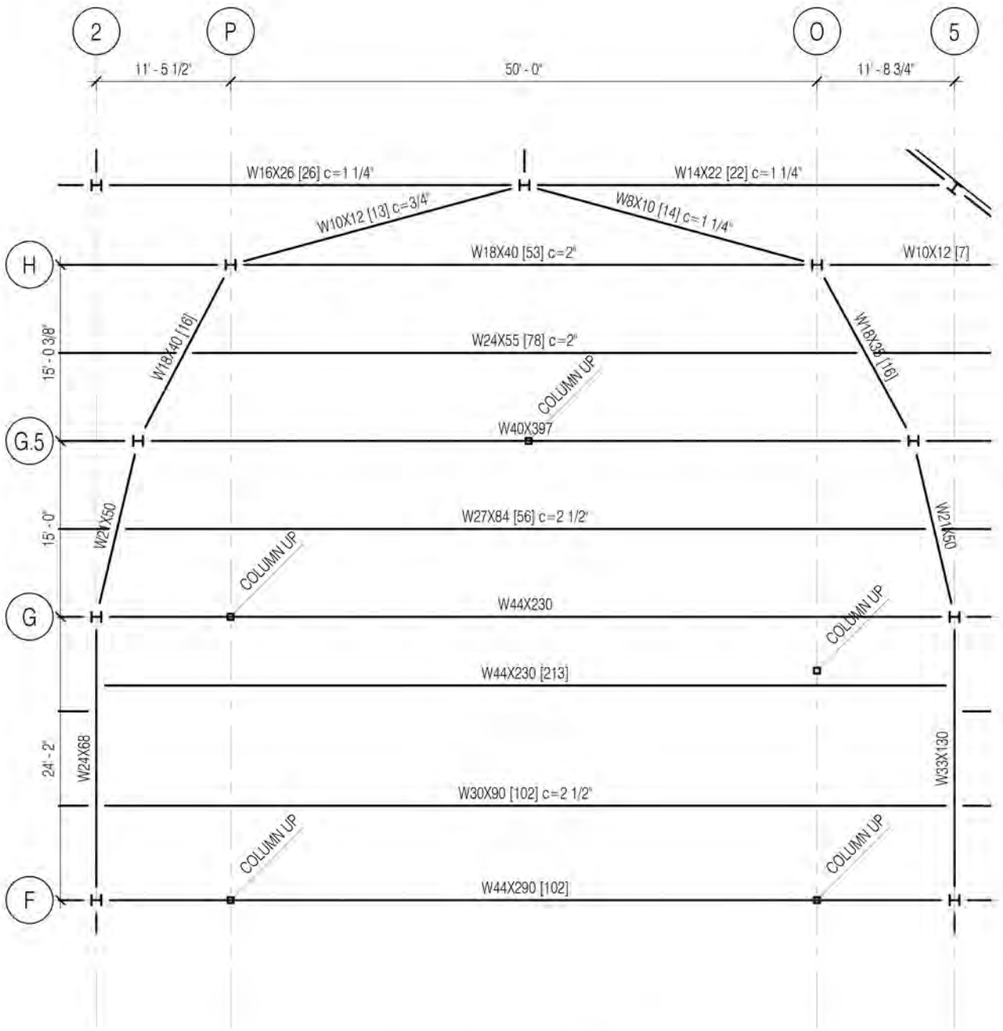
1 THIRD FLOOR OVERALL PLAN

TYPICAL FRAMING PLANS

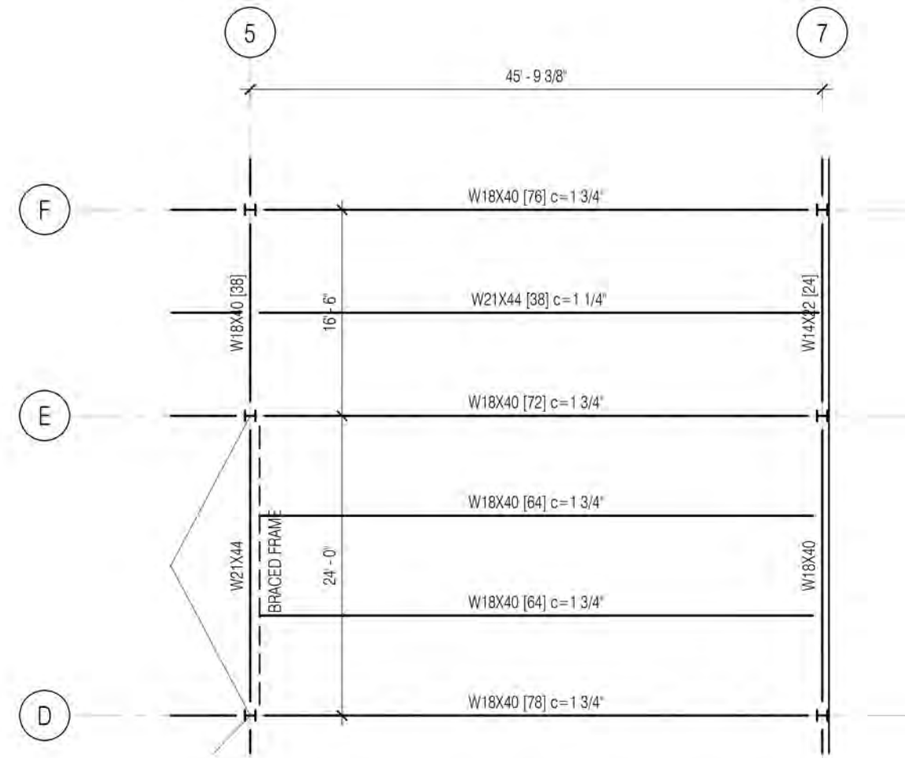
FIGURE 3.01

DEPARTMENT OF LEGISLATIVE SERVICES

90 STATE CIRCLE
ANNAPOLIS, MD



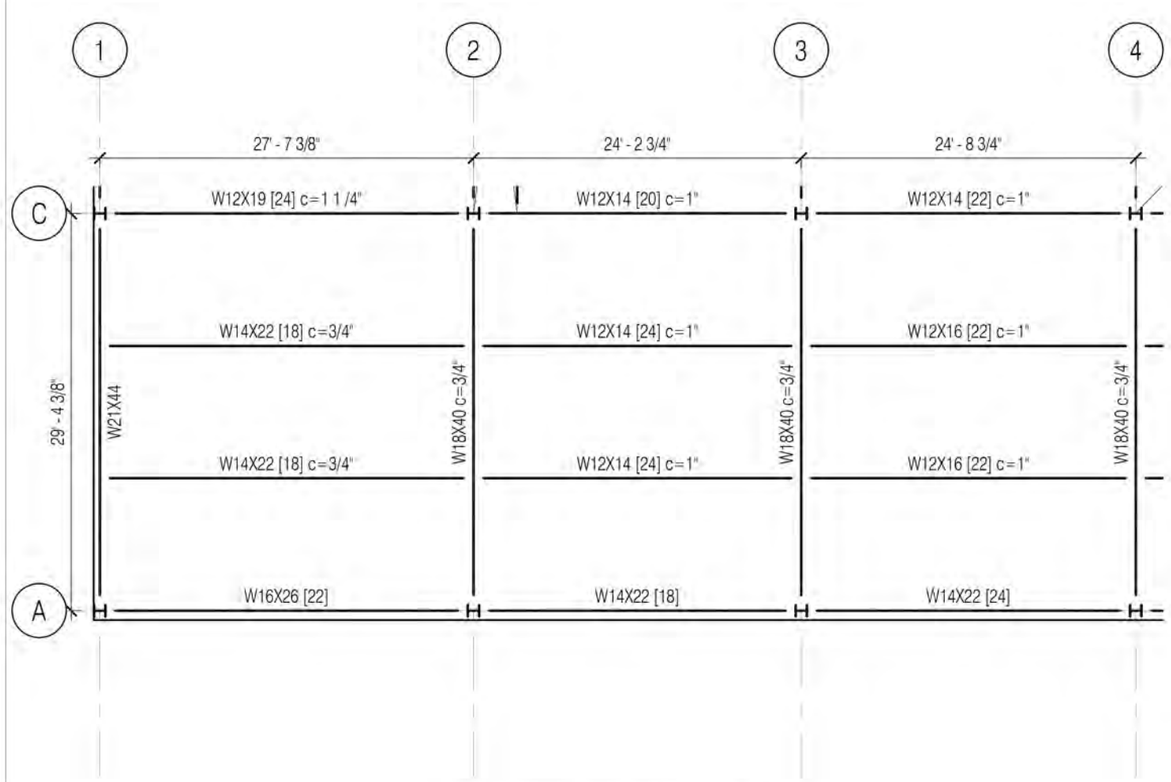
1 SECOND FLOOR PARTIAL PLAN



1 PARTIAL FLOOR FRAMING PLAN

TYPICAL FRAMING PLANS

FIGURE 3.02



1 PARTIAL FLOOR FRAMING PLAN

TYPICAL FRAMING PLANS

FIGURE 3.03

Section 4 – Mechanical, Plumbing, Electrical, Fire Protection, and Fire Alarm Systems

4.01 Mechanical Overview

The following narrative provides a basis for the proposed mechanical systems of the new replacement building for the Maryland Department of Legislative Services. Each option presented shall be designed to support the new multi-story 141,500 sq. ft. Office building to serve the office space, conference, and joint hearing room. Considering the typical evolution of design, the recommendations, assumptions, and design strategies suggested herein are subject to change as the project progresses.

4.02 Codes and Standards

ASHRAE	American Society for Heating, Refrigerating and Air Conditioning Engineers, Inc.
ASHRAE 15	Safety Code for Mechanical Refrigeration
ASHRAE 34	Number Designation and Safety Classification of Refrigerants
ASHRAE 55	Thermal Environmental Conditions for Human Occupancy
ASHRAE 90.1	Energy Efficient Design of New Buildings Except Low-Rise Residential Buildings
ASHRAE 62.1	Ventilation for Acceptable Indoor Air Quality
IBC 2018	International Building Code
IECC 2018	International Energy Conservation Code
IMC 2018	International Mechanical Code
IPC 2018	International Plumbing Code
IGCC 2018	International Green Construction Code
NFPA 2017	National Fire Protection Association
NFPA 70-2017	National Electric Code
ADA 2010	ADA Standards

4.03 Design Guidelines and Compliances

In addition to designing the mechanical systems in accordance with applicable codes above the systems shall also be designed in such a manner as to help achieve a minimum LEED silver certification. The mechanical systems will be sized based on the weather data for Annapolis, Maryland from ASHRAE Fundamentals and using the Trane Trace 700 computer-based HVAC load calculation software.

A. Design Criteria

Outdoor Ambient Design Temperatures

Winter: 0° F DB

Summer: 95° F DB / 78° F WB

Indoor Ambient Design Temperatures

Winter: 70° F DB / 30% RH

Summer: 75° F DB/ 50% RH

Design Considerations

Refer to Table 1-1 for additional design parameters used for load calculations.

Table 1-1: Design Input Data for Load Calculations

Space Type	Occupancy (ft2/person)	Lighting Load (W/ft2)	Miscellaneous Load (W/ft2)	Exhaust rate (cfm/unit)	Ventilation	
					(cfm/person)	(cfm/ft^2)
Office	200	1.1	0.5	-	5	0.06
Corridor	0	0.5	0.5	-	0	0.06
Conference	20	1.3	0.5	-	5	0.06
Elevator Lobby	100	1.3	0.5	-	5	0.06
Hearing Room	6.67	0.9	0.5	-	5	0.06
Mechanical room	0	1.5	0.5	-	10 ACH	-
Library	100	1.1	0.5	-	5	0.15
Break room	40	1.1	0.5	-	5	0.06
Storage	0	0.3	0.5	-	0	0.12
Restroom	0	0.9	0.1	50	-	-

B. Ventilation

Minimum ventilation rates and indoor air quality shall meet the ASHRAE standard 62.1-2018/IMC - 2018. Demand controlled ventilation shall be provided for any conference rooms and classrooms using carbon dioxide sensors and reheat variable air volume terminal units.

Carbon dioxide sensors will be installed in high people density spaces to reduce supply air to spaces (e.g. hearing, conference, and meeting rooms) to minimize outdoor ventilation air requirements. Occupancy sensors will be specified to shut-down air to spaces when not in use to reduce building supply air requirements.

4.04 Mechanical Systems Overview

The following options were evaluated and deemed appropriate for this building.

Option 1: AHUs with Reheat VAV system served by air cooled chillers and gas boilers

Option 2: AHUs with Reheat VAV system served by air cooled chillers and gas boilers AND campus chilled water and steam system as a backup

A. Option 1

In this option, the primary chilled water will be provided by an air cooled chiller located on the roof top and heating shall be provided by a natural gas fired boiler located at the basement mechanical room. There will be many numbers of AHUs be in mechanical room or roof. A small mechanical room require for boiler and associated units.

- Chilled water system

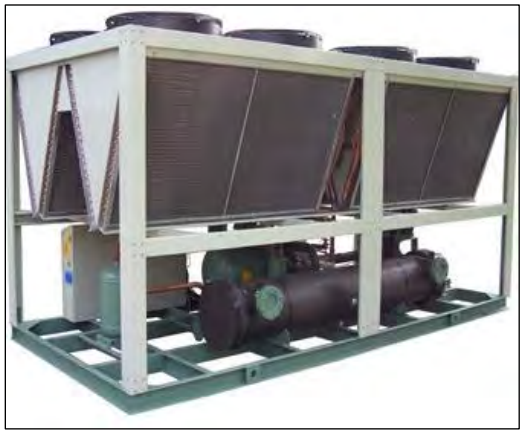
The chilled water system shall have a primary/secondary loop to handle the building's required load. The primary loop will be the production side of chilled water and shall have an air-cooled chiller and pumps. The secondary loop is the distribution side and shall directly serve the cooling coils in the AHU's. This secondary loop shall also have its own set of variable speed pumps and control valves. The air-cooled chiller for the primary loop will be modular type and use an acceptable refrigerant capable of allowing the project to pick up LEED points for refrigerant management. Refer to Figure 1.2 for typical chilled water flow diagram.

Air Cooled Chiller:

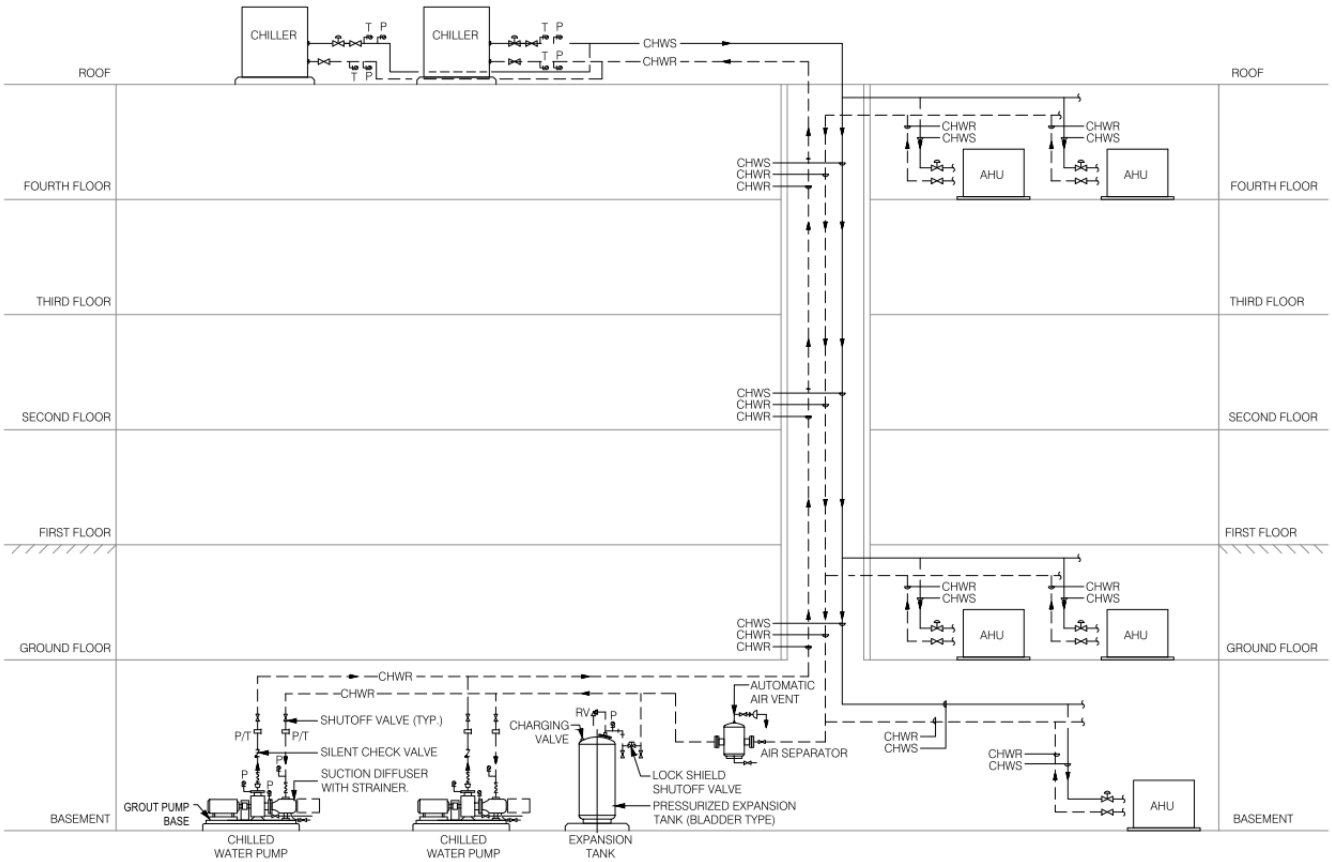
The air cooled chiller consists of pumps with variable frequency drives, control valves, isolation valves, strainers, fittings, other ancillary equipment, and a piping loop.

Cooling and dehumidification for the building will be accomplished via a modular air-cooled chiller. Multiple modules with dual scroll tandem compressor sets will provide redundancy. The chiller will be equipped with multiple scroll compressors with variable frequency drives (VFD) for capacity modulation. Chilled water from the air-cooled chiller will be distributed to the building via Pumps with VFDs. Insulation will be required for the piping.

Chiller will be capable of providing chilled water at 40 to 45 deg F (10-15-degree delta T) at peak building cooling conditions. Lead pump will circulate chilled water through the system while the second pump will act as standby. Distribution will be in a variable primary arrangement with appropriate bypass included to ensure minimum flow during low load conditions.



Typical Air-Cooled Chiller System



Typical chilled water flow diagram

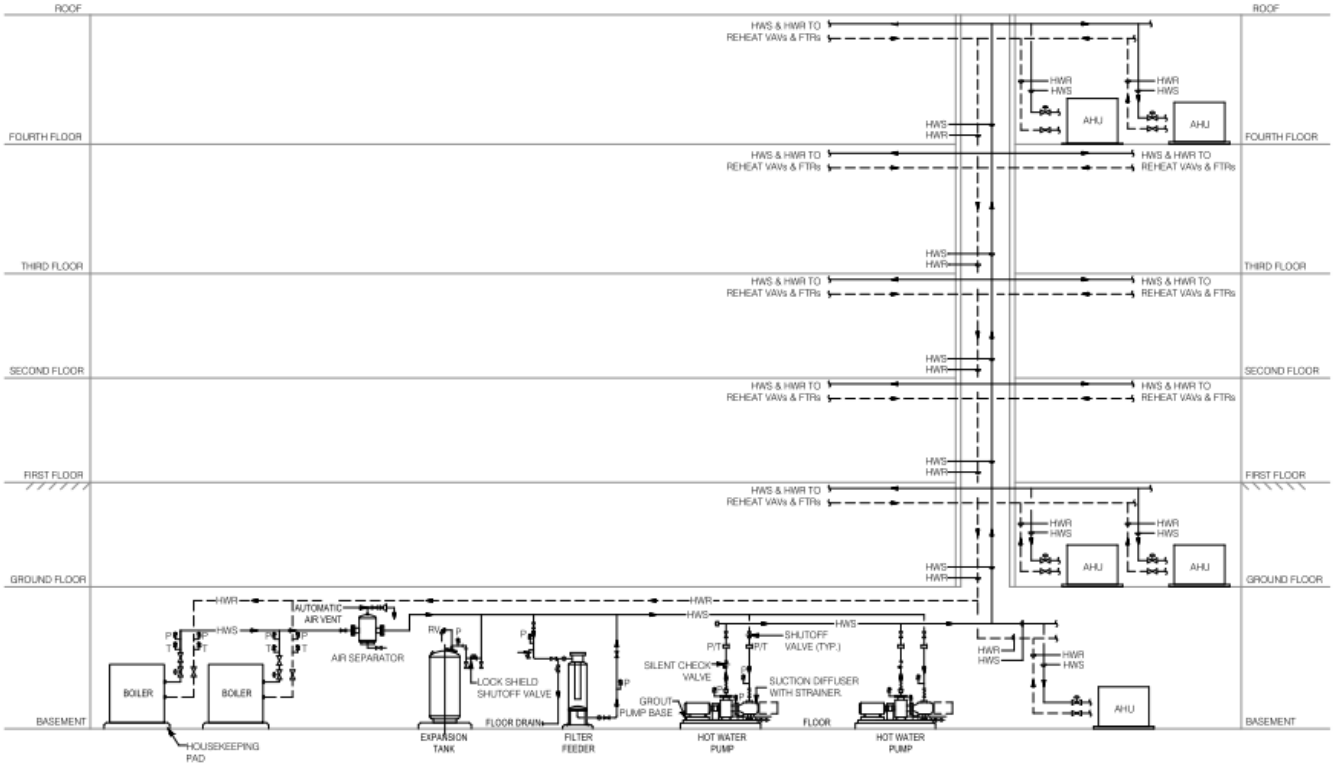
- Hot water system

A new heating hot water system will be provided to deal with the heating demand requirement for the buildings load. The hot water system will be located in a dedicated mechanical room and shall consist of high-efficient natural gas fired condensing boilers to produce hot water required for reheat coils in VAV boxes and heating coils in the AHU's. The heating water system will also require pumps, distribution piping, control valves, an expansion tank at minimum and could also include other supporting components which will be determined as the project progresses. Design of the heating water system will incorporate the use of multiple boilers. The boilers will operate to meet part heating load of the building and with one operating only during peak heat load hours and one on standby. Hot water pumps will be provided with VFDs to circulate hot water to the building in an efficient manner. Refer to the image below for a typical hot water flow diagram.

Boiler:

Boiler hot water system shall be equipped with high efficiencies natural gas fired condensing type boilers, pumps with variable frequency drives, control valves, isolation valves, strainers, fittings, other ancillary equipment, and piping loop. The building hydronic heat exchanger or boiler shall provide 180-160 degree operating hot water temperatures.

Typical Condensing Boiler



Typical hot water flow diagram

Advantages

- High efficiency.
- Comfortable heat.
- Good humidity control.
- Low transmission loss.

Disadvantages

- Pumps (seals).
- Leakages.
- Thermal shock.
- High power consumption

B. Option 2 (As a backup)

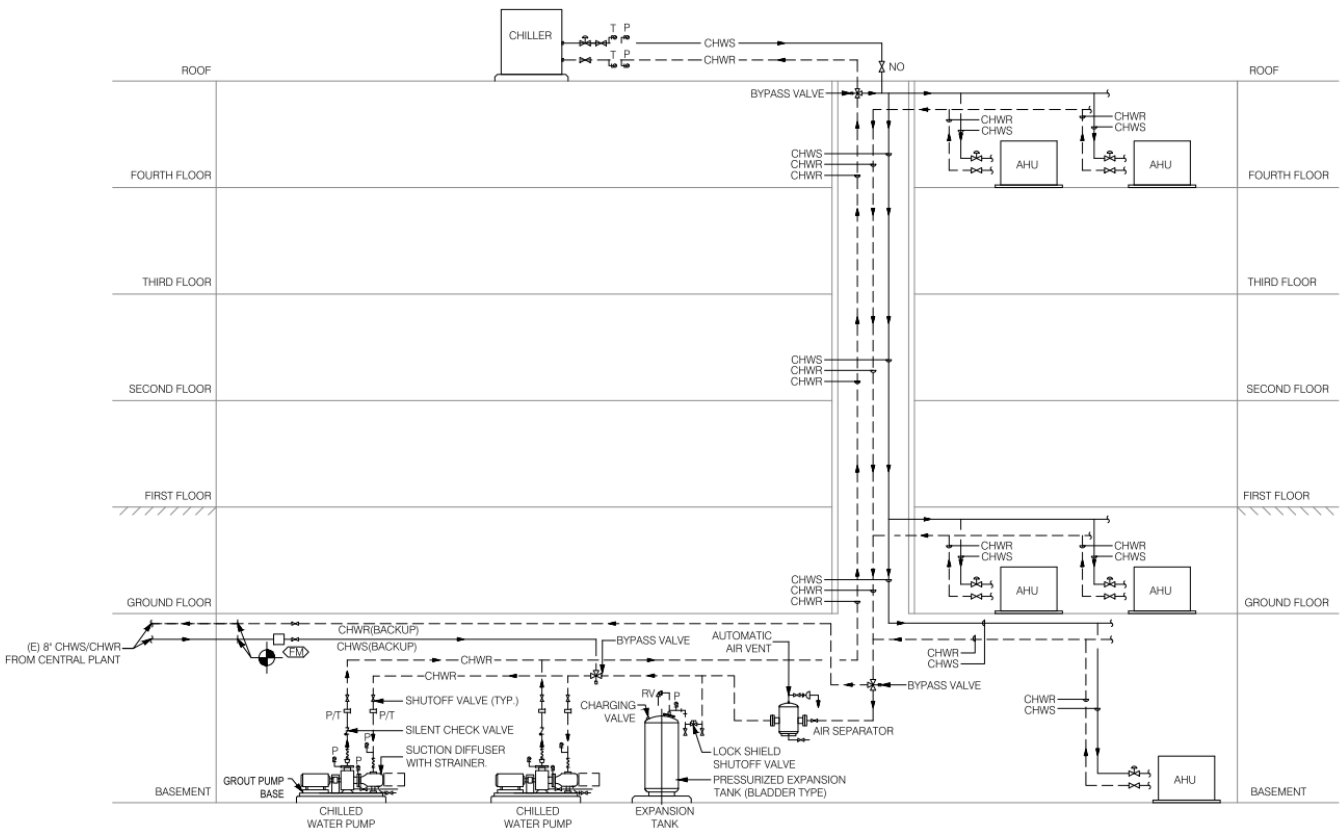
Steam and low temperature chilled water will be provided from the existing plant. Steam will be converted to hot water by heat exchangers and a pressure reducing station

The air handling units distribute the low temperature air to the zones through the VAV boxes. The VAV boxes have hydronic heating coils.

- Cooling source and distribution

The backup system includes chilled water which is fed from adjacent plant via below grade tunnel in the south west corner of the building.

The HVAC Consists of primary/secondary systems. Secondary chilled water pumps interconnect with the primary system to provide chilled water to the building.

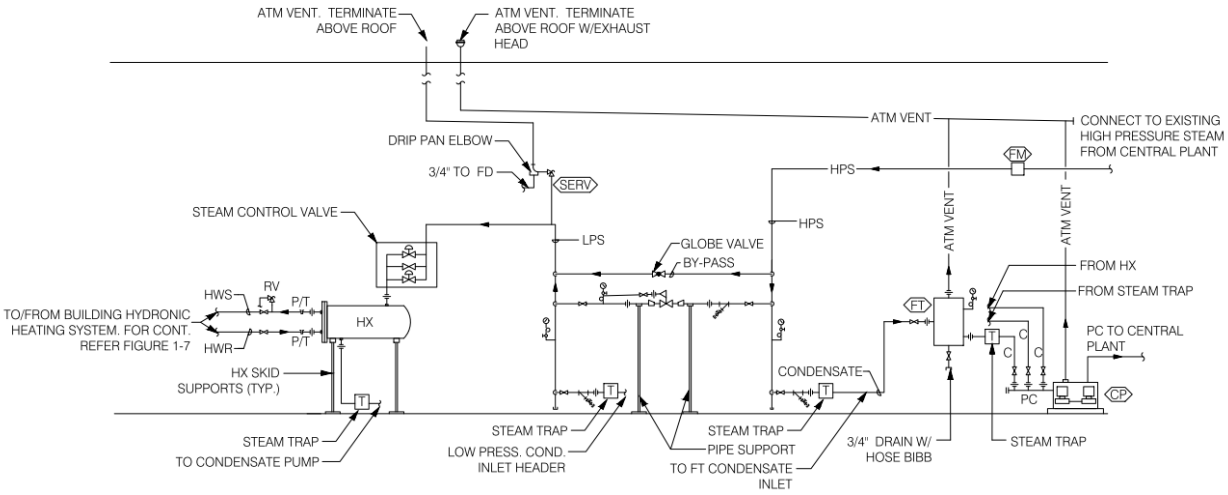


Typical chilled water flow diagram

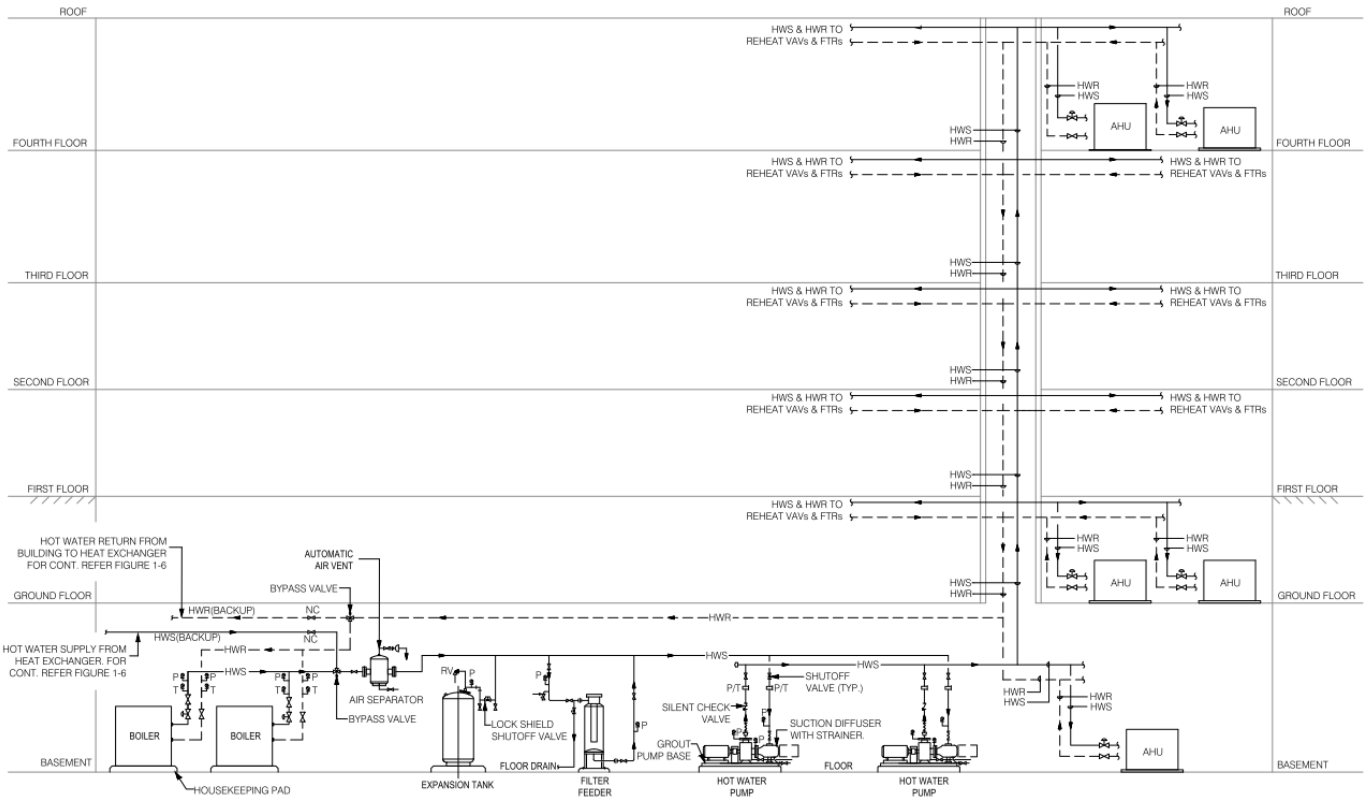
- Heating source and distribution

The backup system include steam which is fed from adjacent plant via below grade tunnel in the south west corner of the building. The HVAC consists of primary/secondary systems. The building hot water is fed through steam to hot water heat exchanger.

Heated hot water will be distributed throughout the building by a variable flow heating hot water pumping system to air handling unit heating coils, unit heaters, cabinet heaters and reheat coils associated with variable airflow (VAV) boxes. All heating coils will have 2-way control valves. Provide perimeter fin radiation at all large expanses of perimeter glass.



Typical steam to hot water flow diagram



Typical hot water flow diagram

<u>Advantages</u>

- Eliminates new chiller and boiler.
- Saves cost.
- Energy efficient when well controlled and maintained.

Disadvantages

- Water treatment
- Pump cavitation.
- Trap failing

4.05 Air Handling Units

Air Handling Units (AHUs) shall be located in the mechanical room or on the roof to handle the building envelope loads. Building core areas will need to have mechanical shafts dedicated for medium pressure supply and low pressure return ductwork connected to AHUs. Each of the floors will have stub-outs from medium pressure ducts that serve VAV boxes. The AHUs for the VAV system shall have coils that are served by the chilled water and hot water (for pre-heat). Ventilation air shall flow through AHUs and shall be mixed with system return air (via enthalpy wheel) which is then distributed to the spaces. Air handling cooling coils shall have side stream circulator at 50% of coil flow. This circulator will operate below 35-degree to protect coils from freezing. Refer to the image below.

Typical AHU/RTU

A. VAV Boxes

Single duct VAV boxes with reheat coils will be provided for the building. Providing reheat for the VAV boxes will help to control over cooling of spaces, heating load offsets, and dehumidification of supply air while also providing ventilation air and promoting good air circulation in the space. The reheat coils for the VAV boxes can be hot water type as this is more energy efficient. The hot water will be supplied through a heating water system as described in the above options. The boxes will be placed in areas outside office spaces where possible and provided with sound attenuation when not possible. There will be a large quantity of VAV boxes, some will be dedicated to one space/room only and other rooms may require multiple boxes, or one box may serve several small spaces.

4.06 Ductwork Criteria

All ductwork shall be constructed of galvanized sheet steel or and shall follow the latest edition of SMACNA. Ductwork system shall be classified as follows:

- Variable Air Volume supply ductwork shall be medium pressure ductwork (less than 3-inch water column w.c.) for all ductwork upstream of VAV terminal boxes.
- Variable Air Volume supply ductwork shall be low pressure ductwork (less than 2-inch w.c.) for all ductwork upstream of VAV terminal boxes.
- Variable Air Volume return ductwork shall be low pressure ductwork (less than 2-inch w.c).
- Constant Volume supply and return ductwork shall be low pressure ductwork (less than 2-inch w.c.).
- Supply and return ductwork for indoor VRF system shall be low pressure ductwork (less than 1-inch w.c.).

Ductwork shall be sized based on the following parameters:

- Variable Air Volume supply ductwork shall be low pressure sized to 0.1 in. w.c. / 100 ft or maximum 1,800 fpm air velocity for all ductwork downstream of VAV terminal boxes.
- Variable Air Volume supply ductwork shall be medium pressure sized to 0.2 in. w.c. / 100 ft or maximum 2,500 fpm air velocity for all ductwork upstream of VAV terminal boxes.
- Variable Air Volume return ductwork shall be 0.08 in. w.c. / 100 ft or maximum 1800 fpm air velocity.
- Constant Volume supply and return ductwork shall be low pressure ductwork (less than 2-inch w.c.).

All supply ductwork shall be insulated and sealed to have a maximum of 5% leakage. Sound lining shall be 1-inch thick and sealant shall contain low VOC.

4.07 Miscellaneous Equipment

A. Exhaust fans shall be provided for restrooms and janitor's closets.

B. Heaters shall be provided in the vestibules and restrooms.

C. Ductless split systems shall be provided in the IT rooms and electrical rooms.

4.08 Atrium smoke evacuation system

The building includes a central atrium space from second floor level, which extends up to roof. To maintain tenability for the fire scenarios evaluated, a minimum total smoke exhaust is required from the atrium. The smoke is to be exhausted via exhaust fan mounted on the atrium roof.

Make up air can be supplied by louvers or dedicated supply fans provided at the second floor. Or as an option, during smoke control mode for the atrium space, the AHU serving the second floor inject the make-up air into the space. The air handling system in this area will be programmed to close and deactivate the return air side of the air handling system, while the supply side of this system configures to 100 percent outside air. The fire/smoke dampers on the supply shaft on

floors will open allowing for 100% outside air supply second floor in the event of smoke detection in the atrium.

4.09 Building Automation System

The building shall be provided with a distributed control system or Building Automation System (BAS). To the maximum extent possible building systems will be integrated using IP technology to provide the maximum cost savings and flexibility. The building automation control systems will comply with the ASHRAE Standard 135, Building Automation Control Network, An Open Protocol (BACnet).

The BAS will be a stand-alone Direct Digital Control (DDC) and ASHRAE BACNet compatible system. The system will consist of DDC terminal devices networked to a Graphical User Interface (GUI) terminal through a network of intermediate control units. The GUI will provide a real-time display of all HVAC and mechanical systems, contain all the standard DDC control programming, and provide secure local remote operator access. A dedicated and secure space will be provided in the building to locate the GUI and provide sufficient work area and storage for the building's drawings and other records. The A/E team will design the building complex BAS in accordance with local standards and preferences.

4.10 Provisions for Implementation of Energy Conservation Measures

A. Equipment shall be selected to equivalent/greater than the minimum energy efficiency requirements (SEER/IEER/EER) listed in International Energy Conversation Code.

B. Energy recovery wheel shall be provided for AHU.

C. RHVAV systems shall be provided for AHUs.

4.11 Plumbing Overview

The following narrative provides a basis for the proposed plumbing systems of the new replacement building for the Maryland Department of Legislative Services. The proposed design is to support the new multi-story 141,500 sq. ft. office building to serve the office space, conference, and joint hearing room. Considering the typical evolution of design, the recommendations, assumptions, and design strategies suggested herein are subject to change as the project progresses.

4.12 Codes and Standards

IBC 2018	International Building Code
IECC 2018	International Energy Conservation Code
IPC 2018	International Plumbing Code
IGCC 2018	International Green Construction Code
NFPA 2017	National Fire Protection
ADA 2010	ADA Standards

The following narrative provides a basis for the proposed plumbing and fire protection systems of the new replacement building for MSA DLS and covers the following topics:

- Domestic Water Supply System
- Hot Water Supply System
- Plumbing Fixtures
- Sanitary System
- Storm Water System
- Natural Gas Service
- Fire Protection System

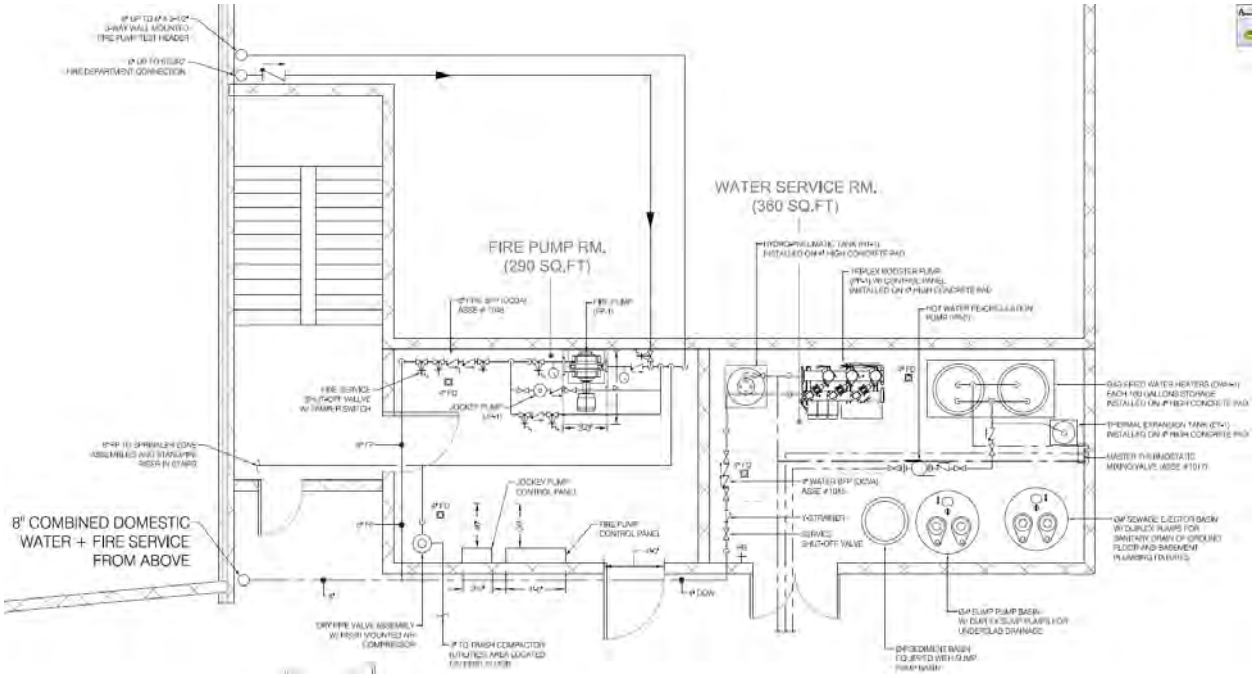
4.13 Domestic water (Cold Water)

A new 4-inch domestic water service shall be provided to the building from the north-east side tapped from the street main. A main shut off valve will be provided after the service enters the building. The 4-inch domestic water supply is sufficiently sized for the building with approximate fixture demand 250 GPM and shall be immediately followed with the installation of a backflow preventer (Backflow Preventer Assembly – ASSE 1015). This demand is based on the proposed architectural concept plans as well as anticipated occupancy. The final fixture count, layout and fixture selection will determine the exact domestic water demand. A 4-inch floor drain shall be provided in the area of BFP installation. Shut-off valves shall be provided at all plumbing fixtures.

The domestic water distribution system shall be sized in accordance with the recommendations of the International Plumbing Code.

The water meter installation will be inside or outside the building and coordinated with the Civil Engineer and the local water authority. All portions of the building plumbing fixture and equipment shall be protected from static pressures greater than 80 psi by the installation of pressure reducing valves.

A triplex domestic water booster pump (Electrical Specification - 15HP/460V/3Ø/60Hz) requirement shall be designed based on the pressure availability at the site as per latest hydrant flow test data. The Fire pump and water booster pump layout shown below.



Water Service Room

Domestic cold water shall be extended to all plumbing systems within the building that require water. The distribution system shall consist of vertical risers at various locations to serve the upper floors. Shut-off valves shall be provided at riser take-offs at all floor levels and service stops at all plumbing fixtures. The domestic water distribution system shall be sized in accordance with the recommendations of the International Plumbing Code.

Potable water piping will be sized to maintain a minimum pressure of 30 psig at the furthest flush valve and at the hydraulically most remote safety shower or equipment requiring these pressures for operation. Provisions will be made to reduce any water hammer with water hammer arresters and hydro-pneumatic tank.

Domestic cold water will be distributed to all plumbing fixtures throughout the according to the proposed architectural plan. Potable water distribution piping shall be copper tubing. Copper has been the standard material for many years, but it is subject to unpredictable cost variations. The use of copper also requires sweating of fittings with solder. This process requires open flames to be used on the construction site. With proper construction methods, this material continues to be a good choice for water distribution piping. Valves for domestic cold-water supply shall be new and installed to allow for sectional shutoff of branch piping, risers, and fixture groups. Valves shall be bronze with ball type conventional ports for piping up to and including 4-inches. All domestic cold-water piping shall be insulated.

4.14 Hot Water

The domestic hot water system shall be a central operated system located on the basement floor water service room. The domestic water heating system shall consist of two natural gas fired run water heater with internal storage. The hot water system shall supply from bottom of building to top and branch to the units. Hot water includes circulating system that returns to the water heater to maintain hot water in the system. The hot water circulating pump (Electrical Specification - 0.4HP/115V/1Ø/60Hz) shall operate from an aqua stat.

The water heater tanks shall be equipped with heat trap, expansion tanks, vacuum relief valves, and pressure and temperature relief valves.

Water heater efficiency shall comply with ASHRAE 90.1

The domestic hot water system shall serve all plumbing fixtures requiring hot water within the building. The temperature at the water heater(s) shall be set at 140°F. To reduce high service water temperature to the building distribution piping system, a master thermostatic mixing valve (per ASSE 1017) between the water heater and the domestic hot water distribution system. The mixing valve will temper the hot water to a distribution temperature of 120 degrees F. The 120°F hot water shall be supplied to all plumbing fixtures requiring hot water in the building. Refer to the image below.

Typical Gas Fired Water Heater

Hand washing facilities at all common area public lavatories shall be equipped with tempering valves in accordance with ASSE 1070 and shall limit the tempered water to a maximum of 110 degrees F.

All domestic hot water piping shall be type "L" copper tubing with wrought copper fittings. All hot water piping shall be insulated with fiberglass insulation and factory applied jacket. Exposed hot water piping below the ADA lavatories shall be insulated to provide safe wheelchair access.

4.15 Sanitary

The sanitary drainage and vent system shall serve all plumbing fixtures with integral drains. The sanitary system shall be designed to limit the length of horizontal runs above grade. Multiple risers shall be installed to drain the upper floor systems. A cleanout shall be installed at the base of all risers. The sanitary drainage system material shall be no-hub cast iron with either no hub or hub and spigot. Systems below grade shall be schedule 40 solid wall PVC. All drainage piping less than 3 inches in diameter shall be installed at 1/4-inch slope per foot of run. All piping 3 inches in diameter and larger shall be installed at 1/8-inch slope per foot of run.

The vent system shall run vertically through the building at each sanitary riser and connect at the base. The vent risers shall terminate on the roof with minimum 3-inch diameter piping extending to the outside. Common venting shall connect horizontally to the risers. The vent material shall be no-hub Cast-iron, or DWV copper.

Two 6" main sanitary line shall be provided based on total Drainage Fixture Unit (DFU) loads of the project. and will exit the building structure and connect to the street main in coordination with civil.

The building sanitary system shall drain via a gravity line to the sanitary main at the street. If the lowest level floor elevation with a plumbing fixture is below the manhole cover elevation of the next upstream manhole, installation of a back-water valve is required on the sanitary lateral to avoid potential building drain contamination.

Elevator pit sump pumps (Electrical Specification - 0.5-1.0HP/115V/1Ø/60Hz) will be oil-minder type, with high alarm. Discharge from elevator pit sump pumps will be to the sanitary drainage system via indirect connection or day light based on coordination with local AHJ guidelines.

Basement and ground floor fixture sanitary will be drained to building sanitary mains connecting to street sewer through sewage ejector pumps (Electrical Specification - 2HP/208V/3Ø/60Hz) installed in pit in basement. Installation & location of pit will be coordinated with Architect and Structural.

All group restrooms, locker rooms, & mechanical rooms will have floor drains connected to the standard sanitary system. Building floor drains will have trap primer connections from the nearest cold water branch line.

4.16 Plumbing Fixtures

All plumbing fixtures shall be ADA compliant based on the proposed architectural plan and shall be installed to meet ADA requirements per local authorities. According to the proposed architectural plan fixtures will be provided. All plumbing fixtures shall be high efficiency, water conserving type. ADA fixtures shall be provided where required per architectural plan. Water closets shall be wall/

floor mounted 1.28 Gallons per Flush (GPF) with manual or sensor flush valves. Urinals shall be wall mounted with 0.125 GPF manual or automatic sensor flush valves. Lavatories shall be of 0.25 GPC vandal proof push button metering faucets or automatic sensor operated faucets with 0.5 GPM flow rate or less. General room sink faucets shall have a flow rate 2.2 GPM or less.

All hand washing lavatories and sinks shall have a Thermostatic Mixing Valve (TMV) installed to reduce the water temperature from 120°F to 100°F per ASSE 1070.

Domestic water and sanitary preliminary loads mentioned below:

PROJECT CODE: 2018 IPC											
PEAK DOMESTIC WATER DEMAND AND SANITARY LOAD											
FIXTURE TYPE	OCCUPANCY	TYPE OF SUPPLY CONTROL	QTY	LOAD (CWFU)	LOAD (HWFU)	TOTAL	TOTAL (COLD)	TOTAL (HOT)	TOTAL (SFU)	LOAD (DFU)	TOTAL (DFU)
BATHTUB	PUBLIC	FAUCET	**0**	3	3	4	0	0	0	2	0
BIDET	PRIVATE	FAUCET	**0**	1.5	1.5	2	0	0	0	1	0
DISHWASHER	PRIVATE	AUTOMATIC	**1**	0	1.4	1.4	0	1.4	1.4	2	2
ELECTRIC WATER COOLER	PUBLIC	3/8" VALVE	**2**	0.25	0	0.25	0.5	0	0.5	0.5	1
KITCHEN SINK	PRIVATE	FAUCET	**1**	1	1	1.4	1	1	1.4	2	2
KITCHEN SINK	HOTEL, RESTAURANT	FAUCET	**1**	3	3	4	3	3	4	2	2
BAR SINK	PUBLIC	FAUCET	**0**	3	3	4	0	0	0	2	0
LAVATORY	PRIVATE	FAUCET	**32**	0.5	0.5	0.7	16	16	22.4	1	32
LAVATORY	PUBLIC	FAUCET	**0**	1.5	1.5	2	0	0	0	1	0
SERVICE SINK	PUBLIC	FAUCET	**1**	2.25	2.25	3	2.25	2.25	3	2	2
SHOWER HEAD	PUBLIC	MIXING VALVE	**0**	0	0	0	0	0	0	0	0
SHOWER HEAD	PRIVATE	MIXING VALVE	**0**	1	1	1.4	0	0	0	2	0
RINSE SHOWER	PUBLIC	MIXING VALVE	**0**	1	1	1.4	0	0	0		0
EMERGENCY EYEWASH	PUBLIC	MIXING VALVE	**0**	1	1	1.4	0	0	0		0
URINAL	PUBLIC	1" FLUSH	**0**	10	0	10	0	0	0	2	0
URINAL	PUBLIC	3/4" FLUSH	**5**	5	0	5	25	0	25	2	10
URINAL	PUBLIC	FLUSH TANK	**0**	3	0	3	0	0	0	1	0
WASHING MACHINE (8 LB)	PRIVATE	AUTOMATIC	**0**	1	1	1.4	0	0	0	2	0
WASHING MACHINE (8 LB)	PUBLIC	AUTOMATIC	**0**	2.25	2.25	3	0	0	0	2	0
WASHING MACHINE (15 LB)	PUBLIC	AUTOMATIC	**0**	3	3	4	0	0	0	2	0
WATER CLOSET	PRIVATE	FLUSHOMETER VALVE	**0**	6	0	6	0	0	0	4	0
WATER CLOSET	PRIVATE	FLUSH TANK	**0**	2.2	0	2.2	0	0	0	3	0
WATER CLOSET	PUBLIC	FLUSHOMETER VALVE	**32**	10	0	10	320	0	320	4	128
WATER CLOSET	PUBLIC	FLUSH TANK	**0**	5	0	5	0	0	0	4	0
FIXTURE	DRAIN SIZE	3"	**2**	0	0	0	0	0	0	5	10
FIXTURE	DRAIN SIZE	4"	**2**	0	0	0	0	0	0	6	12
HOSE BIB/WALL HYDRANT/ROOF HYDRANT	GENERAL	AUTOMATIC	**4**	3	0	3	12	0	12	0	0
TOTAL CWFU (Cold)										380	SFU
TOTAL HWFU (HOT)										24	SFU
TOTAL WSFU										390	SFU
TOTAL DFU										201	DFU
ESTIMATED TOTAL DOMESTIC DEMAND											GPM
TOTAL PEAK DEMAND										175	GPM
WATER SERVICE LINE										4"	
SANITARY BUILDING DRAIN										6"	

4.17 Storm

All Storm drainage from the roof shall be gravity drained through roof drains to the storm sewer main at the street. Storm laterals shall be connected to the street main based on number of laterals required as the design progresses in coordination with civil information/details.

An emergency overflow roof drain system shall be applied where required. The roof drainage shall be sized per code with a secondary storm drain system implemented as necessary. The secondary

storm system may be internal rain leaders or scuppers. Primary and the secondary storm system will be sized using 3.2 inches for the storm water calculations.

Under-slab/ Foundation/ Tile storm drainage system will be coordinated with Civil/Geotech engineer on the project and provide sediment and sump pit basin installed with sump pumps (Electrical Specification - 2HP/208V/3Ø/60Hz) to discharge storm water to building storm mains connecting to street storm sewer.

4.18 Natural Gas

New 2 PSI gas service or low-pressure gas shall be tapped from the street main based on the coordination of gas service and pressure available with BGE (gas supplier). Water heater, mechanical equipment and kitchen equipment shall be provided with gas service. Once the mechanical load and kitchen equipment load is determined, the request for 2 PSI gas service will be sent to the gas supplier. The natural gas piping shall be Schedule 40 black steel with screw fittings for 1-1/2-inch pipes and smaller, and welded fittings for 2-inch and larger installation. All appliances and mechanical equipment shall be installed with a shut-off valve and a dirt leg.

Running 2 PSI system throughout the building will result in running smaller diameter gas pipes. Therefore, installation of pressure regulators will be required at equipment with vent lines terminating to the outdoors or vent limiting devices as approved by local code.

4.19 Electrical Overview

General Design Criteria, Codes, and Standards:

ANSI Z535.2 - American National Standard for Environmental and Facility Safety Signs; latest edition.

ANSI Z535.4 - American National Standard for Product Safety Signs and Labels; latest edition.

NFPA 70 - National Electrical Code; Most Recent Edition Adopted by State of Maryland, Including All Applicable Amendments and Supplements.

NFPA 70E - Standard for Electrical Safety in the Workplace; latest edition.

UL 969 - Marking and Labeling Systems; Current Edition, Including All Revisions.

NFPA 110 – Emergency and Standby Power Systems.

IBC Code, International Building Code, latest edition.

International Energy Conservation Code (IECC), latest edition.

Maryland Building Performance Standards (MBPS)

NFPA 72 - National Fire Alarm Code, latest edition

1997 – Elevator Safety Code (ANSI A17.1)

International Fire Code (IFC), latest edition.

State of Maryland Requirements

Americans with Disability and Accessibility Guidelines (ADAAG)

4.20 Power Distribution System

A. Main Distribution Switchboard

The Main Distribution Switchboard "MDP" will be a 480/277V switchboard rated 3000A, 3-phase, 4-wire and will comply with utility service-entrance requirements. The switchboard will be front accessible and provided with electrically operated out circuit breakers. The switchboard features will include digital trip breakers, a remote breaker control cabinet, and breaker lifting devices. The switchboard will be as manufactured by General Electric, Eaton Electrical, Square-D, or approved equal.

B. Switchboard DP

The Switchboard "DP" will be a 208/120V switchboard rated 1600A, 3-phase, 4-wire and will comply with NEC requirements. The switchboard will be front accessible and provided with molded case circuit breakers. The switchboard will be as manufactured by General Electric, Eaton Electrical, Square-D, or approved equal.

C. Low Voltage Panel Boards

Low voltage panels will be provided to each floor as shown on Riser Diagram. These panels will be 480V/277V and 208/120V with standard amp ratings as shown on Riser Diagram. Panels will be manufactured by General Electric, Eaton Electrical, Square-D, or approved equal.

D. Motor Control Centers

Motor Control Centers (MCC) will be provided based on new mechanical equipment demand. The new motor centers will have latest technology devices, power quality meters, molded case circuit breakers, and Power Quality meters.

E. Dry-Type Transformers

The distribution transformers will be energy efficient and will have proper NEC code clearances and will be as manufactured by General Electric, Eaton Electrical, Square D, or approved equal. Step-down 480-208Y/120 Volt transformers will be provided as required for the 208Y/120 Volt panelboards. Dedicated panels will be provided for computer loads via K-Rated transformers.

4.21 Emergency Power System

An indoor standby emergency generator will be provided for life safety systems and standby power. The fuel source will be natural gas. Life safety will include emergency egress and exit lighting, fire alarm and other code required systems. Standby power will include items such as

telecom/data systems, security, elevator and its associated equipment, building management system and other equipment required or desired to have back-up power.

Two separate automatic transfer switches and associated separate panelboards will be required for the life safety loads and standby loads. The automatic transfer switch will be as manufactured by Eaton Electrical, ASCO, GE-Zenith, or approved equal.

4.22 Lighting System

The lighting system will be provided and designed to meet the current IECC code requirements for lighting controls and power density. It will also be designed to meet LEED requirements, if required. Interior lighting sources will be LED with appropriate drivers for lighting controls such as 0-10 Volt dimming where applicable. Office lighting fixtures will either utilize two-level ballast with bi-level control to provide 50% or 100% light output, or utilize 0-10V electronic dimming ballast to provide multiple levels of light output when connected to a daylight monitoring sensor for daylight harvesting. Wall or ceiling mounted occupancy sensors will be provided for automatic lighting control. Lighting will be 277 Volt. Emergency egress and exit lighting will be provided throughout and served by the new generator. Emergency lighting will be automatically switched on during a power outage. Perimeter security lighting will be LED Type light source.

4.23 Lightning Protection System

The building will be protected by a complete building structure lightning protection system in compliance with NFPA 780, Standard for the Installation of Lightning Protection Systems.

4.24 Site Lightning

Pole-mounted site lighting will be provided for the new building and will be by LED light sources. Overall site lighting scheme will be developed in collaboration with the landscape architect and the project architect such that exterior lighting blend with the outdoor environment. Pole locations, style, and height will be coordinated to eliminate glare, light pollution, and light trespasses to the neighboring properties. Lighting levels will be designed in accordance with the recommendations of the Illuminating Engineering Society of North America (IESNA). Out-door lighting will be controlled by photocell and lighting contactors.

4.25 Fire Protection Overview

The following narrative provides a basis for the proposed Fire protection system of the new replacement building for the Maryland Department of Legislative Services. The proposed design is to support the new multi-story 141,500 sq. ft. office building to serve the office space, conference, and joint hearing room. Considering the typical evolution of design, the recommendations, assumptions, and design strategies suggested herein are subject to change as the project progresses.

4.26 Codes and Standards

Applicable codes, standards, and guidelines include but are not limited to the following:

2018 International Building Code.
2018 International Fire Code.
NFPA 13 Standard for the Installation of Sprinkler Systems, 2016.
NFPA 20 Standard for the Installation of Stationary Pumps for Fire Protection, 2016.
NFPA 24 Standard for the Installation of Private Fire Service Mains and Their Appurtenances, 2016.
NFPA 241 Safeguarding Construction, Alteration, and Demolition Operations, 2013.
NFPA 291 Recommended Practice for Fire Flow Testing and Marking of Hydrants, 2016.

4.27 Fire Protection System Description

Building shall be installed with new 6" fire service line and automatic sprinkler piping with standpipe per NFPA.

A complete automatic wet sprinkler protection system with standpipe in accordance with NFPA 13 will be provided for the entire building. Equipment, devices and valves for the fire protection service shall be UL listed or Fire Marshal (FM) approved for use in the sprinkler systems. The municipal water supply will be protected from backflow with the installation of a Double Check Detector Assembly (per ASSE 1048) once the fire service enters the structure.

The fire protection system will include electric valve supervision (i.e., tamper valve switches on all sprinkler zone control valves connected to the building's fire alarm systems). In addition, each sprinkler zone system will be provided with water-flow devices that will activate the fire alarm systems.

A fire department connection shall be located at the address side of the building, no farther than 100 feet from the nearest available fire hydrant. Additional fire department connections shall be located around the structure based on Fire Marshal's recommendation. There shall be proper visible signage for each fire department connection in accordance to NFPA requirements.

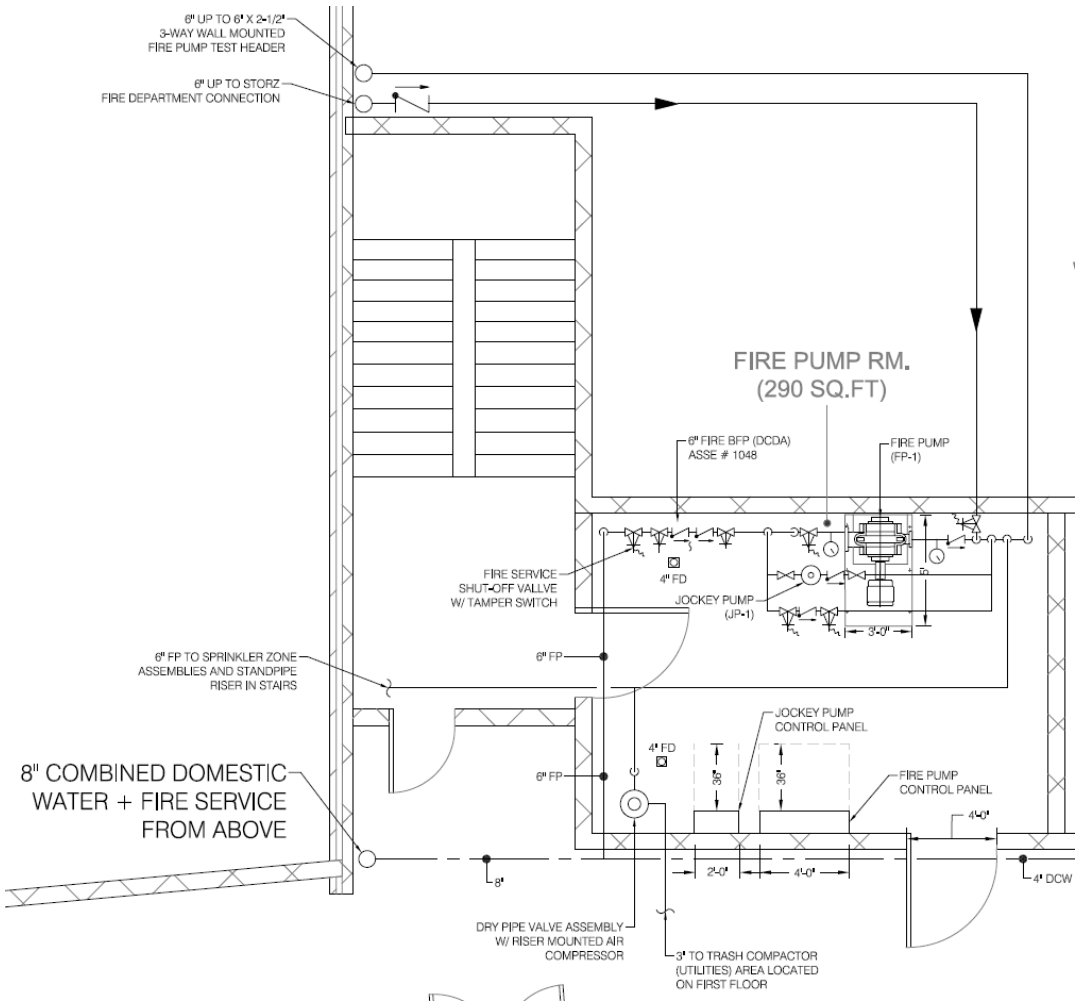
Requirement for fire pump & jockey pump (Electrical Specification - 25HP/460V/3Ø/60Hz – 0.75HP/460V/3Ø/60Hz) shall be analyzed once latest flow test data is received. A fire pump test header, if required, will be installed on the face of the building at a designated location where testing procedures will not impede on the surrounding area and will have sufficient drainage.

NFPA 20 requires that the flow test be completed not more than 12 months prior to the submission of working plans. In the situation that construction starts later than 12 months from current flow test, it is the contractor's responsibility that the current condition of the flow test data is used as design basis for fire pump design and selection.

4.28 Fire Pump Room

NFPA 20 requires protection of the fire pump equipment as well as for personnel that need to access the fire pump equipment during a fire situation. Per NFPA 20, location and access to the fire pump room shall be planned in coordination with the fire department. For those pump rooms which are not directly accessible from the exterior of the building, an enclosed passageway from an enclosed stairway or exterior exit doorway to the pump room shall be provided per NFPA 20. The fire pump room shall have 1-hour fire-resistance rating per NFPA 20.

Fire pump room from the project building shown below for reference.



4.29 Fire Service Pipe

There will have to be an installation of a 6-inch fire service pipe with 6-inch Double Check Detector Assembly (DCDA) per ASSE 1048 at the fire service entrance which will protect the city supply. This backflow device will need to be installed immediately as the service enters the structure.

To minimize turbulence at the suction flange, NFPA 20 prescribes the nominal size of the suction pipe based on the capacity of the fire pump. These prescribed pipe sizes are based on a maximum flow velocity of less than 15 ft. /sec at 150% of the pump's rated capacity.

4.30 Standpipe system and Fire department connection (FDC)

A 6-inch Fire Department Storz Connection header shall be located at building Address Street. The civil engineer shall provide an incoming fire line entering the fire pump room. The manual type standpipe system shall be considered as per NFPA based on the number of floors above and below grade level, the standpipe water flow and pressure requirement shall be meet by fire department vehicle, only the sprinkler load will be considered for pressure analysis and fire pump design.

4.31 Sprinkler Heads

Sprinkler heads shall be standard orifice (1/2-inch), standard spray, quick-response type or extended coverage where allowed per NFPA 13. Temperature ratings shall be 135 degrees Fahrenheit in all areas except where higher temperature ratings are required by NFPA 13 and in communication rooms, electrical rooms, control rooms, computer rooms, mechanical rooms and telephone rooms which shall be 165°F. Temperature ratings shall be 200°F in elevator machine rooms if applicable.

4.32 Fire Alarm Overview

Codes and standards:

ANSI	American National Standard Institute
IBC (MD)	Maryland Building Code
NEC	National Electrical Code
NFPA	National Fire Protection Association, "National Fire Codes"
OSHA	Occupational Safety and Health Act

4.33 Fire Alarm System

The fire alarm system will be an intelligent zoned, voice evacuation, fully addressable system designed to meet all the latest state, local, and ADA code requirements. The system will include a Fire Alarm Control Panel (FACP) located in the building manager office fed from life safety emergency panel. It is recommended for the system to include audio (speaker) and visual (strobe) signal devices in all areas of the facility. Visual notification in corridors and other public spaces will be accomplished by utilizing fire alarm strobe devices. The system shall be tied to a central monitoring station via a telephone line connection to the main fire alarm control panel. The Fire Alarm control panel will monitor status of the generator and fire pump (if provided).

Public Addressable speakers shall be utilized as a fire alarm voice evacuation system as recommended by State Fire Marshall (SFM).

Intelligent fire alarm terminal cabinets and booster cabinets will be located in electric closets on each floor. These panels will be able to function as stand-alone systems in the event that the main fire alarm control station fails.

Manual pull stations will be located within 5 feet of each exterior egress door, and within 150 feet of an egress door.

Fire alarm strobe/audio devices will be provided to comply with ADA requirements.

Smoke detectors will be photoelectric type.

Smoke detectors for elevator recall will be installed in elevator machine rooms, elevator pits, at the top of elevator shafts, and in all elevator lobbies. Smoke detectors for elevator recall shall activate the recall function of the associated elevator, sound the general alarm, and annunciate appropriate lamps at the fire alarm annunciator panel.

Heat detectors (one per sprinkler head) will be provided at the top of the elevator shaft, in the pit, and in the elevator machine room. Heat detectors will not be part of the building fire alarm system and will be wired separately. Activation of any of the heat detectors will transmit a trouble signal to the fire alarm system and activate the shunt trip circuit breaker serving elevator.

All mechanical system supply or return ducts exceeding 2000 cfm will incorporate duct smoke detectors. The detectors will activate a general alarm and shut down the unit. All sprinkler flow and tamper switches will be connected to the fire alarm system. Flow switches will activate the alarm while tamper switches will report "trouble".

A fireman's phone will be installed at each elevator lobby, exit stair entry door, fire pump room, generator enclosure, and elevator machine room to allow voice communication back to the Fire Command Room.

All sprinkler waterflow and tamper switches will be supervised by the fire alarm system. Flow switches will activate the alarm, while tamper switches will report as a "supervisory" alarm.

A graphic annunciator panel will be placed at the main entrance to the building.

All wiring related to fire alarm systems shall run concealed in walls or above finished ceilings in compliance with code.

GENERAL NOTES

1. GENERAL NOTES
   1.1. SYMBOLS, ABBREVIATIONS AND MECHANICAL GENERAL NOTES ARE COMPOSITE. ALL SYMBOLS, ABBREVIATIONS AND MECHANICAL NOTES MAY NOT BE USED ON THIS PROJECT.
   1.2. WORK INDICATED ON THESE DRAWINGS IS DIAGRAMMATIC AND SHOULD NOT BE SCALED TO ESTABLISH LOCATION OF WORK. THE DRAWINGS ARE INTENDED TO CONVEY THE SCOPE OF WORK AND INDICATE GENERAL ARRANGEMENTS OF ENGINEERED SYSTEMS. THE CONTRACTOR SHALL VERIFY BUILDING CONDITIONS AND MAKE ADJUSTMENTS AS NECESSARY TO COMPLETE THE WORK.
   1.3. FURNISH ALL LABOR, MATERIALS, TOOLS, EQUIPMENT AND SERVICES FOR ALL WORK, IN ACCORDANCE WITH PROVISIONS OF THE CONTRACT DOCUMENTS. ALTHOUGH SUCH WORK IS NOT SPECIFICALLY INDICATED, FURNISH AND INSTALL ALL SUPPLEMENTARY OR MISCELLANEOUS ITEMS, APPURTENANCES AND DEVICES INCIDENTAL TO OR NECESSARY FOR A SOUND, SECURE AND COMPLETE INSTALLATION, AT NO ADDITIONAL COST TO THE OWNER.
   1.4. IT IS THE INTENTION OF THE CONTRACT DOCUMENTS TO CALL FOR FINISHED WORK, TESTED AND READY FOR OPERATION. ALL MATERIALS AND EQUIPMENT SHALL BE NEW, OF FIRST QUALITY.
   1.5. CLEAN UP ALL WASTE AND DEBRIS AT THE END OF EACH WORKING DAY AND AS REQUIRED TO KEEP ALL BUILDING AREAS CLEAN, CLEAR AND UNOBSTRUCTED. AT THE COMPLETION OF THE PROJECT, THE CONTRACTOR SHALL REMOVE ALL TOOLS, APPLIANCES, SURPLUS MATERIAL AND SCRAP FROM THE JOB SITE. SEE ARCH. DWGS. FOR WASTE DISPOSAL REQUIREMENTS.
   1.6. DUCTWORK OPENINGS SUCH AS SUPPLY AND RETURN OPENINGS, ACCESS PANELS AND EXHAUST INLETS MUST BE SEALED OFF TO LIMIT, TO THE EXTENT PRACTICABLE, THE AMOUNT OF CONSTRUCTION DUST AND DEBRIS THAT ENTERS THE SYSTEM. DUST AND DEBRIS THAT DOES MANAGE TO GET INTO THE DUCTS MUST BE REMOVED PRIOR TO PUTTING THE SYSTEM INTO SERVICE
   1.7. AT THE COMPLETION OF THE PROJECT, THE CONTRACTOR SHALL CLEAN THE ENTIRE JOB SITE, INCLUDING ALL NEW SURFACES OF BUILDING, EQUIPMENT AND SYSTEMS, LEAVING THE AREA THOROUGHLY CLEAN, CLEAR AND READY FOR OCCUPANCY.
   1.8. ALL SPECIFIED EQUIPMENT AND SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
   1.9. IN ADHERENCE WITH THE INTENT OF THESE CONTRACT DOCUMENTS, PROVIDE FINISHED WORK, TESTED AND READY FOR OPERATION. WHEREVER THE WORD 'PROVIDE' IS USED, IT SHALL MEAN "FURNISHED, INSTALL, BALANCE, ADJUST AND TEST, COMPLETE AND READY FOR USE".
   1.10. ALL CEILING DEVICES (DIFFUSERS, LIGHTS, ETC.) SHALL COMPLY WITH BASE BUILDING STANDARDS.
   1.11. CONTRACTOR SHALL VISIT SITE TO VERIFY BUILDING CONDITIONS AND COORDINATE WITH NEW PIPING, DUCTWORK, LIGHTING AND PROPOSED CEILING HEIGHTS. SUBMIT A COORDINATION SHOP DRAWINGS FOR REVIEW PRIOR TO ORDERING, FABRICATING OR INSTALLING ITEMS.

2. COORDINATION AND SCHEDULING
   2.1. COMPLETELY COORDINATE AND SCHEDULE WORK OF ALL TRADES. CONTRACTOR SHALL COMPENSATE FOR BUILDING CONDITIONS SO THAT CONFLICTS IN SCHEDULING AND LOCATION WILL NOT OCCUR.
   2.2. CONTRACTOR IS RESPONSIBLE FOR COMPLETE COORDINATION BETWEEN ALL SUB-CONTRACTORS, SUPPLIERS, GOVERNMENT AUTHORITIES HAVING JURISDICTION, BUILDING PERSONNEL, CODE ENFORCEMENT OFFICIALS, ARCHITECT/ENGINEER AND BUILDING OWNER.
   2.3. CONTRACTOR SHALL REVIEW AND COORDINATE THE INSTALLATION OF NEW SYSTEM(S) AND EQUIPMENT. NO WORK SHALL BE PERFORMED PRIOR TO THE CONTRACTOR OBTAINING EXACT FIELD DIMENSIONS OF BUILDINGS, CEILINGS, STRUCTURAL OBSTRUCTIONS, BUILDING SYSTEMS, FURNITURE, ETC., WHICH, MAY AFFECT INSTALLATION OF NEW EQUIPMENT OR SYSTEMS.
   2.4. CONTRACTOR'S ATTENTION IS DIRECTED TO THE IMPORTANCE OF PROPER SCHEDULING AND PHASING OF WORK SO AS TO CAUSE MINIMUM DISTURBANCE TO ACTIVITIES IN OTHER AREAS OF THE BUILDING, WHICH WILL REMAIN OCCUPIED THROUGHOUT THE DURATION OF THE CONTRACT. CONTRACTOR'S WORK SCHEDULE SHALL BE SUBMITTED TO AND APPROVED BY THE OWNER.
   2.5. NOTIFY THE OWNER, IN WRITING, AT LEAST SEVEN DAYS IN ADVANCE OF ANY REQUIRED SHUTDOWN OF ANY UTILITY. OBTAIN OWNER'S WRITTEN APPROVAL PRIOR TO SHUTDOWN.
   2.6. CONTRACTOR SHALL THOROUGHLY EXAMINE PREMISES AND OBSERVE ALL CONDITIONS AND CIRCUMSTANCES UNDER WHICH THE WORK SHALL BE PERFORMED. NO ALLOWANCES WILL BE MADE FOR ERRORS OR NEGLIGENCE IN THIS RESPECT.
   2.7. CONTRACTOR SHALL COMPLY WITH RULES AND REGULATIONS OF THE BUILDING LANDLORD AND PROPERTY MANAGER.

3. CODE, PERMITS AND INSPECTIONS
   3.1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH LATEST APPLICABLE CODES, REGULATIONS AND STANDARDS. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL NECESSARY PERMITS AND SHALL ARRANGE FOR ALL INSPECTIONS BY AUTHORITIES HAVING JURISDICTION.
   3.2. APPROVAL AND SIGN-OFF BY ALL AUTHORITIES HAVING JURISDICTION IS REQUIRED AT THE COMPLETION OF PROJECT. SECURE PERMIT AND INSPECTION CERTIFICATES AND TRANSMIT SAME TO THE OWNER AT THE COMPLETION OF THE PROJECT.
   3.3. PERFORM ALL WORK IN ACCORDANCE WITH THE FOLLOWING CODES AND STANDARDS:
      3.3.A. INTERNATIONAL MECHANICAL CODE: 2015
      3.3.B. INTERNATIONAL ENERGY CONSERVATION CODE: 2015
      3.3.C. INTERNATIONAL FUEL GAS CODE: 2015
      3.3.D. INTERNATIONAL FIRE CODE: 2015
      3.3.E. INTERNATIONAL BUILDING CODE: 2015
      3.3.F. NATIONAL ELECTRIC CODE: 2015
      3.3.G. SMACNA DUCT CONSTRUCTION STANDARDS: (LATEST EDITIONS)
      3.3.H. INTERNATIONAL GREEN CONSTRUCTION CODE: 2012
   3.4. CODES AND STANDARDS LISTED ARE MINIMUM STANDARDS. WHERE CONTRACT DOCUMENTS CALL FOR A HIGHER STANDARD, CONTRACT DOCUMENTS WILL TAKE PRECEDENCE OVER ALL REFERENCED CODES AND STANDARDS. IF CONTRACT DOCUMENTS CONFLICT WITH CODES OR STANDARDS, CONTRACTOR SHALL INFORM ARCHITECT/ENGINEER, IN WRITING, PRIOR TO QUOTE.
   3.5. CONTRACTOR SHALL COMPLY WITH ALL OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) AND ENVIRONMENTAL PROTECTION AGENCY (EPA) REQUIREMENTS.
   3.6. CONTRACTOR SHALL COMPLY WITH RULES AND REGULATIONS OF ALL AFFECTED UTILITY COMPANIES.

4. WARRANTY:
   4.1. ALL WORK SHALL BE FREE OF DEFECTS IN WORKMANSHIP AND MATERIALS FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE. ALL DEFECTS THAT DEVELOP OR ARE DISCOVERED WITHIN THIS PERIOD WILL BE REPAIRED BY THE CONTRACTOR, TO THE SATISFACTION OF THE ARCHITECT/ENGINEER AND AT NO ADDITIONAL COST TO THE OWNER.

5. SUBMITTALS
   5.1. SUBMIT FOUR SETS OF SHOP DRAWINGS, TO ARCHITECT/ENGINEER AND OBTAIN APPROVAL, PRIOR TO ORDERING OF EQUIPMENT OR MATERIAL AND BEFORE FABRICATION OF COMPONENTS. SUBMIT SHOP DRAWINGS FOR THE FOLLOWING:
      5.1.A. AIR DISTRIBUTION DEVICES AND ACCESSORIES.
      5.1.B. ALL MANUFACTURED MECHANICAL EQUIPMENT.

6. RECORD (AS BUILT) DRAWINGS
   6.1. REPRODUCIBLE RECORD DRAWINGS SHALL BE SUPPLIED BY CONTRACTOR, UPON WHICH CORRECTIONS SHALL BE MADE, TO PROVIDE AN ACCURATE AND COMPLETE RECORD OF THE WORK, AS INSTALLED. ALL DUCTWORK, EQUIPMENT, PIPING AND AIR DISTRIBUTION DEVICES SHALL BE SHOWN AND DIMENSIONED ON THE RECORD DRAWINGS. CONTRACTOR SHALL PROVIDE LATEST AUTOCAD VERSION AS-BUILT DRAWINGS AT THE COMPLETION OF THE PROJECT.
   6.2. FULL SIZE AS-BUILT DRAWINGS SHALL BE SUPPLIED AT THE COMPLETION OF THE JOB.
   6.3. PROVIDE A COMPLETE SET OF DRAWINGS ON A CD WHEN THE JOB IS COMPLETE.

7. MECHANICAL GENERAL NOTES
   7.1. ALL EQUIPMENT TO BE LOCATED IN THE CEILING PLENUM SHALL BE SUITABLE FOR INSTALLATION IN ACCORDANCE WITH APPLICABLE CODES AND REGULATIONS.
   7.2. ALL EQUIPMENT (INCLUDING DUCTWORK AND PIPING) SHALL BE SECURELY SUPPORTED FROM THE BUILDING STRUCTURE IN AN APPROVED MANNER. EQUIPMENT SHALL NOT GENERATE NOISE GREATER THAN CATALOG RATINGS. ALL EQUIPMENT AND APPURTENANCES SHALL NOT TRANSMIT NOISE OR VIBRATION TO THE OCCUPIABLE SPACES.
   7.3. DUCTWORK SHALL BE INSTALLED TIGHT TO THE UNDERSIDE OF THE SLAB/DECK UNLESS OTHERWISE NOTED.
   7.4. PROVIDE FIRE SAFING APPROVED BY THE AUTHORITY HAVING JURISDICTION, AROUND ALL PIPING AND DUCTWORK PENETRATIONS THROUGH BUILDING CONSTRUCTION TO MAINTAIN FIRE, SMOKE, AND SOUND RATINGS.
   7.5. MECHANICAL EQUIPMENT, DUCTWORK, SUPPORTS, AND MATERIALS SHALL BE INSTALLED AS NECESSARY TO ACCOMMODATE INSTALLATION OF LIGHT FIXTURES AND SPRINKLER SYSTEM/PLUMBING PIPING.
   7.6. THE CONTRACTOR SHALL FURNISH AND INSTALL ACCESS PANELS WHERE REQUIRED FOR ACCESS TO EQUIPMENT, VALVES, DAMPERS, CONTROLS, ETC. IN DUCTWORK AND/OR CONCEALED BEHIND FINISHES NOT INTENDED TO BE REMOVED; COORDINATE WITH THE ARCHITECT PRIOR TO ANY INSTALLATION.
   7.7. MECHANICAL CONTRACTOR SHALL PROVIDE ALL MOTOR STARTERS, DISCONNECTS ETC. AS REQUIRED BY THE MECHANICAL EQUIPMENT; THE ELECTRICAL CONTRACTOR SHALL INSTALL AND PROVIDE FINAL CONNECTIONS. WHERE THE MECHANICAL SYSTEMS COME WITH INTEGRAL STARTERS, DISCONNECTS, ETC., THE ELECTRICAL CONTRACTOR SHALL PROVIDE FINAL CONNECTIONS.
   7.8. ALL EQUIPMENT MUST BE INSTALLED SUCH THAT FACTORY REQUIRED CLEARANCES FOR SERVICEABILITY ARE MAINTAINED. NOTIFY THE ENGINEER IMMEDIATELY SHOULD ANY EQUIPMENT HAVE ACCESS LIMITED BECAUSE OF FIELD CONDITIONS, EQUIPMENT ORIENTATION, ETC. DO NOT INSTALL THIS EQUIPMENT UNTIL THE SITUATION HAS BEEN RESOLVED.

8. TESTING AND BALANCING
   8.1. PROVIDE ALL NECESSARY ACCESSORIES TO ALLOW FOR PROPER AIR AND WATER BALANCE. UPON COMPLETION OF THE INSTALLATION, ALL AIR AND WATER SYSTEMS SHALL BE ADJUSTED AND BALANCED TO PROVIDE THE AIR AND WATER FLOW RATE INDICATED. CONTRACTOR SHALL PROVIDE VOLUME DAMPERS, SPLITTER DAMPERS AND/OR VOLUME EXTRACTORS AS INDICATED OR REQUIRED FOR BALANCING. BALANCING WORK SHALL BE PERFORMED BY A CERTIFIED BALANCING CONTRACTOR WHO IS A MEMBER IN GOOD STANDING OF AABC, NEBB OR SMACNA. BALANCING WORK SHALL BE IN COMPLIANCE WITH THE STANDARD PROCEDURE MANUAL PUBLISHED BY THE TESTING AND BALANCING ORGANIZATION AFFILIATED WITH THE BALANCING CONTRACTOR. PRIOR TO ACCEPTANCE OF THE WORK, CONTRACTOR SHALL SUBMIT TO THE ARCHITECT/ENGINEER ALL APPROPRIATE FIELD DATA ON STANDARD FORMS OF THE TESTING AND BALANCING ORGANIZATION IN ACCORDANCE WITH STANDARD PROCEDURES.

9. SHEET METAL DUCTWORK
   9.1. ALL NEW DUCTWORK SHALL BE CONSTRUCTED OF GALVANIZED SHEET METAL (UNLESS OTHERWISE INDICATED) AND INSTALLED IN ACCORDANCE WITH SMACNA DUCT CONSTRUCTION STANDARDS, 2005 EDITION, 2" PRESSURE CLASS. AUDIBLE LEAKAGE WILL NOT BE ALLOWED.
   9.2. ALL NEW DUCTWORK MUST BE FIELD VERIFIED PRIOR TO FABRICATION, PURCHASE, OR INSTALLATION. NO ALLOWANCE WILL BE MADE FOR DUCTWORK THAT IS NOT USED.
   9.3. ALL NEW DUCTWORK DIMENSIONS SHOWN ARE INSIDE CLEAR DIMENSIONS. DUCTWORK SIZES SHALL BE INCREASED TO ACCOMMODATE 1" INTERNAL LINING WHERE INDICATED ON PLANS.
   9.4. PROVIDE SINGLE THICKNESS TURNING VANES IN ALL DUCTWORK ELBOWS (45° & 90°). TURNING VANES SHALL COMPLY WITH SMACNA STANDARDS, 2005 EDITION.
   9.5. INSULATION INSULATE ENTIRELY NEW SUPPLY AIR DUCTWORK WITH 1-1/2" THICK FIBERGLASS DUCT WRAP WITH VAPOR BARRIER EQUIVALENT TO R-8 INSULATION IN ACCORDANCE WITH IMC-604. SEAL SEAMS TOGETHER W/STAPLES AND AN APPROVED MASTIC SEALANT. THE USE OF DUCT TAPE IS NOT ACCEPTABLE. (MEDIUM PRESSURE OR LOW PRESSURE DUCTWORK)
   9.6. ALL SUPPLY DUCTS, AND FITTINGS INDICATED ON DRAWINGS TO BE LINED, SHALL BE INSULATED WITH DUCT LINER MEETING THE REQUIREMENTS OF ASTMC1071 AND THE ADDITIONAL FOLLOWING REQUIRES:
      9.6.A. HAVE A LIQUID WATER REPELLENCY RATING NOT LESS THAN 4 WHEN TESTED IN ACCORDANCE WITH INDA IST 80.6.
      9.6.B. HAVE A POTENTIAL HEAT VALUE NOT EXCEEDING 3500 BTU/LB WHEN TESTED IN ACCORDANCE WITH NFPA 259 AND MEETING THE CLASSIFICATION OF "LIMITED COMBUSTIBLE" AS DEFINED BY NFPA 90A.
      9.6.C. MAXIMUM RATED VELOCITY NOT LESS THAN 6000 FPM WHEN TESTED IN ACCORDANCE WITH ASTM C 1138, G21 AND G22.
      9.6.D. RESISTANT TO MICROBIAL GROWTH USING A "NO GROWTH CRITERIA" WHEN TESTED IN ACCORDANCE WITH ASTM C 1138, G 21 AND G22.

10. FLEXIBLE DUCTWORK
   10.1. MAXIMUM LENGTH OF FLEXIBLE DUCTWORK SHALL NOT EXCEED 6'-0" UNLESS OTHERWISE NOTED. USE ROUND METAL DUCTWORK WITH INSULATION WHERE NECESSARY TO MEET THIS REQUIREMENT. ROUND METAL DUCTWORK WITH INSULATION AND FLEXIBLE DUCT SIZE SHALL BE THE SAME AS THE NECK SIZE OF THE DIFFUSERS.
   10.2. FLEXIBLE DUCT SHALL BE FACTORY GLASS FIBER INSULATED ASSEMBLY WITH VAPOR BARRIER JACKET AND MAXIMUM THERMAL CONDUCTANCE OF 0.23 BTUH/FT.SQ. PER °F. IT SHALL BE CONSTRUCTED OF MACHINE WOUND SPIRAL ALUMINUM HELIX OR REINFORCED ALUMINUM FOIL FABRIC MECHANICALLY LOCKED INTO ALUMINUM SPIRAL HELIX.
   10.3. FLEXIBLE DUCT SHALL BE SUITABLE FOR A 3" W.C. POSITIVE WORKING PRESSURE AND SHALL BE LISTED AS CLASS 1 BY UL AT A FLAME SPREAD NOT TO EXCEED 25 AND SMOKE DEVELOPED NOT OVER 50 AND SHALL COMPLY WITH NFPA 90A.
   10.4. MANUFACTURERS: GENFLEX TYPE IHPL, THERMAFLEX TYPE M-KC, OR FLEXMASTER TYPE II OR III.
   10.5. FLEXIBLE DUCT SHALL BE CONNECTED TO SHEET METAL DUCTWORK WITH STAINLESS STEEL DUCT CLAMP WITH SWIVEL ACTION SCREW OR 100% NYLON SELF-LOCKING DUCT CLAMP AS APPROVED BY THE LOCAL AUTHORITIES.
   10.6. CONICAL TAKEOFF DUCT CONNECTIONS ARE REQUIRED. FLANGED CONNECTIONS WITH DOUBLE BACKED FOAM TAPE WITH A MINIMUM OF 4 SHEET METAL SCREWS SHALL BE PROVIDED. SPIN-INS ARE NOT PERMITTED.

11. CONTROLS
   11.1. THERMOSTAT SHALL BE INSTALLED 4'-0" (ADA COMPLIANCE) ABOVE FINISHED FLOOR WHERE SHOWN ON PLANS UNLESS NOTED OTHERWISE.

12. INSTRUCTION AND IDENTIFICATION
   12.1. WRITTEN INSTRUCTIONS IN A SINGLE BINDER DESCRIBING THE PROPER OPERATION AND MAINTENANCE OF EQUIPMENT AND SYSTEMS SHALL BE PROVIDED TO THE OWNER AT THE COMPLETION OF THE WORK. THE CONTRACTOR SHALL DEMONSTRATE AND INSTRUCT THE OPERATION OF SYSTEMS TO THE OWNER'S REPRESENTATIVE. ALL VALVES, CONTROLS, ETC., SHALL BE PERMANENTLY IDENTIFIED AND LABELED WITH METAL TAGS OR ENGRAVED NAMEPLATES AS APPLICABLE. COORDINATE WITH HVAC ZONE SCHEDULE.

13. GUARANTEE
   13.1. THE CONTRACTOR SHALL GUARANTEE ALL MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF ACCEPTANCE BY THE OWNER AND SHALL REPAIR OR REPLACE AT NO ADDITIONAL COST TO THE OWNER ANY PART THEREOF WHICH MAY BECOME DEFECTIVE DURING THE PERIOD OF GUARANTEE. ORDINARY WEAR AND TEAR EXCEPTED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR AND PAY FOR ANY DAMAGES RESULTING FROM OR CAUSED BY DEFECTS IN HIS/HER WORK.

14. PIPE SUPPORT
   14.1. SUPPORT VERTICAL PIPES AT EACH FLOOR OR VERTICALLY NOT MORE THAN 10 FEET APART.
   14.2. SUPPORT HORIZONTAL PIPE AT 10 FEET MAXIMUM INTERVALS.

15. INSTALLATION
   15.1. ALL PIPES SHALL BE INSTALLED IN A NEAT AND ORDERLY APPEARANCE AND FREE FROM CONTACT WITH STRUCTURE OR INSTALLED ITEMS. RUN PIPING PARALLEL TO WALLS AND FLOORS OF BUILDING UNLESS OTHERWISE INDICATED.

SYMBOLS

- 12x10 — EXISTING DUCT (1ST DIMENSION INDICATES TOP SHOWN, INSIDE CLEAR DIMENSIONS).
- 12x10 — EXISTING DUCT TO BE REMOVED.
- 12x10 — NEW DUCT (1ST DIMENSION INDICATES TOP SHOWN, INSIDE CLEAR DIMENSIONS).
- 12x10 — DUCTWORK WITH SOUND LINING (DIMENSION INDICATES INSIDE CLEAR DIMENSIONS)
- DUCT WORK WITH TRANSITION
- RECTANGULAR/SQUARE DUCT TO ROUND DUCT SIZE TRANSITION
- FLEXIBLE DUCT CONNECTOR
- SUPPLY AIR DUCT TO RISE UP
- SUPPLY AIR DUCT TO DROP DOWN
- RETURN AIR DUCT TO RISE UP
- RETURN AIR DUCT TO DROP DOWN
- EXHAUST DUCT TO RISE UP
- EXHAUST DUCT TO DROP DOWN
- SQUARE ELBOW WITH TURNING VANES
- TRANSFER DUCT WITH 1" ACOUSTICAL SOUND-LINING.
- SUPPLY AIR DEVICE
- RETURN OR EXHAUST AIR DEVICE
- EXHAUST AIR DEVICE
- OPEN END DUCT WITH CAP
- ROUND DUCT TO RISE UP
- ROUND DUCT TO DROP DOWN
- FLEXIBLE ROUND DUCT
- BDD/GBD — RELIEF AIR LOUVER WITH BACKDRAFT DAMPER/GRAVITY BALANCED DAMPER
- VD — MANUAL VOLUME DAMPER
- FD — FIRE DAMPER
- SD — SMOKE DAMPER
- M — MOTORIZED DAMPER
- B — BAROMETRIC DAMPER
- SUPPLY DIFFUSER
- SUPPLY GRILLE OR REGISTER
- RETURN GRILLE
- EXHAUST GRILLE
- CD-1 (MARK) / 100 (CFM) — NEW DIFFUSER/GRILLE/REGISTER CFM TAG
- CAPPED CONNECTION
- REDUCER/INCREASER
- UNION
- EXPANSION JOINT
- FLEXIBLE CONNECTOR
- TEE AND ELBOW UP
- TEE AND ELBOW DOWN
- TEE UP
- TEE DOWN
- GATE VALVE
- GLOBE ANGLE VALVE
- OR — BALANCING VALVE
- OR — CHECK VALVE
- OR — GLOBE VALVE
- OR — PRESSURE REDUCING VALVE
- BALL VALVE
- MOTORIZED BALL VALVE
- BUTTERFLY VALVE
- DIAPHRAM VALVE
- GATE ANGLE VALVE
- NEEDLE VALVE
- PLUG VALVE
- 2-WAY AUTOMATIC CONTROL VALVE
- 3-WAY AUTOMATIC CONTROL VALVE
- 2-WAY ELECTRIC CONTROL VALVE
- 3-WAY ELECTRIC CONTROL VALVE
- AIR VENT
- HOSE END DRAIN
- PRESSURE GAGE
- TEMPERATURE GAGE
- STRAINER
- CHWR — CHILLED WATER RETURN
- CHWS — CHILLED WATER SUPPLY
- HWR — HOT WATER RETURN
- HWS — HOT WATER SUPPLY
- RL — REFRIGERANT LIQUID
- RL — REFRIGERANT SUCTION
- GAS — GAS SUPPLY
- CD — CONDENSATE DRAIN
- 1 — NEW WORK KEYED DRAWING NOTE
- 1 — DEMOLITION KEYED DRAWING NOTE
- 1 — REVISION NUMBER
- T — THERMOSTAT
- S — SWITCH
- SD — SMOKE DETECTOR
- POINT OF DISCONNECTION
- POINT OF CONNECTION
- U — UNDERCUT
- L — LOUVER
- CO2 — CARBON DIOXIDE SENSOR
- # / M201 — SECTION NUMBER; WHERE THE SECTION/CONTROL REFERENCED
- 3 / M4.00 — NUMBER INDICATES SECTION; SHEET NUMBER WHERE SECTION IS DRAWN

NOTE: ALL SYMBOLS MAY NOT APPEAR ON THE DRAWINGS.

ABBREVIATIONS

AC	AIR CONDITIONING UNIT
AF	AIR FILTER
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
AI	ANALOG INPUT
AO	ANALOG OUTPUT
APD	AIR PRESSURE DROP
ARCH	ARCHITECTURAL
AS	AIR SEPARATOR
ATC	AUTO TEMPERATURE CONTROL
BDD	BACKDRAFT DAMPER
BHP	BRAKE HORSE POWER
BLDG	BUILDING
BLW	BELOW
BS	BIRD SCREEN
BTUH	BRITISH THERMAL UNIT PER HOUR
CAC	CONTROL AIR COMPRESSOR
CC	COOLING COIL
CD	CEILING DIFFUSER
CFM	CUBIC FEET PER MINUTE
CG	CEILING GRILLE
CH	CHILLER
CHP	CHILLED WATER PUMP
CHWS	CHILLED WATER SUPPLY
CHWR	CHILLED WATER RETURN
CLG	CEILING
CO	CLEAN OUT
CV	CONVECTOR
CU	CONDENSING UINT
(D)	DEMOLITION
DB	DRY BULB
DDC	DIRECT DIGITAL CONTROL
DI	DIGITAL INPUT
DIA	DIAMETER
DN	DOWN
DO	DAMPER OPERATOR
DO	DIGITAL OUTPUT
DPS	DIFFERENTIAL PRESSURE SWITCH
DWG	DRAWING
EA	EACH
EAT	ENTERING AIR TEMPERATURE
EF	EXHAUST FAN
EQUIP	EQUIPMENT
ET	EXPANSION TANK
ETR	EXISTING TO REMAIN
EUH	ELECTRIC UNIT HEATER
EWT	ENTERING WATER TEMPERATURE
EXIST	EXISTING
(E)	EXISTING
EXT	EXTERNAL
EX.	EXAMPLE
F	FAHRENHEIT
FCU	FAN COIL UNIT
FD	FIRE DAMPER
FL	FLOOR
FPM	FEET PER MINUTE
FT	FEET
FT	FLASH TANK
FTR	FINNED TUBE RADIATOR
FZ	FREEZE STAT
GPM	GALLONS PER MINUTE
HC	HEATING COIL
HP	HORSE POWER / HEAT PUMP
HR	HOUR
HS	HUMIDITY SENSOR
HWS	HEATING WATER SUPPLY
HWR	HEATING WATER RETURN
IN	INCH
IU	INDUCTION UNIT
KW	KILOWATT
LAT	LEAVING AIR TEMPERATURE
LB	POUNDS
LF	LINEAR FEET
LWT	LEAVING WATER TEMPERATURE
MAX	MAXIMUM
MBH	1000 BTUH
MECH	MECHANICAL
MIN	MINIMUM
MOCP	MAXIMUM OVERCURRENT PROTECTION
MTD	MOUNTED
MFG	MANUFACTURER
MFGR	MANUFACTURER
NC	NOISE CRITERIA
NC	NORMALLY CLOSED
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NOM	NOMINAL
No.	NUMBER
OA	OUTSIDE AIR
OAT	OUTSIDE AIR TEMPERATURE
P	PUMP
PD	PRESSURE DROP
PS	PRESSURE SENSOR
PSI	POUNDS PER SQUARE INCH
(R)	RELOCATED
RA	RETURN AIR
RAT	RETURN AIR TEMPERATURE
RD	RETURN DIFFUSER
RF	RETURN FAN
RG	RETURN GRILLE
RHC	REHEAT COIL
RLA	RELIEF AIR
RLF	RELIEF FAN
RPM	REVOLUTION PER MINUTE
S	SWITCH
SA	SUPPLY AIR
SAT	SUPPLY AIR TEMPERATURE
SD	SMOKE DETECTOR
SDHV	SMALL DUCT, HIGH VELOCITY SYSTEM
SF	SUPPLY FAN
SMACNA	SHEET METAL AND AIR CONDITIONING CONTRACTORS' NATIONAL ASSOCIATION.
SR	SUPPLY REGISTER
SS	STAINLESS STEEL
TAB	TESTING ADJUSTING AND BALANCING
TS	TEMPERATURE SENSOR
TYP	TYPICAL
UH	UNIT HEATER
UL	UNDERWRITERS LABORATORIES
UNO	UNLESS NOTED OTHERWISE
UV	UNIT VENTILATOR
V	VALVE (MOTORIZED)
VAV	VARIABLE AIR VOLUME
VFD	VARIABLE FREQUENCY/SPEED DRIVE
W	WATT
WB	WET BULB
WC	WATER COLUMN
WPD	WATER PRESSURE DROP
W/	WITH
W/O	WITHOUT

NOTE: ALL ABBREVIATIONS MAY NOT APPEAR ON THE DRAWINGS.

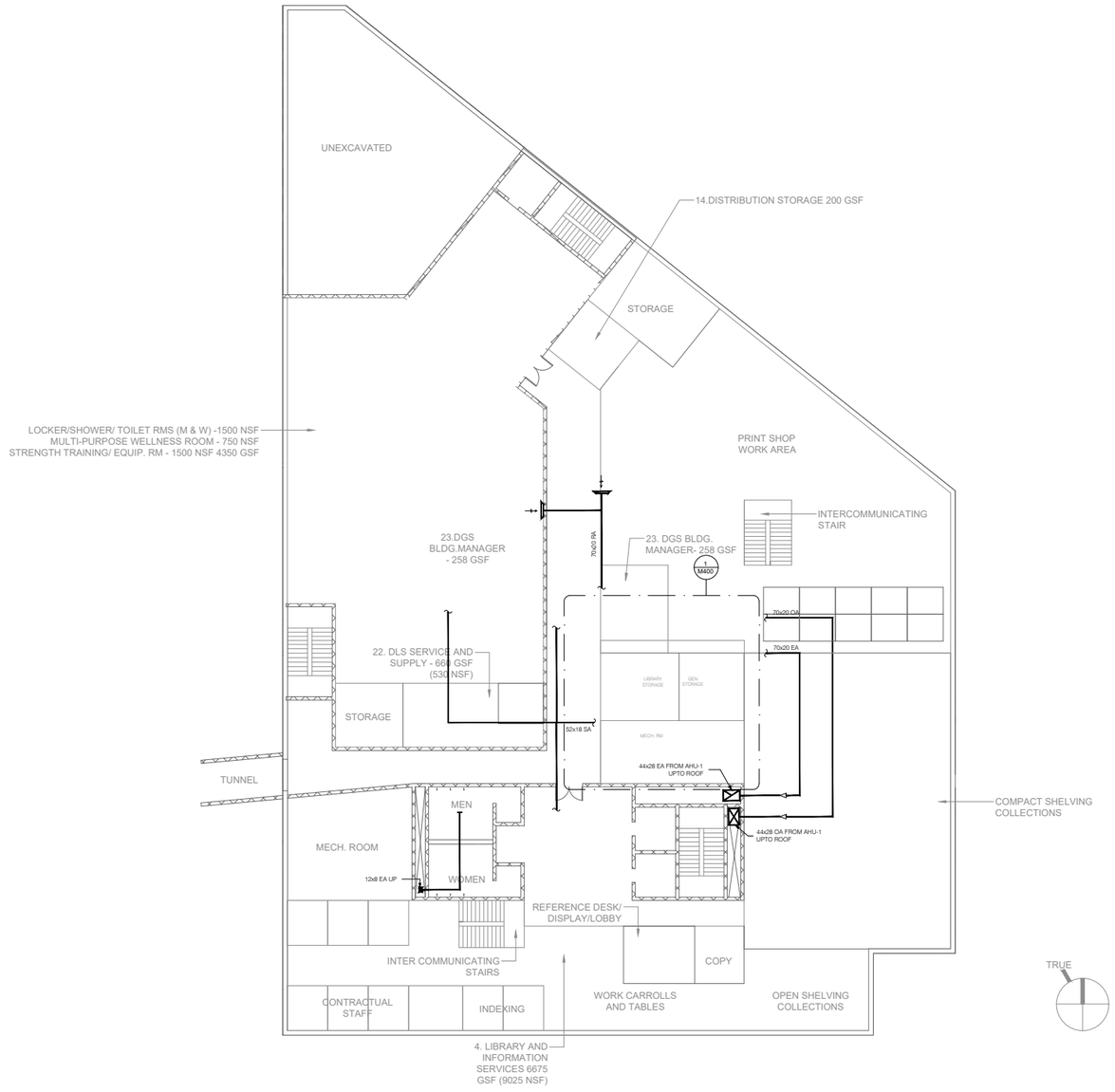
MECHANICAL DRAWING LIST

SHEET	DRAWING	TITLE
1	M001	GENERAL NOTES, SYMBOLS & ABBREVIATIONS
2	M100	BASEMENT MECHANICAL PLAN
3	M101	GROUND FLOOR MECHANICAL PLAN
4	M102	FIRST FLOOR MECHANICAL PLAN
5	M103	SECOND FLOOR MECHANICAL PLAN
6	M104	THIRD FLOOR MECHANICAL PLAN
7	M105	FOURTH FLOOR MECHANICAL PLAN
8	M106	ROOF LEVEL MECHANICAL PLAN
9	M400	MECHANICAL ENLARGED PLANS
10	M401	MECHANICAL ENLARGED PLANS
11	M600	MECHANICAL SCHEDULES
12	M601	MECHANICAL SCHEDULES
13	M602	MECHANICAL SCHEDULES
14	M603	MECHANICAL SCHEDULES
15	M604	MECHANICAL SCHEDULES
16	M605	MECHANICAL SCHEDULES

MECHANICAL GENERAL NOTES, SYMBOLS & ABBREVIATIONS

FIGURE 4.01

#	SHEET NOTES
1.	



1
M099

BASEMENT MECHANICAL PLAN

SCALE: 1/32" = 1'-0"

FIGURE 4.02

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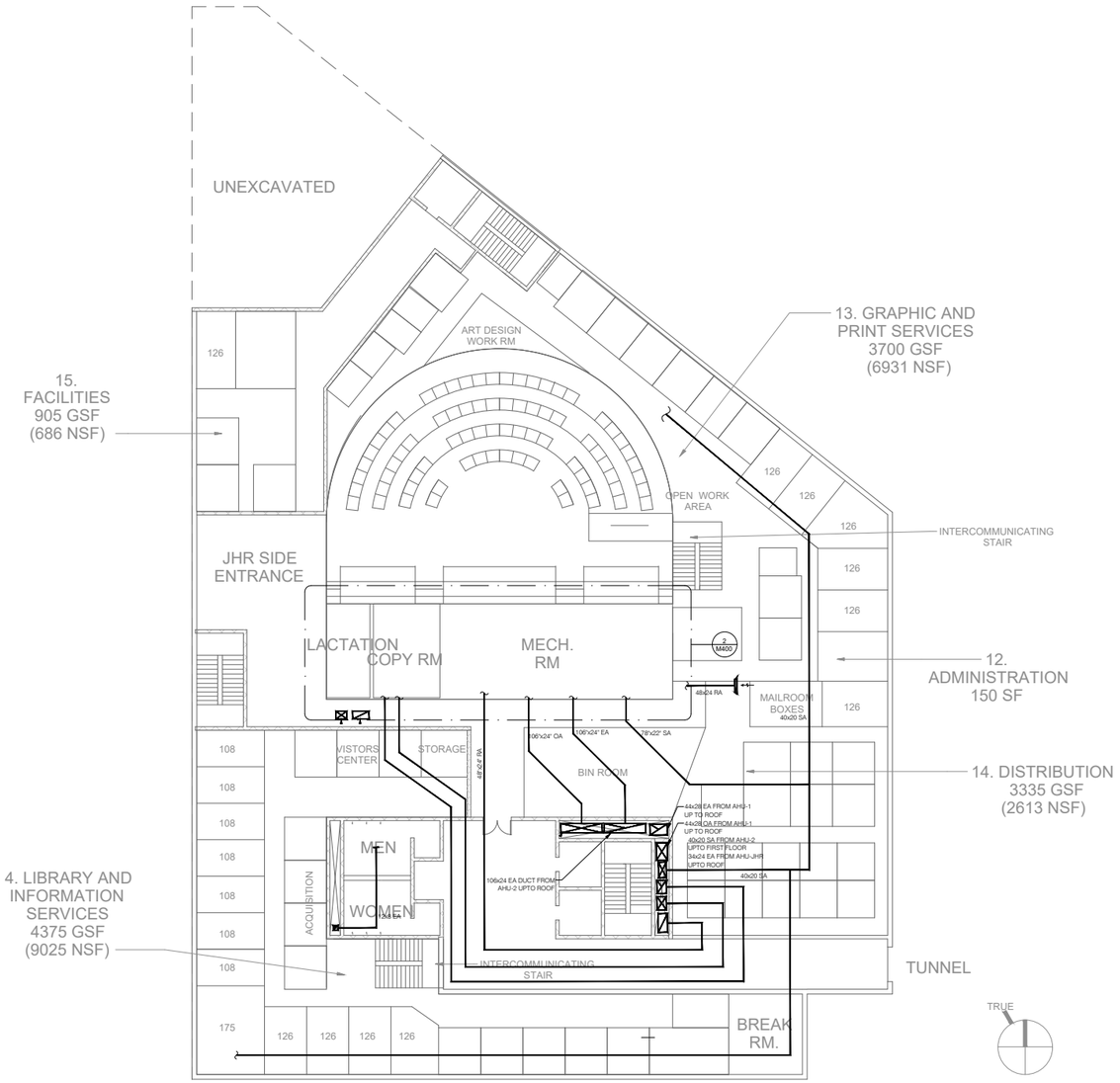
#	SHEET NOTES
1.	



1 / M100 GROUND FLOOR MECHANICAL PLAN

SCALE: 1/32" = 1'-0"

FIGURE 4.03

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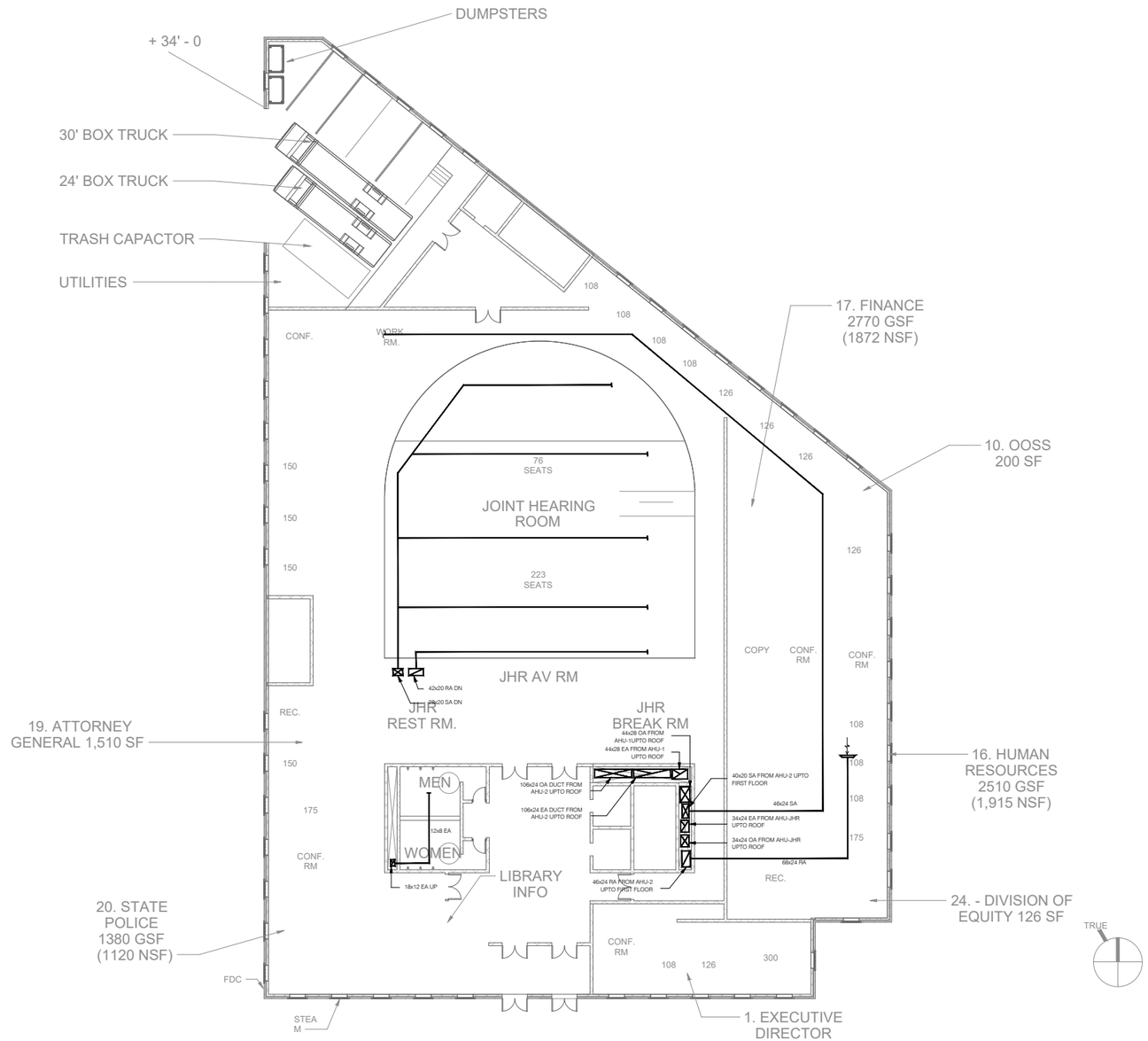
ANNAPOLIS, MD

DEPARTMENT OF LEGISLATIVE SERVICES

Murphy & Dittenhafer ARCHITECTS

#	SHEET NOTES
1.	



1 / M101 FIRST FLOOR MECHANICAL PLAN

SCALE: 1/32" = 1'-0"

FIGURE 4.04

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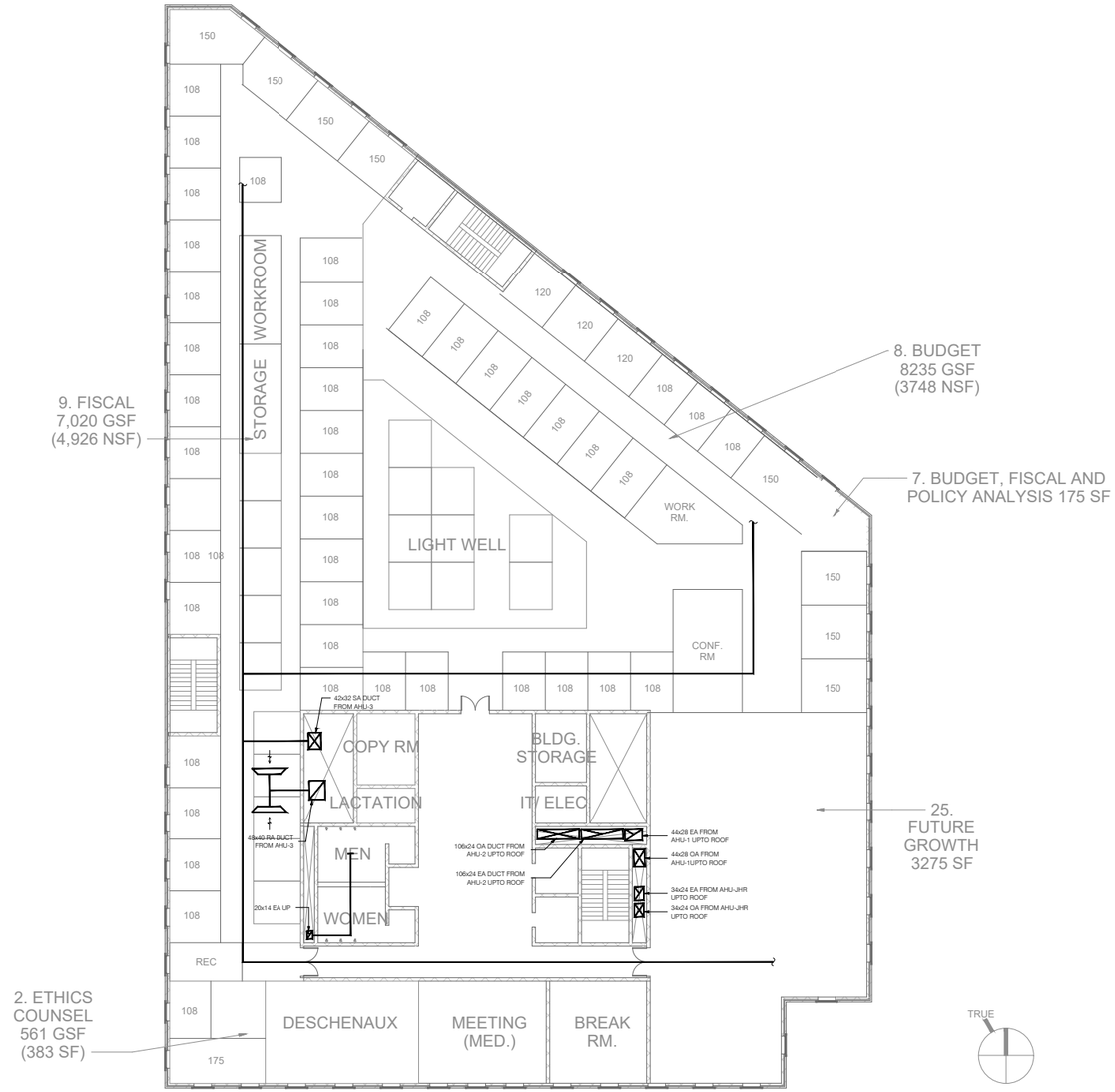
DEPARTMENT OF LEGISLATIVE SERVICES

Murphy & Dittenhafer ARCHITECTS

#	SHEET NOTES
1.	



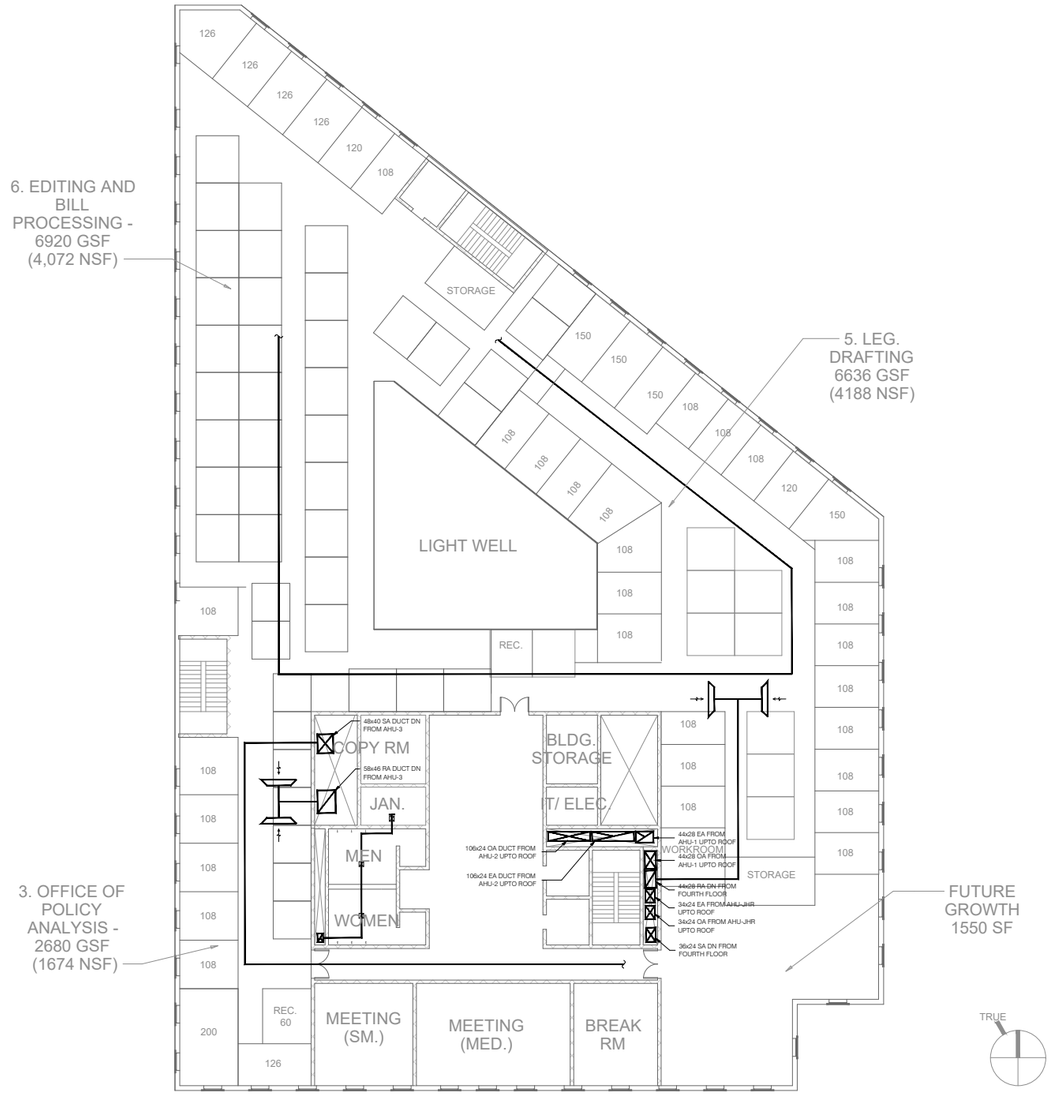
1
M102

SECOND FLOOR MECHANICAL PLAN

SCALE: 1/32" = 1'-0"

FIGURE 4.05

#	SHEET NOTES
1.	

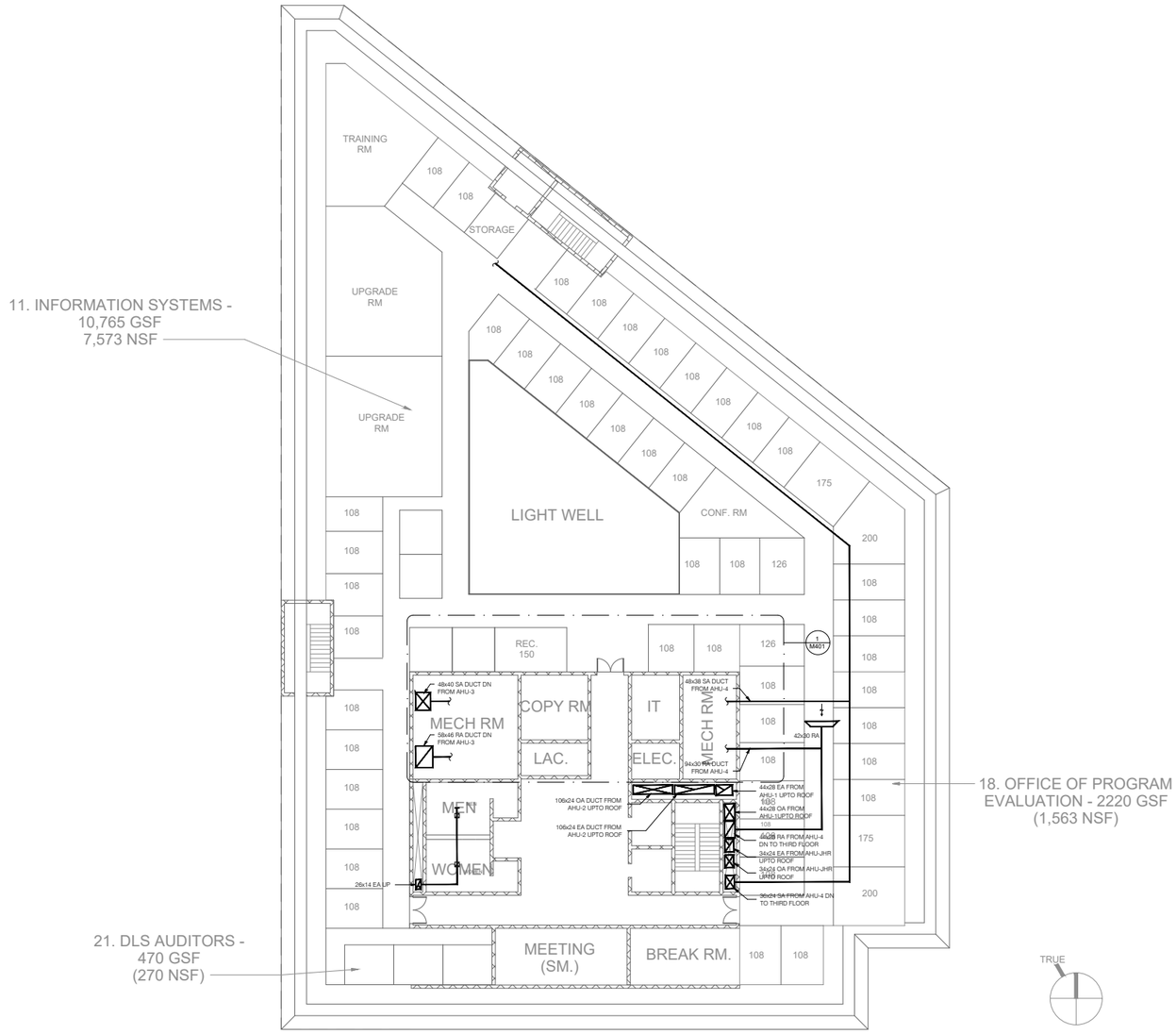


1 / M103 THIRD FLOOR MECHANICAL PLAN

SCALE: 1/32" = 1'-0"

FIGURE 4.06

#	SHEET NOTES
1.	

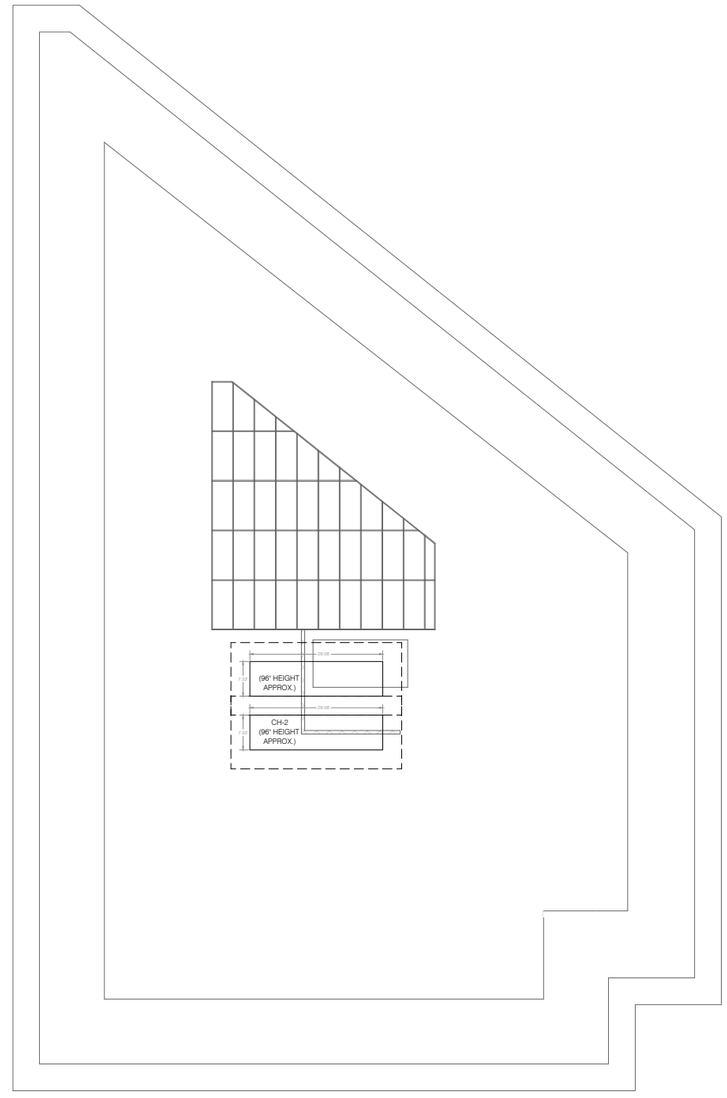


1 / M104 FOURTH FLOOR MECHANICAL PLAN

SCALE: 1/32" = 1'-0"

FIGURE 4.07

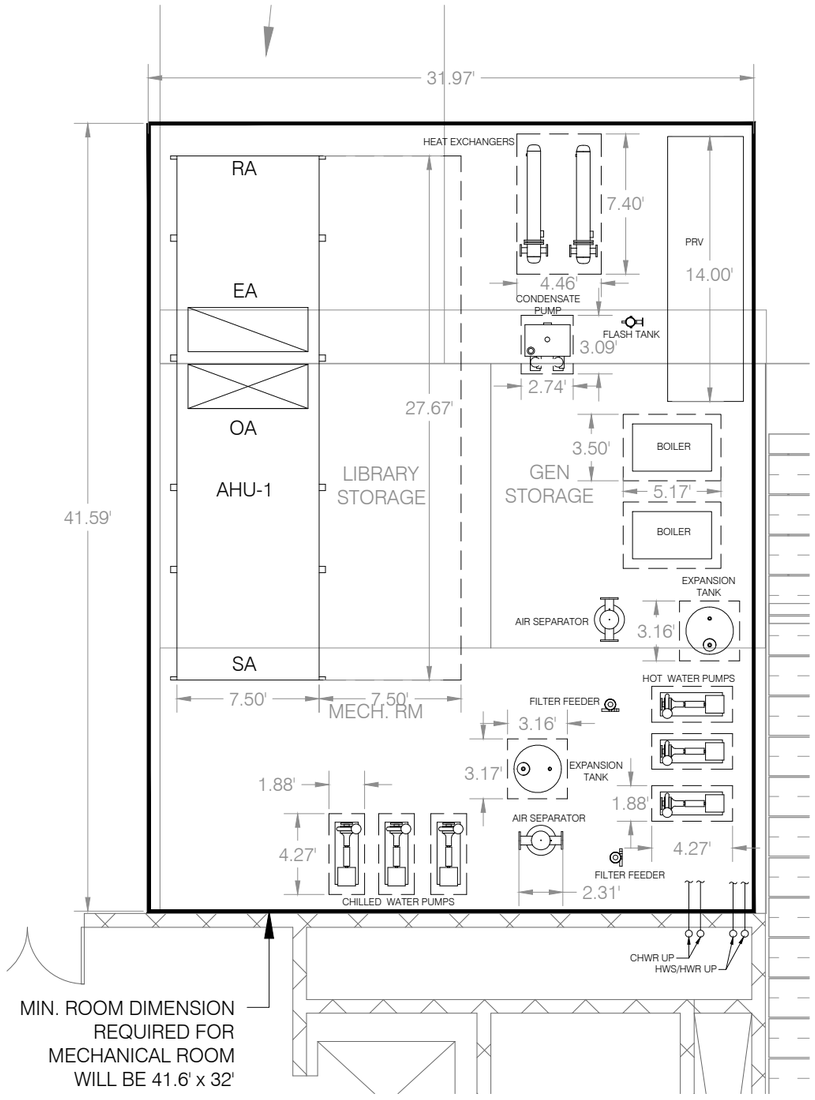
#	SHEET NOTES
1.	



1 / M105 MECHANICAL ROOF PLAN

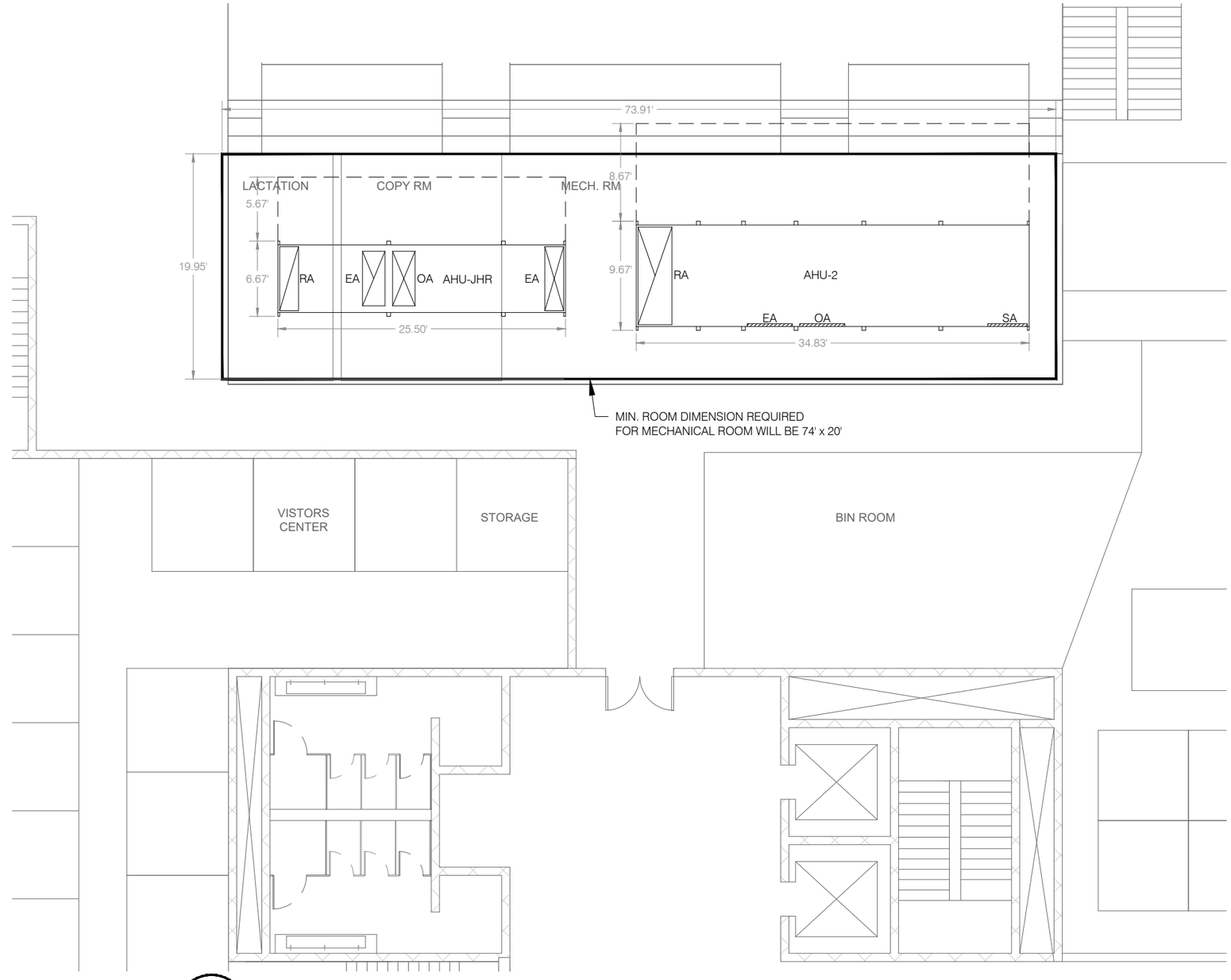
SCALE: 1/32" = 1'-0"

FIGURE 4.08



1 / M400 BASEMENT MECHANICAL ROOM ENLARGED PLAN

SCALE: 1/8" = 1'-0"



2 / M400 GROUND FLOOR MECHANICAL ROOM ENLARGED PLAN

SCALE: 1/8" = 1'-0"

FIGURE 4.09

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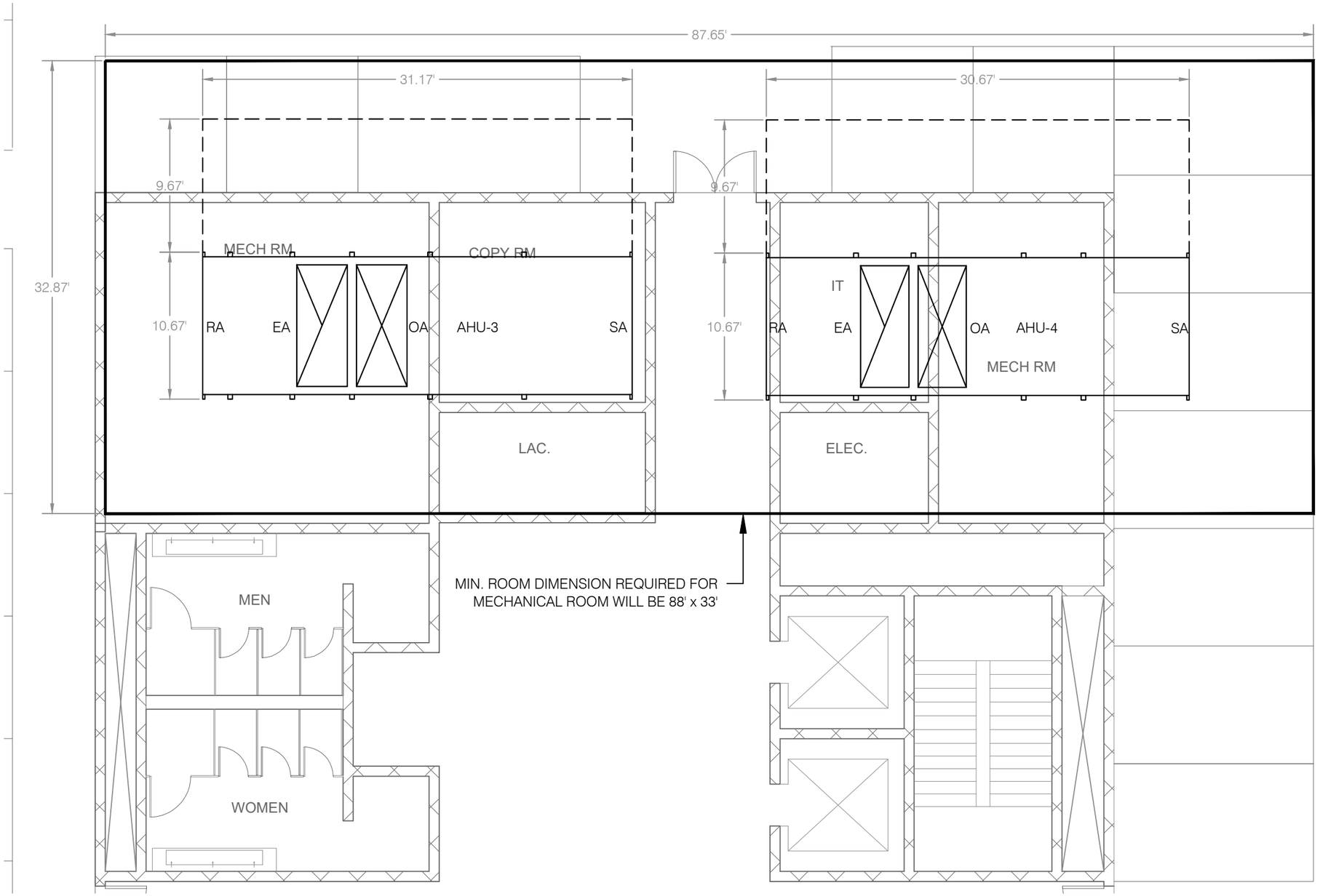

1
M401

FOURTH FLOOR MECHANICAL ROOM ENLARGED PLAN

SCALE: 1/8" = 1'-0"

FIGURE 4.10

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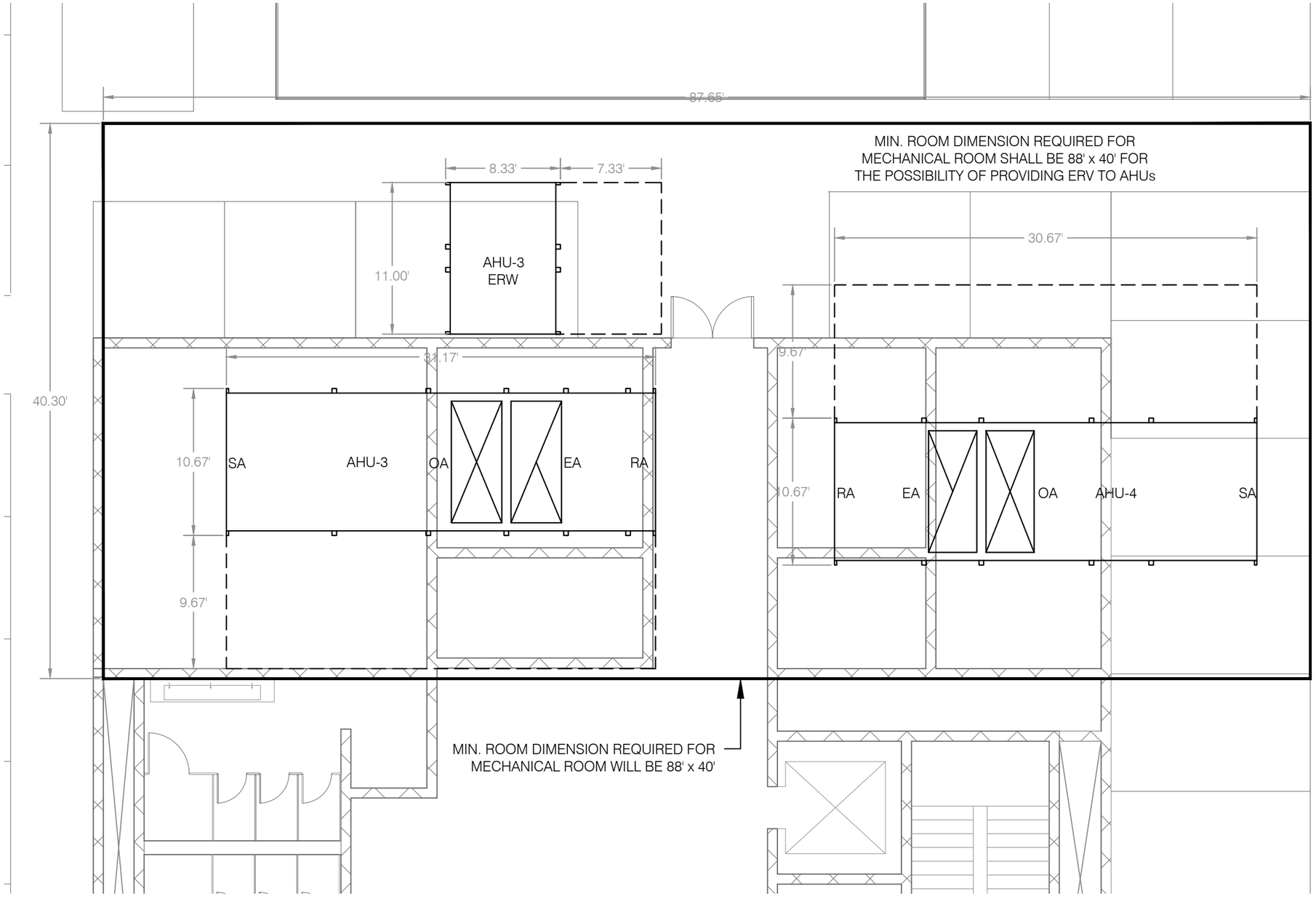


1
M401

FOURTH FLOOR MECHANICAL ROOM ENLARGED PLAN

SCALE: 1/8" = 1'-0"

FIGURE 4.11

AIR HANDLING UNITS SCHEDULE

UNIT MARK	SERVICE	LOCATION	DESIGN AIR FLOW (CFM)				SUPPLY FAN							EXHAUST FAN						
			SUPPLY AIR	OUTDOOR AIR	RETURN AIR	EXHAUST AIR	AIR FLOW CAPACITY (CFM)	QTY	ESP (IN WC)	TSP (IN WC)	MOTOR HP	FLA	BHP	AIR FLOW CAPACITY (CFM)	QTY	ESP (IN WC)	TSP (IN WC)	MOTOR HP	FLA	BHP
AHU-1	BASEMENT FLR	BASEMENT MECH ROOM	7,150	-	7,150	-	7,150	2	-	5.6	15	-	-	7,150	2	-	1.6	5	-	-
AHU-2	FIRST FLR	GROUND FLR MECH ROOM	25,800	-	25,800	-	12,900	2	3	5.62	20	24	17.17	12,900	2	1.5	1.63	7.5	11.4	7.11
AHU-3	SECOND & THIRD FLR	FOURTH FLR MECH ROOM	31,000	4,850	31,000	4,850	15,500	2	3	5.79	25	30	21.14	15,500	2	1.5	1.57	7.5	11.4	7.21
AHU-4	THIRD & FOURTH FLR	FOURTH FLR MECH ROOM	30,000	-	30,000	-	15,000	2	3	5.72	25	30	20.05	15,000	2	1.5	1.57	7.5	11.4	6.82
AHU-JHR	JOINT HEARING ROOM	GROUND FLR MECH ROOM	9,200	-	9,200	-	9,200	1	3	5.49	15	17.5	13.52	9,200	1	1.5	1.63	7.5	9.7	6.26

AIR HANDLING UNITS SCHEDULE (CONTD.)

ENTHALPY WHEEL														COOLING							
SUMMER					WINTER					WHEEL MOTOR										
EAT DB/WB (°F)	LAT DB/WB (°F)	SENSIBLE EFFECTIVENESS	LATENT EFFECTIVENESS	TOTAL EFFECTIVENESS	EAT DB (°F)	LAT DB (°F)	SENSIBLE EFFECTIVENESS	LATENT EFFECTIVENESS	TOTAL EFFECTIVENESS	QTY	HP	FLA	TOTAL MBH	SENSIBLE MBH	EAT DB/WB (°F)	LAT DB/WB (°F)	EWT (°F)	LWT (°F)	FLOW (GPM)	WATER PRESSURE DROP (FT OF WATER)
-	-	-	-	-	-	-	-	-	-	-	-	-	581.8	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	1037.6	720.2	80 / 67	54.5 / 53.9	45	55	207	13.50
95 / 78	87.9 / 72.4	0.6671	0.6135	0.633	10	29.7	0.6848	0.6312	0.6671	1	0.5	-	1266.3	873.7	80 / 67	54.2 / 53.7	45	55	248	18.40
-	-	-	-	-	-	-	-	-	-	-	-	-	1234.3	849.8	80 / 67	54.1 / 53.6	45	55	240	17.40
-	-	-	-	-	-	-	-	-	-	-	-	-	374	259	80 / 67	54.2 / 53.8	45	55	74	8.30

AIR HANDLING UNITS SCHEDULE (CONTD.)

HEATING							ELECTRICAL							BASIS OF DESIGN		
TOTAL MBH	EAT DB/WB (°F)	LAT DB/WB (°F)	EWT (°F)	LWT (°F)	FLOW (GPM)	WATER PRESSURE DROP (FT OF WATER)	MCA	MOCP	FLA	VOLTS/PH/HZ	UNIT WEIGHT (LBS)	EMERGENCY POWER	CONTROL	MANUFACTURER	MODEL	NOTES
793.2	-	-	-	-	-	-	-	-	-	460/3/60	-	-	-	DAIKIN	CAH033GDHM	SEE ALL
1442	40 / -	91.1 / -	160	140	141	18.80	(54.2 + 25.9)	(70 + 35)	(24 + 11.4)	460/3/60	12807	-	-	DAIKIN	CAH057GDHM	SEE ALL
1681.9	40 / -	89.6 / -	160	140	170	12.00	(67.7 + 25.9)	(90 + 35)	(30 + 11.4)	460/3/60	13678	-	-	DAIKIN	CAH067GDHM	SEE ALL
1648.2	40 / -	90.2 / -	160	140	164	11.30	(67.7 + 25.9)	(90 + 35)	(30 + 11.4)	460/3/60	13333	-	-	DAIKIN	CAH067GDHM	SEE ALL
517.8	40 / -	91.5 / -	160	139	50	8.50	-	-	-	460/3/60	4564	-	-	DAIKIN	CAH020GDGM	SEE ALL

NOTES:
1. UNIT SHALL BE INSTALLED AS PER MANUFACTURER RECOMMENDATION.
2. AMBIENT CONDITION: SUMMER - 95F DB/78F WB AND WINTER - 0F DB..
3. FAN & MOTOR SHALL BE INTERNALLY ISOLATED PER MANUFACTURER RECOMMENDATION.
4. PROVIDE THE FOLLOWING: (FACTORY INSTALLED/SUPPLIED IF NOT CONTRACTOR SHALL PROVIDE)
   - MERV 8 PRE FILTER AND MERV 13 FINAL FILTER.
   - VFD WITH NEMA RATED DISCONNECT SWITCH FOR SUPPLY AND EXHAUST FAN.
   - 24" HIGH ROOF CURB.

SPLIT HEAT PUMP INDOOR UNIT SCHEDULE

UNIT MARK	SERVICE	SUPPLY FAN			COOLING			HEATING	SOUND PRESSURE LEVEL - dB(A)	SEER	WEIGHT	UNIT DIMENSIONS (HxWxD)	ELECTRICAL				BASIS OF DESIGN		NOTES
		QTY	AIR FLOW (CFM)	MOTOR HP/WATTS	TON	TOTAL MBH	SENSIBLE MBH	TOTAL MBH					MCA	MOCP	FLA	VOLTS/PH/HZ	MANUFACTURER	MODEL	
AC-1	-	-	320-370-425	-	1.5	18,000	-	-	-	15.30	29	35 3/8 x 9 13/16 x 11 5/8	-	-	-	208/1/60	MITSUBISHI	PKA-A18HA4	-
AC-2	-	-	320-370-426	-	1.5	18,000	-	-	-	15.30	29	36 3/8 x 9 13/16 x 11 5/8	-	-	-	208/1/61	MITSUBISHI	PKA-A18HA5	-

NOTES:
1. UNIT SHALL BE INSTALLED AS PER MANUFACTURER RECOMMENDATION.
2. COOLING AND HEATING DATA INDICATED ARE BASED ON FOLLOWING CONDITION:
   - COOLING: INDOOR -80F DB/67F WB, OUTDOOR - 95F DB
   - HEATING: INDOOR -70F DB, OUTDOOR - 47F DB
3. COMPRESSORS SHALL BE INTERNALLY ISOLATED.
4. PROVIDE THE FOLLOWING: (FACTORY INSTALLED/SUPPLIED IF NOT CONTRACTOR SHALL PROVIDE)
   - NEMA RATED DISCONNECT SWITCH.
   - 7-DAY PROGRAMMABLE THERMOSTAT, COORDINATE COLOR WITH ARCHITECT.
   - CONDENSATE PUMP AND OVERFLOW SWITCH.
   - LOW AMBIENT KIT AND ASSOCIATED ACCESSORIES.
   - REPLACEABLE/WASHABLE FILTER.
   - LONG LINE APPLICATION KIT AS REQUIRED FOR FIELD ROUTING OF REFRIGERANT PIPING.
   - CONDENSER FIN GUARD ON ALL EXPOSED FIN SURFACES.
   - CONDENSING UNIT ROOF SUPPORT PER MANUFACTURER RECOMMENDATION.

SPLIT HEAT PUMP OUTDOOR UNIT SCHEDULE

UNIT MARK	SERVING	COOLING			HEATING		REFRIGERANT TYPE	UNIT WEIGHT (LBS)	UNIT DIMENSIONS (HxWxD)	ELECTRICAL				CONTROL	BASIS OF DESIGN		NOTES
		TON	TOTAL MBH	SEER @ 95 °F	TOTAL MBH	COP @ 47 °F				MCA	MOCP	FLA	VOLTS/PH/HZ		MANUFACTURER	MODEL	
ACCU-1	-	1.5	-	-	-	-	R-410A	89	31 1/2 X 11 13/16 X 23 5/8	13	-	-	208/1/60	-	MITSUBISHI	PIY-A18NHA4	WT
ACCU-2	-	2.5	-	-	-	-	R-410A	90	32 1/2 X 11 13/16 X 23 5/8	14	-	-	208/1/61	-	MITSUBISHI	PIY-A18NHA5	WT

NOTES:
1. UNIT SHALL BE INSTALLED AS PER MANUFACTURER RECOMMENDATION.
2. COOLING AND HEATING DATA INDICATED ARE BASED ON FOLLOWING CONDITION:
   - COOLING: INDOOR -80F DB/67F WB, OUTDOOR - 95F DB
   - HEATING: INDOOR -70F DB, OUTDOOR - 47F DB
3. COMPRESSORS SHALL BE INTERNALLY ISOLATED.
4. PROVIDE THE FOLLOWING: (FACTORY INSTALLED/SUPPLIED IF NOT CONTRACTOR SHALL PROVIDE)
   - NEMA RATED DISCONNECT SWITCH.
   - 7-DAY PROGRAMMABLE THERMOSTAT, COORDINATE COLOR WITH ARCHITECT.
   - CONDENSATE PUMP AND OVERFLOW SWITCH.
   - LOW AMBIENT KIT AND ASSOCIATED ACCESSORIES.
   - REPLACEABLE/WASHABLE FILTER.
   - LONG LINE APPLICATION KIT AS REQUIRED FOR FIELD ROUTING OF REFRIGERANT PIPING.
   - CONDENSER FIN GUARD ON ALL EXPOSED FIN SURFACES.
   - CONDENSING UNIT ROOF SUPPORT PER MANUFACTURER RECOMMENDATION.
5. REFRIGERANT SHALL BE NON-CFC BASED. BASIS OF DESIGN USES REFRIGERANT R-410A.
6. INSULATE & SIZE REFRIGERANT LINES AS PER MANUFACTURER'S RECOMMENDATIONS IN CONCEALED WALLS.
7. PROVIDE UNIT WITH THE FOLLOWING:
   A. WALL MOUNTED PROGRAMMABLE THERMOSTAT SET AT 68°F WITH BAS CONNECTION CAPABILITY.
   B. CONDENSATE PUMP : @20FT OF DISCHARGE HEAD, UL LISTED, 115V/1/60, 1/30 HP. PROVIDE SAFETY SWITCH AND CHECK VALVE. LITTLE GIANT MODEL VCM-20ULS & OVERFLOW SWITCH.
8. THE SPLIT SYSTEM SHALL OPERATE ON ITS INTERNAL CONTROLS TO MAINTAIN SPACE TEMPERATURE.
9. PROVIDE WITH INTEGRAL DISCONNECT SWITCH PER MANUFACTURER'S RECOMMENDATION.

AIR COOLED CHILLER SCHEDULE

UNIT MARK	SERVICE	LOCATION	TYPE	TOTAL NOMINAL CAPACITY (TON)	TOTAL NUMBER OF MODULE	NOMINAL CAPACITY PER MODULE (TON)	REFRIGERANT TYPE	REFRIGERANT CHARGE (LBS)	EFFICIENCY		EVAPORATOR						
									FULL LOAD EER	NPLV EER	EWT (°F)	LWT (°F)	FLOW (GPM)	PRESSURE DROP (FT OF WATER)	FLUID VOLUME (GALLONS)	PROPYLENE GLYCOL (%)	FOULING FACTOR
CH-1	-	ROOF	AIR-COOLED	270	7	-	R-134A	155.9+155.2	9.838	16.40	60	45	413	6.56	-	-	-
CH-2	-	ROOF	AIR-COOLED	270	7	-	R-134A	155.9+155.2	9.838	16.40	60	45	413	6.56	-	-	-

AIR COOLED CHILLER SCHEDULE (CONTD.)

COMPRESSOR			CONDENSER FAN			ELECTRICAL				UNIT WEIGHT (LBS)	EMERGENCY POWER	CONTROL	BASIS OF DESIGN		NOTES
TYPE	QTY	KW(TOTAL)	QTY	MOTOR HP	FLA	MCA	MOCP	FLA	VOLTS/PH/HZ				MANUFACTURER	MODEL	
VARIABLE SPEED	-	314.9	14	-	2.80	598	800	-	460/3/60	12685	-	-	TRANE	RTAF270EUAHNXUA2N21X3NXNCCV1XAXXX*XAXXX**X*	-
VARIABLE SPEED	-	314.9	14	-	2.80	598	800	-	460/3/60	12685	-	-	TRANE	RTAF270EUAHNXUA2N21X3NXNCCV1XAXXX*XAXXX**X*	-

NOTES:
1. UNIT SHALL BE INSTALLED AS PER MANUFACTURER RECOMMENDATION.
2. EQUIPMENT DATA LISTED ABOVE IS FOR ONE MODULE.
3. EQUIPMENT BASE: 4" CONCRETE PAD WITH PRE FABRICATED VIBRATION ISOLATOR PAD RECOMMENDED BY FACTORY.
4. PROVIDE THE FOLLOWING: (FACTORY INSTALLED/SUPPLIED IF NOT CONTRACTOR SHALL PROVIDE)
   - NEMA RATED DISCONNECT SWITCH.
   - VARIABLE FREQUENCY DRIVE FOR CONDENSER FAN.
   - REFRIGERANT SPECIALTIES FOR LOW AMBIENT OPERATION DOWN TO -20F.
   - BUILT IN 30 MESH STRAINER AT EACH INLET WATER HEADER.
   - VIBRATION ISOLATOR FOR COMPRESSOR.
   - FLEXIBLE CONNECTOR AT ALL PIPING CONNECTIONS TO THE UNIT.

AIR SEPARATOR SCHEDULE

UNIT MARK	SERVICE	LOCATION	TYPE	CONNECTION SIZE (IN)			FLOW (GPM)	PRESSURE DROP (FT OF WATER)	FLUID VOLUME (GALLONS)	MAXIMUM OPERATING PRESSURE (PSIG)	MAXIMUM OPERATING TEMPERATURE (°F)	STRAINER	UNIT WEIGHT (LBS)	BASIS OF DESIGN		NOTES
				SYSTEM	VENT	DRAIN								MANUFACTURER	MODEL	
AS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

NOTES:
1. UNIT SHALL BE INSTALLED AS PER MANUFACTURER RECOMMENDATION.
2. AIR SEPARATOR CONSTRUCTION SHALL BE ASME APPROVED .
3. PROVIDE THE FOLLOWING: (FACTORY INSTALLED/SUPPLIED IF NOT CONTRACTOR SHALL PROVIDE)
   - AUTOMATIC AIR VENT AT AIR VENT PORT.

EXPANSION TANK SCHEDULE

UNIT MARK	SERVICE	LOCATION	TYPE	VOLUME (GALLONS)		CONNECTION SIZE (IN)		PRESSURE (PSIG)		MAXIMUM WORKING PRESSURE (PSIG)	MAXIMUM OPERATING TEMPERATURE (F)	DIMENSION			BASIS OF DESIGN		NOTES
				TANK	ACCEPTANCE	SYSTEM	DRAIN	PRE-CHARGE	OPERATING			DIAMETER (IN)	HEIGHT (IN)	UNIT WEIGHT (LBS)	MANUFACTURER	MODEL	
ET	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ET	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

NOTES:
1. UNIT SHALL BE INSTALLED AS PER MANUFACTURER RECOMMENDATION.
2. EXPANSION TANK CONSTRUCTION SHALL BE ASME APPROVED WITH PRE-CHARGED BLADDER.

BOILER SCHEDULE

UNIT MARK	SERVICE	LOCATION	TYPE	FUEL	GAS PRESSURE (IN WC)	NOMINAL CAPACITY (MBH)		EFFICIENCY (%)	EWT (°F)	LWT (°F)
						INPUT	OUTPUT			
B-1	-	-	-	NATURAL GAS	-	1200	1123	93.58	160	180
B-2	-	-	-	NATURAL GAS	-	1200	1123	93.58	160	180

BOILER SCHEDULE (CONTD.)

FLOW (GPM)	PRESSURE DROP (FT OF WATER)	FLUID VOLUME (GALLONS)	ELECTRICAL				UNIT WEIGHT (LBS)	EMERGENCY POWER	CONTROL	BASIS OF DESIGN		NOTES
			MCA	MOCP	FLA	VOLTS/PH/HZ				MANUFACTURER	MODEL	
112.2	2.0	67.5	-	-	-	208/1/60	1460	-	-	CAMUS	1200	-
112.2	2.0	67.5	-	-	-	208/1/60	1460	-	-	CAMUS	1200	-

NOTES:
1. UNIT SHALL BE INSTALLED AS PER MANUFACTURER RECOMMENDATION.
2. EQUIPMENT BASE: 4" CONCRETE PAD WITH PRE FABRICATED VIBRATION ISOLATOR PAD RECOMMENDED BY FACTORY.
3. CONDENSATE FROM BOILER SHALL BE DRAINED TO NEAREST FLOOR DRAIN.
4. PROVIDE THE FOLLOWING: (FACTORY INSTALLED/SUPPLIED IF NOT CONTRACTOR SHALL PROVIDE)
   - CONDENSATE DRAIN KIT AND PH NEUTRALIZING KIT.
   - ASME RATED PRESSURE RELIEF VALVE.
   - FLEXIBLE CONNECTOR AT ALL PIPING CONNECTIONS TO THE UNIT.

TERMINAL BOX SCHEDULE

TAG NO	INLET SIZE OR INSERT DUCT SIZE - INCH	SYSTEM	SERVICE	OCC CFM		MAX SOUND POWER LEVEL	REHEAT COIL											INTEGRAL SOUND ATTENUATOR	REMARKS	BASIS OF DESIGN
				MAX	MIN		HTG CFM	APD IN WG	HTG MBH	EAT °F	LAT °F	WATER								
												GPM	EWT °F	LWT °F	WPD IN WG	ROWS	VALVE			
RHVAV	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHVAV	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

NOTES:
1. MODIFY AS REQUIRED FOR SCHEDULED MAXIMUM SOUND POWER LEVEL AND FOR 0.25 IN WG MAXIMUM UNIT WIDE OPEN STATIC PRESSURE LOSS NOT INCLUDING REHEAT COIL.
2. FIXED DIFFERENTIAL CFM FOR TRACKING UNITS.
3. MAXIMUM MANUFACTURER'S RATED THIRD OCTAVE BAND SOUND POWER LEVEL AT 1.5 IN WG PRESSURE DROP ACROSS VOLUME CONTROL DAMPER.

FINNED TUBE RADIATION SCHEDULE

TAG NO	ENCLOSURE TYPE	ELEMENT						ENCLOSURE SIZE HxD IN	WATER		BTUH/FT (SEE NOTE)	EAT °F	REMARKS	BASIS OF DESIGN
		ROWS HIGH	FIN SIZE INxIN	FINS/ FT	TUBE SIZE IN	MATERIAL			EWT °F	LWT °F				
						TUBE	FINS							
FTR	-	-	-	-	-	-	-	-	-	-	-	-	-	-

NOTES:
1. NOMINAL BTUH/FT FOR HOT WATER RADIATION BASED ON 3.0 FT/SEC WATER VELOCITY. ADJUST RATING AND PROVIDE FINNED LENGTH AS REQUIRED TO PROVIDE TOTAL MBH WITH ACTUAL GPM SHOWN ON DRAWINGS FOR EACH LOCATION.
2. FOR HOT WATER RADIATION CIRCUIT LENGTHS GREATER THAN 20 FEET LONG AND LESS THAN 60 FEET LONG, PROPORTION 1/3 OF THE WATER TEMPERATURE DROP TO EACH 1/3 OF THE CIRCUIT LENGTH FOR SIZING LENGTH OF FINNED ELEMENTS.
3. FOR HOT WATER RADIATION CIRCUITS 60 FEET AND LONGER IN LENGTH, PROPORTION 1/4 OF THE WATER TEMPERATURE DROP TO EACH 1/4 OF THE CIRCUIT LENGTH FOR SIZING LENGTH OF FINNED ELEMENTS.

PUMP SCHEDULE

UNIT MARK	SERVICE	LOCATION	TYPE	FLOW (GPM)	HEAD (FT)	EFFICIENCY (%)	PROPYLENE GLYCOL (%)	REQUIRED NPSH	ELECTRICAL							UNIT WEIGHT (LBS)	EMERGENCY POWER	CONTROL	BASIS OF DESIGN		NOTES
									HP	RPM	VFD	MCA	MOCP	FLA	VOLTS/PH/HZ				MANUFACTURER	MODEL	
CHWP-1	-	MECH ROOM	BASE MOUNTED END SUCTION	250	100	74.9	-	9.89	10	3600	YES	-	-	-	208/1/60	328	-	-	BELL & GOSSETT	e-1510	-
CHWP-2	-	MECH ROOM	BASE MOUNTED END SUCTION	250	100	74.9	-	9.89	10	3600	YES	-	-	-	208/1/61	328	-	-	BELL & GOSSETT	e-1510	-
CHWP-3	-	MECH ROOM	BASE MOUNTED END SUCTION	250	100	74.9	-	9.89	10	3600	YES	-	-	-	208/1/62	328	-	-	BELL & GOSSETT	e-1510	-
HWP-1	-	MECH ROOM	BASE MOUNTED END SUCTION	160	100	69.9	-	9.21	7.5	3600	YES	-	-	-	208/1/63	236	-	-	BELL & GOSSETT	e-1510	-
HWP-2	-	MECH ROOM	BASE MOUNTED END SUCTION	160	100	69.9	-	9.21	7.5	3600	YES	-	-	-	208/1/64	236	-	-	BELL & GOSSETT	e-1510	-
HWP-3	-	MECH ROOM	BASE MOUNTED END SUCTION	160	100	69.9	-	9.21	7.5	3600	YES	-	-	-	208/1/65	236	-	-	BELL & GOSSETT	e-1510	-

NOTES:
1. UNIT SHALL BE INSTALLED AS PER MANUFACTURER RECOMMENDATION.
2. EQUIPMENT BASE: 4" CONCRETE PAD WITH INERTIA BASE.
3. PROVIDE THE FOLLOWING: (FACTORY INSTALLED/SUPPLIED IF NOT CONTRACTOR SHALL PROVIDE)
   - NEMA RATED DISCONNECT SWITCH.
   - FLEXIBLE CONNECTOR AT ALL PIPING CONNECTIONS TO THE UNIT.

RISER DIAGRAM – MD DEPT. OF LEGISLATIVE SERVICES BUILDING

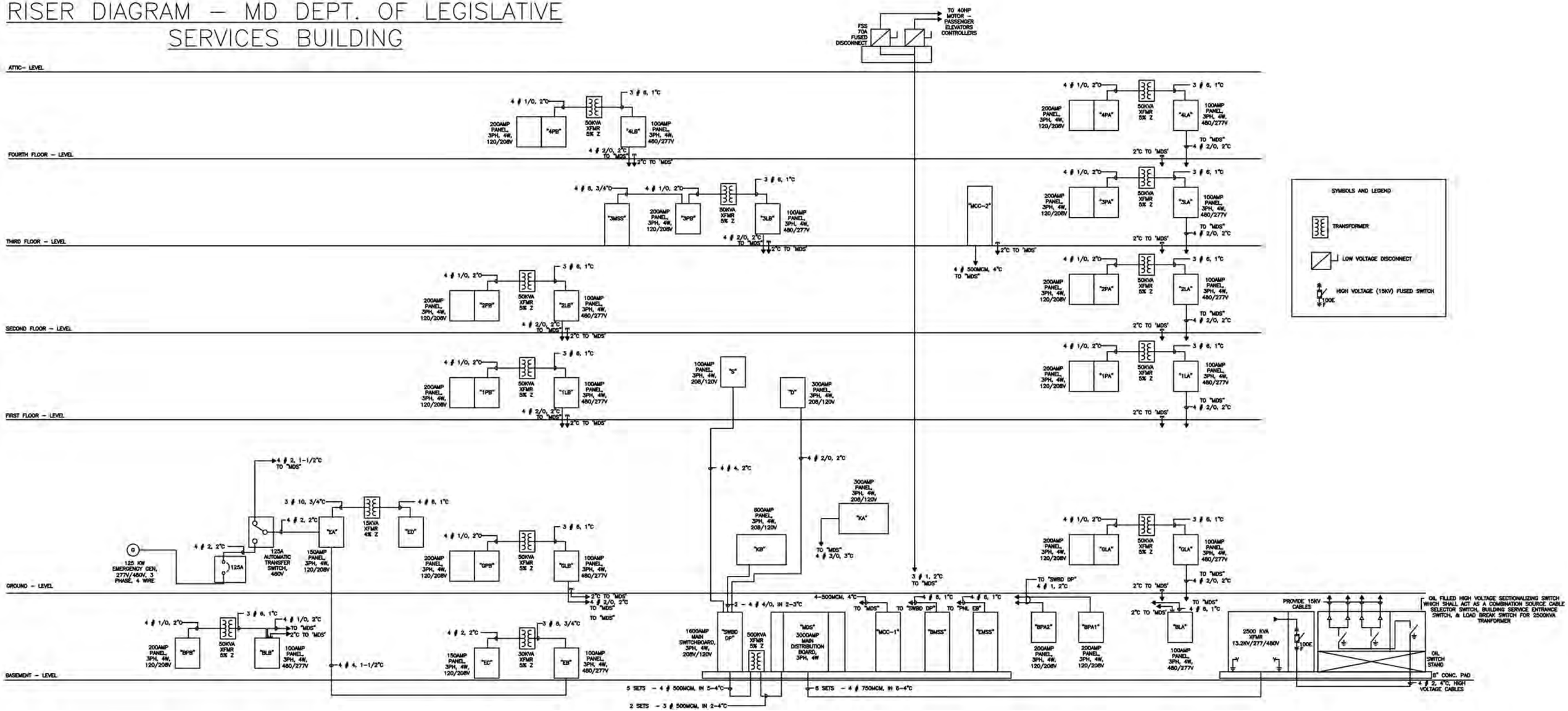


FIGURE 4.17

DEPARTMENT OF LEGISLATIVE SERVICES

90 STATE CIRCLE

ANNAPOLIS, MD

MARYLAND STADIUM AUTHORITY

DEPARTMENT OF LEGISLATIVE SERVICES

Murphy & Dittenhafer ARCHITECTS

Section 5 – Low Voltage Systems

5.01 Introduction Low Voltage Systems

The intent of this narrative is to focus on the recommend requirements of the telecommunications systems, Audio-Visual Systems, Electronic Access Control, and Video Surveillance for the new Department of Legislative Services building to be located at 90 State Circle, Annapolis, MD. The proposed design criteria are based on meetings with the owner, industry best practices, and benchmarking from government institutions throughout the country.

5.02 Definitions

AV = Audiovisual	OSP = Outside Plant
CATV = Cable Television	PBX = Private Branch Exchange
EF = Entrance Facility	SCP = Security Control Panel
HC = Horizontal cross-connect	SCS = Structured Cabling Solution
HVAC = Heating, Venting and Air Conditioning	SMS = Security Management System
IDF = Intermediate Distribution Frame	TBD = To Be Determined
LAN = Local Area Network	TR = Telecommunication Room
MDF = Main Distribution Frame	VOIP = Voice Over Internet Protocol
MPOP = Main Point of Presence	VTC = Video Teleconferencing
NEC = National Electric Code (NFPA 70)	WAN = Wide Area Network
OFE = Owner Furnished Equipment	WAP = Wireless Access Point
OFI = Owner Furnished Information	

5.03 Audiovisual (AV) Systems

The new facility will include AV systems for multiple types of spaces. Rooms will be able to operate in a stand-alone capacity, as well as centrally controlled via the Local Area Network.

AV systems are recommended in the following spaces:

Digital Signage for Private and Public Spaces	Training Room – 15 person
Small Meeting Rooms	Joint Hearing Room
Medium Meeting Rooms	Joint Hearing Room – AV control room
Advanced Conference Rooms	

The proposed Department of Legislative Services building should feature a Networked AV System allowing for flexible signal routing. AV signals include, but are not limited to, the following: analog audio, digital audio, analog video, digital video, and control signals. Digital signals shall be encoded onto Cat6A and sent to a centralized AV Equipment room on each floor. These AV rooms shall be co-located in the central IT closets on each floor. The equipment in this room shall take any input from any room on the floor, process the signal, and return that signal to the same room's associated presentation system; be it a projector, flat panel display, or ceiling loudspeaker. Any input from any room shall also have the capability to be redistributed to any desired output in any room throughout the building via the centralized AV network. Users will be able to wirelessly

present from personal devices, further enhancing the flexibility of this system. Wireless Presentation Gateways in each room shall have their inputs passed back to the central AV equipment room, which will then be distributed back to their associated room or any other desired room. For the purposes of this basis of design, Bring Your Own Device (BYOD) inputs will refer to HDMI and Wireless Connectivity options. Department of Legislative Services prefers Crestron based switching, therefore the basis of the design shall feature Crestron Electronics in addition to all other necessary encoders, decoders, and DSPs.

The overall design intent for the AV systems and supporting infrastructure would be to provide the Department of Legislative Services with cutting edge multimedia systems. These systems will enhance collaboration within the building and handle overflow of Committee room. In addition, the AV systems design effort is intended to meet the following design goals:

- Create State-of-the-Art Instructional, Presentation, and Collaboration Spaces
- Provide administration and visitors with an intuitive, standardized user interface and flexible system architecture.
- Integrate Digital Media and Streaming Presentation Technologies into the architectural fabric of the building
- Utilize cost efficient methods of achieving desired functionality
- Provide Low-Voltage Systems which conform to or exceed the standards and requirements established by Department of Legislative Services

A. Digital Signage

The building will include integrated displays for use as content delivery for the Department of Legislative Services along with news, announcements, and entertainment in public and non-public spaces. Each Digital Signage display will be remotely controllable via a building-wide management system. The remote management system shall allow content to be distributed each individual display or to groups of displays. Digital signage shall also support CATV content, for each display, if desired.

The systems will contain the following key elements:

1) Display Technology
   a. Flat Panel Display with integrated loudspeakers
2) AV Sources
   a. Digital Signage Player
   b. Cable Television Tuner

B. Small Meeting Room

Small Meeting Rooms will be collaborative spaces featuring AV systems used for video teleconferencing and sharing audio and video content. Each of these spaces will contain one

(1) wall-mounted Flat Panel Display with the ability to display television channels (if a CATV feed is provided) and shall have an auxiliary input plate for owner-furnished AV devices, including laptops. Video Conferencing shall be accomplished using owner or user furnished laptops connected to a USB webcam mounted below the display.

The systems will contain the following key elements:

1) Display Technology
   a. One (1) Flat Panel Display with integrated loudspeakers
2) AV Sources
   a. Wireless presentation gateway
   b. Cable Television Tuner
   c. Owner Furnished Laptop Computer
   d. Webcam with integrated microphone
3) Control system
   a. Wall-mounted button pad

C. Medium Meeting Rooms

The AV systems in the Medium Meeting Rooms shall be similar to the systems in the Small Meeting Rooms but shall feature expanded display systems and a HD PTZ conferencing camera. These spaces will contain two (2) wall-mounted Flat Panel Display with the ability to display television channels (if a CATV feed is provided) and shall have an auxiliary input plate for owner-furnished AV devices, including laptops. Playback of program audio will be accomplished using ceiling-mounted loudspeakers and audio capture for video conferencing will be accomplished using a ceiling-hung conferencing microphone.

The systems will contain the following key elements:

1) Display Technology
   a. Two (2) Flat Panel Displays
2) AV Sources
   a. Wireless presentation gateway
   b. Cable Television Tuner
   c. Owner Furnished Laptop Computer
   d. High Definition PTZ auto tracking conferencing camera

e. Tabletop AV inputs

f. Conferencing Encoder

3) Program Audio Reinforcement

a. Ceiling speakers

b. Ceiling microphone array

4) Control system

a. Wall-mounted touch panel controller

D. Advanced Conference Rooms

The AV Systems in the Advanced Conference Rooms will provide platforms for multimedia presentations, collaboration, and flexible video teleconferencing. The space will feature three (3) flat panel displays. This will allow the room to be used for local presentations as well as for video teleconferencing (VTC) applications that feature multiple screen technology. The VTC will also have two (2) cameras, one at the front and one at the rear of the room. This will allow for both collaboration and the ability to attend and/or present to the hearing room. Other inputs will include a Blu-Ray/DVD player, ceiling mounted digital document camera, OFE host computer with a digital annotation device, and OFE laptop computers. Sources shall be housed in a credenza at the front of the room, and there shall be auxiliary connections located in the conference table cable cubby.

Program sound reinforcement in the space will be accomplished using in-wall loudspeakers. For conferencing, the space will feature both a wired conference phone as well as wireless lapel microphones. The system will include an integrated control processor with a wireless touchscreen control panel. The control system shall integrate with the room's lighting and shade control to automate one-touch room configurations.

Unique infrastructure requirements for this space include a multi-service floor box to be located under the meeting room table. The systems will contain the following key elements:

1) Display Technology

a. Three (3) Flat Panel LCD Displays - mirror image

2) AV Sources

a. Video Teleconferencing System with Two (2) High Definition PTZ Cameras

b. Blu-Ray/DVD Player

c. Wireless presentation gateway

d. Cable Television Tuner

e. Ceiling Mounted Digital Document Camera

f. Owner Furnished Host Computer

g. Owner Furnished Laptop Computer

3) Program and Speech Audio Reinforcement

a. Wireless Lapel Microphones

b. Wall Mounted Loudspeakers

4) System Control

a. Integrated Control Processor

b. Remote Control Touch panel on wall and table

c. Tabletop inputs

E. Training Room – 15 person

The Training Room will function as a presentation space in which instruction will be enhanced by audiovisual technology systems. These technology-rich environments will be able to support a variety of use cases including presentations, lectures, and meetings. The audiovisual presentation system will contain a projector and projection screen. AV sources will include a host computer, laptops, and a wireless presentation gateway.

The room will also feature a video camera which will support both lecture capture and web-based video conferencing. Ceiling recessed loudspeakers will provide audio reinforcement for both speech and program material. An assisted listening system will be included in compliance with ADA requirements.

The space will feature an equipment rack to house AV equipment. A remote control touch panel and auxiliary inputs will be located at an lectern serviced by multimedia floorbox.

The control system shall integrate with the room's lighting and shade control to automate one-touch room configurations.

The system will contain the following key elements:

1) Display Technology

a. Ceiling Recessed, Electric Projection Screen

b. Ceiling Mounted Projector

2) AV Sources

a. Owner Furnished Host Computer (capable of playing Blu-Ray)

b. User Furnished Laptop Computer

c. Wireless Presentation Gateway

d. Lecture Capture

e. Video Teleconferencing System with Two (2) High Definition PTZ Cameras

3) Program and Speech Audio Reinforcement

a. Wireless Lapel and Handheld Microphones

b. Ceiling Microphones

c. Assisted Listening System

d. Distributed Ceiling Recessed Loudspeakers

4) System Control

a. Integrated Control Processor

b. 10” Remote Control Touch Panel

F. Joint Hearing Room

The Joint Hearing Room shall serve as assembly space for the Department of Legislative Services. The AV system design will enhance presentations by improving communications within the space via visual media reproduction and high fidelity speech reinforcement. Special emphasis will be placed on ease of use, audiovisual sightlines and visibility, and speech intelligibility which will facilitate clear, articulate discussions within the space.

The front of the room will feature a 16 foot X 10 foot Video Wall as well as numerous wall and ceiling mounted flat panel displays throughout the space to provide comfortable viewing to all occupants. The room to be used for local presentations as well as for video teleconferencing (VTC) applications that can feature multiple screen technology. The VTC will also have multiple robotic assist cameras located at the front and rear of the room. This will allow for collaboration and the ability to attend and/or present to the hearing room. User inputs will be provided at the podium, clerks’ desks, and dias for system connection. Furthermore, content may be shared wirelessly via a wireless presentation gateway. Additional source devices will include a blu-ray player, cable television tuner, digital signage player, and host computer. A wall mounted display will be provided outside of the room, near the entrance, to identify the room status and meeting agenda.

Wall-mounted loudspeakers will be installed for stereo program audio, and distributed ceiling-recessed loudspeakers will be provided for speech reinforcement. A gooseneck microphone

will be specified for each participant, to interface with the delegate system. Several wireless handheld and lavalier microphones will also be provided. At each microphone, a “request to speak” and “get recognized” button will be specified. An audio recorder will maintain records of meetings held, and an audio plate with 16 line level XLR outputs will be provided in the rear of the room for press audio connections. The system will also include an induction loop assistive listening system to accommodate users with T-Coil enabled hearing aids without the need for additional wireless receivers.

The presentation system will be controlled by touch panels with a custom user interface, which will be consistent across all spaces with AV systems. The room will feature both a hardwired, lectern-mounted touch panel, as well as a wireless touch panel with wall-mounted charging stations. Each touch panel shall have control of all system functions, including lighting and shade controls, with presets configured for single button activation.

System components will be installed in a full-height, floor-mounted rack within the Joint Hearing Room AV control room. Unique infrastructure requirements for this space include multi-service floor boxes to be located at the podium, dias, and clerks’ desks.

The systems will contain the following key elements:

1) Display Technology
    a. One (1) 16’ X 10’ video wall
    b. Wall Mounted Flat Panel Displays
    c. One (1) Room Scheduling / Agenda Display
    d. Flat Panel Displays at presenter tables
    e. Confidence panels
2) Audio Technology
    a. Wall-Mounted Program Loudspeakers
    b. Ceiling-Recessed Loudspeakers
    c. Gooseneck Microphones at each member seat.
    d. Wireless Handheld and Lavalier Microphones
    e. Digital Signal Processor
    f. Induction Loop Assistive Listening System
    g. Speak to press and get recognized button at each member seat

3) AV Sources
   a. User Devices
   b. Owner Furnished Host Computer
   c. Blu-Ray Player
   d. HD Cable TV Tuner
   e. Digital Signage Player
   f. Delegate Microphone System
   g. Multiple PTZ robotic auto tracking cameras
4) System Control
   a. Integrated Control Processor
   b. Hardwired, Lectern-Mounted 10” Remote Control Touch panel.
   c. Hardwired, 10” Remote Control Touch panel at each member seat.
   d. Wireless 10” Remote Control Touch panel with Wall Docking Station

G. Joint Hearing Room – AV control room

The AV Control Room will be a front high-design space, adjacent to the Joint Hearing Room. In addition to control of the Joint Hearing Room, this space could have the ability to view and control the AV spaces throughout the building.

Equipment racks for the Joint Hearing Room will be located in this location. Control Room operators will have preview monitors and control panels to run the Joint Hearing Room AV systems. There can also be monitors to preview the content of other AV spaces throughout the Department Of Legislative Services Building.

The system will contain the following key elements:

1) Display Technology
   a. Flat Panel Preview Displays
2) AV Sources
   a. Owner Furnished Host Computers
   b. User Furnished Laptop Computer
   c. Video Codices

d. Streaming and Recording Devices

e. Network Switch connecting all AV systems in the building

3) Program Audio Reinforcement

a. Distributed Ceiling Mounted Loudspeakers

b. Preview Headphones

4) System Control

a. Integrated Control Processors

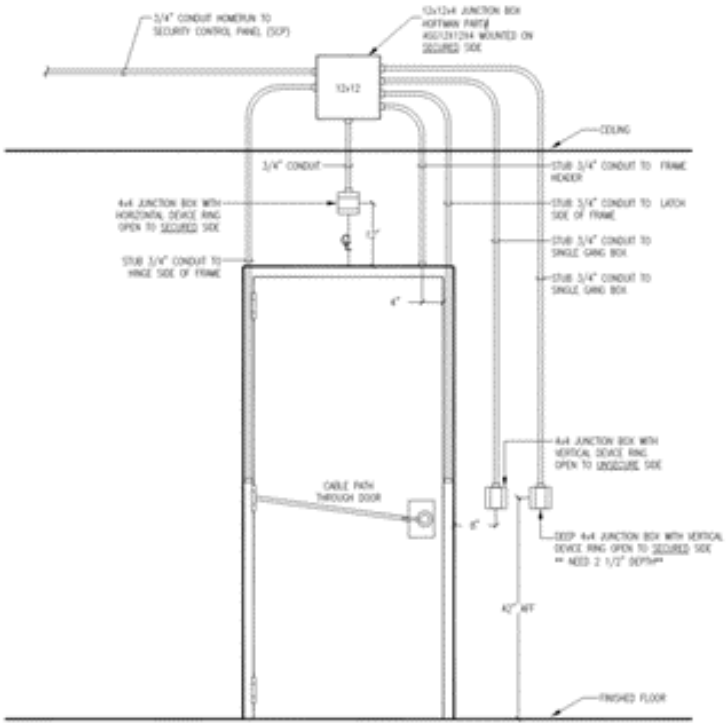
b. 12” Remote Control Touch Panels

5.04 Electronic Security - Access Control System

The Electronic Security - Access Control System will provide restriction of entrance to facilities and almost all interior doors to authorized personnel via a card access system. Door access shall be accomplished via a proximity card reader and strike or mortise electrified lockset provided in the door hardware. Auto doors motors, specified in the door hardware documents, will need to be controllable and lockable and be able to interface with access control systems. Doors shall unlock automatically at successful card swipe, and authorization will be controlled via a central database/computer in any authorized security system workstation. Building wide lockdown will be possible for emergency situations. Initiation can be from any authorized security system workstation. The current Access Control System is controlled by the State of Maryland Department of General Service (DGS). DGS controls the database and card access. The Access Control System is made by Vanderbilt Industries.

Connectivity requires Low voltage cabling from each door/access location to nearest TR location. Card communication between TR’s and to central database/computer will be via IP network cards in each TR. The system requires one standard telecom outlet in each TR for card connectivity to network and one standard outlet at the Central security monitoring station. Wall mounted proximity reader and strike or mortise electrified lockset or magnetic lock will be provided in the door hardware schedule and specification. Door conduit routing to be as shown on communications drawings set and coordinated with architectural design, with cabling run in conduit from each access control location back to respective TR. A single duplex power receptacle at each termination equipment cabinet is required.

A. Typical Access Control Door Layout



TYPICAL ACCESS CONTROL DOOR DETAIL

5.05 Electronic Security - Video Surveillance System

The Video Surveillance System will be used for surveillance of exterior spaces, entrance/exits to the buildings, and common area spaces via hard wired video cameras. The proposed system will include remote video cameras located at strategic locations throughout the facilities and associated parking areas. The camera locations will be determined in conjunction with security representatives. All cameras will be IP type. Software, storage requirements and monitoring policies are to be further outlined in the DD phase of the project. At a minimum, the recording policy archives to be 30 days in duration. The Video Surveillance System is controlled by the State of Maryland Department of General Service (DGS). DGS controls the database and video servers. The Video Management System is made by Genetec. The Cameras are manufactured by Axis.

Each camera location requires one category 6A cable with 8-position 8-conductor 568B termination outlets at mount location. Category 6A cable terminations in a single gang faceplate. TR termination- category 6 cable terminations onto 48 port rack mounted patch panel. Proposed monitoring location (i.e. the Security Office) will have one or more 55” LCD screens specified. The system will also require conduits and cable tray for routing of cables above finished ceiling.

5.06 Telecommunications Structured Cabling System

The following outlines design and performance features for the data network and voice PBX telecommunications Structured Cabling System (SCS) for the Department of Legislative Services (DLS) building. Wherever possible, existing standards for the telecommunications SCS will be incorporated into the design of the facility. This narrative also describes the Telecommunications Rooms (TRs) required to support the SCS. These rooms require coordination with the architect, as well as the electrical, mechanical and structural engineers.

The SCS shall be installed in to support the majority of the Information Technology (IT) systems requirements, building management systems, security, and access control systems. The Structured Cabling System solution manufacturer will be Belden, or equal, with a minimum Twenty-five (25) year warranty.

CTDG will use the following specifications as the basis of design for the Department of Legislative Services building SCS and TRs.

A. Outside Plant Cabling Connection

The DLS building shall receive Outside Plant copper, coax and optical fiber cabling from the Data Center in in the House of Delegates 4th floor Network room. The pathway is existing and new conduits between buildings. Suggested cable types and quantities between the Data Center in in the House of Delegates 4th floor Network room to the MLS building TR MC/MDF are as follows:

- One (1) 1200 pair copper cable
- Two (2) 48 Strand Single Mode OS2 Optical Fiber cable

B. Intra-Building Vertical Riser Cable System

The Intra-Building Vertical Riser cabling will be installed to connect each floor to the new network. Cabling will run from the TR - MC/MDF within DLS building to each TR - HC/IDF. The new building footprint will require one basement TR/MC/MDF and one (1) TR - HC/IDF's on each of the 6 floors. Suggested cable types and quantities between TRs are as follows:

- One (1) 200 pair copper cable
- One (1) 24 Strand Single Mode OS2 Optical Fiber cable

C. Communications Horizontal Cabling

All network cables will be terminated onto Category 6A 48-port patch panels, where applicable, in each TR. There will be horizontal wire management above and below each patch panel. At the station locations the Category 6A cables will be terminated onto 8-position 8-conductor colored to match the faceplate modules, which will be single gang and colored to

match the electrical faceplates. Each faceplate will have icons for voice and data. A typical office will feature 2 data and 1 voice

D. Communications Cable Pathway

The primary intra-building horizontal pathway systems pathway for telecommunications cabling throughout the interior of building will be via cable tray. The cable tray will be sized to accommodate 50% fill capacity of specified cables. For any cable tray that passes through a rated wall the cable tray will stop and fire stop sleeves that match the walls rating will be placed in the wall space.

The secondary pathway will be non-continuous cable supports (NCCS) "J-hooks" that will be utilized for any areas between conduit stub-ups and cable tray that exceeds 4 feet. The NCCS will be installed between 4 and 5-foot centers. The outlet pathway will include EMT conduit stubbed to accessible above finished ceiling space or cable tray. The EMT fill ratio is not to exceed 40% with 3 or more cables.

E. TR Room Categories

The Telecommunication Room (TR) is an enclosed architectural space for housing telecommunications equipment, cable terminations, and cross-connect cabling. The following sub-categories describe the different requirements for each TR.

- Horizontal cross-connect (HC): A group of connectors (e.g., patch panel or punch-down block) that allows equipment and backbone cabling to be cross-connected with patch cords or jumpers. Floor distributor is the international equivalent term for horizontal cross-connect. IDF)

- Intermediate cross-connect (IC): The connection point between a backbone cable that extends from the main cross-connect (campus distributor [first-level backbone]) and the backbone cable from the horizontal cross-connect (floor distributor [second-level backbone]). Building distributor is the international equivalent term for intermediate cross-connect.

- Main cross-connect (MC): The cross-connect normally located in the (main) equipment room for cross-connection and interconnection of entrance cables, first-level backbone cables, and equipment cables. Campus distributor is the international equivalent term for main cross-connect. (MDF or BDF)

- Entrance facility (EF): An entrance to a building for both public and private network service cables (as well as wireless) including the entrance point at the building wall and continuing to the entrance room or space. In this building the EF will be located in the MC.

- The maximum cable length distance between the TR room and the end user outlet should not exceed 290'. The TR -HC/IDF is to be sized minimum 10' X 12', The TR - MC/MDF is to be sized minimum 10' X 12'. Both TR types will house the following systems: Telecommunications Hardwired and Wireless Infrastructure, LAN equipment, and potentially Audio Visual Equipment, Access Control panels and Building Automation panels.

F. Architectural Room Design

The TR walls shall extend from the finished floor to the structural ceiling (slab), be covered with two coats of fire-retardant white paint (or other light-colored finish) and be fire-rated as required by the applicable codes and regulations. Three of the TR walls shall be covered with a 19mm (3/4 trade size) A-C graded plywood backboard, securely fastened to the supporting walls with the A grade surface face out and painted with at least two coats of fire-retardant paint which matches interior room color.

The TR ceiling recommended height from the finished floor to the finished ceiling is at least 8.5 feet. Any ceiling protrusions (e.g., sprinkler heads) must be placed to assure a minimum clear height of 8 feet that is clear of obstructions. This is to provide space over the equipment frames for cables and suspended cable/ladder trays. The ceiling finish should minimize dust and be light colored to enhance the room lighting.

The TR floor shall be a concrete surface coated with a static dissipative and nonconductive porous surface sealant designed for high-technology environments or if floor tile is used then the floor tile shall be Electrostatic Discharge type that is bonded to the TR busbar with a measured resistance between of < 1 Ohm.

The TR doorways that are planned for use during equipment delivery must have fully opening, lockable doors that are at least 3 feet wide and 7 feet tall. Wherever possible, the doors to all TR's should open outward. All TR doors shall be securable with restricted keycard access.

G. Environmental Control (HVAC)

Telecommunications equipment can be sensitive to environmental conditions and typically has strict requirements for its operating environment. Each TR requires the HVAC system to function properly at all times (24 hours per day, 365 days per year). If a building's HVAC system cannot ensure continuous operation (including weekends and holidays), provide a stand-alone HVAC unit with independent controls for each space.

The HVAC system that serves the TR shall be connected to the building emergency generator.

The HVAC system that serves the TR should be tuned to maintain a positive air pressure differential with respect to surrounding areas. If environmental conditions warrant, provide equipment to control humidity and air quality.

The standard for environmental control systems in each TR is to maintain a temperature of 18°C to 24°C (64°F to 75°F) with a relative humidity of 30% to 55%. HVAC sensors and controls must be located in the equipment closet. Ideally, the sensors are placed 5 feet above the finished floor and should be IP addressable.

Every TR should be designed to provide two complete changes of air per hour as a minimum, or meet the below listed BTU requirements, whichever is greater. Each full height telecommunications equipment rack may require heat dissipation of up to 18,000 BTU per hour.

H. Electrical Service

Provide each TR with a power supply circuits that serve only the one room and terminates in its own electrical panel. The feeders that supply the power for telecommunications equipment should be dedicated only to supplying that equipment (see NEC Article 215 and CEC Section 26). Power required for other equipment in the room (e.g., fluorescent lighting, motors, air conditioning equipment) should be supplied by a separate feeder, conduit, and distribution panel. Also, each TR power feeder for telecommunications equipment should be served with emergency generator power.

Each floor standing telecommunications rack should have one (1) dedicated 120VAC 20amp circuits with duplex receptacles and two (2) dedicated 208VAC 30amp with a twist lock receptacle (one for regular power and one for emergency power). Each telecommunications rack should have Vertical power strips (two each rack - regular power and emergency power) All telecommunications equipment with redundant power supplies shall be fed from different circuits. The TR should also have convenience duplex receptacles on a 20amp Circuit, located at 18” AFF and placed at 6’ intervals around perimeter walls.

The TR should be served as part of a building wide UPS with the capability of providing uninterrupted switch over time for the emergency backup power to each equipment rack. This will serve to maintain equipment status during switchover to emergency generator power.

I. Lighting

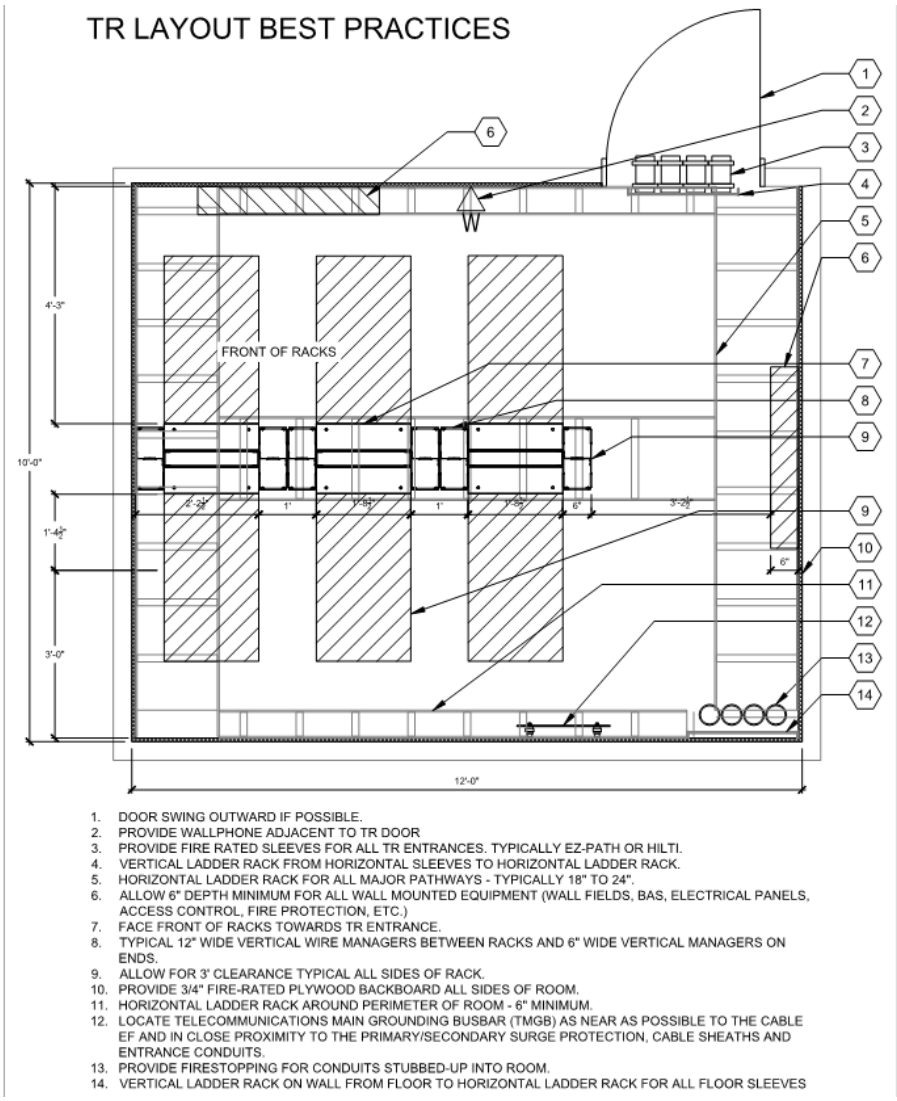
The lighting for the TR’s should be adequate and uniform that provides a minimum equivalent of 500 lux (50 footcandles) when measured 3 feet above the finished floor level. The light fixtures shall be located a minimum of 8.5 feet above the finished floor. The light switches shall be located near the entrance and dimmers are not recommended. The lighting layout needs to be coordinated with the equipment layout—especially overhead cable trays/ladder racks—to ensure that the light is not obstructed. The power for the lighting should not come from the same circuits as power for the telecommunications equipment. Also utilize a light-colored finish to enhance room lighting and provide any emergency lighting as required by applicable building codes.

J. Bonding and Grounding

TR bonding/grounding is to conform to the following codes, standards, and practices: NFPA 70 of NEC, ANSI J-STD-607-A, IEEE, latest edition of BICSI method manual and all applicable National, State and Local building codes. Each TR space require a Secondary Bonding Busbar (SBB) connected to the Primary Bonding Busbar (PBB) and bonded to approved building ground. All connections are to be bonded with a minimum 6 AWG conductor with compression crimp style connectors with a double lug pattern for busbar connections and a single lug pattern for all other connections. The use of stainless-steel hardware for connection is required. Each equipment rack should have its own 6AWG wire run to the PBB or SBB. The ladder tray bonding may be daisy chained. Consideration should also be given to a Telecommunications Bonding Backbone (TBB) size of up to 3/0. The TBB is to be connected to the Electrical Service Ground.

If the environment requires communications copper cabling entrance protection in the TR then all copper entrance cable to be terminated in a protected entrance terminal and protected by 240VDC solid state type modules that are UL497 listed.

K. Typical Telecommunications Room Layout



5.07 Distributed Antenna Systems

Public Service Distributed Antennae System (DAS). The system will be used to boost coverage for first responder radios, team radios for the Department of Legislative Services offices of Safety and Security and Facilities and other fire and life safety wireless communications within the building. The design will not include cellular carrier service. A distributed antenna system is a network of spatially separated antenna nodes connected to a common source via a transport medium that provides wireless service within a geographic area or structure. DAS antenna elevations are generally at or below the clutter level and node installations are compact.

Cellular Carrier Distributed Antennae System (DAS). The system will be used to boost coverage for cellular carrier service. A distributed antenna system is a network of spatially separated antenna nodes connected to a common source via a transport medium that provides wireless service within a geographic area or structure. DAS antenna elevations are generally at or below the clutter level and node installations are compact.

Section 6 – Building Enclosure

6.01 Introduction and General Information

The existing DLS building will be removed to grade level, and the configuration of the basement will be altered to fit the new building footprint. Similar to the existing basement, the new foundation walls will enclose two below-grade levels (Basement and Ground Floor) and will support four above-grade levels with office space dedicated to various office and governmental functions to support the state legislative bodies. The building enclosure systems include exterior walls with brick masonry cladding and windows set into punched openings to create an aesthetic complementary to the Georgian architectural style of the surrounding capital campus. The building enclosure will also include a skylight above a light well in the center of the building and floor-to-floor fenestration systems at the main entrance on the south elevation and at the second and third floors on the west and northeast elevations. The roofs will be covered with an exposed low-slope roofing assembly (likely with a single-ply membrane) and steep-slope slate roofing assemblies at the mansard roof areas and dormers. The below-grade foundation walls will include a new waterproofing membrane and interface with the waterproofing on the underground tunnels. The project is targeting Silver certification level under the US Green Building Council's LEED program.

The project will be designed to comply with the Annapolis Building Codes, which references the 2015 International Building Code (IBC) and the 2015 International Energy Conservation Code (IECC), herein referred to as "the Code." The design is still under development, but this narrative assumes the project will utilize whole-building energy modeling to achieve energy code compliance. For conservative initial planning purposes, the discussion below reference performance values (e.g., R-value) that align with the prescriptive compliance path for energy performance.

This building enclosure narrative contains proposed products and design considerations related to the following building enclosure systems:

- Below-Grade Construction
- Exterior Masonry Walls
- Fenestrations
- Low-Slope Roofing
- Steep-Slope Roofing

The building enclosure system and product recommendations of this narrative, as well as associated design considerations, are preliminary and must be developed by the design team in conjunction with development of the design drawings.

6.02 Building Enclosure General Performance and Design Considerations

This section highlights select general design objectives for the building enclosure systems.

A. Airtightness/Watertightness

- The air-/water-barrier details, penetrations, and transitions between building enclosure systems should be developed to illustrate air-/water-barrier continuity. These transitions are vulnerable to air and water leakage and will involve the coordination of the building enclosure systems and components to clearly establish the design intent of a continuous air and water barrier for the building. These conditions should be developed and clearly detailed as part of the drawing development.
- In general, the design should incorporate a dual line of waterproofing (i.e., outer "rainscreen" seal and inner "primary" seal, with a drained and ventilated cavity between the seals) within the building enclosure systems and at the system interfaces. This dual line of waterproofing will not only provide waterproofing redundancy, but the ventilated cavity, if designed and detailed properly, will extend the expected service-life of the seals. An interior air seal (e.g., around the interior perimeter of window and curtain wall openings) may also be included to further improve performance (e.g., enhance water penetration resistance and improve reliability of the primary sealant joints) at select transitions between systems. At a minimum, the drawings will show interior air seals at the perimeter of window and other fenestration systems in the drawings.

B. Energy Performance and Condensation Risks

- Details between building enclosure systems should be developed to illustrate thermal continuity. These transitions are vulnerable to heat loss and increased risk of condensation and will involve the coordination of the building enclosure systems and components to establish the design intent of a continuous thermal envelope. These conditions should be developed and clearly detailed as part of the drawing development.
- The IECC offers two pathways for compliance – a performance path and a prescriptive path. The performance-based method demonstrates code compliance through modeling (i.e., whole-building energy model) and is a common energy code compliance path because, with the appropriate modifications, this path can fulfill both code and LEED requirements.
- In order to assess the risks of condensation within the building enclosure systems (e.g., exterior glazing systems, exterior wall systems, etc.), the interior psychometric design conditions (e.g., temperature and relative humidity) for both the wintertime and summertime will be defined by the Mechanical Engineer. The design will utilize the 99.6% heating design temperature specified in ASHRAE 90.1 for Baltimore, MD for the exterior psychometric design conditions.

C. Cladding Structural Loading and Facade Joints

- The building enclosure systems (e.g., exterior walls, glazing systems, roofs, etc.) will need to be designed to resist the applied structural loads (e.g., wind loading, snow loading,

barrier loading, etc.) in accordance with the Code, which references ASCE 7-10, including wind loading on components and cladding.

- The Structural Engineer will provide information regarding the direction and amount of the anticipated relevant differential building movement, including vertical deflection (e.g., edge-of-slab live load and creep deflections, column shortening, etc.) and lateral deflection movements (e.g., inter-story drift and total building drift due to wind and seismic loading). These differential building movements, in addition to thermal expansion/contraction and fabrication/installation tolerances of the building enclosure systems, will be required to allow the design and construction team to design the various joints between building enclosure systems (e.g., sealant joints), including building and cladding expansion joints, as well as to configure roof decks to ensure positive drainage of waterproofing and roofing systems. In addition, the construction team requires the amount and direction of differential building movements to design the joints of the performance-specified building enclosure systems (e.g., glazing systems).

D. Acoustics

- Definition of acoustic design criteria for the exterior wall and glazing systems, if required, will need to be developed and coordinated with the Occupant. This will be developed in subsequent design phases to maintain acceptable sound levels within the building due to outside noise sources and noise sources flanking across partitions and floor slabs at the interface with the exterior walls. These requirements could include inside to outside acoustic performance criteria or horizontal and vertical flanking criteria as required to develop the fenestration details.

E. Access and Maintenance

- In coordination with the Owner and their anticipated maintenance program, strategies and systems for access and maintenance of the building facades and roofs will be developed further in subsequent design phases.
- In general, the facades will likely be accessed from grade using ladders for routine cleaning and inspection and using aerial work platforms (hydraulic lifts) for extensive work, such as glass replacement. In some locations, access from the ground may be impractical, in which case a supported scaffold (swing stage) or bosun's chairs with the associated rooftop anchor and tie-off points may be considered. The design should provide adequate operating clearance and access, as well as structural support at the ground level around the base of the building to allow safe use of the equipment.
- The skylight at the light well will likely be accessed from the surrounding low-slope roof for cleaning and maintenance, but the final skylight configuration and size will determine whether additional measures are required. The skylights must be designed for service loads (typically on the order of 300 lb concentrated load plus 300 lb soft body impact) to allow work such as resealing or reglazing from the exterior.

- Davit baseplate anchors and fall arrest tie-off anchors, if required at limited locations, will impart significant structural demand, and must be coordinated with the structural design of the roof. The layout of the anchors must be conceived to reflect the facade's particular access requirements and access type (e.g., two independent anchors for one rope access technician) and this work is typically designed by a specialty provider, e.g., Pro-Bel. The tie-off anchor must also be routinely certified by the Owner, so the maintenance expectations should be coordinated before a final facade access approach is selected.
- For roof areas intended to be accessed by maintenance personnel only, the design will incorporate either a guardrail or parapet (minimum 42 in. above the walking surface) or personal fall protection fall arrest anchors. The design team will work with a fall protection vendor to develop the fall arrest anchor design, if applicable.

6.03 Below-Grade Construction

A. Description

The project includes two levels of below-grade office and mechanical space. Additionally, two heavily used existing below-grade pedestrian tunnels provide occupant access to neighboring government buildings – the State House at the east elevation and the House of Delegates at the west elevation. The layout of the below-grade footprint is still in progress, but the new basement footprint will substantially differ from the existing footprint. The design team is currently reviewing options for how to incorporate the existing foundation walls into the new basement design and considering either reusing the walls as the perimeter of the new basement and/or using the existing walls as shoring for the new basement walls where they do not align with the new basement footprint. Under either option, the concrete walls that enclose the occupied space will be covered by a self-adhered waterproofing membrane and a drainage layer connected to a base-of-wall perimeter drain that will be connected to the stormwater management system to reduce hydrostatic pressure. The details of the waterproofing execution, including accessory materials and site access, will depend on the final configuration of the new foundation walls relative to any existing walls that will be retained. The sections below include information related to positive-side waterproofing (self-adhered materials) that require the excavation to be laid-back for installers to access the exterior surface of the foundation walls. The general approach for the basement excavation will be coordinated with the site plan and surrounding pedestrian/vehicular paths to limit the extent of site disturbance.

As determined during the building enclosure condition assessment, the existing below-grade waterproofing surrounding the House of Delegates tunnel has failed and is causing leakage, while the older State House tunnel does not appear to have extensive visible water intrusion issues. The most significant leakage occurs at the connection between the tunnels and the DLS building. The design for the new DLS building can incorporate different approaches to the waterproofing repairs with varying levels of performance expectations, invasiveness, and cost. This section provides three general approaches for waterproofing the existing tunnels and the

tie-ins to the new below-grade waterproofing on the building, listed in decreasing order of reliability and cost.

Refer to Figure 1 for a site plan depicting the three general approaches for addressing the active leaks in the two below-grade tunnels. The final extent of the excavation and relationship to the new foundation walls require furth design development.

Option 1: Full Excavation

Excavate down to the footings of the tunnels to expose the top and side walls of the tunnels along their full length. This option will require temporarily closing College Avenue, State Circle, and the associated pedestrian paths. Remove the concrete topping and cinderblock (shown in the existing drawings and was likely a support of excavation system) and remove the existing waterproofing. Perform concrete repairs as necessary and prepare the concrete surfaces to receive the new waterproofing (assume mechanical scarification). Cast a sloped, bonded, thin-set topping on top of the tunnels to ensure the water drains over the sides of the tunnels. Apply new self-adhered membrane waterproofing over the top and sides of the tunnels and integrate with a salvaged edge of the existing waterproofing that extends beneath the tunnel. For increased reliability at the low-slope top of the tunnel, prepare the concrete with liquid-applied surface conditioner and apply a second layer of membrane with staggered seams. Surround the waterproofing system with drainage composite panels and extruded polystyrene insulation (2 in. thick to comply with energy Code). Connect the drainage layer to a perimeter drain (perforated PVC pipe and gravel) at the base of the tunnel walls connected to the building (or site) stormwater management system. Provide an engineered expansion joint glad and associated flashing along the connections between the ends of the tunnel and adjoining buildings. Reconstruct the overburden materials, including roadway, sidewalks, and vegetation. Refer to Figure 2 below for a diagram of waterproofing repair Option 1.

The full excavation approach will provide the most reliable waterproofing system with the longest expected useful service life but is the costliest and most invasive to the project site.

Option 2: Hybrid Approach, Excavation at Building Connections

Excavate only directly at the tunnel connections to the DLS Building and provide positive-side waterproofing repairs with self-adhered membrane, drainage composite, insulation, perimeter drains, and expansion joints (as described in Option 1 above) at these problematic transitions. Depending on the configuration of the new basement footprint, the tunnel connections may already be excavated. In which case, Option 2 will require no additional site disturbance and the waterproofing materials will be applied to the new foundation walls. This option can be combined with urethane grout injection repairs (see Option 3 below) from within the tunnels to address leakage along the length of the tunnel without requiring excavation below the roadways. Refer to Figure 3 below for a diagram of waterproofing repair Option 2.

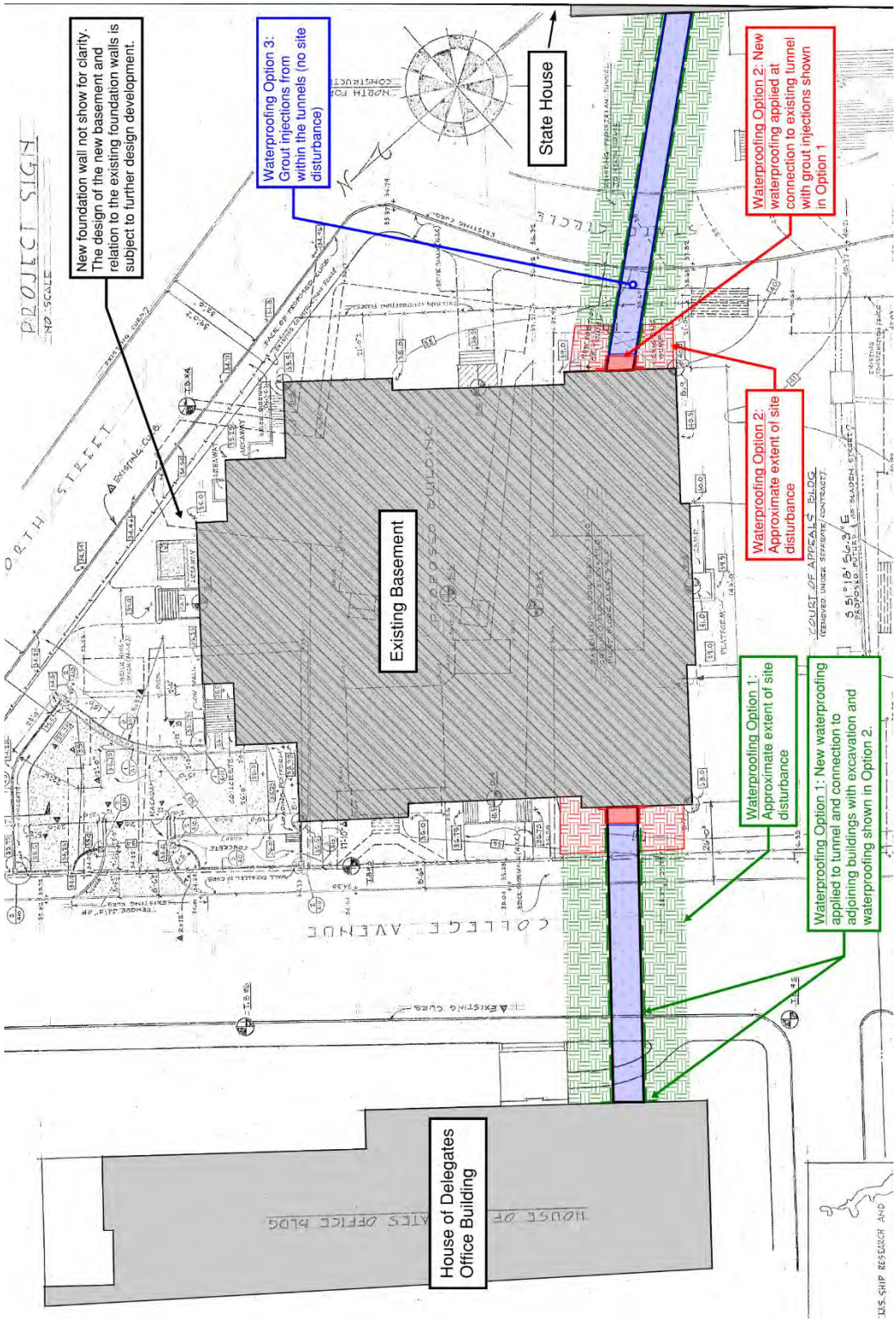
Excavating only along the building walls will allow the most problematic areas to be addressed using a localized waterproofing approach while limiting site disturbance. This approach includes the shortcoming of the grout injection repairs noted below, including the potential for leaks to reappear at new cracks, but can function as a reasonable compromise if the site disturbance and cost of Option 1 is untenable. Option 2 may also function as a reasonable intermediate measure with the tunnel waterproofing repairs (either with or without excavation) delayed until funding is available for a separate future project.

Option 3: No Excavation

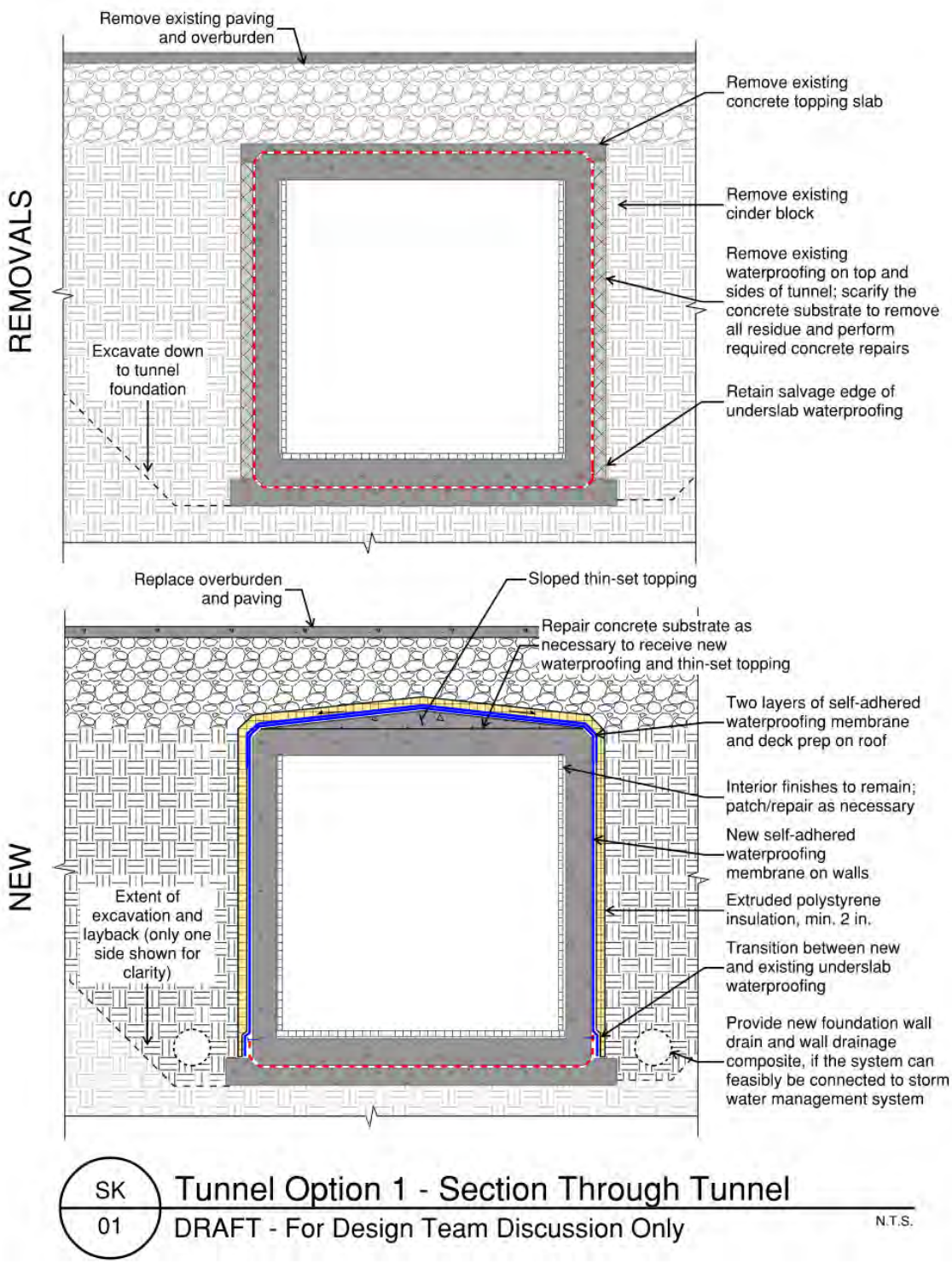
This option executes grout injection repairs from the interior only and assumes the basement system will remain substantially as is. Currently, the project programing assumes the new basement footprint will be substantially different than the existing system, so the perimeter of the basement will be exposed to construct the new foundation walls that will allow for new waterproofing at the connections to the tunnels (Option 2). Option 3 is discussed here only as an alternative should the basement programing be significantly altered, and the existing basement footprint is retained and not excavated.

Remove interior finishes (e.g., ceramic tiles) as necessary to expose the concrete tunnel structure. Drill injection ports along crack with signs of leakage and inject hydrophilic urethane grout into the ports to fill the cracks with watertight materials. Once the leaks are fully arrested, clean and prepare the concrete surface with hand tools and install new finishes.

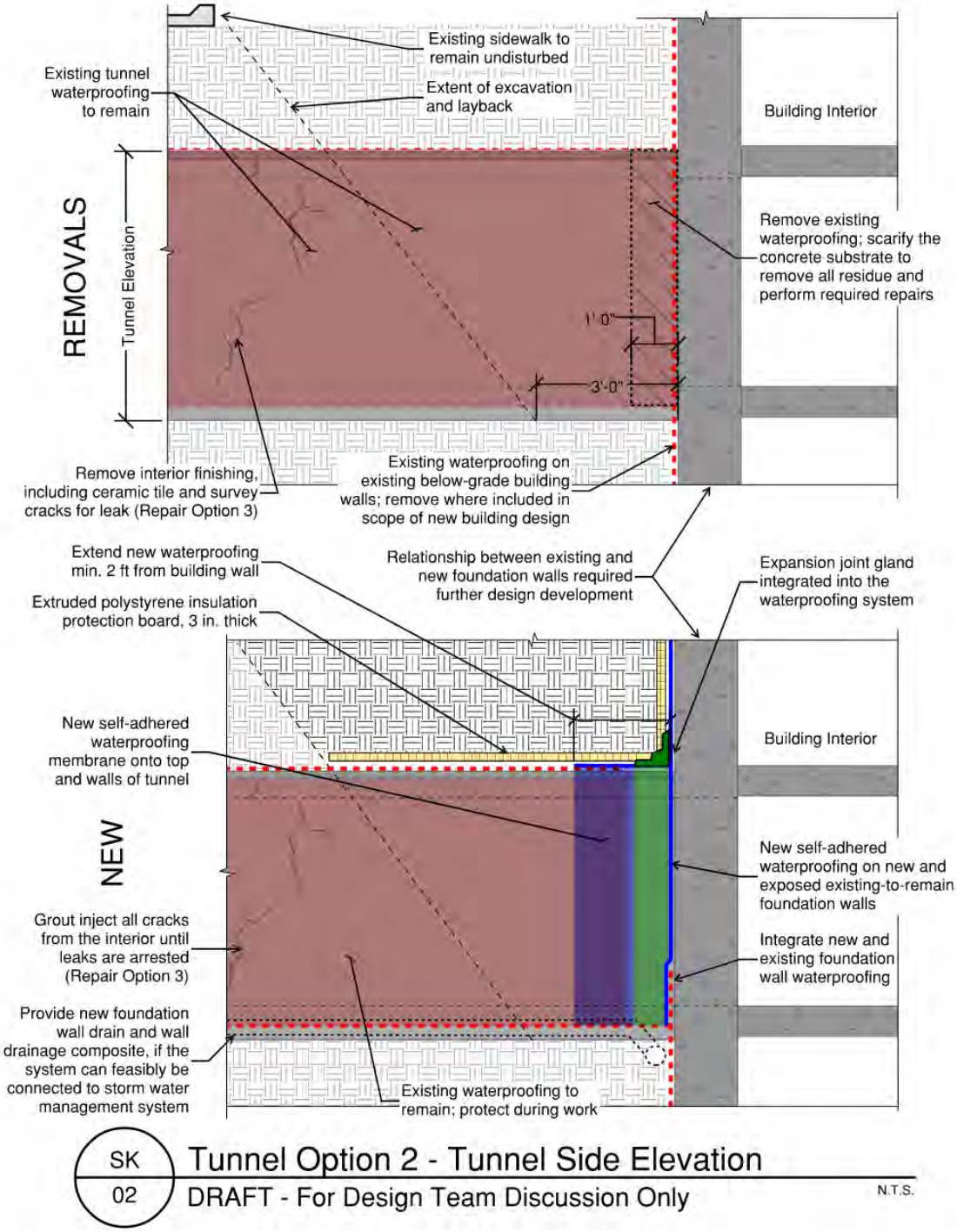
This option will likely require several rounds of grout injection to address the leaks because the leak may travel to new locations along the crack or form entirely new cracks. Additional leaks may occur in the future if more cracks form through the concrete tunnel structure. Grout injections rely on confining pressure of surrounding materials and are only reliable for narrow cracks. Grout injections may have limited effectiveness at the connection to the building if the transition was constructed with intentional expansion joints (not shown in the original Drawings but common to such conditions), wide cracks developed in service, and/or the joint undergoes significant movement. Similar to Option 2 above, Option 3 may function as a reasonable intermediate measure until funding is available for a separate future project.



Site plan diagram with repairs for the below-grade tunnels. Option 1 consists of excavating along the full length of the tunnel and providing new self-adhered waterproofing membrane. Option 2 limits the extent of excavation and new waterproofing to the building wall plus grout injections along the undisturbed portion of the tunnels. Option 3 involves no excavation and grout injections from within the tunnels.



Waterproofing repairs for the below-grade tunnels. Option 1 consists of excavating along the full length of the tunnel and providing new self-adhered waterproofing membrane.



Waterproofing repairs for the below-grade tunnels. Option 2 consists of excavating only at the connection of the tunnel to the DLS Building and providing new waterproofing. The relationship between new and existing foundation walls requires further development and will impact the application of this approach.

B. Performance Requirements

- The below-grade waterproofing must be watertight and prevent leaks and moisture migration into the below-grade spaces of the building for the entire service life of the building.
- The new insulation must comply with Code energy requirements; prescriptive requirements for below-grade walls include R7.5 minimum continuous insulation.
- The waterproofing system should include a continuous drainage layer applied directly against the membrane that is integrated with the site stormwater management system through a series of pipes as the base of the wall.
- All joint expected to undergo differential movement, such as the connection between the building and the tunnel structure support on independent foundations, should include expansion joints appropriately sized for the anticipated movement and integrated with the waterproofing system.
- Extend all waterproofing 12 in. minimum above grade and integrate with the air-/water-barrier membrane on the backup wall. All terminations below grade must be mechanically secured with termination bars and sealant.

C. Products

Below-Grade Foundation Wall Waterproofing, Positive-side

Foundation wall waterproofing, positive-side application (e.g., at laid-back construction and at locations near grade where over excavated), field membrane and accessories by the same manufacturer for a single-source responsibility and manufacturer's complete watertight system warranty. Provide self-adhering sheet waterproofing membrane comprised of cross-laminated polyethylene sheet laminated to rubberized asphalt compound. The system shall integrate with the above-grade exterior wall air/water barrier for a complete watertight system. Provide drainage composite on the walls that is connected to a perimeter drain at the base of the wall that is connected to the stormwater management system.

Basis-of-Design System: Bituthene 3000 by GCP Technologies. Include the following materials and accessories:

- Waterproofing Membrane: Bituthene 3000 by GCP Technologies; include appropriate accessory products for a complete watertight system.
- Primer: Bituthene Primer B2 by GCP Technologies.
- Mastic: Liquid Membrane by GCP Technologies.
- Termination Bar: Minimum 1/8 in. thick x 1 in. wide stainless steel.
- Drainage composite: Hydroduct 220 at field of foundation walls, Hydroduct Coil 600 at base of foundation wall.
- Insulation: FOAMULAR 400 by Owens Corning extruded polystyrene insulation. Provide high compressive strength insulation as required to resist applied loads and overburden.

- Protection Board and Leveling Layer: Protection Course PC-3 by W.R. Meadows, Inc., multi-ply semi-rigid asphaltic-based board, 1/4 in. nominal thickness.

Alternative Systems/Manufacturers:
- Envirosheet by CETCO
- Blueskin WP200 by Henry Company

Under-slab Vapor Retarder

Basis-of-Design Product: Minimum 15 mils thick plastic vapor retarder complying with ASTM E 1745, Class A, with a water vapor permeance of 0.012 perms max. Stego Wrap, 15-mil Class A by Stego Industries, LLC, or equal. Include accessories including seam and termination tape to provide continuous system below slabs-on-grade and integrate with surrounding systems.

Grout Injection

Basis-of-Design System: DE NEEF Flex LV PURe by GCP Technologies. Include the following materials and accessories:
- Catalyst: Flex Cat PURe by GCP Technologies.
- Hydraulic Cement: Cement-based repair mortar for concrete. Patch 'n Plug by Xypex.

Alternative Systems/Manufacturers:
- AV-248 by Avanti International
- InjectProECO-LV by Aquafin

D. Design Considerations

The following design considerations relate to the new foundation wall and basement structure:
- Provide continuous waterstops at all below-grade construction joints.
- Concrete substrates must be smooth, clean, dry, and free of dust, dirt, and laitance to ensure adequate adhesion of the primer and waterproofing membrane.
- The waterproofing system should be terminated above grade (12 in. minimum) and concealed behind a durable counterflashing (e.g., stainless steel brake metal) or cladding (e.g., brick masonry or architectural precast concrete). Positively integrate the above-grade air/water barrier and below-grade waterproofing systems. Where window and door openings exist in rising walls with a sill height of less than 12 in. above grade, extend the below-grade waterproofing into the rough opening.
- The performance of the foundation wall and tunnel drainage systems are dependent on the design and reliability of the drainage system materials, equipment, and associated maintenance program in service.
- The vapor barrier is placed over the subgrade prior to concrete placement. During concrete-placement activities, the vapor barrier becomes a working surface and is often damaged by foot traffic. Areas of damaged vapor barrier should be repaired immediately

prior to concrete placement. Provide a vapor barrier that meets or exceeds ASTM E1745 Class A standards for improved durability and performance.

- The vapor barrier should turn up and be sealed with the manufacturer's tape at perimeter conditions and penetrations (e.g., foundation walls, columns, pipes).

The following design considerations relate to the tunnel waterproofing repairs:

- Provide expansion joint flashing, integrated with the waterproofing system at all moving joints. The final configuration of the expansion joint at the tunnel will depend on the existing structure and will need to be adjusted once excavation uncovers the area.
- The surface preparation requirements should assume the concrete is in poor condition and will not provide a reliable surface for adhesive bonding. The design should conservatively assume mechanical scarification to remove loose materials near the concrete top surface.

6.04 Exterior Masonry Walls

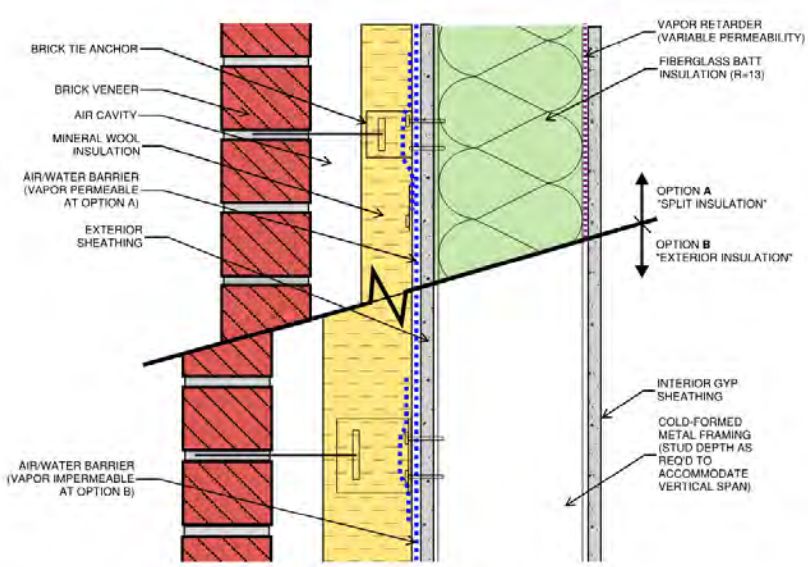
A. Description

The primary opaque wall cladding system will be brick masonry cavity walls, with windows in punched openings (Refer to Section 1.05 below). The brick masonry exterior walls will be constructed as a drained and ventilated cavity wall, comprising of cold-formed metal stud framing with unfaced fiberglass batt or mineral-wool insulation installed between studs, variable-permeability vapor retarder directly behind interior finishes, and exterior sheathing backup wall, continuous air/water barrier, exterior-grade continuous cavity insulation of mineral-wool fiber board, drained and ventilated air cavity, 1-in. minimum dimension, and brick masonry veneer (Figure 4). Attach brick to backup wall with brick masonry anchors, minimizing thermal bridging to the greatest extent possible. Provide sealed masonry expansion joints and, if required, building expansion joint in the masonry. Provide continuity of the air, water, and thermal barriers, with effective provisions for movement, at building expansion joints. Provide durable metal flashing with baffled weeps, drained to the exterior at floor lines, windows/doors, and other interruptions in the wall assembly. The flashing must be integrated with the wall's air and water barrier. The brick and mortar materials, including brick color, size, pattern, mortar color, mix design, and joint profile, will be carefully selected to be respectful of the capital campus. Depending on the aesthetic requirements, the team may incorporate multiple rounds of masonry samples and/or mockups to establish an agreeable aesthetic, finalize the exact products, and serve as a benchmark for construction.

The continuity of the air-/water-barrier membrane on the backup wall and integration with the adjoining systems will be critical to the project success. A series of project-specific flashing details will be developed, including at window rough openings and transitions between enclosure materials.

The exterior wall assembly noted above describes a "split-insulation" assembly (i.e., insulation between studs as well as continuous exterior cavity insulation). As an alternative design approach, the team will consider an assembly with only continuous exterior insulation and omitting the insulation between the studs and the variable-permeability vapor retarder. A system that places all insulation outboard of the air barrier will improve the hygrothermal performance of the wall, but will require thicker exterior insulation, increased cavity dimension, deeper shelf angles/support system, and will require the air/water barrier to be changed from vapor permeable to vapor impermeable. See Figure 3 below for a sketch depicting these options.

Note that details of the insulation types, arrangement, and thicknesses included below are preliminary and will need to be verified/developed based upon the whole-building energy model and energy code requirements (i.e., U-value) for the exterior walls. The insulation types, arrangement, and thicknesses, as well as the vapor permeability of the components (e.g., cladding, insulation, air/water barrier, coating, etc.) and details/location of the vapor retarder within the exterior wall assemblies included below are preliminary and will also need to be verified/developed based upon the hygrothermal performance requirements (e.g., wintertime interior psychometric design conditions) of the exterior walls as described. In addition to wintertime condensation, projects located in the MidAtlantic must also consider summertime condensation caused by humid exterior conditions (and cladding like brick that absorbs and retains moisture) driving moisture into batt insulation layer and potentially creating liquid condensation on air-conditioned interior surfaces.



Brick masonry exterior wall options.

B. Performance Requirements

- System components shall be designed to resist anticipated project-specific dead, wind, service, and seismic loads, building movements, thermally induced movement, moisture

movements, and exposure to weather without failure, excessive deflection, or infiltration of air and water into building interior beyond specified limits.

- The design documents should include transition details to depict continuity of the membrane air/water barrier between systems.
- Locating all of the exterior wall insulation outboard of the air/water barrier will provide an efficient thermal barrier (the thermal bridging at metal studs decreases the effectiveness of batt insulation) while limiting the risk for condensation.

C. Products

The exterior masonry wall assembly, if constructed in a split insulation approach, should include the following components (from exterior to interior):

- Brick Masonry: ASTM C216, modular size, texture, and color as selected by Architect. Brick shall have “no efflorescence,” in accordance with ASTM C67. Initial rate of absorption (suction), as defined in Section 9 of ASTM C67, shall be between 10 and 20 gal/min. 30 sq in. All faces shall be free of cracks. No bricks shall contain chippage greater than the limits in ASTM C216.
- Mortar: ASTM C270, Type N. Proportions by volume 1:1:5 to 6 (Portland cement: hydrated lime: mason’s sand). Do not use ground limestone or prepared masonry mortar mixes. Color as selected by Architect.
- Anchors: Brick masonry veneer with adjustable veneer anchors, stainless steel. Hohmann & Barnard HB-213 or BL-407.
- Air space, 1 in. minimum.
- Mineral wool insulation: CavityRockDD by Roxul; thickness as required for Code compliance (anticipated to be 2 in. minimum).
- Vapor-permeable air/water barrier: AirBloc 31MR (fluid-applied) by Henry Company.
  - Alternate Fluid-Applied Membrane: Perm-a-Barrier VP (fluid-applied) by W.R. Grace.
  - Alternate Sheet Membrane: Perm-a-Barrier VPS by W.R. Grace.
- Sheathing: Exterior gypsum sheathing, 1/2 in. thick. DensGlass by Georgia-Pacific.
- Metal Studs: 6 in. cold-formed metal framing with deflection tracks at the underside of slabs.
- Batt Insulation: Unfaced fiberglass batt insulation fit between studs, R-19. EcoTouch Pink Fiberglas Insulation by Owens Corning.
- Vapor Retarder: Variable-permeance sheet adhered to the interior face of the studs. MemBrain by CertainTeed.
- Membrane Through-wall Flashing: Asphalt adhesive with durable polyethylene facer. Blueskin TWF by Henry Company
- Metal Flashings: 16-ounce copper with fully-soldered and upturned back and end dams. Alternatively, use Freedom Grey by Revere, which mimics lead-coated copper.
- Mortar Catchment: Provide drainable mortar catchment, thickness as required to fill cavity. Subject to compliance with performance requirements, provide "Mortar Net Green” by Mortar Net USA or equal.

- Weeps Holes/Vents/Baffles: Free-draining, UV stable reticulated foam mesh made from polyester strands. Subject to compliance with performance requirements, provide "Weep Vents" by Mortar Net USA or equal.
- Self-adhered membrane transition and termination flashing: Blueskin SA by Henry Company.
- Penetration and termination sealant: HE 925 BES by Henry Company.
- Exterior joint sealant (e.g., window perimeter): Low- or medium-modulus, neutral curing silicone weather sealant compatible with the air-/water-barrier system (following project--specific testing) for use at transitions to fenestration and other compatible substrates: 790 by Dow Corning.

D. Design Considerations

- Brick cladding systems must be designed to resist the code-required wind loads and are typically attached through brick ties that fasten through the air/water barrier and sheathing into the backup wall. The structural attachments of these anchors for the brick cladding systems through the air/water barrier must be detailed in conjunction with the air-/water-barrier membrane selection. Detailing the fastener penetrations with mastic or self-adhered membrane is required to shield these penetrations from water exposure in service.
- Depending on the whole-building energy model results and sustainability objectives, the design will consider using structural thermal breaks where anchoring brick shelf angles to backup structure to minimizing thermal bridging.
- Provide copper through-wall flashings stripped-in with self-adhered membrane above all rough openings and transitions between enclosure systems. Provide drip hemmed edges that extend 1/4 in. beyond the cladding to direct water away from the walls. The configuration of the flashing system at the typical slab edge cover must be developed further based on the cladding configuration and attachment. Copper is intended to mimic the appearance of the surrounding capital buildings and provides a durable material that can be soldered watertight. Pending the aesthetic requirements, the team may consider stainless steel through-wall flashings to reduce costs.
- Vertical expansion joint spacing should be no more than 25 ft o.c. and brick without shelf angles should accommodate movement by placing expansion joints around elements that are rigidly attached to the frame and project into the veneer, such as windows a door frames. Joint locations should be coordinated with building corners and cladding support conditions. The Brick Industry Association (BIA) Technical Note 18A will be referenced for more information on sizing and spacing considerations for expansion joints in brick veneer. The joints may be configured in a toothed pattern with sand broadcast into the joints to conceal the appearance and more closely match historic masonry that often omit vertical sealant-filled joints.

6.05 Fenestration Systems

A. Description

The fenestration systems on the building include aluminum-framed windows set into punched openings in the opaque walls, floor-to-floor fenestration systems (potentially curtain wall products) that will span the first and second floors at the main entrance on the south elevation and the second and third floors on the west and northeast elevations, a skylight above a light well in the center of the building, and aluminum-framed entrances at the main entrance.

Aluminum-Framed Windows

As a starting point for the design, the typical windows will likely be thermally broken, aluminum-framed products with IGUs and perimeter receptor frames (Figure 5). Architectural grade aluminum products provide improved durability and higher air leakage and water penetration resistance ratings compared to other materials such as vinyl and aluminum-clad wood, which are not appropriate for a monumental government building with a long expected service life. Pending the aesthetic requirements, several manufacturers offer products designed to mimic the dimensions and articulations of wood-framed windows. Similarly, manufacturers offer fixed (or even casement) products that simulate appearance of hung windows. Operable sashes that rely on sliding seals, such as hung windows, are more prone to air leakage compared to fixed windows or compression seal (e.g., out-swing casement or awning style). The final window materials and configurations require further design development and coordination to establish the aesthetic objectives while balancing the performance requirements and budget. All windows must have an integrated system of continuous perimeter flashings that is continuous with the wall walls air and water barrier.

The project team may consider commercial wood-framed windows in lieu of aluminum frames, if the wood frames are integral to the design objectives. For a building of this use and performance expectation, however, the wood frames should be mahogany or a similar tropical hardwood with wept glazing pockets and commercial frame joinery. Multiple custom wood window manufacturers can provide products appropriate for this project, but the material costs will likely be significant.

Example aluminum-framed single hung window.

Image credit to Graham Architectural Products.

Floor-to-Floor Fenestration Systems

The initial elevations incorporate fenestration systems on the south, west, and northeast elevations that span between floors and incorporate cladding other than masonry. Multiple fenestration products, such as aluminum-framed window wall systems supported on top of each floor slab or stick-built curtain walls that bypass and anchor to the slab edge may be appropriate depending on the final configuration and objectives. The spandrel can be clad with a variety of materials, including metal panels, fiber cement panels, cast stone, fritted glass, and others. The lightweight cladding (metal or glass) can be supported directly by the window wall or curtain wall systems to simplify the number of trades and detail work at the slab edge. Alternatively, the cladding can be supported by independent subframing attached to the slab edge and/or backup wall. For initial pricing, the team should consider stick-built aluminum curtain wall frames with pressure equalized glazing pockets.

Sloped Glazing Systems

The design includes a glazed skylight spanning across an opening in the low-sloped roof above the light well. The skylight should include stick-built aluminum framing to support insulating glass units (IGU). The inner lite of the glass should be laminated to act as safety glazing and incorporate post-breakage strength for fall protection. Pending the energy modeling, the team may explore options for providing triple glazing at the skylight for improved thermal performance and condensation resistance, since horizontal enclosure surfaces transmit energy more readily than vertical surfaces. The configuration of the skylight is currently subject to development and will substantially impact the frame size, support connections, and detailing openings. As the surrounding roof is not accessible to occupants, the skylight perimeter should be elevated on a curb to protect the vulnerable glazing frame joints and

promote drainage. Sloping the glass at 3 on 12 slope minimum will help direct water away from the joinery and improve service life.

B. Performance Requirements

- Fenestration and associated glazing systems must be designed to resist project-specific design dead, wind, seismic, snow, and live loads; building movements, thermally induced movement, and moisture movements; and exposure to weather without failure, excessive deflection, or infiltration of air and water into the building interior beyond specified limits.
- The fenestrations and associated glazing systems must also be installed to resist water penetration and air infiltration.
- Note the U-factor, solar heat gain coefficient (SHGC) and visible light transmission (VLT) of fenestration systems must be confirmed and coordinated with whole-building energy model and MEP Engineer. However, using the prescriptive requirements of the Code is prudent and results in a U-factor of 0.38 for fixed fenestration and 0.77 for entrance doors and a SHGC of 0.36 to 0.48 depending on the orientation and projection factors (Figure 6).
- The glazing will be double pane, insulated glazing units with low emissivity coating applied to the inner surface of the outer lite and argon gas fill (Figure 7). Future design phases will explore the need and viability for triple IG units at the skylights. Safety glazing will be provided in hazardous locations as required per IBC and should consist of laminated glass (in lieu of fully tempered) to limit risks of spontaneous breakage or visual distortion. All fully tempered exterior glazing, if required for strength, shall be heat-soak tested.
- Glazing Gaskets: Factory-molded corners, complying with ASTM C864 and of extruded silicone or a silicone-compatible EPDM rubber that provides for adhesion of silicone sealant.

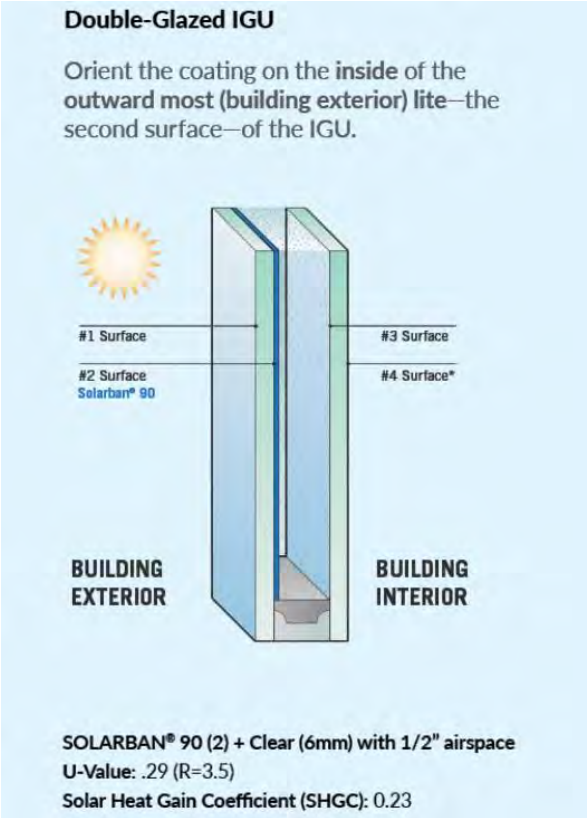
TABLE C402.4
BUILDING ENVELOPE FENESTRATION MAXIMUM *U*-FACTOR AND SHGC REQUIREMENTS

CLIMATE ZONE	1		2		3		4 EXCEPT MARINE		5 AND MARINE 4		6		7		8	
Vertical fenestration																
***U*-factor**																
Fixed fenestration	0.50		0.50		0.46		0.38		0.38		0.36		0.29		0.29	
Operable fenestration	0.65		0.65		0.60		0.45		0.45		0.43		0.37		0.37	
Entrance doors	1.10		0.83		0.77		0.77		0.77		0.77		0.77		0.77	
SHGC																
Orientation[a]	SEW	N	SEW	N	SEW	N	SEW	N	SEW	N	SEW	N	SEW	N	SEW	N
PF < 0.2	0.25	0.33	0.25	0.33	0.25	0.33	0.36	0.48	0.38	0.51	0.40	0.53	0.45	NR	0.45	N
0.2 ≤ PF < 0.5	0.30	0.37	0.30	0.37	0.30	0.37	0.43	0.53	0.46	0.56	0.48	0.58	NR	NR	NR	NR
PF ≥ 0.5	0.40	0.40	0.40	0.40	0.40	0.40	0.58	0.58	0.61	0.61	0.64	0.64	NR	NR	NR	NR
Skylights																
U-factor	0.75		0.65		0.55		0.50		0.50		0.50		0.50		0.50	
SHGC	0.35		0.35		0.35		0.40		0.40		0.40		NR		NR	

NR = No Requirement, PF = Projection Factor.

a. "N" indicates vertical fenestration oriented within 45 degrees of true north. "SEW" indicates orientations other than "N." For buildings in the southe hemisphere, reverse south and north. Buildings located at less than 23.5 degrees latitude shall use SEW for all orientations.

Table C402.4 Building Envelope Fenestration Maximum U-Factor and SHGC Requirements.
Credit to IECC 2018.



Current basis of design: Double IGU that incorporates a low-e coating on the #2 surface.

Image credit to Vitro Architectural Glass.

Winter-time U-Value: 0.29
SHGC: 0.23

C. Products

The design should consider systems from the following manufacturers:

- Aluminum-Framed Windows: 2000 Series by Graham Architectural Products
- Products for the floor-to-floor fenestration systems pending further design development.
- Aluminum-Framed Entrances: NS-212 / MS-375 / WS-500 Standard Door and Frame by Oldcastle Building Envelope
- Alternative Manufacturers:
  - Peerless Architectural Windows & Doors
  - Wausau Window and Wall Systems
  - Kawneer
  - Oldcastle Building Envelope

D. Design Considerations

- Perimeter conditions must allow for installation tolerances, expansion and contraction of adjacent materials, the manufacturer's recommended sealant joint design, and integration with adjacent cladding systems.
- Doors within exterior glazing systems have a propensity to leak water, depending upon the project-specific location of the door and exposure to wind-driven rain (e.g., under a canopy/soffit vs. fully exposed) and details of the door itself including: door type, swing type (e.g., inswing vs. outswing; generally inswing doors tend to leak more than outswing,

however egress requirements may dictate swing direction), accessibility requirements (e.g., ADA requirements for sill threshold dimensions), egress requirements (e.g., panic hardware vs. no panic hardware).

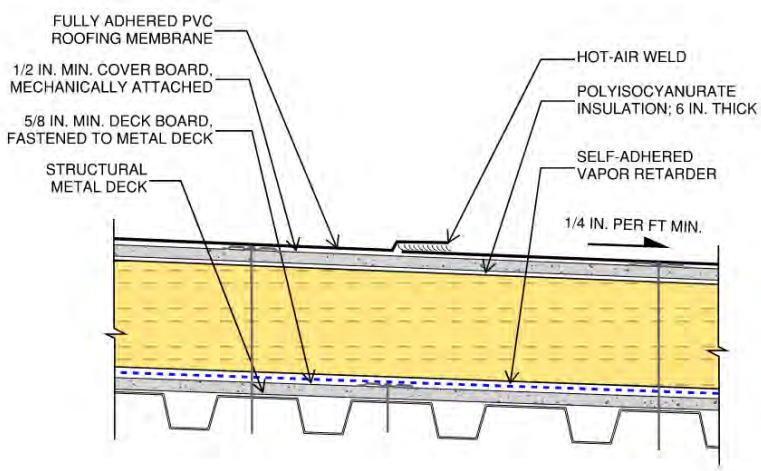
- Where the fenestration is installed at or near grade, best practice includes elevating the sill 8 in. minimum above the walking surface to limit exposure to ponding water or snow and possible water infiltration also deleterious effects of deicing salts and snow removal operations. Additionally, slope the hardscape away from the building at all locations and extend the below-grade waterproofing membrane up and into the rough opening at the sill.
- At doors or other locations where the fenestration assembly cannot be elevated above grade, provide supplemental drainage along the base of the wall (e.g., trench drains) to limit ponding water and reduce the risk of leakage to the interior, and install walk-off mats to avoid damaging interior components from incidental leakage and foot traffic.
- Windows and aluminum-framed entrances must include sill pan flashings to manage incidental water through the fenestration system. At the entrances, provide a continuous depression in the concrete beneath the door threshold to create an upturned back leg for the below-grade waterproofing beneath the sill pan flashing.
- Skylights shall be sloped to drain to the edge and include integral condensation gutters for incidental condensation during the coldest periods of the year. Increasing the slope of the skylight will help to improve durability.
- Unlike windows and curtain walls, skylight systems may be supported by using numerous methods customized to accommodate the project-specific application and perimeter support structure. To elevate the vulnerable glazing gaskets and frames from bulk water and accumulated snow, the perimeter of the skylight should be supported on a curb or series of post extending above the low-slope roof.

6.06 Low-Slope Roofing

A. Description

The building will include portions of low-slope exposed membrane roofing and steep-slope slate roofing (see Section 1.07 below). Many membrane types can be appropriate for the low-slope applications. However, polyvinyl chloride (PVC) membranes combine a long and positive track record of performance, durability, and waterproofing reliability. The thermoplastic PVC membrane relies on heat-welded seams between the sheets to provide a durable watertight assembly. PVC has the longest proven track record on the market (over forty years) and provides the longest expected service life compared to other single-ply membranes, such as thermoplastic polyolefin (TPO) and ethylene propylene diene terpolymer (EPDM). Multi-ply roofing membranes, such as styrene butadiene styrene (SBS) modified bitumen, are also appropriate for this application and provide a service life comparable to PVC but commonly more expensive than single-ply membranes.

Details of the insulation types, arrangement, and thicknesses included below are preliminary and will need to be verified/developed based upon the whole-building energy model and energy code requirements (i.e., U-value) for the roofs. The roof structure, likely corrugated metal roof deck, should be sloped at 1/4 in. per ft to drain to limit the amount of tapered insulation and roofing costs (Figure 8). Tapered insulation will still be necessary to create localized slope and crickets at drains. The details for the transitions between the mansard roofs, skylight, and the roof perimeter must be schematically developed in parallel with the roofing selection to ensure the weathertight enclosure is continuous and meets the aesthetic design intent.



Typical exposed membrane roofing system.

B. Performance Requirements

- Membrane roofing systems shall be designed to resist specified dead, wind uplift, seismic, snow, rain, and live loads; building movements, thermally induced movement, moisture movements, and exposed to weather without failure in accordance with the Code and in accordance with Owner insurance requirements (e.g., FM Global), as applicable and required.
- The Design Team will complete wind uplift calculations to appropriately specify the wind-resistance requirements for the roofing assembly and compare contractor-proposed tested-assembly performance versus specified performance requirements.
- The roofing assembly should be sloped to internal drains with either tapered insulation or a sloped structural deck at a minimum slope of 1/4 in. per ft.

C. Products

- Roofing Manufacturer: Sika-Sarnafil
  - Alternative Manufacturer: Carlisle Syntec
  - Alternative Manufacturer: Johns Manville
- Metal Deck: corrugated metal design for structural loads.

- Deck Board: 5/8 in. thick DensDeck Roof Board by Georgia-Pacific, fastened to the metal deck.
- Vapor Retarder: Vapor Retarder SA31 by Sika Sarnafil.
- Insulation: Polyisocyanurate insulation, 6 in. total thickness, R-30 LTTR min.; Sarnatherm by Sika Sarnafil
- Cover Board: 1/2 in. thick DensDeck Prime by Georgia-Pacific, fastened to the metal deck.
- Roofing Membrane: Glass-fiber reinforced, minimum 60 mil thick PVC Sheet with heat-weldable seams; G410 by Sika Sarnafil

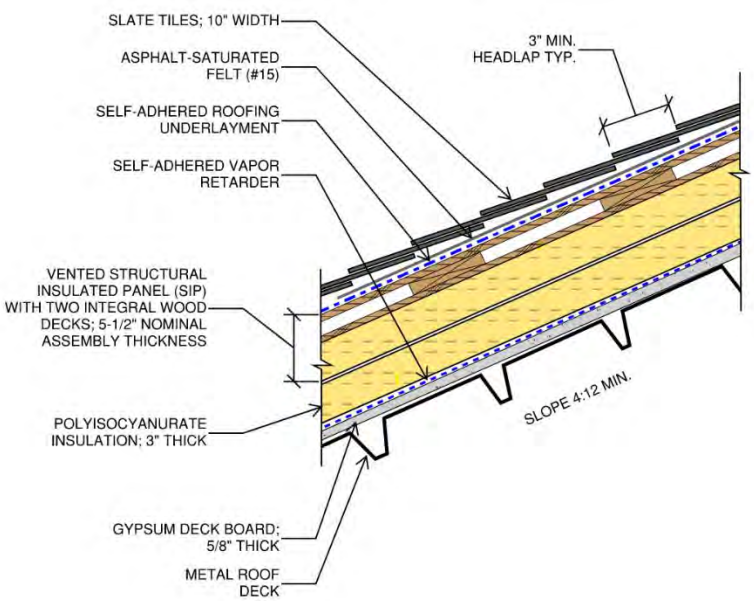
D. Design Considerations

- For low-slope roofs, the roof surface must be sloped to internal drains (1/4 in. per ft) using a combination of sloped structural deck and tapered insulation. Provide tapered sumps at roof drains and crickets as necessary at curbs and rising walls to promote drainage. Provide overflow drains or scuppers in accordance with applicable building code requirements. The drainage design/layout will be coordinated with the Plumbing Engineer, to ensure the location, quantity, and capacity of the roof drains are sized to accommodate the anticipated rainfall as required by the Code.
- Considering both the primary and emergency overflow drainage systems, the Structural Engineer will confirm that the design prevents overstressing the structural deck in the event of a roof drain clog (i.e., that overflow water can reach overflow drainage systems before an overflow event occurs without adversely impacting the structural deck or causing a progressive ponding/deflection failure, as required by the Code and structural design considerations).
- The insulation thickness is dependent on the building energy code requirements. The 2015 IECC includes a prescriptive requirement for R-30 of roof insulation entirely above deck per Table C402.1.3. The design will assume (per the National Roofing Contractor Association's (NCRA) recommendations) an R-value of R-5 per in. of polyisocyanurate insulation thickness to account for performance in cold weather climates and aging. Therefore, the design will include a minimum of 6 inches of insulation.
- The design will incorporate NCRA's recommend flashing height (e.g., 8 in. above overburden) at all perimeter rising wall and parapet conditions. This includes detailing and specifying through-wall metal counterflashing at exterior masonry rising walls.
- The roof will incorporate a continuous vapor retarder membrane below the insulation that will also serve as the air barrier to limit interior, potentially humidified, air from entering into the roofing assembly and creating condensation and durability issues. The vapor retarder should be integrated with the air/water barrier membrane on the adjoining backup walls and other enclosure systems.

6.07 Steep-Slope Roofing

A. Description

The design will include slate roofing at the mansard roofs and dormers. Slate tile roofs are appropriate for steep-slope applications, and generally consist of the rain-shedding slate tiles over a watertight underlayment, nail base, insulation, and a vapor retarder (Figure 9). Adding a vented structural insulated panel (SIP) beneath the self-adhered roofing underlayment is beneficial in promoting air flow and consequently reducing the risk for ice dam formation, which is critical if the roof will include eaves that extend past the exterior building walls. Depending on the configuration of the roof, the ventilated cavity within the SIP may be eliminated if the design team is able to mitigate the risk of ice dams through other measures. To a lesser extent, the ventilated substrate also promotes drying and decreases the risk of sheathing deterioration should incidental leakage occur at fasteners. The roof will drain to hung gutters along the roof edge that connect to down leaders on the facade.



Typical vented steep-slope roofing assembly with slate tiles.

B. Performance Requirements

- Refer to Section 1.06 for typical roofing performance requirements (e.g., insulation required by code and drainage design).
- Standard water-shedding steep-slope roof systems must have a minimum pitch of 3:12 but steeper slopes (i.e., 4:12) are prudent to limit the risk of leakage at fasteners.
- Since slate roofs require the tiles to be fastened, a nailable substrate, such as plywood or SIP is necessary to receive the nails.
- Steep-slope roofs must also be designed to address snow and ice retention. The roof shall include snow guards designed to retain snow on the roof until it can gradually melt.
- The roof must also address the risk for the formation of ice dams formed by snow melt at upper portions of the roof refreezing at lower areas and creating icicles that may act as falling hazards, especially if the roof includes uninsulated overhangs where the melt can readily refreeze.

- The sloped substrate, membrane underlayment, and fastening system should be designed to limit water leakage at fasteners and promote drying of the wood nail-base substrate.
- All fire and life safety requirements should be carefully coordinated with the local Code requirements and building type.
- The roof will incorporate a continuous vapor retarder membrane below the insulation that will also serve as the air barrier to limit interior, potentially humidified, air from entering into the roofing assembly and creating condensation and durability issues. The vapor retarder should be integrated with the air/water barrier membrane on the adjoining backup walls and other enclosure systems.

C. Products

Listed below are the primary roofing components of the assembly. Additional flashing and accessory materials are required upon the selection of a roofing option.

- Metal Deck: corrugated metal designed for structural loads.
- Gypsum Deck Board: DensDeck Prime by Georgia-Pacific, 5/8 in. thick.
- Self-Adhered Vapor Retarder: Blueskin SA by Henry Company.
- Insulation: Polyisocyanurate with integrally laminated heavy, durable, and dimensionally stable coated polymer bonded glass fiber mat facer, 3 in. thick.
- Structural Insulated Panel: Cool-Vent by Hunter Panels; 5/8 in. thick CDX plywood with 1 in. thick vented air space and fiber-reinforced facer polyisocyanurate insulation, 3 in. thick and conforming to ASTM C1289 Type V.
- SIP Fasteners: Coated steel of sufficient length to penetrate into the metal deck and designed by the roofing manufacturer for project-specific loads.
- Membrane Underlayment: Blueskin PE200HT by Henry Company.
- Protection sheet: #15 asphalt-saturated felt attached to the SIP with button cap nails.
- Slate Roofing: Natural slate complying with ASTM C406, Grade S1; width and length to be determined; 3 in. or 4 in. headlap depending on the roof slope; color and dimensions to match existing. Select a slate that is sourced from a domestic quarry that has produced slate with a high degree of durability in freeze-thaw environments.
- Nails: 10 ga. copper annular ring nails with larger slater's head, length sufficient to penetration 1/4 in. through underside of plywood sheathing.
- Slater's Cement: 197AF Karnastaic "Slaters" Cement or approved equal; for use in concealed locations only. Review with Engineer before use.
- Wood Block for Slate Starter Strip: Red Cedar.

D. Design Considerations

- Slate tiles can weigh up to four times the average weight of typical asphalt shingles. The Structural Engineer will account for the added weight of the slate tiles in the design of the structural roof deck.
- The Design Team will take into consideration the availability of materials for replacement throughout the building life. Slate tiles will be difficult to replace and match those already

installed on the building. The specifications may incorporate attic stock requirements for custom materials.

- The existing slate shingles could be in reusable condition (refer to Building Enclosure Condition Assessment) and a targeted scope of laboratory testing may confirm the slates have a remaining useful service life comparable (or even exceeding) newly quarried slate. The costs for laboratory testing and additional labor required to carefully salvage the slate may prove to be less than the high material costs of natural slate.

6.08 Facade Mockups and Testing

The specifications will include a series of mockups and testing of the facade systems on the project in order to test the overall performance of the systems, as described in further detail below.

A. Performance and Visual Mockup

Purpose and Scope: The specifications will include a freestanding mockup of the typical facade systems in order to provide M&D and the Owner the opportunity to review the aesthetics and select systems, materials, finishes, etc. Additionally, the freestanding mockup will include the air-/water-barrier membranes and other concealed materials critical to enclosure performance to provide a benchmark for quality and construction of the facade systems, specifically at system interfaces. The mockup will be tested in accordance with the procedures below to validate the design and implementation. To allow for sufficient time to adjust, if necessary, the mockup will be a freestanding structure built on site early in the construction phase but will not be incorporated into the final Work. The drawings can include a composite drawing indicating the scope of size of the mockup(s). Additional, first-installation mockups for the primary enclosure systems (e.g., below-grade waterproofing, brick masonry and backup wall, window, low-slope and steep slope roofing) installed on the building should be specified to confirm the access and execution requirement for work on the building do not require modifications to the detailing approach.

B. Field Testing

Purpose and Scope: The specifications will include field testing of the window and skylight systems in order to provide quality assurance of installation of the various systems and critical system interfaces for airtightness and watertightness throughout the duration of construction. Note that interior finishes should not be installed prior to testing, in order to allow for full visual and physical access to the interior surfaces of the tested facade.

Chamber Testing: The specifications will require field testing the windows and floor-to-floor fenestration systems installed on the building in accordance with AAMA 503, carried out at the mockup, 10%, 50%, and 75% of fenestration installation at representative locations as directed by the Architect, after completion of the facade installation and before interior finish installation begins, including the following tests:

- **Air Infiltration and Exfiltration**: In addition to the mockup, four windows, two floor-to-floor fenestration areas, and one skylight area shall be tested for air infiltration and exfiltration in accordance with ASTM E783 at a minimum static-air-pressure of 6.27 lbf per sq ft. No increase in the specified air leakage rate is allowed.
- **Water Penetration**: Four windows, two floor-to-floor fenestration areas, and one skylight areas shall be tested for water penetration in accordance with ASTM E1105 at minimum constant static-air-pressure difference (Method A) equal to the specified design pressure. Reduction in specified design pressure for field testing as penetration is allowed to the interior. Water leakage allowance as described by AAMA is not permitted.

Note the number of specimens is subject to change as the design develops. Additional field quality control testing, including air-/water-barrier adhesion testing, sealant adhesion testing, PVC seam probing, and slate sounding, will also be specified. The Specifications will require the Contractor submit laboratory testing results for the aluminum-framed window products that demonstrate a window unit of a size as large, or larger, than the project-specific units have been successfully tested to the specified performance criteria. If the fenestration systems require custom sizes, configurations, or accessories, the team should consider project-specific laboratory testing.

The field testing shall be carried out by a certified independent third-party testing agency (e.g., Intertek, Molimo). If failures occur, repeat tests once repairs have been implemented and provide additional tests at new locations as directed by the Architect.

Appendix A - Contextual Photographs

CONTEXTUAL PHOTOGRAPHS

APPENDIX 1.01

CONTEXTUAL PHOTOGRAPHS

APPENDIX 1.02

DEPARTMENT OF LEGISLATIVE SERVICES

90 STATE CIRCLE
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Appendix B - Hazardous Materials Survey

HAZARDOUS MATERIALS SURVEY
FOR
LEGISLATIVE SERVICES BUILDING
90 STATE CIRLCE
ANNAPOLIS, MARYLAND 21401

PREPARED FOR:

MURPHY & DITTENHAFER ARCHITECTS
805 NORTH CHARLES STREET
BALTIMORE, MD 21201

PREPARED BY:

ARIA ENVIRONMENTAL, INC.
PO BOX 286
WOODBINE, MD 21797

DECEMBER 15, 2020

191204

HAZARDOUS MATERIALS SURVEY
FOR
LEGISLATIVE SERVICES BUILDING
90 STATE CIRCLE
ANNAPOLIS, MARYLAND 21401

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Attachment E: Sample Location Plan – Drawings

HAZARDOUS MATERIALS SURVEY FOR THE LEGISLATIVE SERVICES BUILDING

I. EXECUTIVE SUMMARY

Aria Environmental, Inc. (AE) was contracted by Murphy and Dittenhafer, Inc. to perform a pre-renovation hazardous materials survey of the Legislative Services Building in Annapolis, Maryland. The purpose of the project is to identify and characterize hazardous or regulated building materials that require safe handling and disposal prior to the renovation of the building. The Legislative Services Building is a brick office building with three floors above grade, a ground floor and a basement, originally built in 1976 at 92,200 square feet (SF). Based upon the age of the original construction, hazardous and regulated materials are expected to exist in the building. This report presents our methodologies; results of sampling and analysis activities; and our conclusions and recommendations for abatement. Observed building finish materials included: brick and concrete masonry unit (CMU) walls, ceramic tile walls and floors, drywall and joint compound, plaster walls and ceilings, several styles of 12”x12” floor tiles, several styles of suspended ceiling tiles, wooden windows, wood and metal doors, and fiberglass pipe and duct insulation and several types of mastics, seam sealants and caulks.

The survey for hazardous materials in the Legislative Services Building indicated the presence of hazardous or regulated materials that will require proper packaging and disposal prior to renovation. Our recommendations assume a complete demolition and are summarized below:

1. Remove and dispose of asbestos-containing drywall and joint compound, floor tile and/or black mastic, mastic associated with mirrors, fire doors, pipe penetration sealant, duct seam sealant, red duct mastic, black vapor barrier associated under windows, black drywall caulk, mudded fittings, elevator brakes, wiring and panels, exterior window glazing compound and materials concealed throughout the building.
2. Materials may be concealed behind solid walls, ceilings or in pipe chases. Demolition activities have the potential to expose additional asbestos-containing materials. Caution should be taken while demolishing solid ceilings and walls.
3. Recover refrigerant, remove and dispose of all refrigerant-containing equipment as ozone depleting substances.
4. Remove and dispose of, reuse or recycle fire alarm and smoke detector system equipment. Note: older smoke detectors that may contain low-level radioactive sources may be concealed by ceiling tiles.
5. Remove and dispose of battery containing lighted exit signs and emergency lights as universal waste.
6. Remove and dispose of oil-containing automatic door closers and air compressor oil tank as oil-containing waste.
7. Inspect fluorescent lamp ballasts for a “no PCBs” label. Dispose of any that DO NOT have the “No PCB” label as PCB-containing waste.
8. Remove and dispose of fluorescent lamps, mercury thermometers and thermostats as universal waste.
9. Dispose of moldy and water-damaged materials carefully to avoid the spread of mold spores. Note: Mold may continue to grow on water-damaged materials if left untreated.
10. Lead based paint was not found on walls, doors and frames, stair components, window components and other common surfaces; however, some lead-coated surfaces may be present on concealed structural steel and other components. Any disturbance to lead-containing surfaces should be performed in accordance with OSHA “Lead in Construction Rule (29 CFR 1926.62)” and the Lead Renovation, Repair and Painting Rule. Lead may be present in actual waste materials generated at concentrations that would cause the waste to be considered hazardous per the EPA Resource Conservation and Recovery Act.

HAZARDOUS MATERIALS SURVEY FOR THE LEGISLATIVE SERVICES BUILDING
90 STATE CIRCLE, ANNAPOLIS, MARYLAND 21401

II. INTRODUCTION

Aria Environmental, Inc. (AE) was contracted by Murphy and Dittenhafer, Inc. to perform a pre-renovation hazardous materials survey of the Legislative Services Building in Annapolis, Maryland. The purpose of the project is to identify and characterize hazardous or regulated building materials that require safe handling and disposal prior to the renovation of the building.

The Legislative Services Building is a brick office building with three floors above grade a ground floor and a basement, originally built in 1976 at 92,200 square feet (SF). Based upon the age of the original construction, hazardous and regulated materials are expected to exist in the building. This report presents our methodologies; results of sampling and analysis activities; and our conclusions and recommendations for abatement.

Observed building finish materials included: brick and concrete masonry unit (CMU) walls, ceramic tile walls and floors, drywall and joint compound, plaster walls and ceilings, several styles of 12"x12" floor tiles, several styles of suspended ceiling tiles, wooden windows, wood and metal doors, and fiberglass pipe and duct insulation and several types of mastics, seam sealants and caulks.

III. METHODOLOGY

A. Asbestos

Representatives of AE conducted an asbestos survey of the interior of the Legislative Services Building. Work was performed on November 13, 16, 17, 19, 23 and 24, 2020 and December 10, 2020 by Julia Fafard (Maryland Asbestos Temporary Inspector No. MD-20-785, exp. 10/05/2021), Julie Barth (Maryland Asbestos Temporary Inspector No. MD-VAIR09012020-16, exp. 10/08/2021), and Michele Twilley (Maryland Asbestos Temporary Inspector No. MD-VAIR09012020-03, exp. 09/29/2021)[1]. A visual inspection for suspected asbestos-containing materials was performed followed by asbestos sample collection and laboratory analysis. Copies of the inspector's credentials are located in Attachment A.

Bulk samples of each suspect asbestos-containing material encountered by the inspector were collected in randomly located areas. A clean sampling tool was used to obtain a "thumbnail" sized bulk sample. This sample was placed in a single-use 4-mil plastic bag, sealed and labeled. The sampling tool was cleaned with an amended water solution before and between uses. Samples were submitted to iATL International of Mt. Laurel, New Jersey (NIST-NVLAP Accreditation No. 101165-0) for analysis by Polarized Light Microscopy (PLM) using EPA method 600/R-93/116. A material is considered to be asbestos-containing if it contains one percent (1%) or more asbestos by PLM.

Suspect asbestos-containing materials were not sampled if they were located behind solid walls and ceilings, or in enclosed pipe chases that would have to be damaged to access the suspect building materials. Suspect asbestos-containing materials were also not sampled if

[1] Due to the COVID-19 pandemic, all MDE certifications and license dates are extended until 30 days after the state of emergency ends. The emergency was in effect on the date the report was prepared. Temporary licenses have been granted by MDE to all members of the survey team after passing a third-party exam.

there had been previous sampling to confirm a positive or negative result. AE endeavored to access hatches, crawlspaces, attic spaces, pipe chases and duct chases by opening small holes and access ways to perform exploration through direct visual observation. Asbestos-containing pipe insulation, duct insulation, mudded elbows, fittings and valves are expected on all concealed plumbing and mechanical systems, including those in chases and behind solid ceilings and walls or located underground. All accessible spaces of the building were surveyed.

B. Lead

The Legislative Services Building was previously surveyed by a Maryland-licensed lead Inspection Contractor and Inspector from Greenstreet Environmental in 2018 for lead-based paint using a Thermo Scientific™ Niton™ XLp 300A XRF Analyzer. Results of their survey are summarized by AE. The information contained within this report is intended to address the presence of lead-based paint or lead-containing paints to ensure that worker protection requirements are met under the Occupational Safety and Health Administration's (OSHA) "Lead Exposure in Construction Rule (29 CFR 1926.62)." The presence of lead-containing substances is presumed in any residential building construction before 1978 and in all commercial, industrial, and public structures unless it is determined that all painted surfaces are lead-free.

XRF readings were taken and recorded using a spectrum analyzer following operational protocols set forth in HUD's *Guidelines for the Evaluation and Control of Lead-Based Paint Hazard in Housing (2012)*. The NITON XRF was calibrated prior to and after each use and at least every four (4) hours. Three (3) calibration readings are collected at each interval to monitor the quality and performance of the XRF. Once an XRF scan of a surface was performed, the measurement was compared with the appropriate regulatory value for lead-based paint. The NITON XRF does not require substrate correction readings. However, the instrument cannot be used for collecting readings on severely curved surfaces, such as molding or small diameter pipes. In these situations, a paint chip sample was collected and submitted to a laboratory for analysis.

MDE defines "*Lead-containing substance*" as "*any paint, plaster or other surface coating material containing more than 0.50 percent lead by weight calculated as lead metal in the dried solid, or more than 0.7 milligrams per square centimeter by the X-ray fluorescence analyzer.*" [COMAR 26.02.07.02]. EPA states "*Lead-based paint is present:(i) On any surface that is tested and found to contain lead equal to or in excess of 1.0 milligrams per square centimeter or equal to or in excess of 0.5% by weight; and (ii) On any surface like a surface tested in the same room equivalent that has a similar painting history and that is found to be lead-based paint.*" [Title 40 CFR 745.227(h)].

C. Polychlorinated Biphenyls

Polychlorinated biphenyls (PCB's) are a class of chemicals that were used in a wide variety of applications. PCBs are often found in dielectric fluids, cooling fluids, transformers, capacitors and caulks. PCB-containing equipment must often be disposed of as part of renovation and demolition projects. The EPA definition of PCB-containing materials is 50 part per million (ppm) or milligrams per kilogram (mg/kg). A representative number of fluorescent light ballasts were inspected for the presence or absence of the "No PCBs" label. If the "No PCBs" label is absent, then the ballast is considered to contain PCBs. The number of ballasts was estimated based upon the type of light fixture observed in the building. Light ballasts were counted as follows: one ballast for every two four-foot fluorescent light tube observed in a multi-tube fixture and one ballast for every one four-foot or eight-foot fluorescent light tube observed in a single fluorescent light tube fixture that is not joined to a second light fixture with a shared ballast.

D. Mercury

Mercury within fluorescent lamps, thermostats and other mechanical equipment often must be disposed of during renovation and demolition activities. Each area was surveyed for the presence of thermostats and/or equipment that may contain liquid mercury. Fluorescent light tubes may contain small amounts of mercury vapor and lead. Because disposal of fluorescent light tubes is regulated under the EPA Universal Waste rule, a count of fluorescent lamps is presented in this report.

E. Refrigerants

Refrigerant-containing equipment including refrigerators, freezers, and air conditioning units were identified for the purpose of recycling chlorofluorocarbon (CFC) and hydrochlorofluorocarbon (HCFC) refrigerants that are known to deplete ozone. Under EPA's Refrigerant Recycling Rule, equipment that is typically dismantled on-site before disposal (e.g., retail food refrigeration, central residential air conditioning, chillers, and industrial process refrigeration) require refrigerant recovery.

IV. RESULTS

A. Asbestos

Representatives of AE conducted an asbestos survey of the interior and exterior of the Legislative Services Building. Bulk samples of suspect asbestos-containing materials were collected by AE during the asbestos survey activities. Sixty-five (65) samples were collected during survey activities. The lab split some samples into distinct layers for analysis. Table 1 presents these samples and their results. Entries in bold represent samples which were positive for asbestos at levels of trace or greater. The chains of custody and certificates of analysis are located in attachment B.

Table 1: Asbestos Bulk Sampling Results for the Legislative Services Building, Annapolis, Maryland, November 13,16, 17, 19, 23, 24, 2020 and December 10, 2020

Sample Number	Material	Functional Area	Result
01	**Black Mastic under Carpet**	**B-08 Library**	**1.2% Chrysotile Asbestos**
02	Drywall and Joint Compound	B-08 Library	NAD DW, JC and Composite
03	**White Duct Seam Sealant**	**B-08 Library on foil duct insulation**	**4.7% Chrysotile**
04	Tan Cove Base Mastic	B-08 Library	NAD
05	Tan Cove Base Mastic	Stairwell in B-08 Library	NAD
06	**12”x12” Tan Armstrong Floor Tile and Black Mastic**	**Stairwell in B-08 Library**	**FT-NAD, Mastic-4.3% Chrysotile Asbestos**
07	Mudded Tan Insulation	B-12 Mechanical Room	NAD
08	Gray Duct Mastic	B-12 Mechanical Room	NAD

Sample Number	Material	Functional Area	Result
09	**White Duct Seam Sealant**	**B-08 Copy Room**	**4.8% Chrysotile Asbestos**
10	**Black and Yellow Mastic**	**B-06**	**1.6% Chrysotile Asbestos**
11	Brown/Tan Sealant or Caulk	B04 on drywall above the ceiling tiles	NAD
12	Mudded Joint Insulation	B-03	NAD
13	**12"x12" White with Light Gray Streaks Floor Tile and Mastic**	**Storage Room Under Hall Stairs in Basement**	**FT-4.3%, Mastic-4.8% Chrysotile Asbestos**
14	Joint Compound	B-13 at Hall Entry	NAD
15	End Cap Sealant	B-13D above ceiling	NAD
16	**12"x12" White with Gray Smudges Floor Tile and Black Mastic**	**Kitchenette in Basement**	**FT-NAD, Mastic-Trace Chrysotile Asbestos**
17	12"x12" Mottled Gray Floor Tile and Mastic	Print Shop	NAD
18	**12"x12" White with Light Gray Streaks Floor Tile and Mastic**	**Print Shop at door to Mechanical Room**	**FT-NAD, Mastic-1.3% Chrysotile Asbestos**
19	Drywall and Joint Compound	Print Shop	NAD DW, JC and Composite
20	**12"x12" Tan Streak Floor Tile over 12"x12" White (unknown pattern) Floor Tile and Mastic**	**Print Shop at door to B-11B**	**FT and Black Mastic-1.2% Chrysotile Asbestos, Yellow Mastic-NAD**
21	Black Mastic behind Ceiling Grid	B-11D	NAD
22	Black Cove Base and Brown Mastic	Freight Elevator Lobby in Basement	NAD
23	Yellow and Green Carpet Mastic	G-15	NAD
24	**White Tile Grout**	**G-11G Former Small Kitchen Area**	**Trace Chrysotile Asbestos**
25	Gray Tile Grout	G-11G Former Small Kitchen Area	NAD
26	**Red Duct Mastic**	**G-11G Former Small Kitchen Area**	**3.4% Chrysotile Asbestos**
27	**White Duct Seam Sealant**	**G-11G Former Small Kitchen Area**	**2.1% Chrysotile Asbestos**

Sample Number	Material	Functional Area	Result
28	Yellow and Brown Carpet Mastic	G-11 Hall	NAD
29	Drywall and Joint Compound	G-07	NAD
30	Mudded End Cap Sealant	G-01	NAD
31	**Black Vapor Barrier and Waterproofing**	**108 under window and behind heating coils**	**Paper-NAD, Tar-3.8% Chrysotile Asbestos**
32	Gold Carpet Glue	Joint Hearing Room	NAD
33	White Sink Insulation	116G	NAD
34	12”x12” Beige Floor Tile and Yellow Mastic	116G	NAD
35	Off-white Carpet Glue	112	NAD
36	**Black Caulk**	**118**	**1.4% Chrysotile Asbestos**
37	Red Pipe Thread Sealant	Electric Room near 112	NAD
38	**Black Vapor Barrier and Waterproofing**	**120A**	**5.9% Chrysotile Asbestos**
39	**Drywall and Joint Compound**	**Service Room on Second Floor near 209**	**DW-NAD, JC-1.3% Chrysotile Asbestos, Composite-Trace Chrysotile**
40	Black Sink Insulation	201	NAD
41	**Red Penetration Sealant**	**308A**	**3.1% Chrysotile Asbestos**
42	Drywall and Joint Compound	308A	NAD DW, JC and Composite
43	Black Mastic on Pipe Wrap	308A	NAD
44	Black Tar Drippings	308A	NAD
45	Gray Spray-Applied Fireproofing	309 Bill Processing	NAD
46	Drywall and Joint Compound	309 Editing	NAD
47	Gray Spray-Applied Fireproofing	309F	NAD
48	End Cap Sealant	Mechanical Room on Third Floor	NAD
49	Drywall and Joint Compound	304	NAD DW, JC and Composite

Sample Number	Material	Functional Area	Result
50	Drywall and Joint Compound	306A	NAD DW, JC and Composite
51	Black Vapor Barrier and Waterproofing	300C under window and behind heating coils	NAD
52	**Exterior White Window Glazing Compound**	**Exterior on First Window to the Left of the Front Entrance**	**0.25% Chrysotile Asbestos**
53	Exterior Window Caulk	Exterior on First Window to the Left of the Front Entrance	NAD
54	Exterior Expansion Joint	Near Stairs to Front Entrance	NAD
55	Exterior Caulk	At Stairs to Front Entrance	NAD
56	Exterior White Window Glazing Compound	Exterior on First Window to the Left of the Ramp Entrance	NAD
57	Exterior Window Caulk	Exterior on First Window to the Left of the Ramp Entrance	NAD
58	Multiple Layers of Floor Tile	Entry Vestibule to North Street	NAD 4 layers
59	Red Terrazzo Floor	Ground Floor Tunnel to State House	NAD
60	12”x12” Light Tan Armstrong Floor Tile and Yellow Mastic	G-19 Hall	NAD
61	12”x12” Black and White Checkerboard Patterned Floor Tiles and Mastic (White Tile)	Central Hall at Marble Staircase on Ground Floor	NAD
62	12”x12” Black and White Checkerboard Patterned Floor Tiles and Mastic (Black Tile)	Central Hall at Marble Staircase on Ground Floor	NAD
63	Drywall and Joint Compound	Central Hall at Marble Staircase on Ground Floor	NAD DW, JC and Composite
64	Interior White Window Caulk	2nd Floor SE Stairwell	NAD
65	Drywall and Joint Compound	Catwalk above Joint Hearing Room	NAD DW, JC and Composite

* NAD – No Asbestos Detected; bold type indicates asbestos was detected in the material;
Split samples are reported as NAD unless there is a separate result. DW=drywall, JC=Joint Compound.

Testing for asbestos confirmed the presence of asbestos-containing materials including:

- several styles of 12”x12” floor tiles and/or associated black mastic,
- white duct seam sealant on foil-wrapped duct insulation,
- red duct mastic on bare metal duct,

- black vapor barrier and waterproofing under windows,
- black caulk on drywall seams,
- red pipe penetration sealant, and
- one sample of joint compound.

The following materials had detected trace amounts of Chrysotile asbestos: grout and mortar associated with ceramic tiles, exterior window glazing compound (trace amounts <1%), and one sample of drywall and joint compound composite material. Furthermore, the following materials are **assumed** to contain asbestos until sampling and analysis proves otherwise:

- Mastic patties behind mirrors,
- Fire Doors,
- Elevator brakes, wiring and panels,
- Pipe penetration sealant, red duct mastic on bare metal duct and white duct insulation seam sealant concealed throughout, and
- Suspect materials concealed throughout (*eg.,* mudded elbows/fittings).

Asbestos-containing material identified in the Greenstreet 2018 Survey Report dated April 2, 2018, included duct seam sealant, 12”x12” White Floor Tile (black mastic only), and joint compound.

Ten (10) out of eleven (11) of the drywall and joint compound AE survey samples had no detected asbestos. One sample from the AE survey and four (4) out of seven (7) samples collected by Greenstreet Environmental in 2018 contained joint compound that had detected concentrations above 1% Chrysotile asbestos and the drywall and joint compound composite analyses for the same samples were less than 1% Chrysotile asbestos. In this case, the composite drywall and joint compound material is not a regulated material in accordance with NESHAP regulations; however, OSHA requires that the two materials be analyzed separately. OSHA considers the joint compound to be asbestos containing material which would require conducting all demolition activities in accordance with 29 CFR 1910.134 (Respiratory Protection Standard) and 29 CFR 1926.1101 (Asbestos Standard).

Limitations: Suspect asbestos-containing materials were not sampled if they were located behind solid walls and ceilings, or in enclosed pipe chases that would have to be damaged to access the suspect building materials. AE endeavored to access hatches, crawlspaces, attic spaces, pipe chases and duct chases by opening small holes and access ways to perform exploration through direct visual observation. Asbestos-containing pipe insulation, duct insulation, mudded elbows, fittings and valves are expected on all concealed plumbing and mechanical systems, including those in chases and behind solid ceilings and walls or located underground. All accessible spaces of the building were surveyed.

B. Lead

One hundred and forty-five (145) XRF readings were made throughout the interior of the Legislative Services Building by Greenstreet Environmental and reported in their report dated April 2, 2018. None of the 145 surfaces tested were above the Maryland residential Lead-Based Paint definition of 0.7 mg/cm^2. The Greenstreet Survey lead-based paint survey is located in Attachment C.

C. Polychlorinated Biphenyls

One-thousand four-hundred eighty (1,480) fluorescent lamp ballasts were estimated to be present in the building. All transformers were observed to be labeled as dry type that did not contain PCBs.

D. Mercury

Two-thousand five-hundred ninety-six (2,596) 4-foot long fluorescent lamps, two hundred and forty (240) 2-foot fluorescent lamps, and three hundred twenty-one (321) small compact florescent (CFL) or light emitting diode (LED) lamps were present in the building. Five (5) labeled mercury thermometers and twenty-nine (29) other thermometers that may contain mercury were present in the building. Twenty-two (22) thermostats were observed to contain mercury vials or could not be examined internally without damaging the equipment. Most thermostats were the spring-type that do not contain mercury.

E. Refrigerants

Fourteen (14) pieces of equipment containing refrigerants were identified throughout The Legislative Services Building. Table 2 presents an inventory of refrigerant-containing equipment by location in the building. The refrigerant type and factory charge are presented in the description if known.

Table 2 – Refrigerant Containing Equipment at the Legislative Services Building, Annapolis, Maryland on November 13,16, 17, 19, 23, 24, 2020 and December 10, 2020

Room Description	Description	Quantity	Units
106	Halsey Taylor Coolant for Water Fountain (13.5oz R-22)	1	EA
201 Break Room	Refrigerator	1	EA
201 Break Room	Vending Machine	1	EA
309 Hall	Water Fountain (unknown refrigerant)	1	EA
309H	Air Conditioning Ceiling Units (Maytag, unknown refrigerant)	1	EA
309H	Air Conditioning Ceiling Units (Mitsubishi, R410A)	1	EA
B-08	Water Fountain (unknown refrigerant)	1	EA
B-13B Kitchen	Refrigerator	1	EA
B-13B Kitchen	Vending Machine	1	EA
Corridor 105-106	Water Fountain (unknown refrigerant-assume R-22)	1	EA
Corridor 108-111	Water Fountain (unknown refrigerant-assume R-22)	1	EA
Corridor 112-118	Water Fountain (unknown refrigerant-assume R-22)	1	EA
G-01 Hall A	Water Fountain (unknown refrigerant-assume R-22)	1	EA

Room Description	Description	Quantity	Units
Hall 225-215	Water Fountain (unknown refrigerant-assume R-22)	1	EA

F. Other Universal and Regulated Waste

The survey for hazardous materials indicated the presence of hazardous or regulated materials that will require proper packaging and disposal prior to demolition activities on the building. Those materials include:

- Fifty-five (55) lighted exit signs which contain a battery,
- Six (6) lighted exit signs with emergency lights which contain a battery,
- Nineteen (19) emergency lights which contain a battery,
- One hundred fifteen (115) smoke detectors and associated life safety alarm equipment that may need special handling, recycling or disposal (see next section). Note: older smoke detectors that may contain low-level radioactive sources may be concealed by ceiling tiles.,
- Seventy-seven (77) automatic door closers which contain oil,
- One container of oil associated with an air compressor,
- Unlabeled barrels and drums with unknown contents and flammable liquid cans in the storage shed outside the loading dock (Room B-12), and
- Water-damaged ceiling tiles that may contain mold. Note: Mold may continue to grow on water-damaged materials if left untreated.

Fire Alarm Equipment Notes: The smoke detector and fire alarm systems appeared to be new and universally from the same brand (Edwards) throughout the building; therefore, we contacted the Edwards Fire Safety Company to determine if there are any special handling, disposal or recycling requirements for the Edwards smoke detectors and strobe light equipment. Edwards is part of UTC Climate, Controls & Security, a unit of United Technologies Corp. The email response was from a Mr. Brent Wilkins from the Edwards Technical Support Department and is as follows:

> *"There does not appear to be any acute environmental hazards discernable from your commentary and linked pictures. Photoelectric-type smoke detectors (like the one to which you linked) do* ***not*** *employ radioactive isotopes for smoke sensing purposes akin to an ionization-type smoke detector. Commercial ("system") smoke detectors differ from residential smoke alarms in that they nearly always receive power remotely from a control unit via hardwired pathways (exception: there are companies that do employ UL 268-listed wireless smoke detectors, but these are typically installed in historical occupancies where installing a hardwired pathway is cost-prohibitive; and, Edwards does not manufacture wireless fire detectors [yet]). Likewise, the minute amount xenon gas in the strobe's flash tube does not appear to be harmful in the amount/concentration present in the sealed tube. Thus, neither product appears to illicit a hazardous materials handling/disposal requirement beyond that of common household electronic waste, which may vary by community.*
>
> *Based on the links to pictures you've provided, it is conceivable that these devices (strobe and detector), if they were known to be operational at the time of their decommissioning, could be re-deployed in the re-designed new building fire alarm if stored in a clean, dust-free environment and within the storage*

temperature and humidity ranges identified in their respective technical documentation. However, advancements in smoke detection and visual notification technologies have effectively resulted in the discontinuation of legacy SIGA-P(H)(S,D) series devices as well as the discontinuation of xenon-based clear strobe notification appliances."

V. CONCLUSIONS

The survey for hazardous materials in the Legislative Services Building indicated the presence of hazardous or regulated materials that will require proper packaging and disposal prior to proposed renovations. The survey for hazardous materials included all accessible spaces of the building. Our conclusions are presented below.

Asbestos: Asbestos-containing materials identified as a result of the historical records review, confirmed through sampling and analysis, and those materials that are presumed without testing to contain asbestos are presented in Table 3 below.

Table 3 – Asbestos-Containing and Assumed Asbestos-Containing Materials and Quantities for The Legislative Services Building

Material Description	Quantity	
12"x12" White and Gray Floor Tile and associated Black Mastic and Residual Black Mastic under Carpet	23,314	SF
Drywall and Joint Compound (Joint Compound can contain over 1% Chrysotile Asbestos and Composite contains Trace Chrysotile)	151,469 to 230,000	SF
Black Vapor Barrier and Waterproofing	1,000	SF
Mastic Associated with Mirrors in Restrooms	27*	EA
Fire Doors	49	EA
Black Caulk associated with Drywall Seams	68	LF
Pipe Penetration Sealant (any color) (mostly concealed by ceiling tiles and ductwork)	NE**	NE
Duct Seam Sealant	5,110**	LF
Red Duct Mastic Concealed by Duct Insulation	79**	SF
Elevator Brakes, Wiring and Panels	NE	NE
Observed Mudded Fittings	16	EA
Materials concealed throughout	NE	NE
Exterior Window Glazing Compound (Trace Chrysotile)	NE	NE

*Estimated as 1 SF per mirror, **Under-estimated due to concealment above ceiling tiles; NE = not estimated

According to the Maryland and USEPA National Emission Standard for Hazardous Air Pollutants (NESHAP) regulations, all friable asbestos-containing materials and those materials likely to become friable during renovation must be removed by a Maryland licensed asbestos abatement contractor. The NESHAP regulation expressly prohibits cutting, sanding or sawing asbestos-containing materials.

Lead: One hundred and forty-five (145) XRF readings were made throughout the interior of the Legislative Services Building by Greenstreet Environmental and reported in their report dated April 2, 2018. None of the 145 surfaces tested were above the Maryland residential Lead-Based Paint definition of 0.7 mg/cm^2.

The information contained within this report is intended to address the presence of lead-based paint or lead-containing paints to ensure worker protection requirements are met under

the Occupational Safety and Health Administration's (OSHA) "Lead in Construction Rule (29 CFR 1926.62)." The presence of lead-containing substances is presumed in any residential building construction before 1978 and in all commercial, industrial, and public structures unless it is determined that all painted surfaces are lead-free. According to the OSHA Lead in Construction regulation, lead may still be present and hazardous lead exposures might result from the disturbance of painted surfaces that have below the definition of lead-based paint (i.e. <0.7 mg/cm^2 or 0.5% lead by weight) for lead-based paint. Furthermore, lead may be present in waste materials at concentrations that would cause the waste to be considered hazardous per the Environmental Protection Agency (EPA) Resource Conservation and Recovery Act (RCRA).

Polychlorinated Biphenyls: One-thousand four-hundred eighty (1,480) fluorescent lamp ballasts were estimated to be present in the building. All transformers were observed to be labeled as dry type that did not contain PCBs. Before removing and disposing of any fluorescent lights, the ballast should be inspected for PCB content. Any ballast which does not have a label must be treated as PCB-containing until proven otherwise through sampling and analysis. In lieu of sampling and analysis, any fluorescent light ballast that does not clearly state "No PCB's" on the ballast label should be treated as PCB-containing ballast and therefore treated as PCB waste upon disposal. It should be noted that the building did undergo a lighting upgrade at some point in time, during which the ballasts may have been upgraded. In addition, two bulk samples were collected of expansion joint caulk and sealant and submitted for PCB analysis. Neither of the sealant samples contained PCBs.

Mercury: Two-thousand five-hundred ninety-six (2,596) 4-foot long fluorescent lamps, two hundred and forty (240) 2-foot fluorescent lamps, and three hundred twenty-one (321) small compact florescent (CFL) or light emitting diode (LED) lamps were present in the building. Five (5) labeled mercury thermometers and twenty-nine (29) other thermometers that may contain mercury were present in the building. Twenty-two (22) thermostats were observed to contain mercury vials or could not be examined internally without damaging the equipment. Most thermostats were the spring-type that do not contain mercury. Disposal of fluorescent lamps and batteries are regulated under the EPA Universal Hazardous Waste Rule because they may contain mercury and/or small quantities of lead. Light tubes should be packaged and disposed of in accordance with 40 CFR 273.9 and COMAR 26.13.

Refrigerants: Fourteen (14) pieces of equipment containing refrigerants were identified throughout The Legislative Services Building. Under EPA's Refrigerant Recycling Rule, equipment that is typically dismantled on-site before disposal (e.g., retail food refrigeration, central residential air conditioning, chillers, and industrial process refrigeration) has to have the refrigerant recovered in accordance with EPA's requirements for servicing. However, equipment that typically enters the waste stream with the charge intact (e.g., motor vehicle air conditioners, household refrigerators and freezers, and room air conditioners) is subject to special safe disposal requirements.

Under EPA requirements, the final person in the disposal chain (e.g., a scrap metal recycler or landfill owner) is responsible for ensuring that refrigerant is recovered from equipment before the final disposal of the equipment. However, persons "upstream" can remove the refrigerant and provide documentation of its removal to the final person if this is more cost-effective. If the final person in the disposal chain (e.g., a scrap metal recycler or landfill owner) accepts appliances that no longer hold a refrigerant charge, that person is responsible for maintaining a signed statement from whom the appliances is being accepted. The signed statement must include the name and address of the person who recovered the refrigerant, and the date that the refrigerant was recovered, or a copy of a contract stating that the refrigerant will be removed prior to delivery. The EPA does not mandate a sticker as a form of verification that the refrigerant has been removed prior to disposal of the appliance. Such

stickers do not relieve the final disposer of their responsibility to recover any remaining refrigerant in the appliance, unless the sticker contains a signed statement that includes the name and address of the person who recovered the refrigerant, and the date that the refrigerant was recovered.

Other: Fifty-five (55) emergency exit signs, six (6) lighted exit signs with emergency lights, nineteen (19) emergency lights which contain batteries were observed. Batteries are considered universal hazardous waste. Disposal of batteries is regulated under the EPA Universal Hazardous Waste Rule because they may contain mercury and/or small quantities of lead. Batteries should be packaged and disposed of in accordance with 40 CFR 273.9 and COMAR 26.13.

One hundred and fifteen (115) smoke detectors were observed. Smoke detectors can contain a low-level radioactive source, but the company who manufactures the Edwards fire alarm equipment states that there are no environmental concerns such as radioactivity in the equipment observed. Please review the Fire Alarm Equipment Notes in Section F. Due to the age of the building, older smoke detectors could be concealed above ceiling tiles that could contain low level radioactive sources. The most common types of ionizing smoke detectors contain Americium 241 which emits both alpha and gamma rays that are shielded by the detector. As per 10 CFR 32.27, the Nuclear Regulatory Commission requires manufacturers to return intact smoke detectors for disposal at a radioactive waste disposal site.

Seventy-seven (77) oil containing automatic door closers were observed in the building. Door closers can be removed and packaged as oil-containing devices. Additionally, one container of oil associated with an air compressor was observed. The contents of these devices should be properly removed and disposed.

Several unlabeled barrels and drums with unknown contents and some flammable liquid containers were observed in the outbuilding near the loading dock (Room B-12). The containers may be empty. The contents must be identified and disposed of properly.

Water damaged ceiling tiles were observed throughout the building. Dispose of moldy and water-damaged materials carefully to avoid the spread of mold spores. Note: Mold may continue to grow on water-damaged materials if left untreated.

Recommendations: The scope of work calls for the renovation of The Legislative Services Building. A room by room assessment table of hazardous materials is provided in Attachment D. Recommendations for further consideration are presented below.

1. Remove and dispose of asbestos-containing drywall and joint compound, floor tile and/or black mastic, mastic associated with mirrors, fire doors, pipe penetration sealant, duct seam sealant, red duct mastic, black vapor barrier associated under windows, black drywall caulk, mudded fittings, elevator brakes, wiring and panels, exterior window glazing compound and materials concealed throughout the building.
2. Materials may be concealed behind solid walls, ceilings or in pipe chases. Demolition activities have the potential to expose additional asbestos-containing materials. Caution should be taken while demolishing solid ceilings and walls.
3. Recover refrigerant, remove and dispose of all refrigerant-containing equipment as ozone depleting substances.
4. Remove and dispose of, reuse or recycle fire alarm and smoke detector system equipment. Note: older smoke detectors that may contain low-level radioactive sources may be concealed by ceiling tiles.
5. Remove and dispose of battery containing lighted exit signs and emergency lights as universal waste.

6. Remove and dispose of oil-containing automatic door closers and air compressor oil tank as oil-containing waste.
7. Inspect fluorescent lamp ballasts for a "no PCBs" label. Dispose of any that DO NOT have the "No PCB" label as PCB-containing waste.
8. Remove and dispose of fluorescent lamps, mercury thermometers and thermostats as universal waste.
9. Dispose of moldy and water-damaged materials carefully to avoid the spread of mold spores. Note: Mold may continue to grow on water-damaged materials if left untreated.
10. Lead based paint was not found on walls, doors and frames, stair components, window components and other common surfaces; however, some lead-coated surfaces may be present on concealed structural steel and other components. Any disturbance to lead-containing surfaces should be performed in accordance with OSHA "Lead in Construction Rule (29 CFR 1926.62)" and the Lead Renovation, Repair and Painting Rule. Lead may be present in actual waste materials generated at concentrations that would cause the waste to be considered hazardous per the EPA Resource Conservation and Recovery Act.

VI. LIMITATIONS

This report has been prepared for the exclusive use of Murphy and Dittenhafer, Inc. and/or their agents. This service has been performed in accordance with generally accepted environmental practices. No other warranty, expressed or implied, is made. Our conclusions and recommendations are based, in part, upon information provided to us by others and our site observations. We have not verified the completeness or accuracy of the information provided to us by others, unless otherwise noted. Our observations and recommendations are based upon conditions readily visible at the site at the time of our site visit, and upon current industry standards. Destructive sampling was not performed as part of this survey. No observations were made behind solid walls, ceilings or in pipe chases. The report presents assumptions for the existence of hazardous materials in these locations.

By virtue of providing the services described in this report, the preparer does not assume the responsibility of the person(s) in charge of the site, or otherwise undertake responsibility for reporting to any local, state, or federal public agencies any conditions at the site that may present a potential danger to public health, safety, or the environment. It is the Client's responsibility to notify the appropriate local, state, or federal public agencies as required by law, or otherwise to disclose, in a timely manner, any information that may be necessary to prevent any danger to public health, safety, or the environment. Under this scope of services, the preparer assumes no responsibility regarding response actions (e.g. O&M plan, encapsulation, abatement, removal, etc.) initiated as a result of these findings. Response actions are the sole responsibility of the Client and should be conducted in accordance with local, sate, and/or federal requirements, and should be performed by appropriately licensed personnel as warranted.

Attachment A:

Inspector's Credentials

Results

Maryland Asbestos Accreditation Exam

Certificate Number: VAIR09012020-16

First Name: Julie **Last Name:** Barth

Address: 5292 Enterprise Street, Suite

City: Sykesville **State:** MD **Zip:** 21784

According to our records this test was completed on: **10/8/2020**

We administered the following asbestos certification exam: **Inspector**

Your Results

Score: **94%**

Congratulations you have passed your Maryland asbestos accreditation exam. This document and your training certificate will serve as a temporary license until you receive your official license in the mail. Prior to issuing a license, MDE will verify all necessary information and submitted documents.
necessary information and submitted documents.

Thank you for taking the Maryland asbestos accreditation exam. If you have any concerns or questions about the exam, including how to collect your photo ID, please direct them to the Maryland Department of the environment at (410) 537-3200.

Issued By_____ Date **10/8/2020**

Results

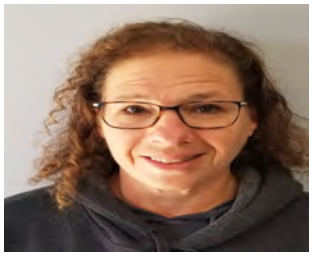
Maryland Asbestos Accreditation Exam

Certificate Number: 20-785

First Name: Julie **Last Name:** Fafard

Address: 5921 White Rock Road

City: Sykesville **State:** MD **Zip:** 21784



According to our records this test was completed on: **10/5/2020**

We administered the following asbestos certification exam: **Inspector**

Your Results

Score: **94%**

Congratulations you have passed your Maryland asbestos accreditation exam. This document and your training certificate will serve as a temporary license until you receive your official license in the mail. Prior to issuing a license, MDE will verify all necessary information and submitted documents.
necessary information and submitted documents.

Thank you for taking the Maryland asbestos accreditation exam. If you have any concerns or questions about the exam, including how to collect your photo ID, please direct them to the Maryland Department of the environment at (410) 537-3200.

Issued By_____ Date **10/5/2020**

Results

Maryland Asbestos Accreditation Exam

Certificate Number: VAIR09012020-3

First Name: Michele **Last Name:** Twilley

Address: 1610 Regal Dr

City: Sykesville **State:** MD **Zip:** 21784

According to our records this test was completed on: **9/29/2020**

We administered the following asbestos certification exam: **Inspector**

Your Results

Score: **92%**

Congratulations you have passed your Maryland asbestos accreditation exam. This document and your training certificate will serve as a temporary license until you receive your official license in the mail. Prior to issuing a license, MDE will verify all necessary information and submitted documents.
necessary information and submitted documents.

Thank you for taking the Maryland asbestos accreditation exam. If you have any concerns or questions about the exam, including how to collect your photo ID, please direct them to the Maryland Department of the environment at (410) 537-3200.

Issued By_____ Date **9/29/2020**

Attachment B:

Asbestos Certificates of Analysis and Chain-of-Custody Forms

9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client:	Aria Environmental	Report Date:	11/23/2020
	PO Box 286	Report No.:	623389 - PLM
	Woodbine MD 21797	Project:	DLS Bldg
		Project No.:	19-1204
Client:	ARI436		

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 7098082
Client No.: DSL - 1
Analyst Observation: Black/Yellow Mastic
Client Description: Black Mastic
Location:
Facility:

Percent Asbestos:
PC 1.2 *Chrysotile*

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
98.8

Lab No.: 7098083
Client No.: DSL - 2
Analyst Observation: White/Brown Drywall
Client Description: DW/JC
Location:
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
15 Cellulose

Percent Non-Fibrous Material:
85

Lab No.: 7098083(L2)
Client No.: DSL - 2
Analyst Observation: White Joint Compound
Client Description: DW/JC
Location:
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
100

Lab No.: 7098083(L3)
Client No.: DSL - 2
Analyst Observation: Composite
Client Description: DW/JC
Location:
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
13 Cellulose

Percent Non-Fibrous Material:
87

Lab No.: 7098084
Client No.: DSL - 3
Analyst Observation: White Sealant
Client Description: White Duct Seam Sealant
Location:
Facility:

Percent Asbestos:
PC 4.7 *Chrysotile*

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
95.3

Lab No.: 7098085
Client No.: DSL - 4
Analyst Observation: Tan Mastic
Client Description: Tan Cove Base Mastic
Location:
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
100

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 11/19/2020
Date Analyzed: 11/20/2020
Signature: Natalia Morais Soares
Analyst: Natalia Morais Soares

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client:	Aria Environmental	Report Date:	11/23/2020
	PO Box 286	Report No.:	623389 - PLM
	Woodbine MD 21797	Project:	DLS Bldg
Client:	ARI436	Project No.:	19-1204

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 7098086
Client No.: DSL - 5
Analyst Observation: Brown Mastic
Client Description: Cove Base Mastic
Location:
Facility:
Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Lab No.: 7098087
Client No.: DSL - 6
Analyst Observation: Tan Floor Tile
Client Description: 12x12 Tan Armstrong FT And Mastic
Location:
Facility:
Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Lab No.: 7098087(L2)
Client No.: DSL - 6
Analyst Observation: Black Mastic
Client Description: 12x12 Tan Armstrong FT And Mastic
Location:
Facility:
Percent Asbestos: ***PC 4.3*** *Chrysotile*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 95.7

Lab No.: 7098088
Client No.: DSL - 7
Analyst Observation: Tan Insulation
Client Description: Tan Insulation
Location:
Facility:
Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: 10 Mineral Wool
Percent Non-Fibrous Material: 90

Lab No.: 7098089
Client No.: DSL - 8
Analyst Observation: Grey Mastic
Client Description: Gray Duct Mastic
Location:
Facility:
Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Lab No.: 7098090
Client No.: DSL - 9
Analyst Observation: White Sealant
Client Description: White Duct Seam Sealant
Location:
Facility:
Percent Asbestos: ***PC 4.8*** *Chrysotile*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 95.2

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 11/19/2020
Date Analyzed: 11/20/2020
Signature: Natalia Morais Soares
Analyst: Natalia Morais Soares

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client:	Aria Environmental	Report Date:	11/23/2020
	PO Box 286	Report No.:	623389 - PLM
	Woodbine MD 21797	Project:	DLS Bldg
		Project No.:	19-1204
Client:	ARI436		

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 7098091
Client No.: DSL - 10
Analyst Observation: Yellow/Black Mastic
Client Description: Black And Yellow Mastic
Location:
Facility:

Percent Asbestos:
PC 1.6 *Chrysotile*

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
98.4

Lab No.: 7098092
Client No.: DSL - 11
Analyst Observation: Brown Mastic
Client Description: Brown Sealant
Location:
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
100

Lab No.: 7098093
Client No.: DSL - 12
Analyst Observation: White Insulation
Client Description: Mudded Joint Insulation
Location:
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
100

Lab No.: 7098094
Client No.: DSL - 13
Analyst Observation: White Floor Tile
Client Description: 12x12 White W/Lt Gray Streaks FT And Mastic
Location:
Facility:

Percent Asbestos:
PC 4.3 *Chrysotile*

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
95.7

Lab No.: 7098094(L2)
Client No.: DSL - 13
Analyst Observation: Black Mastic
Client Description: 12x12 White W/Lt Gray Streaks FT And Mastic
Location:
Facility:

Percent Asbestos:
PC 4.8 *Chrysotile*

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
95.2

Lab No.: 7098095
Client No.: DSL - 14
Analyst Observation: White Joint Compound
Client Description: Joint Compound
Location:
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
100

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 11/19/2020
Date Analyzed: 11/20/2020
Signature: Natalia Morais Soares
Analyst: Natalia Morais Soares

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client:	Aria Environmental	Report Date:	11/23/2020
	PO Box 286	Report No.:	623389 - PLM
	Woodbine MD 21797	Project:	DLS Bldg
		Project No.:	19-1204
Client:	ARI436		

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 7098096
Client No.: DSL - 15

Analyst Observation: White Fibrous
Client Description: End Cap Sealant

Location:
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
40 Cellulose
10 Fibrous Glass

Percent Non-Fibrous Material:
50

Lab No.: 7098097
Client No.: DSL - 16

Analyst Observation: White Floor Tile
Client Description: 12x12 W/Gray Smudges And Black Mastic

Location:
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
100

Lab No.: 7098097(L2)
Client No.: DSL - 16

Analyst Observation: Yellow/Black Mastic
Client Description: 12x12 W/Gray Smudges And Black Mastic

Location:
Facility:

Percent Asbestos:
PC Trace *Chrysotile*

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
100

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 11/19/2020
Date Analyzed: 11/20/2020
Signature: Natalia Morais Soares
Analyst: Natalia Morais Soares

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client:	Aria Environmental	Report Date:	11/23/2020
	PO Box 286	Report No.:	623389 - PLM
	Woodbine MD 21797	Project:	DLS Bldg
		Project No.:	19-1204
Client:	ARI436		

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 7098098
Client No.: DSL - 17
Analyst Observation: Off-White Floor Tile
Client Description: 12x12 Mottled Gray FT And Mastic
Location:
Facility:

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Lab No.: 7098098(L2)
Client No.: DSL - 17
Analyst Observation: Grey Leveling Compound
Client Description: 12x12 Mottled Gray FT And Mastic
Location:
Facility:

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Lab No.: 7098099
Client No.: DSL - 18
Analyst Observation: Off-White Floor Tile
Client Description: 12x12 White W/Lt Gray Streaks FT And Mastic
Location:
Facility:

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Lab No.: 7098099(L2)
Client No.: DSL - 18
Analyst Observation: Black Mastic
Client Description: 12x12 White W/Lt Gray Streaks FT And Mastic
Location:
Facility:

Percent Asbestos: ***PC 1.3*** *Chrysotile*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 98.7

Lab No.: 7098100
Client No.: DSL - 19
Analyst Observation: Lt Tan Drywall
Client Description: DW And Joint Compound
Location:
Facility:

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: 10 Cellulose
Percent Non-Fibrous Material: 90

Lab No.: 7098100(L2)
Client No.: DSL - 19
Analyst Observation: White Joint Compound
Client Description: DW And Joint Compound
Location:
Facility:

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 11/19/2020
Date Analyzed: 11/23/2020
Signature:
Analyst: Ellen Smith

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client:	Aria Environmental	Report Date:	11/23/2020
	PO Box 286	Report No.:	623389 - PLM
	Woodbine MD 21797	Project:	DLS Bldg
		Project No.:	19-1204
Client:	ARI436		

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 7098100(L3)
Client No.: DSL - 19
Analyst Observation: Composite
Client Description: DW And Joint Compound
Location:
Facility:
Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: 10 Cellulose
Percent Non-Fibrous Material: 90

Lab No.: 7098101
Client No.: DSL - 20
Analyst Observation: Off-White Floor Tile
Client Description: 12x12 Tan Streak Over 12x12 Unknown Color FT W/Black Mastic And Leveling Compound
Location:
Facility:
Percent Asbestos: ***PC 1.2*** *Chrysotile*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 98.8

Lab No.: 7098101(L2)
Client No.: DSL - 20
Analyst Observation: Black Mastic
Client Description: 12x12 Tan Streak Over 12x12 Unknown Color FT W/Black Mastic And Leveling Compound
Location:
Facility:
Percent Asbestos: ***PC 1.2*** *Chrysotile*
Percent Non-Asbestos Fibrous Material: 1 Cellulose
Percent Non-Fibrous Material: 97.8

Lab No.: 7098101(L3)
Client No.: DSL - 20
Analyst Observation: Yellow Mastic
Client Description: 12x12 Tan Streak Over 12x12 Unknown Color FT W/Black Mastic And Leveling Compound
Location:
Facility:
Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Lab No.: 7098102
Client No.: DSL - 21
Analyst Observation: Black Mastic
Client Description: Black Mastic
Location:
Facility:
Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Lab No.: 7098103
Client No.: DSL - 22
Analyst Observation: Black Cove Base
Client Description: Black Cove Base With Brown Mastic
Location:
Facility:
Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 11/19/2020
Date Analyzed: 11/23/2020
Signature:
Analyst: Ellen Smith

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client:	Aria Environmental	Report Date:	11/23/2020
	PO Box 286	Report No.:	623389 - PLM
	Woodbine MD 21797	Project:	DLS Bldg
Client:	ARI436	Project No.:	19-1204

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 7098103(L2) **Analyst Observation:** Brown Mastic **Location:**
Client No.: DSL - 22 **Client Description:** Black Cove Base With Brown Mastic **Facility:**

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Lab No.: 7098103(L3) **Analyst Observation:** White Joint Compound **Location:**
Client No.: DSL - 22 **Client Description:** Black Cove Base With Brown Mastic **Facility:**

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Lab No.: 7098104 **Analyst Observation:** Green/Tan Mastic **Location:**
Client No.: DSL - 23 **Client Description:** Yellow And Green Carpet Mastic **Facility:**

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: 1 Cellulose
Percent Non-Fibrous Material: 99

Lab No.: 7098105 **Analyst Observation:** White Grout **Location:**
Client No.: DSL - 24 **Client Description:** White Tile Grout **Facility:**

Percent Asbestos: ***PC Trace*** *Chrysotile*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Lab No.: 7098106 **Analyst Observation:** Grey Grout **Location:**
Client No.: DSL - 25 **Client Description:** Gray Tile Grout **Facility:**

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Lab No.: 7098106(L2) **Analyst Observation:** White Grout **Location:**
Client No.: DSL - 25 **Client Description:** Gray Tile Grout **Facility:**

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 11/19/2020
Date Analyzed: 11/23/2020
Signature:
Analyst: Ellen Smith

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client:	Aria Environmental	Report Date:	11/23/2020
	PO Box 286	Report No.:	623389 - PLM
	Woodbine MD 21797	Project:	DLS Bldg
Client:	ARI436	Project No.:	19-1204

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 7098107
Client No.: DSL - 26
Analyst Observation: Red Mastic
Client Description: Red Duct Mastic
Location:
Facility:

Percent Asbestos:
PC 3.4 *Chrysotile*

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
96.6

Lab No.: 7098108
Client No.: DSL - 27
Analyst Observation: White Sealant
Client Description: White Duct Seam Sealant
Location:
Facility:

Percent Asbestos:
PC 2.1 *Chrysotile*

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
97.9

Lab No.: 7098108(L2)
Client No.: DSL - 27
Analyst Observation: Yellow Insulation
Client Description: White Duct Seam Sealant
Location:
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
100 Fibrous Glass

Percent Non-Fibrous Material:
None Detected

Lab No.: 7098108(L3)
Client No.: DSL - 27
Analyst Observation: Tan/Silver Insulation
Client Description: White Duct Seam Sealant
Location:
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
40 Cellulose
4 Fibrous Glass

Percent Non-Fibrous Material:
56

Lab No.: 7098109
Client No.: DSL - 28
Analyst Observation: Green/Tan Mastic
Client Description: Yellow/Brown Mastic
Location:
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
1 Cellulose

Percent Non-Fibrous Material:
99

Lab No.: 7098110
Client No.: DSL - 29
Analyst Observation: White Joint Compound
Client Description: DW/JC
Location:
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
100

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 11/19/2020
Date Analyzed: 11/23/2020
Signature:
Analyst: Ellen Smith

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client:	Aria Environmental	Report Date:	11/23/2020
	PO Box 286	Report No.:	623389 - PLM
	Woodbine MD 21797	Project:	DLS Bldg
		Project No.:	19-1204
Client:	ARI436		

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 7098111
Client No.: DSL - 30

Analyst Observation: Off-White Insulation
Client Description: Mudded End Cap Sealant

Location:
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
10 Fibrous Glass

Percent Non-Fibrous Material:
90

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 11/19/2020
Date Analyzed: 11/23/2020
Signature:
Analyst: Ellen Smith

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

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Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client:	Aria Environmental	Report Date:	11/23/2020
	PO Box 286	Report No.:	623389 - PLM
	Woodbine MD 21797	Project:	DLS Bldg
		Project No.:	19-1204
Client:	ARI436		

Appendix to Analytical Report

Customer Contact: Michele Twilley
Method:40 CFR Appendix E to Subpart E of Part 763, interim method for the Determination of Asbestos in Bulk Insulation Samples, and USEPA 600, R93-116 as needed.

This appendix seeks to promote greater understanding of any observations, exceptions, special instructions, or circumstances that the laboratory needs to communicate to the client concerning the above samples. The information below is used to help promote your ability to make the most informed decisions for you and your customers. Please note the following points of contact for any questions you may have.

iATL Customer Service: customerservice@iatl.com
iATL Office Manager:wchampion@iatl.com
iATL Account Representative: Kelly Klippel
Sample Login Notes: See Batch Sheet Attached
Sample Matrix: Bulk Building Materials
Exceptions Noted: See Following Pages

General Terms, Warrants, Limits, Qualifiers:

General information about iATL capabilities and client/laboratory relationships and responsibilities are spelled out in iATL policies that are listed at www.iATL.com and in our Quality Assurance Manual per ISO 17025 standard requirements. The information therein is a representation of iATL definitions and policies for turnaround times, sample submittal, collection media, blank definitions, quantification issues and limit of detection, analytical methods and procedures, sub-contracting policies, results reporting options, fees, terms, and discounts, confidentiality, sample archival and disposal, and data interpretation.

iATL warrants the test results to be of a precision normal for the type and methodology employed for each sample submitted. iATL disclaims any other warrants, expressed or implied, including warranty of fitness for a particular purpose and warranty of merchantability. iATL accepts no legal responsibility for the purpose for which the client uses test results. Any analytical work performed must be governed by our Standard Terms and Conditions. Prices, methods and detection limits may be changed without notification. Please contact your Customer Service Representative for the most current information.

This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP, AIHA LAP LLC, or any agency of local, state or province governments nor of any agency of the U.S. government.

This report shall not be reproduced except in full, without written approval of the laboratory.

Information Pertinent to this Report:

Analysis by US EPA 600 93-116: Determination of Asbestos in Bulk Building Materials by Polarized Light Microscopy (PLM).

Certifications:

- NIST-NVLAP No. 101165-0
- NYSDOH-ELAP No. 11021
- AIHA-LAP, LLC No. 100188

Quantification at <0.25% by volume is possible with this method. (PC) Indicates Stratified Point Count Method performed. (PC-Trace) means that asbestos was detected but is not quantifiable under the Point Counting regimen. PC Trace represents a <0.25% amount. Analysis includes all distinct separable layers in accordance with EPA 600 Method. If not reported or otherwise noted, layer is either not present or the client has specifically requested that it not be analyzed (ex. analyze until positive instructions). Small asbestos fibers may be missed by PLM due to resolution limitations of the optical microscope. Therefore, PLM is not consistently reliable in detecting asbestos in non-friable organically bound (NOB) materials. Quantitative transmission electron microscopy (TEM) is currently the only method that can pronounce materials as non-asbestos containing.

Analytical Methodology Alternatives: Your initial request for analysis may not have accounted for recent advances in regulatory requirements or advances in technology that are routinely used in similar situations for other qualified projects. You may have the option to explore additional analysis for further information. Below are a few options, listed as the matrix followed by the appropriate methodology. Also included are links to more information on our website.

Bulk Building Materials that are Non-Friable Organically Bound (NOB) by Gravimetric Reduction techniques employing PLM and TEM: ELAP 198.6 (PLM-NOB), ELAP 198.4 (TEM-NOB)

9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client:	Aria Environmental	Report Date:	11/23/2020
	PO Box 286	Report No.:	623389 - PLM
	Woodbine MD 21797	Project:	DLS Bldg
		Project No.:	19-1204
Client:	ARI436		

Loose Fill Vermiculite Insulation, Attic Insulation, Zonolite (copyright), etc.: US EPA 600 R-4/004 (multi-tiered analytical process)
Sprayed On Insulation/Fireproofing with Vermiculite (SOF-V): ELAP 198.8 (PLM-SOF-V)

Soil, sludge, sediment, aggregate, and like materials analyzed for asbestos or other elongated mineral particles (ex. erionite, etc.): ASTM D7521, CARB 435, and other options available

Asbestos in Surface Dust according to one of ASTM's Methods (very dependent on sampling collection technique – by TEM): ASTM D 5755, D5756, or D6480

Various other asbestos matrices (air, water, etc.) and analytical methods are available.

Disclaimers / Qualifiers:

There may be some samples in this project that have a "NOTE:" associated with a sample result. We use added disclaimers or qualifiers to inform the client about something that requires further explanation. Here is a list with highlighted disclaimers that may be pertinent to this project. For a full explanation of these and other disclaimers, please inquire at **customerservice@iatl.com**.

1) Note: No mastic provided for analysis.
2) Note: Insufficient mastic provided for analysis.
3) Note: Insufficient material provided for analysis.
4) Note: Insufficient sample provided for QC reanalysis.
5) Note: Different material than indicated on Sample Log / Description.
6) Note: Sample not submitted.
7) Note: Attached to asbestos containing material.
8) Note: Received wet.
9) Note: Possible surface contamination.
10) Note: Not building material. 1% threshold may not apply.
11) Note: Recommend TEM-NOB analysis as per EPA recommendations.
12) Note: Asbestos detected but not quantifiable.
13) Note: Multiple identical samples submitted, only one analyzed.
14) Note: Analyzed by EPA 600/R-93/116. Point Counting detection limit at 0.080%.
15) Note: Analyzed by EPA 600/R-93/116. Point Counting detection limit at 0.125%.
16) Note: This sample contains >10% vermiculite mineral. See Appendix for Recommendations for Vermiculite Analysis.

Recommendations for Vermiculite Analysis:

Several analytical protocols exist for the analysis of asbestos in vermiculite. These analytical approaches vary depending upon the nature of the vermiculite mineral being tested (e.g. un-processed gange, homogeneous exfoliated books of mica, or mixed mineral composites).Please contact your client representative for pricing and turnaround time options available.

iATL recommends initial testing using the EPA 600/R-93/116 method. This method is specifically designed for the analysis of asbestos in bulk building materials. It provides an acceptable starting point for primary screening of vermiculite for possible asbestos.

Results from this testing may be inconclusive. EPA suggests proceeding to a multi-tiered analysis involving wet separation techniques in conjunction with PLM and TEM gravimetric analysis (EPA 600/R-04/004).

For New York State customers, NYSDOH requires disclaimers and qualifiers for various vermiculite containing samples that direct analysis via ELAP198.6 and ELAP198.8 for samples that contain >10% vermiculite mineral where ELAP198.6 may be used to evaluate the asbestos content of the material. However, any test result using ELAP198.6 will be reported with the following disclaimer: “ELAP198.6 method does not remove vermiculite and may underestimate the level of asbestos present in a sample containing >10% vermiculite.”

Further information on this method and other vermiculite and asbestos issues can be found at the following: Agency for Toxic Substances and Disease Registry (ATSDR) www.atsdr.cdc.gov, United States Geological Survey (USGS) www.minerals.usgs.gov/minerals/, US EPA www.epa.gov/asbestos. The USEPA also has an informative brochure "Current Best Practices for Vermiculite Attic Insulation" EPA 747F03001 May 2003, that may assist the health and remediation professional. NYS customers please follow current NYSDOH ELAP requirements per policy on subject of surfacing and vermiculite, May 6, 2016, Testing Requirements for Surfacing Material Containing Vermiculite (https://www.wadsworth.org/sites/default/files/WebDoc/I198_8_02_2.pdf)

The following is a summary of the analytical process outlines in the EPA 600/R-04/004 Method:

1)**Analytical Step/Method:** Initial Screening by PLM, EPA 600R-93/116
Requirements/Comments: Minimum of 0.1 g of sample. ~0.25% for most samples.

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Mt. Laurel, New Jersey 08054
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CERTIFICATE OF ANALYSIS

Client:	Aria Environmental	Report Date:	11/23/2020
	PO Box 286	Report No.:	623389 - PLM
	Woodbine MD 21797	Project:	DLS Bldg
		Project No.:	19-1204
Client:	ARI436		

2)**Analytical Step/Method:** Wet Separation by PLM Gravimetric Technique, EPA R-04/004
Requirements/Comments: Minimum 50g** of dry sample. Analysis of "Sinks" only.

3)**Analytical Step/Method:** Wet Separation by PLM Gravimetric Technique, EPA R-04/004
Requirements/Comments: Minimum 50g** of dry sample. Analysis of "Floats" only.

4)**Analytical Step/Method:** Wet Separation by TEM Gravimetric Technique, EPA R-04/004
Requirements/Comments: Minimum 50g** of dry sample. Analysis of "Sinks" only.

5)**Analytical Step/Method:** Wet Separation by TEM Gravimetric Technique, EPA R-04/004
Requirements/Comments: Minimum 50g** of dry sample. Analysis of "Suspension" only.
*With advance notice and confirmation by the laboratory.
**Approximately 1 Liter of sample in double-bagged container (~9x6 inch bag of sample).

9000 Commerce Parkway Suite B
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Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client:	Aria Environmental	Report Date:	11/24/2020
	PO Box 286	Report No.:	623543 - PLM
	Woodbine MD 21797	Project:	DLS Bldg
		Project No.:	19-1204
Client:	ARI436		

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 7099876
Client No.: DLS-31
Analyst Observation: Black Vapor Barrier
Client Description: Black Vapor Barrier
Location:
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
100

Lab No.: 7099876(L2)
Client No.: DLS-31
Analyst Observation: Black Tar
Client Description: Black Vapor Barrier
Location:
Facility:

Percent Asbestos:
PC 3.8 *Chrysotile*

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
96.2

Lab No.: 7099877
Client No.: DLS-32
Analyst Observation: Yellow Mastic
Client Description: Gold Carpet Glue
Location:
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
100

Lab No.: 7099878
Client No.: DLS-33
Analyst Observation: White Sink Undercoating
Client Description: White Sink Insulation
Location:
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
5 Cellulose

Percent Non-Fibrous Material:
95

Lab No.: 7099879
Client No.: DLS-34
Analyst Observation: Tan Floor Tile
Client Description: 12x12 Beige FT And Yellow Mastic
Location:
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
100

Lab No.: 7099879(L2)
Client No.: DLS-34
Analyst Observation: Yellow Mastic
Client Description: 12x12 Beige FT And Yellow Mastic
Location:
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
100

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 11/23/2020
Date Analyzed: 11/24/2020
Signature:
Analyst: Jeffrey Fazzo

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client:	Aria Environmental	Report Date:	11/24/2020
	PO Box 286	Report No.:	623543 - PLM
	Woodbine MD 21797	Project:	DLS Bldg
Client:	ARI436	Project No.:	19-1204

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 7099880
Client No.: DLS-35
Analyst Observation: Yellow Mastic
Client Description: Off White Carpet Glue
Location:
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
100

Lab No.: 7099881
Client No.: DLS-36
Analyst Observation: Black Putty
Client Description: Black Caulk
Location:
Facility:

Percent Asbestos:
PC 1.4 *Chrysotile*

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
98.6

Lab No.: 7099882
Client No.: DLS-37
Analyst Observation: Red Sealant
Client Description: Red Pipe Thread Sealant
Location:
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
100

Lab No.: 7099883
Client No.: DLS-38
Analyst Observation: Black Sealant
Client Description: Black Vapor Barrier
Location:
Facility:

Percent Asbestos:
PC 5.9 *Chrysotile*

Percent Non-Asbestos Fibrous Material:
3 Cellulose

Percent Non-Fibrous Material:
91.1

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 11/23/2020
Date Analyzed: 11/24/2020
Signature:
Analyst: Jeffrey Fazzo

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client:	Aria Environmental	Report Date:	11/24/2020
	PO Box 286	Report No.:	623543 - PLM
	Woodbine MD 21797	Project:	DLS Bldg
		Project No.:	19-1204
Client:	ARI436		

Appendix to Analytical Report

Customer Contact: Michele Twilley
Method:40 CFR Appendix E to Subpart E of Part 763, interim method for the Determination of Asbestos in Bulk Insulation Samples, and USEPA 600, R93-116 as needed.

This appendix seeks to promote greater understanding of any observations, exceptions, special instructions, or circumstances that the laboratory needs to communicate to the client concerning the above samples. The information below is used to help promote your ability to make the most informed decisions for you and your customers. Please note the following points of contact for any questions you may have.

iATL Customer Service: customerservice@iatl.com
iATL Office Manager:wchampion@iatl.com
iATL Account Representative: Kelly Klippel
Sample Login Notes: See Batch Sheet Attached
Sample Matrix: Bulk Building Materials
Exceptions Noted: See Following Pages

General Terms, Warrants, Limits, Qualifiers:

General information about iATL capabilities and client/laboratory relationships and responsibilities are spelled out in iATL policies that are listed at www.iATL.com and ir our Quality Assurance Manual per ISO 17025 standard requirements. The information therein is a representation of iATL definitions and policies for turnaround times, sample submittal, collection media, blank definitions, quantification issues and limit of detection, analytical methods and procedures, sub-contracting policies, results reporting options, fees, terms, and discounts, confidentiality, sample archival and disposal, and data interpretation.

iATL warrants the test results to be of a precision normal for the type and methodology employed for each sample submitted. iATL disclaims any other warrants, expressed or implied, including warranty of fitness for a particular purpose and warranty of merchantability. iATL accepts no legal responsibility for the purpose for which the client uses test results. Any analytical work performed must be governed by our Standard Terms and Conditions. Prices, methods and detection limits may be changed without notification. Please contact your Customer Service Representative for the most current information.

This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP, AIHA LAP LLC, or any agency of local, state or province governments nor of any agency of the U.S. government.

This report shall not be reproduced except in full, without written approval of the laboratory.

Information Pertinent to this Report:

Analysis by US EPA 600 93-116: Determination of Asbestos in Bulk Building Materials by Polarized Light Microscopy (PLM).

Certifications:

- NIST-NVLAP No. 101165-0
- NYSDOH-ELAP No. 11021
- AIHA-LAP, LLC No. 100188

Quantification at <0.25% by volume is possible with this method. (PC) Indicates Stratified Point Count Method performed. (PC-Trace) means that asbestos was detected but is not quantifiable under the Point Counting regimen. PC Trace represents a <0.25% amount. Analysis includes all distinct separable layers in accordance with EPA 600 Method. If not reported or otherwise noted, layer is either not present or the client has specifically requested that it not be analyzed (ex. analyze until positive instructions). Small asbestos fibers may be missed by PLM due to resolution limitations of the optical microscope. Therefore, PLM is not consistently reliable in detecting asbestos in non-friable organically bound (NOB) materials. Quantitative transmission electron microscopy (TEM) is currently the only method that can pronounce materials as non-asbestos containing.

Analytical Methodology Alternatives: Your initial request for analysis may not have accounted for recent advances in regulatory requirements or advances in technology that are routinely used in similar situations for other qualified projects. You may have the option to explore additional analysis for further information. Below are a few options, listed as the matrix followed by the appropriate methodology. Also included are links to more information on our website.

Bulk Building Materials that are Non-Friable Organically Bound (NOB) by Gravimetric Reduction techniques employing PLM and TEM: ELAP 198.6 (PLM-NOB), ELAP 198.4 (TEM-NOB)

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Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client:	Aria Environmental	Report Date:	11/24/2020
	PO Box 286	Report No.:	623543 - PLM
	Woodbine MD 21797	Project:	DLS Bldg
		Project No.:	19-1204
Client:	ARI436		

Loose Fill Vermiculite Insulation, Attic Insulation, Zonolite (copyright), etc.: US EPA 600 R-4/004 (multi-tiered analytical process)
Sprayed On Insulation/Fireproofing with Vermiculite (SOF-V): ELAP 198.8 (PLM-SOF-V)

Soil, sludge, sediment, aggregate, and like materials analyzed for asbestos or other elongated mineral particles (ex. erionite, etc.): ASTM D7521, CARB 435, and other options available

Asbestos in Surface Dust according to one of ASTM's Methods (very dependent on sampling collection technique – by TEM): ASTM D 5755, D5756, or D6480

Various other asbestos matrices (air, water, etc.) and analytical methods are available.

Disclaimers / Qualifiers:

There may be some samples in this project that have a "NOTE:" associated with a sample result. We use added disclaimers or qualifiers to inform the client about something that requires further explanation. Here is a list with highlighted disclaimers that may be pertinent to this project. For a full explanation of these and other disclaimers, please inquire at **customerservice@iatl.com**.

1) Note: No mastic provided for analysis.
2) Note: Insufficient mastic provided for analysis.
3) Note: Insufficient material provided for analysis.
4) Note: Insufficient sample provided for QC reanalysis.
5) Note: Different material than indicated on Sample Log / Description.
6) Note: Sample not submitted.
7) Note: Attached to asbestos containing material.
8) Note: Received wet.
9) Note: Possible surface contamination.
10) Note: Not building material. 1% threshold may not apply.
11) Note: Recommend TEM-NOB analysis as per EPA recommendations.
12) Note: Asbestos detected but not quantifiable.
13) Note: Multiple identical samples submitted, only one analyzed.
14) Note: Analyzed by EPA 600/R-93/116. Point Counting detection limit at 0.080%.
15) Note: Analyzed by EPA 600/R-93/116. Point Counting detection limit at 0.125%.
16) Note: This sample contains >10% vermiculite mineral. See Appendix for Recommendations for Vermiculite Analysis.

Recommendations for Vermiculite Analysis:

Several analytical protocols exist for the analysis of asbestos in vermiculite. These analytical approaches vary depending upon the nature of the vermiculite mineral being tested (e.g. un-processed gange, homogeneous exfoliated books of mica, or mixed mineral composites).Please contact your client representative for pricing and turnaround time options available.

iATL recommends initial testing using the EPA 600/R-93/116 method. This method is specifically designed for the analysis of asbestos in bulk building materials. It provides an acceptable starting point for primary screening of vermiculite for possible asbestos.

Results from this testing may be inconclusive. EPA suggests proceeding to a multi-tiered analysis involving wet separation techniques in conjunction with PLM and TEM gravimetric analysis (EPA 600/R-04/004).

For New York State customers, NYSDOH requires disclaimers and qualifiers for various vermiculite containing samples that direct analysis via ELAP198.6 and ELAP198.8 for samples that contain >10% vermiculite mineral where ELAP198.6 may be used to evaluate the asbestos content of the material. However, any test result using ELAP198.6 will be reported with the following disclaimer: “ELAP198.6 method does not remove vermiculite and may underestimate the level of asbestos present in a sample containing >10% vermiculite.”

Further information on this method and other vermiculite and asbestos issues can be found at the following: Agency for Toxic Substances and Disease Registry (ATSDR) www.atsdr.cdc.gov, United States Geological Survey (USGS) www.minerals.usgs.gov/minerals/, US EPA www.epa.gov/asbestos. The USEPA also has an informative brochure "Current Best Practices for Vermiculite Attic Insulation" EPA 747F03001 May 2003, that may assist the health and remediation professional. NYS customers please follow current NYSDOH ELAP requirements per policy on subject of surfacing and vermiculite, May 6, 2016, Testing Requirements for Surfacing Material Containing Vermiculite (https://www.wadsworth.org/sites/default/files/WebDoc/I198_8_02_2.pdf)

The following is a summary of the analytical process outlines in the EPA 600/R-04/004 Method:

1)**Analytical Step/Method:** Initial Screening by PLM, EPA 600R-93/116
Requirements/Comments: Minimum of 0.1 g of sample. ~0.25% for most samples.

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Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client:	Aria Environmental	Report Date:	11/24/2020
	PO Box 286	Report No.:	623543 - PLM
	Woodbine MD 21797	Project:	DLS Bldg
		Project No.:	19-1204
Client:	ARI436		

2)**Analytical Step/Method:** Wet Separation by PLM Gravimetric Technique, EPA R-04/004
Requirements/Comments: Minimum 50g** of dry sample. Analysis of "Sinks" only.

3)**Analytical Step/Method:** Wet Separation by PLM Gravimetric Technique, EPA R-04/004
Requirements/Comments: Minimum 50g** of dry sample. Analysis of "Floats" only.

4)**Analytical Step/Method:** Wet Separation by TEM Gravimetric Technique, EPA R-04/004
Requirements/Comments: Minimum 50g** of dry sample. Analysis of "Sinks" only.

5)**Analytical Step/Method:** Wet Separation by TEM Gravimetric Technique, EPA R-04/004
Requirements/Comments: Minimum 50g** of dry sample. Analysis of "Suspension" only.
*With advance notice and confirmation by the laboratory.
**Approximately 1 Liter of sample in double-bagged container (~9x6 inch bag of sample).

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Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client:	Aria Environmental	Report Date:	12/1/2020
	PO Box 286	Report No.:	623799 - PLM
	Woodbine MD 21797	Project:	DLS Building
		Project No.:	19-1204
Client:	ARI436		

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 7102811
Client No.: 39
Analyst Observation: Lt Tan Drywall
Client Description: Drywall And Joint Compound
Location:
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
25 Cellulose
2 Fibrous Glass

Percent Non-Fibrous Material:
73

Lab No.: 7102811(L2)
Client No.: 39
Analyst Observation: White Joint Compound
Client Description: Drywall And Joint Compound
Location:
Facility:

Percent Asbestos:
PC 1.3 *Chrysotile*

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
98.7

Lab No.: 7102811(L3)
Client No.: 39
Analyst Observation: Composite
Client Description: Drywall And Joint Compound
Location:
Facility:

Percent Asbestos:
PC Trace *Chrysotile*

Percent Non-Asbestos Fibrous Material:
25 Cellulose
2 Fibrous Glass

Percent Non-Fibrous Material:
73

Lab No.: 7102812
Client No.: 40
Analyst Observation: Black Sink Undercoating
Client Description: Black Sink Insulation
Location:
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
100

Lab No.: 7102813
Client No.: 41
Analyst Observation: Red Sealant
Client Description: Red Penetration Sealant
Location:
Facility:

Percent Asbestos:
PC 3.1 *Chrysotile*

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
96.9

Lab No.: 7102814
Client No.: 42
Analyst Observation: Lt Tan Drywall
Client Description: Drywall And Joint Compound
Location:
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
10 Cellulose

Percent Non-Fibrous Material:
90

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 11/28/2020
Date Analyzed: 12/01/2020
Signature:
Analyst: Ellen Smith

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

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Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client:	Aria Environmental	Report Date:	12/1/2020
	PO Box 286	Report No.:	623799 - PLM
	Woodbine MD 21797	Project:	DLS Building
		Project No.:	19-1204
Client:	ARI436		

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 7102814(L2)
Client No.: 42
Analyst Observation: White Joint Compound
Client Description: Drywall And Joint Compound
Location:
Facility:
Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Lab No.: 7102814(L3)
Client No.: 42
Analyst Observation: Composite
Client Description: Drywall And Joint Compound
Location:
Facility:
Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: 10 Cellulose
Percent Non-Fibrous Material: 90

Lab No.: 7102815
Client No.: 43
Analyst Observation: Silver/Black/Off-White Insulation
Client Description: Black Mastic On Pipe Wrap
Location:
Facility:
Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: 60 Cellulose, 8 Fibrous Glass
Percent Non-Fibrous Material: 32

Lab No.: 7102816
Client No.: 44
Analyst Observation: Black Tar
Client Description: Black Tar
Location:
Facility:
Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Lab No.: 7102817
Client No.: 45
Analyst Observation: Off-White Spray-On Fireproofing
Client Description: Spray-On Insulation
Location:
Facility:
Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: 80 Fibrous Glass
Percent Non-Fibrous Material: 20

Lab No.: 7102818
Client No.: 46
Analyst Observation: White Joint Compound
Client Description: Drywall And Joint Compound
Location:
Facility:
Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 11/28/2020
Date Analyzed: 12/01/2020
Signature:
Analyst: Ellen Smith

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client:	Aria Environmental	Report Date:	12/1/2020
	PO Box 286	Report No.:	623799 - PLM
	Woodbine MD 21797	Project:	DLS Building
		Project No.:	19-1204
Client:	ARI436		

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 7102819
Client No.: 47
Analyst Observation: Off-White Spray-On Fireproofing
Client Description: Spray-On Insulation
Location:
Facility:
Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: 80 Fibrous Glass
Percent Non-Fibrous Material: 20

Lab No.: 7102820
Client No.: 48
Analyst Observation: Off-White Sealant
Client Description: End Cap Sealant
Location:
Facility:
Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: 3 Fibrous Glass
Percent Non-Fibrous Material: 97

Lab No.: 7102820(L2)
Client No.: 48
Analyst Observation: Off-White Woven Material
Client Description: End Cap Sealant
Location:
Facility:
Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: 98 Cellulose
Percent Non-Fibrous Material: 2

Lab No.: 7102821
Client No.: 49
Analyst Observation: Lt Tan Drywall
Client Description: Drywall And Joint Compound
Location:
Facility:
Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: 25 Cellulose
Percent Non-Fibrous Material: 75

Lab No.: 7102821(L2)
Client No.: 49
Analyst Observation: White Joint Compound
Client Description: Drywall And Joint Compound
Location:
Facility:
Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Lab No.: 7102821(L3)
Client No.: 49
Analyst Observation: Composite
Client Description: Drywall And Joint Compound
Location:
Facility:
Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: 25 Cellulose
Percent Non-Fibrous Material: 75

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 11/28/2020
Date Analyzed: 12/01/2020
Signature:
Analyst: Ellen Smith

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

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Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client:	Aria Environmental	Report Date:	12/1/2020
	PO Box 286	Report No.:	623799 - PLM
	Woodbine MD 21797	Project:	DLS Building
Client:	ARI436	Project No.:	19-1204

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 7102822
Client No.: 50
Analyst Observation: Lt Tan Drywall
Client Description: Drywall And Joint Compound
Location:
Facility:

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: 20 Cellulose
Percent Non-Fibrous Material: 80

Lab No.: 7102822(L2)
Client No.: 50
Analyst Observation: White Joint Compound
Client Description: Drywall And Joint Compound
Location:
Facility:

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Lab No.: 7102822(L3)
Client No.: 50
Analyst Observation: Composite
Client Description: Drywall And Joint Compound
Location:
Facility:

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: 20 Cellulose
Percent Non-Fibrous Material: 80

Lab No.: 7102823
Client No.: 51
Analyst Observation: Black Vapor Barrier
Client Description: Black Vapor Barrier
Location:
Facility:

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: 2 Cellulose
Percent Non-Fibrous Material: 98

Lab No.: 7102824
Client No.: 52
Analyst Observation: Lt Grey Glazing
Client Description: Window Glazing Compound
Location: Exterior
Facility:

Percent Asbestos: ***PC 0.25*** *Chrysotile*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 99.75

Lab No.: 7102825
Client No.: 53
Analyst Observation: Off-White Caulk
Client Description: Window Caulk
Location: Exterior
Facility:

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 11/28/2020
Date Analyzed: 12/01/2020
Signature:
Analyst: Ellen Smith

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

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Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client:	Aria Environmental	Report Date:	12/1/2020
	PO Box 286	Report No.:	623799 - PLM
	Woodbine MD 21797	Project:	DLS Building
		Project No.:	19-1204
Client:	ARI436		

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 7102826 | **Analyst Observation:** Lt Grey Expansion Joint | **Location:** Exterior
Client No.: 54 | **Client Description:** Expansion Joint | **Facility:**

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Lab No.: 7102827 | **Analyst Observation:** White Caulk | **Location:** Exterior
Client No.: 55 | **Client Description:** Caulk | **Facility:**

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Lab No.: 7102828 | **Analyst Observation:** White Glazing | **Location:** Exterior
Client No.: 56 | **Client Description:** Window Glazing Compound | **Facility:**

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Lab No.: 7102829 | **Analyst Observation:** White Caulk | **Location:** Exterior
Client No.: 57 | **Client Description:** Window Caulk | **Facility:**

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 11/28/2020
Date Analyzed: 12/01/2020
Signature:
Analyst: Ellen Smith

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

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Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client:	Aria Environmental	Report Date:	12/1/2020
	PO Box 286	Report No.:	623799 - PLM
	Woodbine MD 21797	Project:	DLS Building
		Project No.:	19-1204
Client:	ARI436		

Appendix to Analytical Report

Customer Contact: Michele Twilley
Method:40 CFR Appendix E to Subpart E of Part 763, interim method for the Determination of Asbestos in Bulk Insulation Samples, and USEPA 600, R93-116 as needed.

This appendix seeks to promote greater understanding of any observations, exceptions, special instructions, or circumstances that the laboratory needs to communicate to the client concerning the above samples. The information below is used to help promote your ability to make the most informed decisions for you and your customers. Please note the following points of contact for any questions you may have.

iATL Customer Service: customerservice@iatl.com
iATL Office Manager:wchampion@iatl.com
iATL Account Representative: Kelly Klippel
Sample Login Notes: See Batch Sheet Attached
Sample Matrix: Bulk Building Materials
Exceptions Noted: See Following Pages

General Terms, Warrants, Limits, Qualifiers:

General information about iATL capabilities and client/laboratory relationships and responsibilities are spelled out in iATL policies that are listed at www.iATL.com and ir our Quality Assurance Manual per ISO 17025 standard requirements. The information therein is a representation of iATL definitions and policies for turnaround times, sample submittal, collection media, blank definitions, quantification issues and limit of detection, analytical methods and procedures, sub-contracting policies, results reporting options, fees, terms, and discounts, confidentiality, sample archival and disposal, and data interpretation.

iATL warrants the test results to be of a precision normal for the type and methodology employed for each sample submitted. iATL disclaims any other warrants, expressed or implied, including warranty of fitness for a particular purpose and warranty of merchantability. iATL accepts no legal responsibility for the purpose for which the client uses test results. Any analytical work performed must be governed by our Standard Terms and Conditions. Prices, methods and detection limits may be changed without notification. Please contact your Customer Service Representative for the most current information.

This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP, AIHA LAP LLC, or any agency of local, state or province governments nor of any agency of the U.S. government.

This report shall not be reproduced except in full, without written approval of the laboratory.

Information Pertinent to this Report:

Analysis by US EPA 600 93-116: Determination of Asbestos in Bulk Building Materials by Polarized Light Microscopy (PLM).

Certifications:

- NIST-NVLAP No. 101165-0
- NYSDOH-ELAP No. 11021
- AIHA-LAP, LLC No. 100188

Quantification at <0.25% by volume is possible with this method. (PC) Indicates Stratified Point Count Method performed. (PC-Trace) means that asbestos was detected but is not quantifiable under the Point Counting regimen. PC Trace represents a <0.25% amount. Analysis includes all distinct separable layers in accordance with EPA 600 Method. If not reported or otherwise noted, layer is either not present or the client has specifically requested that it not be analyzed (ex. analyze until positive instructions). Small asbestos fibers may be missed by PLM due to resolution limitations of the optical microscope. Therefore, PLM is not consistently reliable in detecting asbestos in non-friable organically bound (NOB) materials. Quantitative transmission electron microscopy (TEM) is currently the only method that can pronounce materials as non-asbestos containing.

Analytical Methodology Alternatives: Your initial request for analysis may not have accounted for recent advances in regulatory requirements or advances in technology that are routinely used in similar situations for other qualified projects. You may have the option to explore additional analysis for further information. Below are a few options, listed as the matrix followed by the appropriate methodology. Also included are links to more information on our website.

Bulk Building Materials that are Non-Friable Organically Bound (NOB) by Gravimetric Reduction techniques employing PLM and TEM: ELAP 198.6 (PLM-NOB), ELAP 198.4 (TEM-NOB)

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Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client:	Aria Environmental	Report Date:	12/1/2020
	PO Box 286	Report No.:	623799 - PLM
	Woodbine MD 21797	Project:	DLS Building
		Project No.:	19-1204
Client:	ARI436		

Loose Fill Vermiculite Insulation, Attic Insulation, Zonolite (copyright), etc.: US EPA 600 R-4/004 (multi-tiered analytical process)
Sprayed On Insulation/Fireproofing with Vermiculite (SOF-V): ELAP 198.8 (PLM-SOF-V)

Soil, sludge, sediment, aggregate, and like materials analyzed for asbestos or other elongated mineral particles (ex. erionite, etc.): ASTM D7521, CARB 435, and other options available

Asbestos in Surface Dust according to one of ASTM's Methods (very dependent on sampling collection technique – by TEM): ASTM D 5755, D5756, or D6480

Various other asbestos matrices (air, water, etc.) and analytical methods are available.

Disclaimers / Qualifiers:

There may be some samples in this project that have a "NOTE:" associated with a sample result. We use added disclaimers or qualifiers to inform the client about something that requires further explanation. Here is a list with highlighted disclaimers that may be pertinent to this project. For a full explanation of these and other disclaimers, please inquire at **customerservice@iatl.com**.

1) Note: No mastic provided for analysis.
2) Note: Insufficient mastic provided for analysis.
3) Note: Insufficient material provided for analysis.
4) Note: Insufficient sample provided for QC reanalysis.
5) Note: Different material than indicated on Sample Log / Description.
6) Note: Sample not submitted.
7) Note: Attached to asbestos containing material.
8) Note: Received wet.
9) Note: Possible surface contamination.
10) Note: Not building material. 1% threshold may not apply.
11) Note: Recommend TEM-NOB analysis as per EPA recommendations.
12) Note: Asbestos detected but not quantifiable.
13) Note: Multiple identical samples submitted, only one analyzed.
14) Note: Analyzed by EPA 600/R-93/116. Point Counting detection limit at 0.080%.
15) Note: Analyzed by EPA 600/R-93/116. Point Counting detection limit at 0.125%.
16) Note: This sample contains >10% vermiculite mineral. See Appendix for Recommendations for Vermiculite Analysis.

Recommendations for Vermiculite Analysis:

Several analytical protocols exist for the analysis of asbestos in vermiculite. These analytical approaches vary depending upon the nature of the vermiculite mineral being tested (e.g. un-processed gange, homogeneous exfoliated books of mica, or mixed mineral composites).Please contact your client representative for pricing and turnaround time options available.

iATL recommends initial testing using the EPA 600/R-93/116 method. This method is specifically designed for the analysis of asbestos in bulk building materials. It provides an acceptable starting point for primary screening of vermiculite for possible asbestos.

Results from this testing may be inconclusive. EPA suggests proceeding to a multi-tiered analysis involving wet separation techniques in conjunction with PLM and TEM gravimetric analysis (EPA 600/R-04/004).

For New York State customers, NYSDOH requires disclaimers and qualifiers for various vermiculite containing samples that direct analysis via ELAP198.6 and ELAP198.8 for samples that contain >10% vermiculite mineral where ELAP198.6 may be used to evaluate the asbestos content of the material. However, any test result using ELAP198.6 will be reported with the following disclaimer: “ELAP198.6 method does not remove vermiculite and may underestimate the level of asbestos present in a sample containing >10% vermiculite.”

Further information on this method and other vermiculite and asbestos issues can be found at the following: Agency for Toxic Substances and Disease Registry (ATSDR) www.atsdr.cdc.gov, United States Geological Survey (USGS) www.minerals.usgs.gov/minerals/, US EPA www.epa.gov/asbestos. The USEPA also has an informative brochure "Current Best Practices for Vermiculite Attic Insulation" EPA 747F03001 May 2003, that may assist the health and remediation professional. NYS customers please follow current NYSDOH ELAP requirements per policy on subject of surfacing and vermiculite, May 6, 2016, Testing Requirements for Surfacing Material Containing Vermiculite (https://www.wadsworth.org/sites/default/files/WebDoc/I198_8_02_2.pdf)

The following is a summary of the analytical process outlines in the EPA 600/R-04/004 Method:

1)**Analytical Step/Method:** Initial Screening by PLM, EPA 600R-93/116
Requirements/Comments: Minimum of 0.1 g of sample. ~0.25% for most samples.

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CERTIFICATE OF ANALYSIS

Client:	Aria Environmental	Report Date:	12/1/2020
	PO Box 286	Report No.:	623799 - PLM
	Woodbine MD 21797	Project:	DLS Building
		Project No.:	19-1204
Client:	ARI436		

2)**Analytical Step/Method:** Wet Separation by PLM Gravimetric Technique, EPA R-04/004
Requirements/Comments: Minimum 50g** of dry sample. Analysis of "Sinks" only.

3)**Analytical Step/Method:** Wet Separation by PLM Gravimetric Technique, EPA R-04/004
Requirements/Comments: Minimum 50g** of dry sample. Analysis of "Floats" only.

4)**Analytical Step/Method:** Wet Separation by TEM Gravimetric Technique, EPA R-04/004
Requirements/Comments: Minimum 50g** of dry sample. Analysis of "Sinks" only.

5)**Analytical Step/Method:** Wet Separation by TEM Gravimetric Technique, EPA R-04/004
Requirements/Comments: Minimum 50g** of dry sample. Analysis of "Suspension" only.
*With advance notice and confirmation by the laboratory.
**Approximately 1 Liter of sample in double-bagged container (~9x6 inch bag of sample).

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Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client:	Aria Environmental	Report Date:	12/13/2020
	PO Box 286	Report No.:	624590 - PLM
	Woodbine MD 21797	Project:	DLS Bldg
		Project No.:	19-1204
Client:	ARI436		

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 7109359
Client No.: DLS-58
Analyst Observation: Grey Floor Tile
Client Description: Floor Tile And Mastic
Location:
Facility:
Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Lab No.: 7109359(L2)
Client No.: DLS-58
Analyst Observation: Yellow Mastic
Client Description: Floor Tile And Mastic
Location:
Facility:
Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Lab No.: 7109359(L3)
Client No.: DLS-58
Analyst Observation: Black Floor Tile
Client Description: Floor Tile And Mastic
Location:
Facility:
Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Lab No.: 7109359(L4)
Client No.: DLS-58
Analyst Observation: Black Mastic
Client Description: Floor Tile And Mastic
Location:
Facility:
Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Lab No.: 7109360
Client No.: DLS-59
Analyst Observation: Grey Terrazzo
Client Description: Terrazzo Flooring
Location:
Facility:
Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Lab No.: 7109361
Client No.: DLS-60
Analyst Observation: White Floor Tile
Client Description: Floor Tile And Mastic
Location:
Facility:
Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 12/11/2020
Date Analyzed: 12/13/2020
Signature: Natalia Morais Soares
Analyst: Natalia Morais Soares

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client:	Aria Environmental	Report Date:	12/13/2020
	PO Box 286	Report No.:	624590 - PLM
	Woodbine MD 21797	Project:	DLS Bldg
		Project No.:	19-1204
Client:	ARI436		

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 7109361(L2) **Analyst Observation:** Yellow Mastic **Location:**
Client No.: DLS-60 **Client Description:** Floor Tile And Mastic **Facility:**

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Lab No.: 7109362 **Analyst Observation:** White Floor Tile **Location:**
Client No.: DLS-61 **Client Description:** Floor Tile And Mastic **Facility:**

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Lab No.: 7109362(L2) **Analyst Observation:** Yellow Mastic **Location:**
Client No.: DLS-61 **Client Description:** Floor Tile And Mastic **Facility:**

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Lab No.: 7109363 **Analyst Observation:** Black Floor Tile **Location:**
Client No.: DLS-62 **Client Description:** Floor Tile And Mastic **Facility:**

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Lab No.: 7109363(L2) **Analyst Observation:** Yellow Mastic **Location:**
Client No.: DLS-62 **Client Description:** Floor Tile And Mastic **Facility:**

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Lab No.: 7109364 **Analyst Observation:** White/Brown Drywall **Location:**
Client No.: DLS-63 **Client Description:** Drywall And Joint Compound **Facility:**

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: 15 Cellulose
Percent Non-Fibrous Material: 85

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 12/11/2020
Date Analyzed: 12/13/2020
Signature: Natalia Morais Soares
Analyst: Natalia Morais Soares

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client:	Aria Environmental	Report Date:	12/13/2020
	PO Box 286	Report No.:	624590 - PLM
	Woodbine MD 21797	Project:	DLS Bldg
Client:	ARI436	Project No.:	19-1204

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 7109364(L2) **Analyst Observation:** White Joint Compound **Location:**
Client No.: DLS-63 **Client Description:** Drywall And Joint Compound **Facility:**

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Lab No.: 7109364(L3) **Analyst Observation:** Composite **Location:**
Client No.: DLS-63 **Client Description:** Drywall And Joint Compound **Facility:**

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: 13 Cellulose
Percent Non-Fibrous Material: 87

Lab No.: 7109365 **Analyst Observation:** White Caulk **Location:** Interior Stair Window
Client No.: DLS-64 **Client Description:** Window Caulk **Facility:**

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Lab No.: 7109366 **Analyst Observation:** White/Brown Drywall **Location:**
Client No.: DLS-65 **Client Description:** Drywall And Joint Compound **Facility:**

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: 15 Cellulose, 5 Fibrous Glass
Percent Non-Fibrous Material: 80

Lab No.: 7109366(L2) **Analyst Observation:** White Joint Compound **Location:**
Client No.: DLS-65 **Client Description:** Drywall And Joint Compound **Facility:**

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Lab No.: 7109366(L3) **Analyst Observation:** White Tape **Location:**
Client No.: DLS-65 **Client Description:** Drywall And Joint Compound **Facility:**

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: 98 Cellulose
Percent Non-Fibrous Material: 2

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 12/11/2020
Date Analyzed: 12/13/2020
Signature: Natalia Morais Soares
Analyst: Natalia Morais Soares

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

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Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client:	Aria Environmental	Report Date:	12/13/2020
	PO Box 286	Report No.:	624590 - PLM
	Woodbine MD 21797	Project:	DLS Bldg
		Project No.:	19-1204
Client:	ARI436		

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 7109366(L4)
Client No.: DLS-65

Analyst Observation: Composite
Client Description: Drywall And Joint Compound

Location:
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
13 Cellulose
3 Fibrous Glass

Percent Non-Fibrous Material:
84

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 12/11/2020
Date Analyzed: 12/13/2020
Signature: Natalia Morais Soares
Analyst: Natalia Morais Soares

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

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CERTIFICATE OF ANALYSIS

Client:	Aria Environmental	Report Date:	12/13/2020
	PO Box 286	Report No.:	624590 - PLM
	Woodbine MD 21797	Project:	DLS Bldg
		Project No.:	19-1204
Client:	ARI436		

Appendix to Analytical Report

Customer Contact: Michele Twilley
Method:40 CFR Appendix E to Subpart E of Part 763, interim method for the Determination of Asbestos in Bulk Insulation Samples, and USEPA 600, R93-116 as needed.

This appendix seeks to promote greater understanding of any observations, exceptions, special instructions, or circumstances that the laboratory needs to communicate to the client concerning the above samples. The information below is used to help promote your ability to make the most informed decisions for you and your customers. Please note the following points of contact for any questions you may have.

iATL Customer Service: customerservice@iatl.com
iATL Office Manager:wchampion@iatl.com
iATL Account Representative: Kelly Klippel
Sample Login Notes: See Batch Sheet Attached
Sample Matrix: Bulk Building Materials
Exceptions Noted: See Following Pages

General Terms, Warrants, Limits, Qualifiers:

General information about iATL capabilities and client/laboratory relationships and responsibilities are spelled out in iATL policies that are listed at www.iATL.com and ir our Quality Assurance Manual per ISO 17025 standard requirements. The information therein is a representation of iATL definitions and policies for turnaround times, sample submittal, collection media, blank definitions, quantification issues and limit of detection, analytical methods and procedures, sub-contracting policies, results reporting options, fees, terms, and discounts, confidentiality, sample archival and disposal, and data interpretation.

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This report shall not be reproduced except in full, without written approval of the laboratory.

Information Pertinent to this Report:

Analysis by US EPA 600 93-116: Determination of Asbestos in Bulk Building Materials by Polarized Light Microscopy (PLM).

Certifications:

- NIST-NVLAP No. 101165-0
- NYSDOH-ELAP No. 11021
- AIHA-LAP, LLC No. 100188

Quantification at <0.25% by volume is possible with this method. (PC) Indicates Stratified Point Count Method performed. (PC-Trace) means that asbestos was detected but is not quantifiable under the Point Counting regimen. PC Trace represents a <0.25% amount. Analysis includes all distinct separable layers in accordance with EPA 600 Method. If not reported or otherwise noted, layer is either not present or the client has specifically requested that it not be analyzed (ex. analyze until positive instructions). Small asbestos fibers may be missed by PLM due to resolution limitations of the optical microscope. Therefore, PLM is not consistently reliable in detecting asbestos in non-friable organically bound (NOB) materials. Quantitative transmission electron microscopy (TEM) is currently the only method that can pronounce materials as non-asbestos containing.

Analytical Methodology Alternatives: Your initial request for analysis may not have accounted for recent advances in regulatory requirements or advances in technology that are routinely used in similar situations for other qualified projects. You may have the option to explore additional analysis for further information. Below are a few options, listed as the matrix followed by the appropriate methodology. Also included are links to more information on our website.

Bulk Building Materials that are Non-Friable Organically Bound (NOB) by Gravimetric Reduction techniques employing PLM and TEM: ELAP 198.6 (PLM-NOB), ELAP 198.4 (TEM-NOB)

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Client:	Aria Environmental	Report Date:	12/13/2020
	PO Box 286	Report No.:	624590 - PLM
	Woodbine MD 21797	Project:	DLS Bldg
		Project No.:	19-1204
Client:	ARI436		

Loose Fill Vermiculite Insulation, Attic Insulation, Zonolite (copyright), etc.: US EPA 600 R-4/004 (multi-tiered analytical process)
Sprayed On Insulation/Fireproofing with Vermiculite (SOF-V): ELAP 198.8 (PLM-SOF-V)

Soil, sludge, sediment, aggregate, and like materials analyzed for asbestos or other elongated mineral particles (ex. erionite, etc.): ASTM D7521, CARB 435, and other options available

Asbestos in Surface Dust according to one of ASTM's Methods (very dependent on sampling collection technique – by TEM): ASTM D 5755, D5756, or D6480

Various other asbestos matrices (air, water, etc.) and analytical methods are available.

Disclaimers / Qualifiers:

There may be some samples in this project that have a "NOTE:" associated with a sample result. We use added disclaimers or qualifiers to inform the client about something that requires further explanation. Here is a list with highlighted disclaimers that may be pertinent to this project. For a full explanation of these and other disclaimers, please inquire at **customerservice@iatl.com**.

1) Note: No mastic provided for analysis.
2) Note: Insufficient mastic provided for analysis.
3) Note: Insufficient material provided for analysis.
4) Note: Insufficient sample provided for QC reanalysis.
5) Note: Different material than indicated on Sample Log / Description.
6) Note: Sample not submitted.
7) Note: Attached to asbestos containing material.
8) Note: Received wet.
9) Note: Possible surface contamination.
10) Note: Not building material. 1% threshold may not apply.
11) Note: Recommend TEM-NOB analysis as per EPA recommendations.
12) Note: Asbestos detected but not quantifiable.
13) Note: Multiple identical samples submitted, only one analyzed.
14) Note: Analyzed by EPA 600/R-93/116. Point Counting detection limit at 0.080%.
15) Note: Analyzed by EPA 600/R-93/116. Point Counting detection limit at 0.125%.
16) Note: This sample contains >10% vermiculite mineral. See Appendix for Recommendations for Vermiculite Analysis.

Recommendations for Vermiculite Analysis:

Several analytical protocols exist for the analysis of asbestos in vermiculite. These analytical approaches vary depending upon the nature of the vermiculite mineral being tested (e.g. un-processed gange, homogeneous exfoliated books of mica, or mixed mineral composites).Please contact your client representative for pricing and turnaround time options available.

iATL recommends initial testing using the EPA 600/R-93/116 method. This method is specifically designed for the analysis of asbestos in bulk building materials. It provides an acceptable starting point for primary screening of vermiculite for possible asbestos.

Results from this testing may be inconclusive. EPA suggests proceeding to a multi-tiered analysis involving wet separation techniques in conjunction with PLM and TEM gravimetric analysis (EPA 600/R-04/004).

For New York State customers, NYSDOH requires disclaimers and qualifiers for various vermiculite containing samples that direct analysis via ELAP198.6 and ELAP198.8 for samples that contain >10% vermiculite mineral where ELAP198.6 may be used to evaluate the asbestos content of the material. However, any test result using ELAP198.6 will be reported with the following disclaimer: “ELAP198.6 method does not remove vermiculite and may underestimate the level of asbestos present in a sample containing >10% vermiculite.”

Further information on this method and other vermiculite and asbestos issues can be found at the following: Agency for Toxic Substances and Disease Registry (ATSDR) www.atsdr.cdc.gov, United States Geological Survey (USGS) www.minerals.usgs.gov/minerals/, US EPA www.epa.gov/asbestos. The USEPA also has an informative brochure "Current Best Practices for Vermiculite Attic Insulation" EPA 747F03001 May 2003, that may assist the health and remediation professional. NYS customers please follow current NYSDOH ELAP requirements per policy on subject of surfacing and vermiculite, May 6, 2016, Testing Requirements for Surfacing Material Containing Vermiculite (https://www.wadsworth.org/sites/default/files/WebDoc/I198_8_02_2.pdf)

The following is a summary of the analytical process outlines in the EPA 600/R-04/004 Method:

1)**Analytical Step/Method:** Initial Screening by PLM, EPA 600R-93/116
Requirements/Comments: Minimum of 0.1 g of sample. ~0.25% for most samples.

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		Project No.:	19-1204
Client:	ARI436		

2)**Analytical Step/Method:** Wet Separation by PLM Gravimetric Technique, EPA R-04/004
Requirements/Comments: Minimum 50g** of dry sample. Analysis of "Sinks" only.

3)**Analytical Step/Method:** Wet Separation by PLM Gravimetric Technique, EPA R-04/004
Requirements/Comments: Minimum 50g** of dry sample. Analysis of "Floats" only.

4)**Analytical Step/Method:** Wet Separation by TEM Gravimetric Technique, EPA R-04/004
Requirements/Comments: Minimum 50g** of dry sample. Analysis of "Sinks" only.

5)**Analytical Step/Method:** Wet Separation by TEM Gravimetric Technique, EPA R-04/004
Requirements/Comments: Minimum 50g** of dry sample. Analysis of "Suspension" only.
*With advance notice and confirmation by the laboratory.
**Approximately 1 Liter of sample in double-bagged container (~9x6 inch bag of sample).

Attachment C:

Lead–Based Paint Survey Data

Appendix C:
Lead-Based Paint Field Data

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WWW.GREENSTREET-ENVIRONMENTAL.COM

Project # 171101-2

LEAD XRF DATA

Project Name: Legislative Services Building

Date: 11/15/17

No.	Room Equivalent	Component Type / Substrate / Color	WC*	Reading mg/cm^2	"+"
1	Basement B14	Wall/Drywall/White	D	0.0	☐
2	Basement B11-A (office)	Door Surface/Metal/Blue	B	0.0	☐
3	Basement B11 (hallway)	Baseboard/Wood/Blue	A	0.0	☐
4	Basement B11 (print shop)	Column/Cement/White	-	0.0	☐
5	Basement B11 (print shop)	Wall/Cement/Blue	D	0.0	☐
6	Basement B11 (print shop)	Door Case/Metal/Green	C	0.01	☐
7	Basement B11 (print shop)	Wall/Cement Block/Blue	A	0.0	☐
8	Basement B11 (print shop)	Door Surface/Wood/Green	C	0.0	☐
9	Basement B11 (print shop)	Wall/Drywall/Blue-Gray	A	0.0	☐
10	Basement B10	Door Case/Metal/Black	D	0.03	☐
11	Basement Library	Door Surface/Wood/Cream	B	0.0	☐
12	Basement B11	Elevator Door Case/Metal/Black	B	0.0	☐
13	Basement Mens Room	Ceiling/Drywall/White	-	0.0	☐
14	Basement Hallway	Chair Rail/Wood/Blue	B	0.0	☐
15	Basement Hallway	Baseboard/Wood/Blue	C	0.0	☐
16	Basement B04	Wall/Drywall/White	B	0.0	☐
17	Basement Library	Column/Drywall/White	-	0.0	☐
18	Basement Library	Bulkhead/Metal/White	-	0.0	☐
19	Basement Library	Wall/Drywall/White	B	0.0	☐
20	Basement B08B	Door Case/Wood/Blue	D	0.0	☐
21	Basement B08B	Door Surface/Wood/Blue	D	0.0	☐
22	Basement Hallway	Desk Surface/Wood/Blue	A	0.0	☐
23	Basement Stairwell	Handrail/Metal/????	B	0.0	☐
24	Basement Stairwell	Stringer/Metal/Blue	B	0.0	☐
25	Basement Stairwell	Riser/Metal/Blue	B	0.0	☐

WC = Wall Code**: A = bldg. entrance, B, C, D = clockwise from building entrance. **"+" = Reading > 0.7 mg/cm^2

Validation Checks	Validation Check Readings (mg/cm^2)
Pre: 9:00 AM/PM	1 1.0, 2 0.9, 3 1.1
Post: 10:55 AM/PM	1 1.0, 2 0.9, 3 1.0

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Project # 171101-2

LEAD XRF DATA

Project Name: Legislative Services Building

Date: 11/15/17

No.	Room Equivalent	Component Type / Substrate / Color	WC*	Reading mg/cm²	"+"
26	Ground Floor G15A	Door Case/Metal/Blue	B	0.0	☐
27	Ground Floor G15A	Door Surface/Wood/Blye	B	0.0	☐
28	Ground Floor G15F	Wall/Drywall/White	B	0.0	☐
29	Ground Floor G15F	Baseboard/Wood/Blue	C	0.0	☐
30	Ground Floor G15H	Wall/Drywall/White	D	0.0	☐
31	Ground Floor G15H	Door Case/Wood/Blue	D	0.0	☐
32	Ground Floor Hallway of Offices (G15)	Exterior Door Surface/Wood/???	D	0.0	☐
33	Ground Floor Training Room G15	Closet Door Surface/Wood/Blue	D	0.0	☐
34	Ground Floor Training Room G15	Wall/Drywall/White	A	0.0	☐
35	Ground Floor Cafeteria	Door Pillar/Wood/Blue	B	0.0	☐
36	Ground Floor Cafeteria	Chair Rail/Wood/Blue	B	0.0	☐
37	Ground Floor Document Design	Door Case/Wood/Blue	B	0.0	☐
38	Ground Floor Hallway	Grate/metal/White	D	0.0	☐
39	Ground Floor Hallway	Display Case/Wood/Blue	B	0.0	☐
40	Ground Floor Hallway	Door Surface/Wood/Blue	C	0.0	☐
41	Ground Floor Bill Room Help Desk	Window Case/Wood/Blue	A	0.0	☐
42	Ground Floor Hallway	Door Case/Metal/Blue	A	0.0	☐
43	Ground Floor Hallway	Elevator Door Case/Metal/Blue	D	0.0	☐
44	Ground Floor Hallway	Crown Molding/Wood/Blue	A	0.0	☐
45	Ground Floor Hallway	Desk Surface/Wood/Blue	A	0.0	☐
46	Ground Floor Hallway	Door Surface/Wood/Blue	D	0.0	☐
47	Ground Floor Womens Room	Door Surface/Wood/Blue	C	0.0	☐
48	Ground Floor Stairwell	Newel Post/Metal/Blue	-	0.0	☐
49	Ground Floor Mail Room	Wall/Drywall/Whtie	D	0.0	☐
50	Ground Floor Mail Room	Water Valve Pipe/Metal/White	A	0.10	☐

WC = Wall Code**: A = bldg. entrance, B, C, D = clockwise from building entrance.* ***"+" = Reading > 0.7 mg/cm²

NOTES:

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Project # 171101-2

LEAD XRF DATA

Project Name: Legislative Services Building

Date: 11/15/17

No.	Room Equivalent	Component Type / Substrate / Color	WC*	Reading mg/cm^2	"+"
51	Ground Floor Mail Room Storage Closet	Wall/Drywall/White	B	0.0	☐
52	1st Floor Joint Committee Hearing Room (hallway)	Wall/Drywall/White	D	0.0	☐
53	1st Floor Joint Committee Hearing Room (hallway)	Wall/Drywall/White	D	0.0	☐
54	1st Floor Joint Committee Hearing Room (hallway)	Surface Access Panel/Metal/White	D	0.0	☐
55	1st Floor Joint Committee Hearing Room (hallway)	Railing Support/Metal/White	D	0.0	☐
56	1st Floor Hallway	Column/Drywall/Blue	D	0.0	☐
57	1st Floor Computer Room	Wall/Drywall/Light Blue	A	0.0	☐
58	1st Floor 120	Window Sill/Wood/Blue	A	0.0	☐
59	1st Floor 120	Window Sash/Wood/Blue	A	0.0	☐
60	1st Floor 120	Window Case/Metal/Blue	A	0.0	☐
61	1st Floor 120	Chair Rail/Wood/Blue	D	0.0	☐
62	1st Floor Meeting Room	Window Sash/Wood/Blue	D	0.0	☐
63	1st Floor Meeting Room	Door Surface/Wood/Blue	C	0.0	☐
64	1st Floor Meeting Room	Door Case/Wood/Blue	C	0.0	☐
65	1st Floor Hallway	Baseboard/Wood/Blue	C	0.0	☐
66	1st Floor Hallway	Door Case/Wood/Blue	C	0.0	☐
67	1st Floor Hallway	Door Surface/Wood/Blue	D	0.0	☐
68	1st Floor Hallway	Exterior Door Surface/Wood/???	D	0.0	☐
69	1st Floor Billing	Window Case/Wood/Blue	A	0.0	☐
70	1st Floor Billing	Window Sill/Wood/Blue	A	0.0	☐
71	1st Floor Billing	Window Sash/Wood/Blue	A	0.0	☐
72	1st Floor Billing	Window Apron/Wood/Blue	A	0.0	☐
73	1st Floor 108 E-H	Baseboard/Wood/Blue	A	0.0	☐
74	1st Floor 108 E-H	Wall/Drywall/White	A	0.0	☐
75	1st Floor Hallway	Column/Wood/Blue	A	0.0	☐

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Project # 171101-2

LEAD XRF DATA

Project Name: Legislative Services Building

Date: 11/15/17

No.	Room Equivalent	Component Type / Substrate / Color	WC*	Reading mg/cm²	"+"
76	1st Floor Stairwell	Ballast/Metal/White	-	0.25	☐
77	1st Floor Attorney General Office	Door Case/Wood/Blue	D	0.0	☐
78	1st Floor Attorney General Office	Window Sill/Wood/White	D	0.0	☐
79	1st Floor Attorney General Office	Window Sash/Wood/White	D	0.0	☐
80	1st Floor Attorney General Office	Baseboard/Wood/Blue	B	0.0	☐
81	1st Floor Attorney General Office Closet	Wall/Drywall/Green	B	0.0	☐
82	2nd Floor Hallway (elevator)	Wall/Drywall/White	A	0.0	☐
83	2nd Floor Hallway (elevator)	Baseboard/Wood/Blue	A	0.0	☐
84	2nd Floor Office Spaces	Window Sill/Wood/Blue	A	0.0	☐
85	2nd Floor Office Spaces	Window Sash/Wood/Blue	A	0.0	☐
86	2nd Floor Storage Room	Wall/Concrete Block/White	D	0.0	☐
87	2nd Floor Conference Room	Door Case/Metal/Blue	A	0.0	☐
88	2nd Floor 207 Offices	Door Surface/Wood/Blue	A	0.0	☐
89	2nd Floor 207C	Wall/Drywall/White	D	0.0	☐
90	2nd Floor 207C	Baseboard/Wood/Blue	D	0.0	☐
91	2nd Floor 207C	Door Case/Wood/Blue	C	0.0	☐
92	2nd Floor Hallway	Access Panel Surface/Wood/White	C	0.0	☐
93	2nd Floor Hallway	Door Surface/Wood/Blue	C	0.0	☐
94	2nd Floor Stairwell	Ballast/Metal/White	-	0.0	☐
95	2nd Floor 215 A & B Offices	Column/Wood/White	B	0.0	☐
96	2nd Floor 216I	Window Sill/Wood/Blue	A	0.0	☐
97	2nd Floor 216I	Window Sash/Wood/Blue	A	0.0	☐
98	2nd Floor 226 Offices	Column/Drywall/White	-	0.0	☐
99	2nd Floor 200C Office	Chair Rail/Wood/Blue	D	0.0	☐
100	2nd Floor 200C Office	Baseboard/Wood/Blue	C	0.28	☐

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LEAD XRF DATA

Project Name: Legislative Services Building

Date: 11/15/17

No.	Room Equivalent	Component Type / Substrate / Color	WC*	Reading mg/cm²	"+"
101	3rd Floor 300 Offices	Door Case/Wood/Blue	A	0.0	☐
102	3rd Floor 300 E	Window Sill/Wood/Blue	A	0.0	☐
103	3rd Floor 300 E	Window Sash/Wood/Blue	A	0.0	☐
104	3rd Floor 300 E	Wall/Drywall/White	B	0.0	☐
105	3rd Floor Human Resources	Door Case/Wood/Blue	A	0.0	☐
106	3rd Floor Human Resources	Door Surface/Wood/Blue	A	0.0	☐
107	3rd Floor 311D	Ceiling/Drywall/White	-	0.0	☐
108	3rd Floor 311D	Baseboard/Wood/Blue	C	0.0	☐
109	3rd Floor 311D	Ledge/Wood/Blue	-	0.0	☐
110	3rd Floor 309	Column/Drywall/White	-	0.0	☐
111	3rd Floor 309	Window Case/Wood/Blue	C	0.0	☐
112	3rd Floor 309	Window Case/Wood/Blue	D	0.0	☐
113	3rd Floor 309	Wall/Drywall/White	C	0.0	☐
114	3rd Floor 309	Window Sash/Wood/Blue	C	0.0	☐
115	3rd Floor DOC Design	Baseboard/Wood/Blue	A	0.0	☐
116	3rd Floor DOC Design	Door Case/Wood/Blue	A	0.0	☐
117	3rd Floor DOC Design	Door Surface/Wood/Blue	A	0.0	☐
118	3rd Floor 304	Door Surface/Wood/Blue	A	0.0	☐
119	3rd Floor 304	Wall/Drywall/White	D	0.0	☐
120	3rd Floor 304	Ceiling/Drywall/White	-	0.0	☐
121	3rd Floor Hallway	Column/Wood/Blue	C	0.0	☐
122	3rd Floor Mens Room	Ceiling/Drywall/White	-	0.0	☐
123	3rd Floor Mens Room	Access Panel Surface/Metal/Gray	-	0.0	☐
124	3rd Floor Mens Room	Partition Between Stalls/Metal/Gray	-	0.0	☐
125	3rd Floor Hallway	Chair Rail/Wood/Blue	A	0.0	☐

WC = Wall Code**: A = bldg. entrance, B, C, D = clockwise from building entrance.* ***"+" = Reading > 0.7 mg/cm²

NOTES:

GREEN STREET ENVIRONMENTAL
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Project # 171101-2

LEAD XRF DATA

Project Name: Legislative Services Building

Date: 11/15/17

No.	Room Equivalent	Component Type / Substrate / Color	WC*	Reading mg/cm²	"+"
126	Exterior	Window Sill/Wood/White	A	0.02	☐
127	Exterior	Window Case/Wood/White	A	0.0	☐
128	Exterior	Door Case/Wood/White	A	0.0	☐
129	Exterior	Door Surface/Wood/White	A	0.0	☐
130	Exterior	Window Sill/Wood/White	D	0.0	☐
131	Exterior	Window Sash/Wood/White	D	0.0	☐
132	Exterior	Pillar/Wood/White	D	0.0	☐
133	Exterior	Railing/Metal/Black	D	0.15	☐
134	Exterior	Door Case/Cement/White	D	0.0	☐
135	Exterior	Railing/Metal/Black	C	0.0	☐
136	Exterior	Window Sill/Wood/White	B	0.0	☐
137	Exterior	Door Surface/Wood/White	B	0.0	☐
138	Exterior	Railing/Metal/Black	A	0.0	☐
139	Exterior	Window Sill/Wood/White	B	0.0	☐
140	Exterior	Window Case/Wood/White	B	0.0	☐
141	Exterior	Pillar/Wood/White	B	0.0	☐
142	Exterior	Door Surface/Wood/White	B	0.0	☐
143	Exterior	Window Apron/Wood/White	B	0.0	☐
144	Exterior	Window Case/Wood/White	A	0.0	☐
145	Exterior	Window Sash/Wood/White	A	0.0	☐
146					☐
147					☐
148					☐
149					☐
150					☐

WC = Wall Code**: A = bldg. entrance, B, C, D = clockwise from building entrance.* ***"+" = Reading > 0.7 mg/cm²

NOTES:

Attachment D:

Room Assessment Table

Room	Description	Hazard	Qty	Units
100 - Hallway	Black Carpet Padding	Information Only	405	SF
100 - Hallway	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	508	SF
100 - Hallway	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	6	LF
100 - Hallway	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
100 - Hallway	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
100 - Hallway	Offwhite Carpet Glue	No Asbestos Detected	405	SF
100 - Hallway	Smoke Detectors	See Fire Safety Notes	1	EA
100A	Black Carpet Padding	Information Only	81	SF
100A	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	400	SF
100A	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	20	LF
100A	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
100A	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
100A	Offwhite Carpet Glue	No Asbestos Detected	81	SF
100B	Black Carpet Padding	Information Only	111	SF
100B	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	10	SF
100B	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	632	SF
100B	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	1	EA
100B	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	2	EA
100B	Offwhite Carpet Glue	No Asbestos Detected	111	SF
100C	Black Carpet Padding	Information Only	80	SF
100C	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	10	SF
100C	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	368	SF
100C	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA

Legislative Services Survey Notes: Hidden sources of asbestos may be present that were inaccessible at the time of the survey and are not reflected in the room assessment table. This includes but is not limited to duct seam sealant and end cap sealant.

Room	Description	Hazard	Qty	Units
100C	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
100C	Offwhite Carpet Glue	No Asbestos Detected	80	SF
100D	Black Carpet Padding	Information Only	80	SF
100D	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	10	SF
100D	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	368	SF
100D	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
100D	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
100D	Offwhite Carpet Glue	No Asbestos Detected	80	SF
100E	Black Carpet Padding	Information Only	100	SF
100E	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	448	SF
100E	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
100E	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
100E	Offwhite Carpet Glue	No Asbestos Detected	100	SF
100F	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	400	SF
100F	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
100F	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
102	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	20	SF
102	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	844	SF
102	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	6	EA
102	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	12	EA
102	Offwhite Carpet Glue	No Asbestos Detected	420	SF
102	Smoke Detectors	See Fire Safety Notes	1	EA
103	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	10	SF
103	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	712	SF

Legislative Services Survey Notes: Hidden sources of asbestos may be present that were inaccessible at the time of the survey and are not reflected in the room assessment table. This includes but is not limited to duct seam sealant and end cap sealant.

Room	Description	Hazard	Qty	Units
103	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	4	EA
103	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	8	EA
103	Offwhite Carpet Glue	No Asbestos Detected	234	SF
104 Closet	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	220	SF
104 Closet	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	1	EA
104 Closet	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	2	EA
104 Closet	Wood Doors	Information Only	1	EA
104 Suite Open Space	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	373	SF
104 Suite Open Space	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	1060	SF
104 Suite Open Space	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	40	LF
104 Suite Open Space	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	7	EA
104 Suite Open Space	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	14	EA
104 Suite Open Space	Red Duct Mastic	3.4% Chrysotile Asbestos	1	SF
104 Suite Open Space	Red Pipe Thread Sealant (Per Fitting)	No Asbestos Detected	2	EA
104 Suite Open Space	Smoke Detectors	See Fire Safety Notes	1	EA
104 Suite Open Space	Wood Doors	Information Only	1	EA
104 Suite Open Space	Yellow Carpet Glue	No Asbestos Detected	373	SF
104A Conference Room	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	216	SF
104A Conference Room	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	3	SF
104A Conference Room	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	600	SF
104A Conference Room	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	6	LF
104A Conference Room	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	4	EA
104A Conference Room	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	8	EA
104A Conference Room	Red Duct Mastic	3.4% Chrysotile Asbestos	1	SF

Room	Description	Hazard	Qty	Units
104A Conference Room	Smoke Detectors	See Fire Safety Notes	1	EA
104A Conference Room	Wood Doors	Information Only	1	EA
104A Conference Room	Yellow Carpet Glue	No Asbestos Detected	216	SF
104B	1x1 Spline Ceiling Tile (no glue)	Known to be NAD (Previous Survey)	280	SF
104B	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	9	SF
104B	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	680	SF
104B	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	6	LF
104B	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	8	EA
104B	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	16	EA
104B	Red Duct Mastic	3.4% Chrysotile Asbestos	1	SF
104B	Wood Doors	Information Only	2	EA
104B	Yellow Carpet Glue	No Asbestos Detected	280	SF
104C	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	132	SF
104C	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	3	SF
104C	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	460	SF
104C	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	6	LF
104C	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
104C	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
104C	Red Duct Mastic	3.4% Chrysotile Asbestos	1	SF
104C	Wood Doors	Information Only	1	EA
104C	Yellow Carpet Glue	No Asbestos Detected	132	SF
104D	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	96	SF
104D	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	3	SF
104D	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	400	SF

Room	Description	Hazard	Qty	Units
104D	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	6	LF
104D	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
104D	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
104D	Red Duct Mastic	3.4% Chrysotile Asbestos	1	SF
104D	Wood Doors	Information Only	1	EA
104D	Yellow Carpet Glue	No Asbestos Detected	96	SF
104E	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	120	SF
104E	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	3	SF
104E	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	440	SF
104E	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	6	LF
104E	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
104E	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
104E	Red Duct Mastic	3.4% Chrysotile Asbestos	1	SF
104E	Wood Doors	Information Only	1	EA
104E	Yellow Carpet Glue	No Asbestos Detected	120	SF
105	1x1 Spline Ceiling Tile (no glue)	Known to be NAD (Previous Survey)	54	SF
105	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	81	SF
105	Black Cove Base and Mastic	No Asbestos Detected	48	LF
105	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	672	SF
105	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	16	LF
105	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
105	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
105	Red Duct Mastic	3.4% Chrysotile Asbestos	1	SF
105	Wood Doors	Information Only	1	EA

Room	Description	Hazard	Qty	Units
105	Yellow Carpet Glue	No Asbestos Detected	135	SF
106	12X12 White/Gray Floor Tile And Mastic	4.3-4.8% Chrysotile Asbestos (Tile and Mastic)	56	SF
106	3"x3" Ceramic Tile Walls	Regulated Waste - Lead	24	SF
106	Black Cove Base and Dark Brown Mastic	No Asbestos Detected	24	LF
106	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	296	SF
106	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	1	EA
106	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	2	EA
106	Halsey Taylor Cooler for Water Fountain (13.5 oz R-22)	Ozone Depleting Substances	1	EA
106A	Dry Type Transformer	Information Only	1	EA
106A	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	156	SF
106A	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	22	LF
106A	Fire Doors	Assumed Asbestos	1	EA
106A	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	1	EA
106A	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	2	EA
107	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	600	SF
107	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	6	LF
107	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
107	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
107	Yellow Carpet Glue	No Asbestos Detected	144	SF
108A and B	12x12 White Floor Tile and Mastic	Black Mastic Contains Asbestos	208	SF
108A and B	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	10	SF
108A and B	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	1008	SF
108A and B	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	30	LF
108A and B	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	4	EA

Room	Description	Hazard	Qty	Units
108A and B	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	8	EA
108A and B	Moldy Ceiling Tile	Water and Mold Damage	1	SF
108A and B	Red Duct Mastic	3.4% Chrysotile Asbestos	2	SF
108A and B	Water Stained Ceiling Tile	Water and Mold Damage	1	SF
108A and B	Yellow Carpet Glue	No Asbestos Detected	208	SF
108C and D	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	10	SF
108C and D	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	984	SF
108C and D	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	6	LF
108C and D	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	4	EA
108C and D	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	8	EA
108C and D	Yellow Carpet Glue	No Asbestos Detected	210	SF
108E,F,G,H and 108 Hall	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	50	SF
108E,F,G,H and 108 Hall	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	2448	SF
108E,F,G,H and 108 Hall	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	6	LF
108E,F,G,H and 108 Hall	Exit Signs with Emergency Lights	Regulated Waste - Batteries	1	EA
108E,F,G,H and 108 Hall	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	8	EA
108E,F,G,H and 108 Hall	Fluorescent Lamps - 2 FT	Regulated Waste - Mercury and Lead	2	EA
108E,F,G,H and 108 Hall	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	14	EA
108E,F,G,H and 108 Hall	Smoke Detectors	See Fire Safety Notes	1	EA
108E,F,G,H and 108 Hall	Yellow Carpet Glue	No Asbestos Detected	460	SF
109A, B, C, D	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	2226	SF
109A, B, C, D	Exit Signs with Emergency Lights	Regulated Waste - Batteries	1	EA
109A, B, C, D	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	9	EA
109A, B, C, D	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	18	EA

Room	Description	Hazard	Qty	Units
109A, B, C, D	Yellow Carpet Glue	No Asbestos Detected	448	SF
109E	12x12 White Floor Tile And Mastic	Black Mastic Contains Asbestos	96	SF
109E	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	480	SF
109E	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
109E	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
109E	Yellow Carpet Glue	No Asbestos Detected	96	SF
109F	2x4 Divot and Dot Ceiling Tile	Known to be NAD (Previous Survey)	96	SF
109F	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	400	SF
109F	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	4	EA
109F	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	8	EA
109F	Wood Doors	Information Only	1	EA
109F	Yellow Carpet Glue	No Asbestos Detected	96	SF
110	12x12 White Floor Tile And Mastic	Black Mastic Contains Asbestos	1074	SF
110	Black Caulk	1.4% Chrysotile Asbestos	42	LF
110	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	30	SF
110	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	2064	SF
110	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	18	EA
110	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	36	EA
110	Offwhite Carpet Glue	No Asbestos Detected	1074	SF
110	Red Pipe Thread Sealant (Per Fitting)	No Asbestos Detected	4	EA
110	Tan Caulk	No Asbestos Detected	42	LF
110	White Pipe Thread Sealant - 2"D	Not Suspect Material	1	EA
110A	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	90	SF
110A	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	3	SF

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Room	Description	Hazard	Qty	Units
110A	Carpet over 2" Strip of Floor Tile	No Asbestos Detected	0.5	SF
110A	Carpet over Concrete and Mastic	No Asbestos Detected	90	SF
110A	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	456	SF
110A	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	1	EA
110A	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	2	EA
110A	Offwhite Carpet Glue	No Asbestos Detected	120	SF
110A	Wood Doors	Information Only	1	EA
110B	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	90	SF
110B	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	3	SF
110B	Carpet over 2" Strip of Floor Tile	No Asbestos Detected	0.5	SF
110B	Carpet over Concrete and Mastic	No Asbestos Detected	90	SF
110B	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	456	SF
110B	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	1	EA
110B	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	2	EA
110B	Offwhite Carpet Glue	No Asbestos Detected	120	SF
110B	Wood Doors	Information Only	1	EA
110C	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	10	SF
110C	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	504	SF
110C	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	4	EA
110C	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	6	EA
111 and 111A	Automatic Door Closers	Regulated Waste - Oil	1	EA
111 and 111A	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	20	SF
111 and 111A	Can Lights (CFLs or LEDs)	Regulated Waste - Mercury and Lead	2	EA
111 and 111A	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	1500	SF

Room	Description	Hazard	Qty	Units
111 and 111A	Exit Signs with Emergency Lights	Regulated Waste - Batteries	1	EA
111 and 111A	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	17	EA
111 and 111A	Fluorescent Lamps - 2 FT U	Regulated Waste - Mercury and Lead	2	EA
111 and 111A	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	24	EA
111 and 111A	Offwhite Carpet Glue	No Asbestos Detected	624	SF
111 and 111A	Smoke Detectors	See Fire Safety Notes	1	EA
111B	12x12 Offwhite Armstrong Floor Tile	Not Suspect Material	60	SF
111B	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	480	SF
111B	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	1	EA
111B	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	2	EA
111C	Carpet Glue	No Asbestos Detected	12	SF
111C	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	144	SF
112	1x1 Spline Ceiling Tile (no glue)	Known to be NAD (Previous Survey)	272	SF
112	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	10	SF
112	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	960	SF
112	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	10	LF
112	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	4	EA
112	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	8	EA
112	Offwhite Carpet Glue	No Asbestos Detected	272	SF
113	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	400	SF
113	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
113	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
113	Offwhite Carpet Glue	No Asbestos Detected	77	SF
114	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	10	SF

Legislative Services Survey Notes: Hidden sources of asbestos may be present that were inaccessible at the time of the survey and are not reflected in the room assessment table. This includes but is not limited to duct seam sealant and end cap sealant.

Room	Description	Hazard	Qty	Units
114	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	416	SF
114	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
114	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
114	Offwhite Carpet Glue	No Asbestos Detected	99	SF
115	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	10	SF
115	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	416	SF
115	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	6	LF
115	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
115	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
115	Leveling Compound	No Asbestos Detected	99	SF
115	Offwhite Carpet Glue	No Asbestos Detected	99	SF
116	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	1920	SF
116	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	50	LF
116	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	9	EA
116	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	18	EA
116	Offwhite Carpet Glue	No Asbestos Detected	690	SF
116	Smoke Detectors	See Fire Safety Notes	2	EA
116A	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	496	SF
116A	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	10	LF
116A	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
116A	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
116A	Offwhite Carpet Glue	No Asbestos Detected	120	SF
116B	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	496	SF
116B	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	10	LF

Room	Description	Hazard	Qty	Units
116B	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
116B	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
116B	Offwhite Carpet Glue	No Asbestos Detected	120	SF
116C	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	496	SF
116C	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	10	LF
116C	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
116C	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
116C	Offwhite Carpet Glue	No Asbestos Detected	120	SF
116D	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	496	SF
116D	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	10	LF
116D	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
116D	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
116D	Offwhite Carpet Glue	No Asbestos Detected	120	SF
116E	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	496	SF
116E	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	10	LF
116E	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
116E	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
116E	Offwhite Carpet Glue	No Asbestos Detected	120	SF
116F	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	496	SF
116F	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	10	LF
116F	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
116F	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
116F	Offwhite Carpet Glue	No Asbestos Detected	120	SF
116G	12x12 Beige Floor Tile With Yellow Mastic	No Asbestos Detected	90	SF

Room	Description	Hazard	Qty	Units
116G	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	424	SF
116G	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	6	LF
116G	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
116G	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
116G	Smoke Detectors	See Fire Safety Notes	1	EA
116G	White Sink Insulation (double sink)	No Asbestos Detected		
116H	12x12 Beige Floor Tile With Yellow Mastic	No Asbestos Detected	60	SF
116H	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	388	SF
116H	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	8	LF
116H	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	1	EA
116H	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	2	EA
117	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	10	SF
117	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	440	SF
117	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	1	EA
117	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	2	EA
117	Offwhite Carpet Glue	No Asbestos Detected	110	SF
117	Tan Caulk	No Asbestos Detected	24	LF
118	Black Caulk	1.4% Chrysotile Asbestos	16	LF
118	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	10	SF
118	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	416	SF
118	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
118	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
118	Offwhite Carpet Glue	No Asbestos Detected	99	SF
118	Tan Caulk	No Asbestos Detected	16	LF

Legislative Services Survey Notes: Hidden sources of asbestos may be present that were inaccessible at the time of the survey and are not reflected in the room assessment table. This includes but is not limited to duct seam sealant and end cap sealant.

Room	Description	Hazard	Qty	Units
119	Black Caulk	1.4% Chrysotile Asbestos	10	LF
119	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	448	SF
119	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	8	LF
119	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
119	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
119	Offwhite Carpet Glue	No Asbestos Detected	99	SF
120	1x1 Spline Ceiling Tile (no glue)	Known to be NAD (Previous Survey)	336	SF
120	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	20	SF
120	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	904	SF
120	Duct seam sealant	2.1-4.8% Chrysotile Asbestos	10	LF
120	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	6	EA
120	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	12	EA
120	Offwhite Carpet Glue	No Asbestos Detected	336	SF
120	Smoke Detectors	See Fire Safety Notes	1	EA
120 A	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	10	SF
120A	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	624	SF
120A	Duct seam sealant	2.1-4.8% Chrysotile Asbestos	6	LF
120A	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	4	EA
120A	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	8	EA
120A	Offwhite Carpet Glue	No Asbestos Detected	216	SF
120A	Smoke Detectors	See Fire Safety Notes	1	EA
120B	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	30	SF
120B	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	592	SF
120B	Duct seam sealant	2.1-4.8% Chrysotile Asbestos	10	LF

Room	Description	Hazard	Qty	Units
120B	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	3	EA
120B	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	6	EA
121	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	496	SF
121	Duct seam sealant	2.1-4.8% Chrysotile Asbestos	20	LF
121	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
121	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
121	Offwhite Carpet Glue	No Asbestos Detected	120	SF
121	Red Duct Mastic	3.4% Chrysotile Asbestos	1	SF
122	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	496	SF
122	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
122	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
122	Offwhite Carpet Glue	No Asbestos Detected	120	SF
1st Floor Stair SE Corner	12x12 White with Light Gray Streaks Floor Tile and Mastic	4.3-4.8% Chrysotile Asbestos (Tile and Mastic)	146	SF
1st Floor Stair SE Corner	Automatic Door Closers	Regulated Waste - Oil	1	EA
1st Floor Stair SE Corner	Black Cove Base and Mastic	No Asbestos Detected	14	LF
1st Floor Stair SE Corner	Fire Doors	Assumed Asbestos	1	EA
1st Floor Stair SE Corner	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
1st Floor Stair SE Corner	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	2	EA
1st Floor Stair SE Corner	Plaster	Known to be NAD (Previous Survey)		
200A	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	320	SF
200A	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	20	SF
200A	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	720	SF
200A	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	6	EA
200A	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	12	EA

Room	Description	Hazard	Qty	Units
200A	Wood Doors	Information Only	1	EA
200A	Yellow Carpet Glue	No Asbestos Detected	320	SF
200B	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	180	SF
200B	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	10	SF
200B	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	560	SF
200B	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	10	LF
200B	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	4	EA
200B	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	8	EA
200B	Wood Doors	Information Only	1	EA
200B	Yellow Carpet Glue	No Asbestos Detected	180	SF
200C	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	234	SF
200C	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	10	SF
200C	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	620	SF
200C	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	6	LF
200C	Fire Doors	Assumed Asbestos	1	EA
200C	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	4	EA
200C	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	8	EA
200C	Red Duct Mastic	3.4% Chrysotile Asbestos	1	SF
200C	Wood Doors	Information Only	1	EA
200C	Yellow Carpet Glue	No Asbestos Detected	234	SF
200D	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	320	SF
200D	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	20	SF
200D	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	720	SF
200D	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	22	LF

Legislative Services Survey Notes: Hidden sources of asbestos may be present that were inaccessible at the time of the survey and are not reflected in the room assessment table. This includes but is not limited to duct seam sealant and end cap sealant.

Room	Description	Hazard	Qty	Units
200D	Dutch Door	Information Only	1	EA
200D	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	6	EA
200D	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	12	EA
200D	Yellow Carpet Glue	No Asbestos Detected	320	SF
201 Break Room	12x12 Vinyl Self-Adhesive Floor Tile	Not Suspect Material	112	SF
201 Break Room	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	112	SF
201 Break Room	Black Sink Insulation on Double Sink	No Asbestos Detected		
201 Break Room	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	440	SF
201 Break Room	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	10	LF
201 Break Room	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	1	EA
201 Break Room	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	2	EA
201 Break Room	Refrigerator	Ozone Depleting Substances	1	EA
201 Break Room	Smoke Detectors	See Fire Safety Notes	1	EA
201 Break Room	Vending Machine	Ozone Depleting Substances	1	EA
203 Supply Room	12x12 White with Light Gray Streaks Floor Tile and Black Mastic	4.3-4.8% Chrysotile Asbestos (Tile and Mastic)	144	SF
203 Supply Room	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	144	SF
203 Supply Room	Automatic Door Closers	Regulated Waste - Oil	1	EA
203 Supply Room	Black Cove Base and Mastic	No Asbestos Detected	52	LF
203 Supply Room	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	1	LF
203 Supply Room	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	4	EA
203 Supply Room	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	8	EA
203 Supply Room	Red Duct Mastic	3.4% Chrysotile Asbestos	1	SF
203 Supply Room	Wood Doors	Information Only	1	EA
204	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	160	SF

Room	Description	Hazard	Qty	Units
204	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	10	SF
204	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	520	SF
204	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	16	LF
204	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
204	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
204	Red Duct Mastic	3.4% Chrysotile Asbestos	1	SF
204	Wood Doors	Information Only	1	EA
204	Yellow Carpet Glue	No Asbestos Detected	160	SF
205 Copy Room	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	144	SF
205 Copy Room	Automatic Door Closers	Regulated Waste - Oil	1	EA
205 Copy Room	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	400	SF
205 Copy Room	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	30	LF
205 Copy Room	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
205 Copy Room	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
205 Copy Room	Wood Doors	Information Only	1	EA
205 Copy Room	Yellow Carpet Glue	No Asbestos Detected	144	SF
206 Conference Room	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	414	SF
206 Conference Room	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	23	SF
206 Conference Room	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	820	SF
206 Conference Room	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	10	LF
206 Conference Room	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	9	EA
206 Conference Room	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	18	EA
206 Conference Room	Wood Doors	Information Only	2	EA
206 Conference Room	Yellow Carpet Glue	No Asbestos Detected	414	SF

Room	Description	Hazard	Qty	Units
207	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	64	SF
207	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	360	SF
207	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
207	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
207	Red Pipe Thread Sealant (Per Fitting)	No Asbestos Detected	2	EA
207	Wood Doors	Information Only	1	EA
207	Yellow Carpet Glue	No Asbestos Detected	64	SF
207A	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	120	SF
207A	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	22	SF
207A	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	440	SF
207A	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
207A	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
207A	Wood Doors	Information Only	1	EA
207A	Yellow Carpet Glue	No Asbestos Detected	120	SF
207B	2x4 Divot and Dot Ceiling Tile	Known to be NAD (Previous Survey)	96	SF
207B	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	8	SF
207B	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	400	SF
207B	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
207B	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
207B	Wood Doors	Information Only	1	EA
207B	Yellow Carpet Glue	No Asbestos Detected	96	SF
207C	2x4 Divot and Dot Ceiling Tile	Known to be NAD (Previous Survey)	120	SF
207C	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	8	SF
207C	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	460	SF

Room	Description	Hazard	Qty	Units
207C	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
207C	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
207C	Wood Doors	Information Only	1	EA
207C	Yellow Carpet Glue	No Asbestos Detected	120	SF
207D	2x4 Divot and Dot Ceiling Tile	Known to be NAD (Previous Survey)	120	SF
207D	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	8	SF
207D	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	460	SF
207D	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
207D	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
207D	Wood Doors	Information Only	1	EA
207D	Yellow Carpet Glue	No Asbestos Detected	120	SF
208	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	144	SF
208	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	500	SF
208	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	16	LF
208	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
208	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
208	Red Duct Mastic	3.4% Chrysotile Asbestos	1	SF
208	Wood Doors	Information Only	1	EA
208	Yellow Carpet Glue	No Asbestos Detected	144	SF
209	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	160	SF
209	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	10	SF
209	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	520	SF
209	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	12	LF
209	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA

Room	Description	Hazard	Qty	Units
209	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
209	Red Duct Mastic	3.4% Chrysotile Asbestos	1	SF
209	Wood Doors	Information Only	1	EA
209	Yellow Carpet Glue	No Asbestos Detected	160	SF
210	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	160	SF
210	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	10	SF
210	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	520	SF
210	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	6	LF
210	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
210	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
210	Wood Doors	Information Only	1	EA
210	Yellow Carpet Glue	No Asbestos Detected	160	SF
211	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	160	SF
211	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	10	SF
211	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	520	SF
211	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	6	LF
211	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
211	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
211	Wood Doors	Information Only	1	EA
211	Yellow Carpet Glue	No Asbestos Detected	160	SF
212	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	160	SF
212	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	10	SF
212	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	520	SF
212	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	6	LF

Room	Description	Hazard	Qty	Units
212	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
212	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
212	Wood Doors	Information Only	1	EA
212	Yellow Carpet Glue	No Asbestos Detected	160	SF
213	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	96	SF
213	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	400	SF
213	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	18	LF
213	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
213	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
213	Red Pipe Thread Sealant (Per Fitting)	No Asbestos Detected	3	EA
213	White Pipe Thread Sealant - 2"D	Not Suspect Material	3	EA
213	Wood Doors	Information Only	1	EA
213	Yellow Carpet Glue	No Asbestos Detected	96	SF
214	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	846	SF
214	Carpet over Concrete and Yellow Mastic	No Asbestos Detected	846	SF
214	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	1160	SF
214	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	78	LF
214	Exit Signs	Regulated Waste - Batteries	2	EA
214	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	18	EA
214	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	36	EA
214	Smoke Detectors	See Fire Safety Notes	2	EA
214	Wood Doors	Information Only	2	EA
214A	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	144	SF
214A	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	9	SF

Room	Description	Hazard	Qty	Units
214A	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	500	SF
214A	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	6	LF
214A	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
214A	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
214A	Wood Doors	Information Only	1	EA
214A	Yellow Carpet Glue	No Asbestos Detected	144	SF
214B Office	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	90	SF
214B Office	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	10	SF
214B Office	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	280	SF
214B Office	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	1	EA
214B Office	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	2	EA
214B Office	Wood Pocket Doors	Information Only	1	EA
214B Office	Yellow Carpet Glue	No Asbestos Detected	90	SF
214B Outer Office	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	90	SF
214B Outer Office	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	380	SF
214B Outer Office	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	6	LF
214B Outer Office	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	1	EA
214B Outer Office	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	2	EA
214B Outer Office	Vinyl Vibration Dampeners	Information Only	1	EA
214B Outer Office	Wood Doors	Information Only	1	EA
214B Outer Office	Yellow Carpet Glue	No Asbestos Detected	90	SF
214C Office	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	90	SF
214C Office	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	10	SF
214C Office	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	380	SF

Room	Description	Hazard	Qty	Units
214C Office	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	1	EA
214C Office	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	2	EA
214C Office	Wood Pocket Doors	Information Only	1	EA
214C Office	Yellow Carpet Glue	No Asbestos Detected	90	SF
214C Outer Office	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	90	SF
214C Outer Office	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	380	SF
214C Outer Office	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	6	LF
214C Outer Office	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	1	EA
214C Outer Office	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	2	EA
214C Outer Office	Wood Doors	Information Only	1	EA
214C Outer Office	Yellow Carpet Glue	No Asbestos Detected	90	SF
214D Office	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	140	SF
214D Office	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	24	SF
214D Office	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	480	SF
214D Office	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
214D Office	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
214D Office	Wood Pocket Doors	Information Only	1	EA
214D Office	Yellow Carpet Glue	No Asbestos Detected	140	SF
214D Outer Office	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	140	SF
214D Outer Office	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	10	SF
214D Outer Office	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	480	SF
214D Outer Office	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
214D Outer Office	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
214D Outer Office	Wood Doors	Information Only	1	EA

Room	Description	Hazard	Qty	Units
214D Outer Office	Yellow Carpet Glue	No Asbestos Detected	140	SF
214E	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	260	SF
214E	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	33	SF
214E	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	660	SF
214E	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	10	LF
214E	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	4	EA
214E	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	8	EA
214E	Wood Doors	Information Only	1	EA
214E	Yellow Carpet Glue	No Asbestos Detected	260	SF
214F	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	94.5	SF
214F	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	410	SF
214F	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	22	LF
214F	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
214F	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
214F	Wood Pocket Doors	Information Only	1	EA
214F	Yellow Carpet Glue	No Asbestos Detected	94.5	SF
214G	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	108	SF
214G	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	430	SF
214G	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	20	LF
214G	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
214G	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
214G	Wood Doors	Information Only	1	EA
214G	Yellow Carpet Glue	No Asbestos Detected	108	SF
215A and B	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	162	SF

Room	Description	Hazard	Qty	Units
215A and B	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	9	SF
215A and B	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	630	SF
215A and B	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	6	LF
215A and B	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	4	EA
215A and B	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	8	EA
215A and B	Red Duct Mastic	3.4% Chrysotile Asbestos	1	SF
215A and B	Wood Doors	Information Only	1	EA
215A and B	Wood Pocket Doors	Information Only	1	EA
215A and B	Yellow Carpet Glue	No Asbestos Detected	162	SF
216	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	144	SF
216	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	480	SF
216	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	6	LF
216	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	4	EA
216	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	8	EA
216	Red Duct Mastic	3.4% Chrysotile Asbestos	1	SF
216	Wood Doors	Information Only	1	EA
216	Yellow Carpet Glue	No Asbestos Detected	144	SF
217A and B	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	162	SF
217A and B	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	9	SF
217A and B	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	630	SF
217A and B	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	6	LF
217A and B	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	4	EA
217A and B	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	8	EA
217A and B	Red Duct Mastic	3.4% Chrysotile Asbestos	1	SF

Room	Description	Hazard	Qty	Units
217A and B	Wood Doors	Information Only	1	EA
217A and B	Wood Pocket Doors	Information Only	1	EA
217A and B	Yellow Carpet Glue	No Asbestos Detected	162	SF
218	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	156	SF
218	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	500	SF
218	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	6	LF
218	Fire Doors	Assumed Asbestos	1	EA
218	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	4	EA
218	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	8	EA
218	Red Duct Mastic	3.4% Chrysotile Asbestos	1	SF
218	Wood Doors	Information Only	1	EA
218	Yellow Carpet Glue	No Asbestos Detected	156	SF
219A and B	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	162	SF
219A and B	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	9	SF
219A and B	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	630	SF
219A and B	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	6	LF
219A and B	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	4	EA
219A and B	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	8	EA
219A and B	Red Duct Mastic	3.4% Chrysotile Asbestos	1	SF
219A and B	Wood Doors	Information Only	1	EA
219A and B	Wood Pocket Doors	Information Only	1	EA
219A and B	Yellow Carpet Glue	No Asbestos Detected	162	SF
220	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	150	SF
220	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	490	SF

Room	Description	Hazard	Qty	Units
220	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	6	LF
220	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	4	EA
220	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	8	EA
220	Wood Doors	Information Only	1	EA
220	Yellow Carpet Glue	No Asbestos Detected	150	SF
221A and B	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	180	SF
221A and B	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	10	SF
221A and B	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	660	SF
221A and B	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	10	LF
221A and B	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	4	EA
221A and B	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	8	EA
221A and B	Red Duct Mastic	3.4% Chrysotile Asbestos	1	SF
221A and B	Wood Doors	Information Only	1	EA
221A and B	Wood Pocket Doors	Information Only	1	EA
221A and B	Yellow Carpet Glue	No Asbestos Detected	180	SF
222	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	156	SF
222	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	500	SF
222	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	6	LF
222	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	4	EA
222	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	8	EA
222	Wood Doors	Information Only	1	EA
222	Yellow Carpet Glue	No Asbestos Detected	156	SF
223A and B	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	180	SF
223A and B	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	10	SF

Room	Description	Hazard	Qty	Units
223A and B	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	660	SF
223A and B	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	6	LF
223A and B	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	4	EA
223A and B	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	8	EA
223A and B	Wood Doors	Information Only	1	EA
223A and B	Wood Pocket Doors	Information Only	1	EA
223A and B	Yellow Carpet Glue	No Asbestos Detected	180	SF
224A and B	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	240	SF
224A and B	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	32	SF
224A and B	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	760	SF
224A and B	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	6	EA
224A and B	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	12	EA
224A and B	Wood Doors	Information Only	2	EA
224A and B	Yellow Carpet Glue	No Asbestos Detected	240	SF
225	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	105	SF
225	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	440	SF
225	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	22	LF
225	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
225	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
225	Wood Doors	Information Only	1	EA
225	Yellow Carpet Glue	No Asbestos Detected	105	SF
226	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	1528	SF
226	Carpet over Concrete and Yellow Mastic	No Asbestos Detected	1528	SF
226	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	2220	SF

Room	Description	Hazard	Qty	Units
226	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	88	LF
226	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	31	EA
226	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	62	EA
226	Smoke Detectors	See Fire Safety Notes	3	EA
226	Wood Doors	Information Only	2	EA
226 Closet	Compact Fluorescent Lamps (CFLs)	Regulated Waste - Mercury and Lead	1	EA
226 Closet	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	192	SF
226 Closet	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	6	LF
226 Closet	Yellow Carpet Glue	No Asbestos Detected	40	SF
226A	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	280	SF
226A	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	34	SF
226A	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	680	SF
226A	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	6	EA
226A	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	12	EA
226A	Smoke Detectors	See Fire Safety Notes	1	EA
226A	Wood Doors	Information Only	1	EA
226A	Yellow Carpet Glue	No Asbestos Detected	280	SF
226B	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	160	SF
226B	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	10	SF
226B	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	520	SF
226B	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
226B	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
226B	Wood Doors	Information Only	1	EA
226B	Yellow Carpet Glue	No Asbestos Detected	160	SF

Room	Description	Hazard	Qty	Units
226C	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	160	SF
226C	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	8	SF
226C	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	112	SF
226C	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	6	LF
226C	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	3	EA
226C	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	6	EA
226C	Wood Doors	Information Only	1	EA
226C	Yellow Carpet Glue	No Asbestos Detected	160	SF
226D	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	176	SF
226D	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	11	SF
226D	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	520	SF
226D	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	6	LF
226D	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	4	EA
226D	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	8	EA
226D	Wood Doors	Information Only	1	EA
226D	Wood Pocket Doors	Information Only	1	EA
226D	Yellow Carpet Glue	No Asbestos Detected	176	SF
226E	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	176	SF
226E	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	11	SF
226E	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	520	SF
226E	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	6	LF
226E	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	4	EA
226E	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	8	EA
226E	Wood Doors	Information Only	1	EA

Room	Description	Hazard	Qty	Units
226E	Wood Pocket Doors	Information Only	1	EA
226E	Yellow Carpet Glue	No Asbestos Detected	176	SF
226F	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	224	SF
226F	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	14	SF
226F	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	640	SF
226F	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	6	LF
226F	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	4	EA
226F	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	8	EA
226F	Red Duct Mastic	3.4% Chrysotile Asbestos	1	SF
226F	Red Pipe Thread Sealant (Per Fitting)	No Asbestos Detected	2	EA
226F	Wood Doors	Information Only	1	EA
226F	Yellow Carpet Glue	No Asbestos Detected	224	SF
226G	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	192	SF
226G	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	12	SF
226G	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	680	SF
226G	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	6	LF
226G	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	4	EA
226G	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	8	EA
226G	Wood Doors	Information Only	1	EA
226G	Wood Pocket Doors	Information Only	1	EA
226G	Yellow Carpet Glue	No Asbestos Detected	192	SF
226H	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	192	SF
226H	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	12	SF
226H	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	680	SF

Room	Description	Hazard	Qty	Units
226H	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	6	LF
226H	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	4	EA
226H	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	8	EA
226H	Red Duct Mastic	3.4% Chrysotile Asbestos	1	SF
226H	Wood Doors	Information Only	1	EA
226H	Wood Pocket Doors	Information Only	1	EA
226H	Yellow Carpet Glue	No Asbestos Detected	192	SF
226I	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	160	SF
226I	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	8	SF
226I	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	560	SF
226I	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	6	LF
226I	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	3	EA
226I	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	6	EA
226I	Wood Doors	Information Only	1	EA
226I	Yellow Carpet Glue	No Asbestos Detected	160	SF
226J	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	280	SF
226J	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	14	SF
226J	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	820	SF
226J	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	6	LF
226J	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	6	EA
226J	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	12	EA
226J	Wood Doors	Information Only	2	EA
226J	Yellow Carpet Glue	No Asbestos Detected	280	SF
227 File Room	12X12 White with Light Gray Streaks Floor Tile and Mastic	4.3-4.8% Chrysotile Asbestos (Tile and Mastic)	336	SF

Room	Description	Hazard	Qty	Units
227 File Room	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	336	SF
227 File Room	Automatic Door Closers	Regulated Waste - Oil	1	EA
227 File Room	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	800	SF
227 File Room	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	84	LF
227 File Room	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	5	EA
227 File Room	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	10	EA
227 File Room	Red Duct Mastic	3.4% Chrysotile Asbestos	1	SF
227 File Room	Smoke Detectors	See Fire Safety Notes	1	EA
2nd Floor NE Stairwell	12x12 White with Light Gray Streaks Floor Tile and Mastic	4.3-4.8% Chrysotile Asbestos (Tile and Mastic)	448	SF
2nd Floor NE Stairwell	Black Cove Base and Mastic	No Asbestos Detected	32	LF
2nd Floor NE Stairwell	Concrete Masonry Unit Walls	Information Only		
2nd Floor NE Stairwell	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	20	LF
2nd Floor NE Stairwell	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	3	EA
2nd Floor NE Stairwell	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	6	EA
2nd Floor NE Stairwell	Plaster	Known to be NAD (Previous Survey)		
2nd Floor NE Stairwell	White Window Caulk	No Asbestos Detected	160	SF
300	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	408	SF
300	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	1130	SF
300	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	72	LF
300	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	8	EA
300	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	16	EA
300	Gray Spray Applied Fireproofing	No Asbestos Detected	408	SF
300	Red Duct Mastic	3.4% Chrysotile Asbestos	1	SF
300	Wood Doors	Information Only	1	EA

Legislative Services Survey Notes: Hidden sources of asbestos may be present that were inaccessible at the time of the survey and are not reflected in the room assessment table. This includes but is not limited to duct seam sealant and end cap sealant.

Room	Description	Hazard	Qty	Units
300	Yellow Carpet Glue	No Asbestos Detected	408	SF
300A	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	130	SF
300A	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	10	SF
300A	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	460	SF
300A	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	4	LF
300A	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
300A	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
300A	Gray Spray Applied Fireproofing	No Asbestos Detected	130	SF
300A	Red Duct Mastic	3.4% Chrysotile Asbestos	1	SF
300A	Wood Doors	Information Only	1	EA
300A	Yellow Carpet Glue	No Asbestos Detected	130	SF
300B	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	117	SF
300B	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	10	SF
300B	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	440	SF
300B	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	4	LF
300B	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
300B	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
300B	Gray Spray Applied Fireproofing	No Asbestos Detected	117	SF
300B	Red Duct Mastic	3.4% Chrysotile Asbestos	1	SF
300B	Wood Doors	Information Only	1	EA
300B	Yellow Carpet Glue	No Asbestos Detected	117	SF
300C	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	130	SF
300C	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	10	SF
300C	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	460	SF

Room	Description	Hazard	Qty	Units
300C	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	4	LF
300C	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
300C	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
300C	Gray Spray Applied Fireproofing	No Asbestos Detected	130	SF
300C	Red Duct Mastic	3.4% Chrysotile Asbestos	1	SF
300C	Wood Doors	Information Only	1	EA
300C	Yellow Carpet Glue	No Asbestos Detected	130	SF
300D	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	286	SF
300D	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	22	SF
300D	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	700	SF
300D	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	4	LF
300D	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	6	EA
300D	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	12	EA
300D	Gray Spray Applied Fireproofing	No Asbestos Detected	286	SF
300D	Red Duct Mastic	3.4% Chrysotile Asbestos	1	SF
300D	Wood Doors	Information Only	1	EA
300D	Yellow Carpet Glue	No Asbestos Detected	286	SF
303 Entry to Mech Rm	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	60	LF
303 Entry to Mech Rm	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	4	EA
303 Entry to Mech Rm	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	8	EA
303 Entry to Mech Rm	Gray Spray Applied Fireproofing	No Asbestos Detected	160	SF
303 Entry to Mech Rm	Smoke Detectors	See Fire Safety Notes	1	EA
304	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	140	SF
304	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	640	SF

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Room	Description	Hazard	Qty	Units
304	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	12	LF
304	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
304	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
304	Gray Spray Applied Fireproofing	No Asbestos Detected	140	SF
304	Wood Doors	Information Only	1	EA
304	Yellow Carpet Glue	No Asbestos Detected	140	SF
305	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	144	SF
305	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	500	SF
305	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	20	LF
305	Emergency Lights	Regulated Waste - Batteries	1	EA
305	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
305	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
305	Gray Spray Applied Fireproofing	No Asbestos Detected	144	SF
305	Stained Ceiling Tile	Water and Mold Damage	3	SF
305	Wood Doors	Information Only	1	EA
305	Yellow Carpet Glue	No Asbestos Detected	144	SF
306	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	268	SF
306	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	1000	SF
306	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	10	LF
306	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
306	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
306	Gray Spray Applied Fireproofing	No Asbestos Detected	268	SF
306	Wood Doors	Information Only	1	EA
306	Yellow Carpet Glue	No Asbestos Detected	268	SF

Legislative Services Survey Notes: Hidden sources of asbestos may be present that were inaccessible at the time of the survey and are not reflected in the room assessment table. This includes but is not limited to duct seam sealant and end cap sealant.

Room	Description	Hazard	Qty	Units
306 Hall	12x12 White with Light Gray Streaks Floor Tile and Mastic	4.3-4.8% Chrysotile Asbestos (Tile and Mastic)	161	SF
306 Hall	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	161	SF
306 Hall	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	460	SF
306 Hall	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	24	LF
306 Hall	Exit Signs	Regulated Waste - Batteries	1	EA
306 Hall	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	3	EA
306 Hall	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	6	EA
306 Hall	Gray Spray Applied Fireproofing	No Asbestos Detected	161	SF
306 Hall	Red Duct Mastic	3.4% Chrysotile Asbestos	3	SF
306 Hall	Smoke Detectors	See Fire Safety Notes	1	EA
306A	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	98	SF
306A	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	464	SF
306A	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	6	LF
306A	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	1	EA
306A	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	2	EA
306A	Gray Spray Applied Fireproofing	No Asbestos Detected	98	SF
306A	Wood Doors	Information Only	1	EA
306A	Yellow Carpet Glue	No Asbestos Detected	98	SF
307 Graphics	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	350	SF
307 Graphics	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	25	SF
307 Graphics	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	2780	SF
307 Graphics	Exit Signs	Regulated Waste - Batteries	1	EA
307 Graphics	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	5	EA
307 Graphics	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	10	EA

Room	Description	Hazard	Qty	Units
307 Graphics	Gray Spray Applied Fireproofing	No Asbestos Detected	350	SF
307 Graphics	Wood Doors	Information Only	1	EA
307 Graphics	Yellow Carpet Glue	No Asbestos Detected	350	SF
308	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	160	SF
308	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	10	SF
308	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	520	SF
308	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
308	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
308	Gray Spray Applied Fireproofing	No Asbestos Detected	160	SF
308	Wood Doors	Information Only	1	EA
308	Yellow Carpet Glue	No Asbestos Detected	160	SF
308 Service Room	12x12 White with Light Gray Streaks Floor Tile and Mastic	4.3-4.8% Chrysotile Asbestos (Tile and Mastic)	36	SF
308 Service Room	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	36	SF
308 Service Room	3"x3" Ceramic Tile Walls	Regulated Waste - Lead		
308 Service Room	Black Cove Base and Mastic	No Asbestos Detected	24	LF
308 Service Room	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	180	SF
308 Service Room	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	1	EA
308 Service Room	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	2	EA
308A Electrical Room	Black Paper Layer of Pipe Insulation	No Asbestos Detected		
308A Electrical Room	Black Roofing Tar drips	No Asbestos Detected	1	SF
308A Electrical Room	Dry Type Transformer	Information Only	2	EA
308A Electrical Room	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	120	SF
308A Electrical Room	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	40	LF
308A Electrical Room	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA

Room	Description	Hazard	Qty	Units
308A Electrical Room	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	2	EA
308A Electrical Room	Red Penetration Sealant	3.1% Chrysotile Asbestos	1	SF
308A Electrical Room	Red Pipe Thread Sealant (Per Fitting)	No Asbestos Detected	2	EA
309	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	636	SF
309	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	40	SF
309	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	1072	SF
309	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	350	LF
309	Emergency Lights	Regulated Waste - Batteries	1	EA
309	Exit Signs	Regulated Waste - Batteries	1	EA
309	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	19	EA
309	Fluorescent Lamps - 2 FT	Regulated Waste - Mercury and Lead	6	EA
309	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	32	EA
309	Gray Spray Applied Fireproofing	No Asbestos Detected	636	SF
309	Red Duct Mastic	3.4% Chrysotile Asbestos	3	SF
309	Smoke Detectors	See Fire Safety Notes	4	EA
309	Yellow Carpet Glue	No Asbestos Detected	636	SF
309 Editing	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	510	SF
309 Editing	Blue Cove Base and Mastic	No Asbestos Detected	32	LF
309 Editing	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	1520	SF
309 Editing	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	116	LF
309 Editing	Exit Signs	Regulated Waste - Batteries	1	EA
309 Editing	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	43	EA
309 Editing	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	86	EA
309 Editing	Gray Spray Applied Fireproofing	No Asbestos Detected	510	SF

Room	Description	Hazard	Qty	Units
309 Editing	Red Duct Mastic	3.4% Chrysotile Asbestos	1	SF
309 Editing	Red Pipe Thread Sealant (Per Fitting)	No Asbestos Detected	2	EA
309 Editing	Smoke Detectors	See Fire Safety Notes	3	EA
309 Editing	Yellow Carpet Glue	No Asbestos Detected	510	SF
309 Hall	12x12 White with Light Gray Streaks Floor Tile and Mastic	4.3-4.8% Chrysotile Asbestos (Tile and Mastic)	322	SF
309 Hall	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	322	SF
309 Hall	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	990	SF
309 Hall	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	79	LF
309 Hall	Exit Signs	Regulated Waste - Batteries	1	EA
309 Hall	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	5	EA
309 Hall	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	10	EA
309 Hall	Gray Spray Applied Fireproofing	No Asbestos Detected	322	SF
309 Hall	Smoke Detectors	See Fire Safety Notes	1	EA
309 Hall	Water Fountain	Ozone Depleting Substances	1	EA
309A	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	108	SF
309A	Black Cove Base and Mastic	No Asbestos Detected	18	LF
309A	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	420	SF
309A	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	30	LF
309A	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	3	EA
309A	Fluorescent Lamps - 2 FT	Regulated Waste - Mercury and Lead	4	EA
309A	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	2	EA
309A	Red Duct Mastic	3.4% Chrysotile Asbestos	1	SF
309A	Wood Doors	Information Only	1	EA
309A	Yellow Carpet Glue	No Asbestos Detected	108	SF

Room	Description	Hazard	Qty	Units
309B	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	90	SF
309B	Black Cove Base and Mastic	No Asbestos Detected	28	LF
309B	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	304	SF
309B	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	30	LF
309B	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	3	EA
309B	Fluorescent Lamps - 2 FT	Regulated Waste - Mercury and Lead	4	EA
309B	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	2	EA
309B	Red Duct Mastic	3.4% Chrysotile Asbestos	1	SF
309B	Red Pipe Thread Sealant (Per Fitting)	No Asbestos Detected	2	EA
309B	Wood Doors	Information Only	1	EA
309B	Yellow Carpet Glue	No Asbestos Detected	90	SF
309C	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	108	SF
309C	Black Cove Base and Mastic	No Asbestos Detected	18	LF
309C	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	420	SF
309C	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	30	LF
309C	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	3	EA
309C	Fluorescent Lamps - 2 FT	Regulated Waste - Mercury and Lead	4	EA
309C	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	2	EA
309C	Red Duct Mastic	3.4% Chrysotile Asbestos	1	SF
309C	Wood Doors	Information Only	1	EA
309C	Yellow Carpet Glue	No Asbestos Detected	108	SF
309D	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	108	SF
309D	Black Cove Base and Mastic	No Asbestos Detected	22	LF
309D	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	420	SF

Room	Description	Hazard	Qty	Units
309D	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	20	LF
309D	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	4	EA
309D	Fluorescent Lamps - 2 FT	Regulated Waste - Mercury and Lead	4	EA
309D	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
309D	Red Duct Mastic	3.4% Chrysotile Asbestos	1	SF
309D	Wood Doors	Information Only	1	EA
309D	Yellow Carpet Glue	No Asbestos Detected	108	SF
309E	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	120	SF
309E	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	352	SF
309E	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	30	LF
309E	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	4	EA
309E	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	8	EA
309E	Gray Spray Applied Fireproofing	No Asbestos Detected	120	SF
309E	Stained Ceiling Tile	Water and Mold Damage	1	SF
309E	Yellow Carpet Glue	No Asbestos Detected	120	SF
309F	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	80	SF
309F	Black Cove Base and Mastic	No Asbestos Detected	10	LF
309F	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	288	SF
309F	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	1	EA
309F	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	2	EA
309F	Gray Spray Applied Fireproofing	No Asbestos Detected	80	SF
309F	Wood Doors	Information Only	1	EA
309F	Yellow Carpet Glue	No Asbestos Detected	80	SF
309G	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	120	SF

Room	Description	Hazard	Qty	Units
309G	Black Cove Base and Mastic	No Asbestos Detected	10	LF
309G	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	352	SF
309G	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
309G	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
309G	Wood Doors	Information Only	1	EA
309G	Yellow Carpet Glue	No Asbestos Detected	120	SF
309H	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	450	SF
309H	Air Conditioner (Maytag unknown refrigerant)	Ozone Depleting Substances	1	EA
309H	Air Conditioner (Mitsubishi R410A)	Ozone Depleting Substances	1	EA
309H	Black Cove Base and Mastic	No Asbestos Detected	10	LF
309H	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	720	SF
309H	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	5	EA
309H	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	10	EA
309H	Wood Doors	Information Only	1	EA
309H	Yellow Carpet Glue	No Asbestos Detected	450	SF
310	Dry Type Transformer	Information Only	1	EA
310	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	600	SF
310	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
310	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	8	EA
310	Gray Spray Applied Fireproofing	No Asbestos Detected	225	SF
310	Wood Doors	Information Only	1	EA
311	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	977	SF
311	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	1920	SF
311	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	120	LF

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Room	Description	Hazard	Qty	Units
311	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	29	EA
311	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	58	EA
311	Gray Spray Applied Fireproofing	No Asbestos Detected	977	SF
311	Red Duct Mastic	3.4% Chrysotile Asbestos	5	SF
311	Smoke Detectors	See Fire Safety Notes	2	EA
311	Wood Doors	Information Only	2	EA
311	Yellow Carpet Glue	No Asbestos Detected	977	SF
311A	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	156	SF
311A	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	500	SF
311A	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	10	LF
311A	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	3	EA
311A	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	6	EA
311A	Gray Spray Applied Fireproofing	No Asbestos Detected	156	SF
311A	Red Duct Mastic	3.4% Chrysotile Asbestos	1	SF
311A	Wood Doors	Information Only	2	EA
311A	Yellow Carpet Glue	No Asbestos Detected	156	SF
311B	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	144	SF
311B	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	480	SF
311B	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	10	LF
311B	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
311B	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
311B	Gray Spray Applied Fireproofing	No Asbestos Detected	144	SF
311B	Red Duct Mastic	3.4% Chrysotile Asbestos	1	SF
311B	Wood Doors	Information Only	2	EA

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Room	Description	Hazard	Qty	Units
311B	Yellow Carpet Glue	No Asbestos Detected	144	SF
311C	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	252	SF
311C	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	640	SF
311C	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	10	LF
311C	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	3	EA
311C	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	6	EA
311C	Gray Spray Applied Fireproofing	No Asbestos Detected	252	SF
311C	Red Duct Mastic	3.4% Chrysotile Asbestos	1	SF
311C	Smoke Detectors	See Fire Safety Notes	1	EA
311C	Wood Doors	Information Only	1	EA
311C	Yellow Carpet Glue	No Asbestos Detected	252	SF
311D	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	130	SF
311D	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	460	SF
311D	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	10	LF
311D	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
311D	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
311D	Gray Spray Applied Fireproofing	No Asbestos Detected	130	SF
311D	Red Duct Mastic	3.4% Chrysotile Asbestos	1	SF
311D	Wood Doors	Information Only	1	EA
311D	Yellow Carpet Glue	No Asbestos Detected	130	SF
311E	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	180	SF
311E	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	9	SF
311E	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	580	SF
311E	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	10	LF

Room	Description	Hazard	Qty	Units
311E	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
311E	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
311E	Gray Spray Applied Fireproofing	No Asbestos Detected	180	SF
311E	Red Duct Mastic	3.4% Chrysotile Asbestos	1	SF
311E	Wood Doors	Information Only	1	EA
311E	Yellow Carpet Glue	No Asbestos Detected	180	SF
311G	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	420	SF
311G	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	21	SF
311G	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	820	SF
311G	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	20	LF
311G	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	4	EA
311G	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	8	EA
311G	Gray Spray Applied Fireproofing	No Asbestos Detected	420	SF
311G	Red Duct Mastic	3.4% Chrysotile Asbestos	2	SF
311G	Wood Doors	Information Only	1	EA
311G	Yellow Carpet Glue	No Asbestos Detected	420	SF
311H	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	180	SF
311H	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	9	SF
311H	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	580	SF
311H	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	10	LF
311H	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	4	EA
311H	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	8	EA
311H	Gray Spray Applied Fireproofing	No Asbestos Detected	180	SF
311H	Red Duct Mastic	3.4% Chrysotile Asbestos	1	SF

Room	Description	Hazard	Qty	Units
311H	Stained Ceiling Tile	Water and Mold Damage	1	SF
311H	Wood Doors	Information Only	1	EA
311H	Yellow Carpet Glue	No Asbestos Detected	180	SF
311I	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	380	SF
311I	Black Vapor Barrier and Waterproofing	3.8-5.9% Chrysotile Asbestos	19	SF
311I	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	780	SF
311I	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	20	LF
311I	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	3	EA
311I	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	6	EA
311I	Gray Spray Applied Fireproofing	No Asbestos Detected	380	SF
311I	Red Duct Mastic	3.4% Chrysotile Asbestos	2	SF
311I	Wood Doors	Information Only	1	EA
311I	Yellow Carpet Glue	No Asbestos Detected	380	SF
311K	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	496	SF
311K	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	860	SF
311K	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	20	LF
311K	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	9	EA
311K	Fluorescent Lamps - 2 FT	Regulated Waste - Mercury and Lead	6	EA
311K	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	12	EA
311K	Gray Spray Applied Fireproofing	No Asbestos Detected	496	SF
311K	Red Duct Mastic	3.4% Chrysotile Asbestos	2	SF
311K	Smoke Detectors	See Fire Safety Notes	1	EA
311K	Wood Doors	Information Only	2	EA
311K	Yellow Carpet Glue	No Asbestos Detected	496	SF

Room	Description	Hazard	Qty	Units
B-00	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	592	SF
B-00	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	20	LF
B-00	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	6	EA
B-00	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	12	EA
B-00	Smoke Detectors	See Fire Safety Notes	1	EA
B-00B	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	198	SF
B-00B	Carpet over Concrete and Mastic	Assumed Black Mastic	198	SF
B-00B	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	464	SF
B-00B	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	18	LF
B-00B	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	6	EA
B-00B	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	12	EA
B-00B	Vinyl Vibration Dampeners	Information Only	1	EA
B-03	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	176	SF
B-03	Can Lights (CFLs or LEDs)	Regulated Waste - Mercury and Lead	4	EA
B-03	Carpet over Concrete and Black Mastic	1.6% Chrysotile Asbestos	176	SF
B-03	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	480	SF
B-03	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	12	LF
B-03	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
B-03	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
B-03	Mudded Valve	No Asbestos Detected	1	EA
B-03	Tan Cove Base and Mastic	No Asbestos Detected	60	LF
B-03	Wood Doors	Information Only	1	EA
B-04	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)		
B-04	Brown Caulk	No Asbestos Detected	18	LF

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Room	Description	Hazard	Qty	Units
B-04	Carpet over Concrete and Black Mastic	1.6% Chrysotile Asbestos	80	SF
B-04	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	36	SF
B-04	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	12	LF
B-04	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	1	EA
B-04	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	2	EA
B-05	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	432	SF
B-05	Carpet over Concrete and Mastic	Assumed Black Mastic	432	SF
B-05	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	672	SF
B-05	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	24	LF
B-05	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	11	EA
B-05	Fluorescent Lamps - 2 FT	Regulated Waste - Mercury and Lead	6	EA
B-05	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	16	EA
B-05	Red Cove Base and Mastic	No Asbestos Detected	84	LF
B-05	Smoke Detectors	See Fire Safety Notes	1	EA
B-06	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	96	SF
B-06	Carpet over Concrete and Black Mastic	1.6% Chrysotile Asbestos	96	SF
B-06	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	320	SF
B-06	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	6	LF
B-06	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	1	EA
B-06	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	2	EA
B-06	Tan Cove Base and Mastic	No Asbestos Detected	40	LF
B-06	Wood Doors	Information Only	1	EA
B-07	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	360	SF
B-07	Carpet over Concrete and Mastic	Assumed Black Mastic	360	SF

Room	Description	Hazard	Qty	Units
B-07	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	608	SF
B-07	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	9	EA
B-07	Fluorescent Lamps - 2 FT	Regulated Waste - Mercury and Lead	4	EA
B-07	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	14	EA
B-07	Red Cove Base and Mastic	No Asbestos Detected	76	LF
B-07	Smoke Detectors	See Fire Safety Notes	1	EA
B-07	Wood Doors	Information Only	1	EA
B-08	Automatic Door Closers	Regulated Waste - Oil	1	EA
B-08	Carpet over Black Mastic	Black Mastic contains Asbestos	4281	SF
B-08	Cove Base And Mastic	No Asbestos Detected	260	LF
B-08	Double Entry Doors (Glass)	Information Only	1	EA
B-08	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	2080	SF
B-08	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	336	LF
B-08	Exit Signs	Regulated Waste - Batteries	5	EA
B-08	Exit Signs with Emergency Lights	Regulated Waste - Batteries	1	EA
B-08	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	199	EA
B-08	Fluorescent Lamps - 2 FT	Regulated Waste - Mercury and Lead	30	EA
B-08	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	213	EA
B-08	Smoke Detectors	See Fire Safety Notes	6	EA
B-08	Water Fountain	Ozone Depleting Substances	1	EA
B-08	Wood Doors	Information Only	1	EA
B-08A	Carpet over Black Mastic	Assumed Black Mastic	112	SF
B-08A	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	440	SF
B-08A	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	1	EA

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Room	Description	Hazard	Qty	Units
B-08A	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	3	EA
B-08A	Pocket Doors	Information Only	1	EA
B-08B	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	100	SF
B-08B	Carpet over Black Mastic	Assumed Black Mastic	100	SF
B-08B	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	400	SF
B-08B	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	20	LF
B-08B	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	1	EA
B-08B	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	2	EA
B-08B	Pocket Doors	Information Only	1	EA
B-08B	Red Cove Base and Mastic	No Asbestos Detected	40	LF
B-08C	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	100	SF
B-08C	Carpet over Concrete and Mastic	Black Mastic contains Asbestos	100	SF
B-08C	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	400	SF
B-08C	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	10	LF
B-08C	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	1	EA
B-08C	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	2	EA
B-08C	Red Cove Base and Mastic	No Asbestos Detected	40	LF
B-08C	Wood Pocket Doors	Information Only	1	EA
B-10	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	180	SF
B-10	Automatic Door Closers	Regulated Waste - Oil	1	EA
B-10	Carpet over Black Mastic	Assumed Black Mastic	180	SF
B-10	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	1440	SF
B-10	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	2	LF
B-10	Fire Doors	Assumed Asbestos	1	EA

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Room	Description	Hazard	Qty	Units
B-10	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	4	EA
B-10	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	8	EA
B-10	Red Cove Base and Mastic	No Asbestos Detected	56	LF
B-10	Wood Doors	Information Only	2	EA
B-11 Print Shop	12x12 Mottled Gray Floor Tile and Mastic	No Asbestos Detected	212	SF
B-11 Print Shop	12X12 White With Light Gray Floor Tile and Mastic	Mastic Contains 1.3% Asbestos	5120	SF
B-11 Print Shop	Automatic Door Closers	Regulated Waste - Oil	5	EA
B-11 Print Shop	Brown Caulk	No Asbestos Detected	110	LF
B-11 Print Shop	Cove Base And Mastic	No Asbestos Detected	120	LF
B-11 Print Shop	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	808	SF
B-11 Print Shop	Emergency Lights	Regulated Waste - Batteries	2	EA
B-11 Print Shop	Exit Signs	Regulated Waste - Batteries	3	EA
B-11 Print Shop	Fire Doors	Assumed Asbestos	5	EA
B-11 Print Shop	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	95	EA
B-11 Print Shop	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	190	EA
B-11 Print Shop	Metal Doors	Information Only	2	EA
B-11 Print Shop	Smoke Detectors	See Fire Safety Notes	5	EA
B-11B	12x12 Tan Streak FT With Yellow Mastic over 1 layer	1.2% Chrysotile Asbestos (Tile and Mastic)	248	SF
B-11B	12X12 White Floor Tile and Black Mastic	Black Mastic Contains Asbestos	248	SF
B-11B	Automatic Door Closers	Regulated Waste - Oil	1	EA
B-11B	Brown Caulk	No Asbestos Detected	10	LF
B-11B	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	464	SF
B-11B	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	30	LF

Room	Description	Hazard	Qty	Units
B-11B	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	3	EA
B-11B	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	30	EA
B-11B	Metal Doors	Information Only	1	EA
B-11C	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	120	SF
B-11C	Black Cove Base and Mastic	No Asbestos Detected	44	LF
B-11C	Carpet Over Floor Tile	Black Mastic contains Asbestos	120	SF
B-11C	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	480	SF
B-11C	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	1	EA
B-11C	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	2	EA
B-11C	Smoke Detectors	See Fire Safety Notes	1	EA
B-11C	Wood Doors	Information Only	1	EA
B-11D	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	144	SF
B-11D	Black Mastic under Ceiling Grid	No Asbestos Detected	50	LF
B-11D	Carpet Over Floor Tile	Black Mastic contains Asbestos	144	SF
B-11D	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	360	SF
B-11D	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
B-11D	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
B-11D	Wood Doors	Information Only	1	EA
B-12	Automatic Door Closers	Regulated Waste - Oil	2	EA
B-12	Concrete Floor	Information Only	3640	SF
B-12	Emergency Lights	Regulated Waste - Batteries	1	EA
B-12	Fire Doors	Assumed Asbestos	2	EA
B-12	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	54	EA
B-12	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	54	EA

Room	Description	Hazard	Qty	Units
B-12	Gray Duct Mastic	No Asbestos Detected		
B-12	Mudded Tank Insulation	No Asbestos Detected	24	SF
B-12	Oil for Compressor	Regulated Waste - Oil	1	Liter
B-12	Orange Penetration Sealant	Assumed Asbestos	1	SF
B-12	Smoke Detectors	See Fire Safety Notes	1	EA
B-12	Thermometers	Regulated Waste - Mercury	20	EA
B-12	Vinyl Vibration Dampeners	Information Only	28	LF
B-12 Storage Room	Barrels Unlabeled Plastic	Unknown Contents	2	EA
B-12 Storage Room	Chronalox Heater	Information Only	1	EA
B-12 Storage Room	Fire Doors	Assumed Asbestos	1	EA
B-12 Storage Room	Flammable Liquid Container	Flammable Liquid Waste	1	EA
B-12 Storage Room	Gas Cans	Flammable Liquid Waste	8	EA
B-12 Storage Room	Incandescent Lamps	Information Only	2	EA
B-12 Storage Room	Steel Drums	Unknown Contents	3	EA
B-13 Hall	12X12 White/Gray Floor Tile and Mastic	4.3-4.8% Chrysotile Asbestos (Tile and Mastic)	64	SF
B-13 Hall	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	64	SF
B-13 Hall	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	256	SF
B-13 Hall	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	1	EA
B-13 Hall	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	2	EA
B-13 Hall	Wood Doors	Information Only	1	EA
B-13A	12X12 White/Gray Floor Tile and Mastic	4.3-4.8% Chrysotile Asbestos (Tile and Mastic)	120	SF
B-13A	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	120	SF
B-13A	Black Cove Base and Mastic	No Asbestos Detected	44	LF
B-13A	Carpet Over Floor Tile	Black Mastic contains Asbestos	120	SF

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Room	Description	Hazard	Qty	Units
B-13A	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	304	SF
B-13A	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	1	EA
B-13A	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	2	EA
B-13A	Wood Doors	Information Only	1	EA
B-13B Kitchen	12X12 White/Gray Floor Tile and Mastic	Trace Chrysotile in Mastic	242	SF
B-13B Kitchen	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	242	SF
B-13B Kitchen	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	536	SF
B-13B Kitchen	Emergency Lights	Regulated Waste - Batteries	1	EA
B-13B Kitchen	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	3	EA
B-13B Kitchen	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	6	EA
B-13B Kitchen	Refrigerator	Ozone Depleting Substances	1	EA
B-13B Kitchen	Smoke Detectors	See Fire Safety Notes	1	EA
B-13B Kitchen	Vending Machine	Ozone Depleting Substances	1	EA
B-13B Kitchen	Wood Doors	Information Only	1	EA
B-13C	12X12 White/Gray Floor Tile and Mastic	4.3-4.8% Chrysotile Asbestos (Tile and Mastic)	104	SF
B-13C	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	104	SF
B-13C	Black Cove Base and Mastic	No Asbestos Detected	42	LF
B-13C	Carpet Over Floor Tile	Black Mastic contains Asbestos	104	SF
B-13C	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	336	SF
B-13C	Fire Doors	Assumed Asbestos	1	EA
B-13C	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
B-13C	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
B-13D	12X12 White/Gray Floor Tile and Mastic	4.3-4.8% Chrysotile Asbestos (Tile and Mastic)	180	SF
B-13D	Black Cove Base and Mastic	No Asbestos Detected	56	LF

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Room	Description	Hazard	Qty	Units
B-13D	Carpet Over Floor Tile	Black Mastic contains Asbestos	180	SF
B-13D	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	448	SF
B-13D	End Cap Sealant	No Asbestos Detected		
B-13D	Fire Doors	Assumed Asbestos	1	EA
B-13D	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
B-13D	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
Basement Copy Room	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	104	SF
Basement Copy Room	Carpet over Concrete and Yellow Glue	No Asbestos Detected	104	SF
Basement Copy Room	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	336	SF
Basement Copy Room	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	10	LF
Basement Copy Room	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	3	EA
Basement Copy Room	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	6	EA
Basement Copy Room	Red Cove Base and Mastic	No Asbestos Detected	42	LF
Basement Copy Room	Wood Doors	Information Only	1	EA
Basement Copy Room	Yellow Carpet Glue	No Asbestos Detected	104	SF
Basement Mech Rm	Concrete Ceiling	Information Only	104	SF
Basement Mech Rm	Concrete Floor	Information Only	104	SF
Basement Mech Rm	Dry Type Transformer	Information Only	2	EA
Basement Mech Rm	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	208	SF
Basement Mech Rm	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	20	LF
Basement Mech Rm	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
Basement Mech Rm	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	60	EA
Basement Mech Rm	Wood Doors	Information Only	1	EA
Café Hall	3"x3" Blue Ceramic Tile Walls	Regulated Waste - Lead		

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Room	Description	Hazard	Qty	Units
Café Hall	3"x3" White Ceramic Tile Walls	Regulated Waste - Lead		
Café Hall	Automatic Door Closers	Regulated Waste - Oil	1	EA
Café Hall	Black Cove Base and Mastic	No Asbestos Detected	4	LF
Café Hall	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	32	SF
Café Hall	Emergency Lights	Regulated Waste - Batteries	1	EA
Café Hall	Exit Signs	Regulated Waste - Batteries	1	EA
Café Hall	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	3	EA
Café Hall	Fluorescent Lamps - 2 FT	Regulated Waste - Mercury and Lead	6	EA
Café Hall	Metal Doors	Information Only	1	EA
Café Hall	Plaster Ceiling	Known to be NAD (Previous Survey)	144	SF
Café Hall	Smoke Detectors	See Fire Safety Notes	1	EA
Café Hall	Terracotta Floor	No Asbestos Detected	144	SF
Café Janitors Closet	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	9	SF
Café Janitors Closet	3"x3" White Ceramic Tile Walls	Regulated Waste - Lead		
Café Janitors Closet	Compact Fluorescent Lamps (CFLs)	Regulated Waste - Mercury and Lead	1	EA
Café Janitors Closet	Terracotta Floor	No Asbestos Detected	9	SF
Café Janitors Closet	Wood Doors	Information Only	1	EA
Cat Walk over Joint Hearing Room	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	650	SF
Catwalk Room Above Joint Hearing	1x1 Spline Ceiling Tile (no glue)	Known to be NAD (Previous Survey)		
Catwalk Room Above Joint Hearing	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	700	SF
Catwalk Room Above Joint Hearing	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	650	LF
Catwalk Room Above Joint Hearing	Fire Doors	Assumed Asbestos	1	EA

Room	Description	Hazard	Qty	Units
Catwalk Room Above Joint Hearing	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	13	EA
Catwalk Room Above Joint Hearing	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	26	EA
Catwalk Room Above Joint Hearing	Gray Spray Applied Fireproofing	No Asbestos Detected		
Catwalk Room Above Joint Hearing	Plaster	Known to be NAD (Previous Survey)		
Central Stairwell 2nd Floor	12x12 Black And White Checkerboard Floor Tile and Mastic	No Asbestos Detected	68	SF
Central Stairwell 2nd Floor	1x1 Spline Ceiling Tile (no glue)	Known to be NAD (Previous Survey)	68	SF
Central Stairwell 2nd Floor	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	525	SF
Central Stairwell 2nd Floor	Small LED/CFLs like Candles	Regulated Waste - Mercury and Lead	9	EA
Central Stairwell 3rd Floor	12x12 Black And White Checkerboard Floor Tile and Mastic	No Asbestos Detected	68	SF
Central Stairwell 3rd Floor	1x1 Spline Ceiling Tile (no glue)	Known to be NAD (Previous Survey)	68	SF
Central Stairwell 3rd Floor	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	255	SF
Central Stairwell 3rd Floor	Small LED/CFLs like Candles	Regulated Waste - Mercury and Lead	12	EA
College Ave Entry	12x12 Gray Non-Skid Floor Tile over two layers	Assumed Black Mastic	110	SF
College Ave Entry	12X12 White Floor Tile And Mastic	Black Mastic Contains Asbestos	110	SF
College Ave Entry	Automatic Door Closers	Regulated Waste - Oil	2	EA
College Ave Entry	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	392	SF
College Ave Entry	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	10	LF
College Ave Entry	Exit Signs	Regulated Waste - Batteries	1	EA
College Ave Entry	Small LED/CFLs like Candles	Regulated Waste - Mercury and Lead	3	EA
College Ave Stair Lobby	12X12 White Floor Tile And Mastic	Black Mastic Contains Asbestos	176	SF
College Ave Stair Lobby	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	144	SF

Room	Description	Hazard	Qty	Units
College Ave Stair Lobby	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	10	LF
College Ave Stair Lobby	Offwhite Carpet Glue	No Asbestos Detected	176	SF
College Ave Stair Lobby	Small LED/CFLs like Candles	Regulated Waste - Mercury and Lead	32	EA
College Ave Stair Lobby	Smoke Detectors	See Fire Safety Notes	1	EA
Corridor 100-121	12x12 White Floor Tile And Mastic	Black Mastic Contains Asbestos	208	SF
Corridor 100-121	1x1 Spline Ceiling Tile (no glue)	Known to be NAD (Previous Survey)	208	SF
Corridor 100-121	Clear Carpet Glue	Not Suspect Material	208	SF
Corridor 100-121	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	496	SF
Corridor 100-121	Duct seam sealant	2.1-4.8% Chrysotile Asbestos	52	LF
Corridor 100-121	Exit Signs	Regulated Waste - Batteries	1	EA
Corridor 100-121	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	4	EA
Corridor 100-121	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	8	EA
Corridor 100-121	Smoke Detectors	See Fire Safety Notes	1	EA
Corridor 103-105	12X12 White Floor Tile And Mastic	Black Mastic Contains Asbestos	192	SF
Corridor 103-105	Can Lights (CFLs or LEDs)	Regulated Waste - Mercury and Lead	3	EA
Corridor 103-105	Clear Carpet Glue	Not Suspect Material	192	SF
Corridor 103-105	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	480	SF
Corridor 103-105	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	10	LF
Corridor 103-105	Exit Signs	Regulated Waste - Batteries	1	EA
Corridor 105-106	12X12 White Floor Tile And Mastic	Black Mastic Contains Asbestos	192	SF
Corridor 105-106	Can Lights (CFLs or LEDs)	Regulated Waste - Mercury and Lead	4	EA
Corridor 105-106	Clear Carpet Glue	Not Suspect Material	192	SF
Corridor 105-106	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	480	SF
Corridor 105-106	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	10	LF

Room	Description	Hazard	Qty	Units
Corridor 105-106	Exit Signs	Regulated Waste - Batteries	1	EA
Corridor 105-106	Smoke Detectors	See Fire Safety Notes	1	EA
Corridor 105-106	Water Fountain	Ozone Depleting Substances	1	EA
Corridor 107-109	1x1 Spline Ceiling Tile (no glue)	Known to be NAD (Previous Survey)	304	SF
Corridor 107-109	Can Lights (CFLs or LEDs)	Regulated Waste - Mercury and Lead	5	EA
Corridor 107-109	Clear Carpet Glue	Not Suspect Material	304	SF
Corridor 107-109	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	912	SF
Corridor 107-109	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	30	LF
Corridor 107-109	Exit Signs	Regulated Waste - Batteries	1	EA
Corridor 107-109	Smoke Detectors	See Fire Safety Notes	1	EA
Corridor 107-109	Tan Caulk	No Asbestos Detected	12	LF
Corridor 108-111	12x12 Black And White Checkerboard Floor Tile and Mastic	No Asbestos Detected	688	SF
Corridor 108-111	Can Lights (CFLs or LEDs)	Regulated Waste - Mercury and Lead	12	EA
Corridor 108-111	Clear Carpet Glue	Not Suspect Material	816	SF
Corridor 108-111	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	2064	SF
Corridor 108-111	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	102	LF
Corridor 108-111	Exit Signs	Regulated Waste - Batteries	2	EA
Corridor 108-111	Smoke Detectors	See Fire Safety Notes	2	EA
Corridor 108-111	Water Fountain	Ozone Depleting Substances	1	EA
Corridor 110-111	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	512	SF
Corridor 110-111	Exit Signs	Regulated Waste - Batteries	1	EA
Corridor 110-111	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
Corridor 110-111	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
Corridor 110-111	Offwhite Carpet Glue	No Asbestos Detected	96	SF

Room	Description	Hazard	Qty	Units
Corridor 110-111	Smoke Detectors	See Fire Safety Notes	1	EA
Corridor 112-118	Can Lights (CFLs or LEDs)	Regulated Waste - Mercury and Lead	12	EA
Corridor 112-118	Clear Carpet Glue	Not Suspect Material	656	SF
Corridor 112-118	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	1584	SF
Corridor 112-118	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	164	LF
Corridor 112-118	Exit Signs	Regulated Waste - Batteries	2	EA
Corridor 112-118	Smoke Detectors	See Fire Safety Notes	2	EA
Corridor 112-118	Water Fountain	Ozone Depleting Substances	1	EA
Corridor To North Street	12x12 Black And White Checkerboard Floor Tile and Mastic	No Asbestos Detected	208	SF
Corridor To North Street	Can Lights (CFLs or LEDs)	Regulated Waste - Mercury and Lead	3	EA
Corridor To North Street	Clear Carpet Glue	Not Suspect Material	208	SF
Corridor To North Street	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	624	SF
Corridor To North Street	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	78	LF
Corridor To North Street	Red Duct Mastic	3.4% Chrysotile Asbestos	1	SF
Corridor To North Street	Smoke Detectors	See Fire Safety Notes	2	EA
Electric Room	18" Diameter Mudded Elbows	Assumed Asbestos	6	EA
Electric Room	Dry Type Transformer	Information Only	1	EA
Electric Room	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	180	SF
Electric Room	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
Electric Room	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
Electric Room	Red Pipe Thread Sealant (Per Fitting)	No Asbestos Detected	2	EA
Electrical Closet on 2nd Floor	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	180	SF
Electrical Closet on 2nd Floor	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	10	LF
Electrical Closet on 2nd Floor	Fire Doors	Assumed Asbestos	1	EA

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Room	Description	Hazard	Qty	Units
Electrical Closet on 2nd Floor	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	1	EA
Electrical Closet on 2nd Floor	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	2	EA
Elevator Cars (2 cars)	Carpet over Wood Floors	Information Only		
Elevator Cars (2 cars)	Fluorescent Lamp Ballasts assumed	Regulated Waste - PCBs	2	EA
Elevator Cars (2 cars)	Fluorescent Lamps assumed	Regulated Waste - Mercury and Lead	2	EA
Elevator Lobby & Corridor to SHR	12x12 White Floor Tile And Mastic	Black Mastic Contains Asbestos	648	SF
Elevator Lobby & Corridor to SHR	1x1 Spline Ceiling Tile (no glue)	Known to be NAD (Previous Survey)	648	SF
Elevator Lobby & Corridor to SHR	Clear Carpet Glue	Not Suspect Material	648	SF
Elevator Lobby & Corridor to SHR	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	1932	SF
Elevator Lobby & Corridor to SHR	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	10	LF
Elevator Lobby & Corridor to SHR	Small LED/CFLs like Candles	Regulated Waste - Mercury and Lead	71	EA
Elevator Lobby & Corridor to SHR	Smoke Detectors	See Fire Safety Notes	2	EA
Elevator Lobby in Basement	12X12 White/Gray Floor Tile And Mastic	4.3-4.8% Chrysotile Asbestos (Tile and Mastic)	140	SF
Elevator Lobby in Basement	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	140	SF
Elevator Lobby in Basement	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	350	SF
Elevator Lobby in Basement	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	10	LF
Elevator Lobby in Basement	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
Elevator Lobby in Basement	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
Elevator Lobby on 2nd Floor	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	700	SF
Elevator Lobby on 2nd Floor	Compact Fluorescent Lamps (CFLs)	Regulated Waste - Mercury and Lead	12	EA
Elevator Lobby on 2nd Floor	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	1280	SF
Elevator Lobby on 2nd Floor	Exit Signs	Regulated Waste - Batteries	2	EA
Elevator Lobby on 2nd Floor	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	4	EA
Elevator Lobby on 2nd Floor	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	8	EA

Room	Description	Hazard	Qty	Units
Elevator Lobby on 2nd Floor	Smoke Detectors	See Fire Safety Notes	1	EA
Elevator Lobby on 2nd Floor	Yellow Carpet Glue	No Asbestos Detected	320	SF
Elevator Lobby on 3rd Floor	12x12 White with Light Gray Streaks Floor Tile and Mastic	4.3-4.8% Chrysotile Asbestos (Tile and Mastic)	520	SF
Elevator Lobby on 3rd Floor	1x1 Spline Ceiling Tile (no glue)	Known to be NAD (Previous Survey)	520	SF
Elevator Lobby on 3rd Floor	Can Lights (CFLs or LEDs)	Regulated Waste - Mercury and Lead	11	EA
Elevator Lobby on 3rd Floor	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	1240	SF
Elevator Lobby on 3rd Floor	Exit Signs	Regulated Waste - Batteries	2	EA
Elevator Lobby on 3rd Floor	Smoke Detectors	See Fire Safety Notes	1	EA
Elevator Mech Rm	Automatic Door Closers	Regulated Waste - Oil	1	EA
Elevator Mech Rm	Elevator Brakes, Wiring and Panels (US Elevator Corp)	Assumed Asbestos Materials	2	EA
Elevator Mech Rm	Fire Doors	Assumed Asbestos	1	EA
Elevator Mech Rm	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	4	EA
Elevator Mech Rm	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	29	EA
Elevator Mech Rm	Plaster Ceiling	Known to be NAD (Previous Survey)		
Elevator Mech Rm	Thermostat (Penn - unknown type)	Regulated Waste - Mercury	1	EA
Entry to Mens Restroom on 2nd Floor	1"x1" Ceramic Tile Floor	Regulated Waste - Lead	24	SF
Entry to Mens Restroom on 2nd Floor	2x4 Divot and Dot Ceiling Tile	Known to be NAD (Previous Survey)	24	SF
Entry to Mens Restroom on 2nd Floor	3"x3" Ceramic Tile Walls	Regulated Waste - Lead		
Entry to Mens Restroom on 2nd Floor	Automatic Door Closers	Regulated Waste - Oil	1	EA
Entry to Mens Restroom on 2nd Floor	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	48	SF

Room	Description	Hazard	Qty	Units
Entry to Mens Restroom on 2nd Floor	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	1	EA
Entry to Mens Restroom on 2nd Floor	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	2	EA
Entry to Mens Restroom on 2nd Floor	Plaster Ceiling above Ceiling Tiles	Known to be NAD (Previous Survey)	24	SF
Entry to Mens Restroom on 2nd Floor	Wood Doors	Information Only	1	EA
Entry To North Street Mens Restroom	1"x1" Ceramic Tile Floor	Regulated Waste - Lead	72	SF
Entry To North Street Mens Restroom	2x2 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	36	SF
Entry To North Street Mens Restroom	3"x3" White Ceramic Tile Walls	Regulated Waste - Lead		
Entry To North Street Mens Restroom	Automatic Door Closers	Regulated Waste - Oil	2	EA
Entry To North Street Mens Restroom	Metal Doors	Information Only	2	EA
Entry To North Street Mens Restroom	Plaster Ceiling	Known to be NAD (Previous Survey)	36	SF
Entry To North Street Mens Restroom	Smoke Detectors	See Fire Safety Notes	2	EA
Entry to North Street Womens Restroom	1"x1" Ceramic Tile Floor	Regulated Waste - Lead	72	SF
Entry to North Street Womens Restroom	2x2 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	36	SF
Entry to North Street Womens Restroom	3"x3" Blue Ceramic Tile Walls	Regulated Waste - Lead		
Entry to North Street Womens Restroom	3"x3" White Ceramic Tile Walls	Regulated Waste - Lead		
Entry to North Street Womens Restroom	Automatic Door Closers	Regulated Waste - Oil	2	EA

Room	Description	Hazard	Qty	Units
Entry to North Street Womens Restroom	Compact Fluorescent Lamps (CFLs)	Regulated Waste - Mercury and Lead	2	EA
Entry to North Street Womens Restroom	Metal Doors	Information Only	2	EA
Entry to North Street Womens Restroom	Plaster Ceiling	Known to be NAD (Previous Survey)	36	SF
Entry to North Street Womens Restroom	Smoke Detectors	See Fire Safety Notes	2	EA
Entry to Womens Restroom Basement	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	120	SF
Entry to Womens Restroom Basement	Automatic Door Closers	Regulated Waste - Oil	1	EA
Entry to Womens Restroom Basement	Carpet over Concrete and Yellow Mastic	No Asbestos Detected	120	SF
Entry to Womens Restroom Basement	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	368	SF
Entry to Womens Restroom Basement	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	20	LF
Entry to Womens Restroom Basement	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
Entry to Womens Restroom Basement	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
Entry to Womens Restroom Basement	Smoke Detectors	See Fire Safety Notes	1	EA
Entry to Womens Restroom Basement	Wood Doors	Information Only	1	EA
Entry to Womens Restroom Basement	Yellow Carpet Glue	No Asbestos Detected	120	SF
Entry to Womens Restroom on 2nd Floor	Automatic Door Closers	Regulated Waste - Oil	1	EA
Entry to Womens Restroom on 2nd Floor	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	160	SF

Legislative Services Survey Notes: Hidden sources of asbestos may be present that were inaccessible at the time of the survey and are not reflected in the room assessment table. This includes but is not limited to duct seam sealant and end cap sealant.

Room	Description	Hazard	Qty	Units
Entry to Womens Restroom on 2nd Floor	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	1	EA
Entry to Womens Restroom on 2nd Floor	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	2	EA
Entry to Womens Restroom on 2nd Floor	Plaster Ceiling	Known to be NAD (Previous Survey)	32	SF
Entry to Womens Restroom on 2nd Floor	Wood Doors	Information Only	1	EA
Entry to Womens Restroom on 2nd Floor	Yellow Carpet Glue	No Asbestos Detected	32	SF
Entry to Womens Restroom on 3rd Floor	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	250	SF
Entry to Womens Restroom on 3rd Floor	Automatic Door Closers	Regulated Waste - Oil	1	EA
Entry to Womens Restroom on 3rd Floor	Carpet over Concrete and Mastic	No Asbestos Detected	34	SF
Entry to Womens Restroom on 3rd Floor	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	250	SF
Entry to Womens Restroom on 3rd Floor	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	1	EA
Entry to Womens Restroom on 3rd Floor	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	2	EA
Entry to Womens Restroom on 3rd Floor	Wood Doors	Information Only	1	EA
Exterior	Caulk at Stairs	No Asbestos Detected	50	LF
Exterior	Expansion Joint	No Asbestos Detected	40	LF
Exterior	Window Caulk	No Asbestos Detected		
Exterior	Window Glazing Compound	0.25% Chrysotile Asbestos		
Freight Elevator Lobby	12X12 White With Light Gray Floor Tile and Mastic	Mastic Contains 1.3% Asbestos	235	SF
Freight Elevator Lobby	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	235	SF

Room	Description	Hazard	Qty	Units
Freight Elevator Lobby	Automatic Door Closers	Regulated Waste - Oil	1	EA
Freight Elevator Lobby	Brown Cove Base and Mastic	No Asbestos Detected	5	LF
Freight Elevator Lobby	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	10	LF
Freight Elevator Lobby	Exit Signs	Regulated Waste - Batteries	1	EA
Freight Elevator Lobby	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	3	EA
Freight Elevator Lobby	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	6	EA
Freight Elevator Lobby	Freight Elevator	Information Only	1	EA
Freight Elevator Lobby	Smoke Detectors	See Fire Safety Notes	1	EA
Freight Elevator Lobby	Wood Doors	Information Only	1	EA
G-01	12X12 White with Light Gray Streaks Floor Tile and Mastic	4.3-4.8% Chrysotile Asbestos (Tile and Mastic)	760	SF
G-01	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	760	SF
G-01	Black Cove Base and Mastic	No Asbestos Detected	268	LF
G-01	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	1736	SF
G-01	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	30	LF
G-01	Emergency Lights	Regulated Waste - Batteries	3	EA
G-01	End Cap Sealant	No Asbestos Detected		
G-01	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	52	EA
G-01	Fluorescent Lamps - 2 FT	Regulated Waste - Mercury and Lead	2	EA
G-01	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	102	EA
G-01	Mail Door	Information Only	1	EA
G-01	Smoke Detectors	See Fire Safety Notes	2	EA
G-01	Wood Doors	Information Only	5	EA
G-01 Hall A	12X12 White With Light Gray Floor Tile and Mastic	Mastic Contains 1.3% Asbestos	182	SF

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Room	Description	Hazard	Qty	Units
G-01 Hall A	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	182	SF
G-01 Hall A	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	416	SF
G-01 Hall A	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	20	LF
G-01 Hall A	Exit Signs	Regulated Waste - Batteries	1	EA
G-01 Hall A	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	3	EA
G-01 Hall A	Fluorescent Lamps - 2 FT	Regulated Waste - Mercury and Lead	6	EA
G-01 Hall A	Water Fountain	Ozone Depleting Substances	1	EA
G-01 Hall B	12X12 White With Light Gray Floor Tile and Mastic	Mastic Contains 1.3% Asbestos	280	SF
G-01 Hall B	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	280	SF
G-01 Hall B	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	696	SF
G-01 Hall B	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	30	LF
G-01 Hall B	Exit Signs	Regulated Waste - Batteries	1	EA
G-01 Hall B	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	5	EA
G-01 Hall B	Fluorescent Lamps - 2 FT	Regulated Waste - Mercury and Lead	10	EA
G-01 Hall B	Smoke Detectors	See Fire Safety Notes	1	EA
G-03	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	192	SF
G-03	Cove Base and Mastic	No Asbestos Detected	56	LF
G-03	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	448	SF
G-03	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	4	EA
G-03	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	8	EA
G-03	Wood Doors	Information Only	1	EA
G-03	Yellow Carpet Glue	No Asbestos Detected	192	SF
G-04	12X12 White with Light Gray Streaks Floor Tile	4.3-4.8% Chrysotile Asbestos (Tile and Mastic)	160	SF

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Room	Description	Hazard	Qty	Units
G-04	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	160	SF
G-04	Black Cove Base and Mastic	No Asbestos Detected	52	LF
G-04	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	416	SF
G-04	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	10	LF
G-04	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	3	EA
G-04	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	6	EA
G-04	Wood Doors	Information Only	1	EA
G-07	12X12 White with Light Gray Streaks Floor Tile	4.3-4.8% Chrysotile Asbestos (Tile and Mastic)	56	SF
G-07	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	56	SF
G-07	3"x3" Blue Ceramic Tile Walls	Regulated Waste - Lead		
G-07	Black Cove Base and Mastic	No Asbestos Detected	30	LF
G-07	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	240	SF
G-07	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	1	EA
G-07	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	2	EA
G-07	Wood Doors	Information Only	1	EA
G-08	Automatic Door Closers	Regulated Waste - Oil	1	EA
G-08	Concrete Floor	Information Only	320	SF
G-08	Fire Doors	Assumed Asbestos	1	EA
G-08	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	5	EA
G-08	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	10	EA
G-08	Smoke Detectors	See Fire Safety Notes	1	EA
G-08A	Automatic Door Closers	Regulated Waste - Oil	1	EA
G-08A	Fire Doors	Assumed Asbestos	1	EA
G-08A	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	4	EA

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Room	Description	Hazard	Qty	Units
G-08A	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	8	EA
G-08A	Service Elevator	Information Only	1	EA
G-08A	Smoke Detectors	See Fire Safety Notes	1	EA
G-09	12X12 White/Gray Floor Tile And Mastic	4.3-4.8% Chrysotile Asbestos (Tile and Mastic)	256	SF
G-09	1x1 Spline Ceiling Tile (no glue)	Known to be NAD (Previous Survey)	192	SF
G-09	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	192	SF
G-09	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	448	SF
G-09	Emergency Lights	Regulated Waste - Batteries	1	EA
G-09	Fire Doors	Assumed Asbestos	1	EA
G-09	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
G-09	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
G-09	Yellow Carpet Glue	No Asbestos Detected	192	SF
G-11A Hall	2x2 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	208	SF
G-11A Hall	Automatic Door Closers	Regulated Waste - Oil	2	EA
G-11A Hall	Carpet Glue	No Asbestos Detected	208	SF
G-11A Hall	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	480	SF
G-11A Hall	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	20	LF
G-11A Hall	Exit Signs	Regulated Waste - Batteries	1	EA
G-11A Hall	Fire Doors	Assumed Asbestos	2	EA
G-11A Hall	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	6	EA
G-11A Hall	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	6	EA
G-11A Hall	Smoke Detectors	See Fire Safety Notes	1	EA
G-11B Hall	1x1 Spline Ceiling Tile (no glue)	Known to be NAD (Previous Survey)	211	SF
G-11B Hall	Automatic Door Closers	Regulated Waste - Oil	2	EA

Room	Description	Hazard	Qty	Units
G-11B Hall	Can Lights (CFLs or LEDs)	Regulated Waste - Mercury and Lead	1	EA
G-11B Hall	Carpet Glue	No Asbestos Detected	211	SF
G-11B Hall	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	448	SF
G-11B Hall	Exit Signs	Regulated Waste - Batteries	2	EA
G-11B Hall	Fire Doors	Assumed Asbestos	2	EA
G-11B Hall	Smoke Detectors	See Fire Safety Notes	1	EA
G-11D Kitchen	3"x3" Blue Ceramic Tile Walls	Regulated Waste - Lead		
G-11D Kitchen	3"x3" White Ceramic Tile Walls	Regulated Waste - Lead		
G-11D Kitchen	Automatic Door Closers	Regulated Waste - Oil	1	EA
G-11D Kitchen	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	192	SF
G-11D Kitchen	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	140	LF
G-11D Kitchen	Fire Doors	Assumed Asbestos	1	EA
G-11D Kitchen	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	14	EA
G-11D Kitchen	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	28	EA
G-11D Kitchen	Plaster Ceiling	Known to be NAD (Previous Survey)	1272	SF
G-11D Kitchen	Smoke Detectors	See Fire Safety Notes	1	EA
G-11D Kitchen	Terracotta Floor	No Asbestos Detected	1272	SF
G-11D Office	3"x3" White Ceramic Tile Walls	Regulated Waste - Lead		
G-11D Office	Automatic Door Closers	Regulated Waste - Oil	1	EA
G-11D Office	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	10	LF
G-11D Office	Fire Doors	Assumed Asbestos	1	EA
G-11D Office	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	4	EA
G-11D Office	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	8	EA
G-11D Office	Plaster Ceiling	Known to be NAD (Previous Survey)	288	SF

Room	Description	Hazard	Qty	Units
G-11D Office	Terracotta Floor	No Asbestos Detected	288	SF
G-11G	3"x3" Blue Ceramic Tile Walls	Regulated Waste - Lead		
G-11G	3"x3" Yellow Ceramic Tile Walls	Regulated Waste - Lead, Trace Chrysotile in Grout		
G-11G	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	6	LF
G-11G	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	3	EA
G-11G	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	6	EA
G-11G	Red Duct Mastic	3.4% Chrysotile Asbestos	12	SF
G-11G	Terracotta Floor	No Asbestos Detected	180	SF
G-12	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	736	SF
G-12	Exit Signs with Emergency Lights	Regulated Waste - Batteries	1	EA
G-12	Fire Doors	Assumed Asbestos	1	EA
G-12	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	9	EA
G-12	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	18	EA
G-12	Smoke Detectors	See Fire Safety Notes	1	EA
G-12	Yellow Carpet Glue	No Asbestos Detected	520	SF
G-12 Hall	12x12 Black And White Checkerboard Floor Tile and Mastic	No Asbestos Detected	370	SF
G-12 Hall	Automatic Door Closers	Regulated Waste - Oil	1	EA
G-12 Hall	Black Cove Base and Mastic	No Asbestos Detected	24	LF
G-12 Hall	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	1648	SF
G-12 Hall	Exit Signs	Regulated Waste - Batteries	2	EA
G-12 Hall	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	14	EA
G-12 Hall	Fluorescent Lamps - 2 FT	Regulated Waste - Mercury and Lead	12	EA
G-12 Hall	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA

Room	Description	Hazard	Qty	Units
G-12 Hall	Metal Doors With Windows	Information Only	1	EA
G-12/13 Vestibule	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	456	SF
G-12/13 Vestibule	Emergency Lights	Regulated Waste - Batteries	1	EA
G-12/13 Vestibule	Exit Signs	Regulated Waste - Batteries	1	EA
G-12/13 Vestibule	Small LED/CFLs like Candles	Regulated Waste - Mercury and Lead	4	EA
G-12/13 Vestibule	Yellow Carpet Glue	No Asbestos Detected	150	SF
G-12A	2x4 Divot and Dot Ceiling Tile	Known to be NAD (Previous Survey)	70	SF
G-12A	Black Cove Base and Mastic	No Asbestos Detected	24	LF
G-12A	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	192	SF
G-12A	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	1	EA
G-12A	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	2	EA
G-12A	Wood Baseboard	Information Only	10	LF
G-12A	Wood Pocket Doors	Information Only	1	EA
G-12A	Yellow Carpet Glue	No Asbestos Detected	70	SF
G-12B	2x4 Divot and Dot Ceiling Tile	Known to be NAD (Previous Survey)	526	SF
G-12B	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	760	SF
G-12B	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	6	EA
G-12B	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	12	EA
G-12B	Mercury Thermostats (Double Vial)	Regulated Waste - Mercury	1	EA
G-12B	Smoke Detectors	See Fire Safety Notes	1	EA
G-12B	Yellow Carpet Glue	No Asbestos Detected	526	SF
G-13	2x4 Divot and Dot Ceiling Tile	Known to be NAD (Previous Survey)	526	SF
G-13	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	760	SF
G-13	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	6	EA

Room	Description	Hazard	Qty	Units
G-13	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	12	EA
G-13	Mercury Thermostats (Double Vial)	Regulated Waste - Mercury	1	EA
G-13	Smoke Detectors	See Fire Safety Notes	1	EA
G-13	Yellow Carpet Glue	No Asbestos Detected	526	SF
G-14	2x4 Divot and Dot Ceiling Tile	Known to be NAD (Previous Survey)	624	SF
G-14	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	800	SF
G-14	Exit Signs with Emergency Lights	Regulated Waste - Batteries	1	EA
G-14	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	9	EA
G-14	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	18	EA
G-14	Smoke Detectors	See Fire Safety Notes	1	EA
G-14	Wood Pocket Doors	Information Only	1	EA
G-14	Yellow Carpet Glue	No Asbestos Detected	624	SF
G-15	2x4 Divot and Dot Ceiling Tile	Known to be NAD (Previous Survey)	322	SF
G-15	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	632	SF
G-15	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	25	LF
G-15	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	5	EA
G-15	Fluorescent Lamps - 2 FT	Regulated Waste - Mercury and Lead	2	EA
G-15	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	8	EA
G-15	Mercury Thermostats	Regulated Waste - Mercury	1	EA
G-15	Wood Doors	Information Only	1	EA
G-15	Yellow Carpet With Green Mastic	No Asbestos Detected	322	SF
G-15 Classroom	2x4 Divot and Dot Ceiling Tile	Known to be NAD (Previous Survey)	464	SF
G-15 Classroom	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	608	SF
G-15 Classroom	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	16	LF

Room	Description	Hazard	Qty	Units
G-15 Classroom	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	10	EA
G-15 Classroom	Fluorescent Lamps - 2 FT	Regulated Waste - Mercury and Lead	4	EA
G-15 Classroom	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	16	EA
G-15 Classroom	Mercury Thermostats	Regulated Waste - Mercury	1	EA
G-15 Classroom	Wood Doors	Information Only	2	EA
G-15 Classroom	Wood Double Doors	Information Only	1	EA
G-15 Classroom	Yellow Carpet Glue	No Asbestos Detected	464	SF
G-15A	2x4 Divot and Dot Ceiling Tile	Known to be NAD (Previous Survey)	117	SF
G-15A	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	320	SF
G-15A	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	25	LF
G-15A	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
G-15A	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
G-15A	Mercury Thermostats	Regulated Waste - Mercury	1	EA
G-15A	Wood Pocket Doors	Information Only	1	EA
G-15A	Yellow and Green Carpet Glue	No Asbestos Detected	117	SF
G-15A and B Hall	2x4 Divot and Dot Ceiling Tile	Known to be NAD (Previous Survey)	240	SF
G-15A and B Hall	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	1400	SF
G-15A and B Hall	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	36	LF
G-15A and B Hall	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	5	EA
G-15A and B Hall	Fluorescent Lamps - 2FT	Regulated Waste - Mercury and Lead	4	EA
G-15A and B Hall	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	8	EA
G-15A and B Hall	Mercury Thermostats	Regulated Waste - Mercury	2	EA
G-15A and B Hall	Pocket Doors	Information Only	2	EA
G-15A and B Hall	Wood Doors	Information Only	1	EA

Room	Description	Hazard	Qty	Units
G-15A and B Hall	Yellow Carpet Glue	No Asbestos Detected	240	SF
G-15B	2x4 Divot and Dot Ceiling Tile	Known to be NAD (Previous Survey)	108	SF
G-15B	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	312	SF
G-15B	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	20	LF
G-15B	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	4	EA
G-15B	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
G-15B	Mercury Thermostats	Regulated Waste - Mercury	1	EA
G-15B	Wood Pocket Doors	Information Only	1	EA
G-15B	Yellow and Green Carpet Glue	No Asbestos Detected	117	SF
G-15C	2x4 Divot and Dot Ceiling Tile	Known to be NAD (Previous Survey)	117	SF
G-15C	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	320	SF
G-15C	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	20	LF
G-15C	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
G-15C	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
G-15C	Mercury Thermostats	Regulated Waste - Mercury	1	EA
G-15C	Wood Pocket Doors	Information Only	1	EA
G-15C	Yellow and Green Carpet Glue	No Asbestos Detected	117	SF
G-15CR Closet	2x4 Divot and Dot Ceiling Tile	Known to be NAD (Previous Survey)	32	SF
G-15CR Closet	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	1	EA
G-15CR Closet	Fluorescent Lamps - 2 FT	Regulated Waste - Mercury and Lead	2	EA
G-15CR Closet	Yellow Carpet Glue	No Asbestos Detected	32	SF
G-15D	2x4 Divot and Dot Ceiling Tile	Known to be NAD (Previous Survey)	102	SF
G-15D	Carpet Glue	No Asbestos Detected	102	SF
G-15D	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	30	LF

Room	Description	Hazard	Qty	Units
G-15D	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	3	EA
G-15D	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	6	EA
G-15D	Mercury Thermostats	Regulated Waste - Mercury	1	EA
G-15D	Wood Doors	Information Only	1	EA
G-15E	2x4 Divot and Dot Ceiling Tile	Known to be NAD (Previous Survey)	102	SF
G-15E	Carpet Glue	No Asbestos Detected	102	SF
G-15E	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	304	SF
G-15E	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
G-15E	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
G-15E	Mercury Thermometers	Regulated Waste - Mercury	1	EA
G-15E	Wood Pocket Doors	Information Only	1	EA
G-15F	2x4 Divot and Dot Ceiling Tile	Known to be NAD (Previous Survey)	108	SF
G-15F	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	36	SF
G-15F	Mercury Thermostats	Regulated Waste - Mercury	1	EA
G-15F	Wood Doors	Information Only	1	EA
G-15F	Wood Pocket Doors	Information Only	1	EA
G-15F	Yellow Carpet Glue	No Asbestos Detected	108	SF
G-15H A, B Hall	2x4 Divot and Dot Ceiling Tile	Known to be NAD (Previous Survey)	216	SF
G-15H A, B Hall	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	1280	SF
G-15H A, B Hall	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	5	EA
G-15H A, B Hall	Fluorescent Lamps - 2FT	Regulated Waste - Mercury and Lead	6	EA
G-15H A, B Hall	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
G-15H A, B Hall	Mercury Thermostats	Regulated Waste - Mercury	2	EA
G-15H A, B Hall	Pocket Doors	Information Only	2	EA

Room	Description	Hazard	Qty	Units
G-15H A, B Hall	Wood Doors	Information Only	1	EA
G-15H A, B Hall	Yellow Carpet Glue	No Asbestos Detected	216	SF
G-15I	2x4 Divot and Dot Ceiling Tile	Known to be NAD (Previous Survey)	133	SF
G-15I	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	392	SF
G-15I	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	15	LF
G-15I	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	3	EA
G-15I	Fluorescent Lamps - 2 FT	Regulated Waste - Mercury and Lead	2	EA
G-15I	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
G-15I	Mercury Thermostats	Regulated Waste - Mercury	1	EA
G-15I	Wood Doors	Information Only	1	EA
G-15I	Yellow Carpet Glue	No Asbestos Detected	133	SF
G-15J	2x4 Divot and Dot Ceiling Tile	Known to be NAD (Previous Survey)	132	SF
G-15J	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	44	SF
G-15J	Mercury Thermostats	Regulated Waste - Mercury	1	EA
G-15J	Wood Doors	Information Only	1	EA
G-15J	Yellow Carpet Glue	No Asbestos Detected	132	SF
G-15K	2x4 Divot and Dot Ceiling Tile	Known to be NAD (Previous Survey)	144	SF
G-15K	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	360	SF
G-15K	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
G-15K	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
G-15K	Mercury Thermostats	Regulated Waste - Mercury	1	EA
G-15K	Wood Doors	Information Only	1	EA
G-15K	Yellow Carpet Glue	No Asbestos Detected	144	SF
G-15L	2x4 Divot and Dot Ceiling Tile	Known to be NAD (Previous Survey)	132	SF

Room	Description	Hazard	Qty	Units
G-15L	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	352	SF
G-15L	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
G-15L	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
G-15L	Mercury Thermostats	Regulated Waste - Mercury	1	EA
G-15L	Pocket Doors	Information Only	1	EA
G-15L	Wood Doors	Information Only	1	EA
G-15L	Yellow Carpet Glue	No Asbestos Detected	132	SF
G-18 Hall	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	320	SF
G-18 Hall	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	4	EA
G-18 Hall	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	8	EA
G-18 Hall	Wood Doors	Information Only	1	EA
G-18 Hall	Yellow Carpet Glue	No Asbestos Detected	120	SF
G-18A	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	96	SF
G-18A	Black Cove Base and Mastic	No Asbestos Detected	40	LF
G-18A	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	320	SF
G-18A	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	4	EA
G-18A	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	8	EA
G-18A	Wood Pocket Door	Information Only	1	EA
G-18A	Yellow Carpet Glue	No Asbestos Detected	96	SF
G-18B	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	80	SF
G-18B	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	288	SF
G-18B	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	4	EA
G-18B	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	8	EA
G-18B	Wood Pocket Door	Information Only	1	EA

Room	Description	Hazard	Qty	Units
G-18B	Yellow Carpet Glue	No Asbestos Detected	80	SF
G-18C	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	132	SF
G-18C	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	368	SF
G-18C	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	6	EA
G-18C	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	12	EA
G-18C	Wood Pocket Door	Information Only	1	EA
G-18C	Yellow Carpet Glue	No Asbestos Detected	132	SF
G-19 Hall	12X12 Light Tan Armstrong Floor Tile and Yellow Mastic	No Asbestos Detected	45	SF
G-19 Hall	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	45	SF
G-19 Hall	Carpet over Floor Tile	No Asbestos Detected	45	SF
G-19 Hall	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	144	SF
G-19 Hall	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	1	EA
G-19 Hall	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	2	EA
G-19 Hall	Wood Doors	Information Only	1	EA
G-19A	12x12 Light Tan Armstrong Floor Tile and Yellow Mastic	No Asbestos Detected	90	SF
G-19A	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	90	SF
G-19A	Carpet over Floor Tile	Black Mastic contains Asbestos	90	SF
G-19A	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	304	SF
G-19A	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
G-19A	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
G-19A	Wood Pocket Door	Information Only	1	EA
G-19B	12x12 Light Tan Armstrong Floor Tile and Yellow Mastic	No Asbestos Detected	144	SF
G-19B	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	144	SF

Room	Description	Hazard	Qty	Units
G-19B	Carpet over Floor Tile	Black Mastic contains Asbestos	144	SF
G-19B	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	400	SF
G-19B	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	3	EA
G-19B	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	6	EA
G-19B	Wood Pocket Door	Information Only	1	EA
Gas Meter Service Room	Automatic Door Closers	Regulated Waste - Oil	1	EA
Gas Meter Service Room	Dry Type Transformer	Information Only	1	EA
Gas Meter Service Room	Fire Doors	Assumed Asbestos	1	EA
Gas Meter Service Room	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
Gas Meter Service Room	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	9	EA
Ground Floor Elevator Lobby	12X12 White With Light Gray Floor Tile and Mastic	Mastic Contains 1.3% Asbestos	180	SF
Ground Floor Elevator Lobby	1x1 Spline Ceiling Tile (no glue)	Known to be NAD (Previous Survey)	180	SF
Ground Floor Elevator Lobby	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	288	SF
Ground Floor Elevator Lobby	Elevator	Assumed Asbestos Materials	2	EA
Ground Floor Elevator Lobby	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	4	EA
Ground Floor Elevator Lobby	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	8	EA
Ground Floor Hall To Tunnel	12X12 White with Light Gray Streaks Floor Tile	4.3-4.8% Chrysotile Asbestos (Tile and Mastic)	308	SF
Ground Floor Hall To Tunnel	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	308	SF
Ground Floor Hall To Tunnel	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	100	LF
Ground Floor Hall To Tunnel	Exit Signs	Regulated Waste - Batteries	2	EA
Ground Floor Hall To Tunnel	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	5	EA
Ground Floor Hall To Tunnel	Fluorescent Lamps - 2 FT	Regulated Waste - Mercury and Lead	10	EA
Ground Floor Hall To Tunnel	Smoke Detectors	See Fire Safety Notes	1	EA

Room	Description	Hazard	Qty	Units
Ground Floor Mens Restroom	1"x1" Ceramic Tile Floor	Regulated Waste - Lead	208	SF
Ground Floor Mens Restroom	3"x3" Ceramic Tile Walls	Regulated Waste - Lead		
Ground Floor Mens Restroom	Automatic Door Closers	Regulated Waste - Oil	2	EA
Ground Floor Mens Restroom	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	5	EA
Ground Floor Mens Restroom	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	10	EA
Ground Floor Mens Restroom	Mirrors (possible mastic patties)	Assumed Asbestos in Mastic Patties	4	EA
Ground Floor Mens Restroom	Plaster Ceiling	Known to be NAD (Previous Survey)	208	SF
Ground Floor Mens Restroom	Smoke Detectors	See Fire Safety Notes	1	EA
Ground Floor Mens Restroom	Wood Doors	Information Only	1	EA
Ground Floor Womens Restroom	1"x1" Ceramic Tile Floor	Regulated Waste - Lead	388	SF
Ground Floor Womens Restroom	3"x3" Ceramic Tile Walls	Regulated Waste - Lead		
Ground Floor Womens Restroom	Fire Safety Strobe Light	See Fire Safety Notes	1	EA
Ground Floor Womens Restroom	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	5	EA
Ground Floor Womens Restroom	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	10	EA
Ground Floor Womens Restroom	Mirrors (possible mastic patties)	Assumed Asbestos in Mastic Patties	2	EA
Ground Floor Womens Room Entry Hall	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	288	SF
Ground Floor Womens Room Entry Hall	Fire Strobe Light	See Fire Safety Notes	1	EA
Ground Floor Womens Room Entry Hall	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
Ground Floor Womens Room Entry Hall	Fluorescent Lamps - 2 FT	Regulated Waste - Mercury and Lead	4	EA
Ground Floor Womens Room Entry Hall	Yellow Carpet Glue	No Asbestos Detected	56	SF
Hall 214 to 206	12X12 White with Light Gray Streaks Floor Tile and Mastic	4.3-4.8% Chrysotile Asbestos (Tile and Mastic)	560	SF

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Room	Description	Hazard	Qty	Units
Hall 214 to 206	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	560	SF
Hall 214 to 206	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	1670	SF
Hall 214 to 206	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	120	LF
Hall 214 to 206	Exit Signs	Regulated Waste - Batteries	2	EA
Hall 214 to 206	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	10	EA
Hall 214 to 206	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	20	EA
Hall 214 to 206	Red Duct Mastic	3.4% Chrysotile Asbestos	1	SF
Hall 214 to 206	Red Pipe Thread Sealant (Per Fitting)	No Asbestos Detected	2	EA
Hall 214 to 206	Smoke Detectors	See Fire Safety Notes	2	EA
Hall 225 to 215	12X12 White with Light Gray Streaks Floor Tile and Mastic	4.3-4.8% Chrysotile Asbestos (Tile and Mastic)	595	SF
Hall 225 to 215	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	1770	SF
Hall 225 to 215	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	100	LF
Hall 225 to 215	Exit Signs	Regulated Waste - Batteries	2	EA
Hall 225 to 215	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	11	EA
Hall 225 to 215	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	22	EA
Hall 225 to 215	Smoke Detectors	See Fire Safety Notes	2	EA
Hall 225 to 215	Water Fountain	Ozone Depleting Substances	1	EA
Hall A in Basement	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	280	SF
Hall A in Basement	Carpet over Concrete and Black Mastic	Black Mastic contains Asbestos	280	SF
Hall A in Basement	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	640	SF
Hall A in Basement	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	10	LF
Hall A in Basement	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	5	EA
Hall A in Basement	Fluorescent Lamps - 2 FT	Regulated Waste - Mercury and Lead	10	EA
Hall A in Basement	Smoke Detectors	See Fire Safety Notes	1	EA

Room	Description	Hazard	Qty	Units
Hall A in Basement	Wood Doors	Information Only	1	EA
Hall at 227	12X12 White with Light Gray Streaks Floor Tile and Mastic	4.3-4.8% Chrysotile Asbestos (Tile and Mastic)	168	SF
Hall at 227	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	550	SF
Hall at 227	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	24	LF
Hall at 227	Exit Signs	Regulated Waste - Batteries	1	EA
Hall at 227	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	3	EA
Hall at 227	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	6	EA
Hall at 227	Smoke Detectors	See Fire Safety Notes	1	EA
Hall B in Basement	12X12 White/Gray Floor Tile and Mastic	4.3-4.8% Chrysotile Asbestos (Tile and Mastic)	238	SF
Hall B in Basement	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	238	SF
Hall B in Basement	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	544	SF
Hall B in Basement	Exit Signs	Regulated Waste - Batteries	1	EA
Hall B in Basement	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	4	EA
Hall B in Basement	Fluorescent Lamps - 2 FT	Regulated Waste - Mercury and Lead	8	EA
Hall B in Basement	Smoke Detectors	See Fire Safety Notes	1	EA
Hall near 311	12x12 White with Light Gray Streaks Floor Tile and Mastic	4.3-4.8% Chrysotile Asbestos (Tile and Mastic)	742	SF
Hall near 311	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	742	SF
Hall near 311	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	2260	SF
Hall near 311	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	212	LF
Hall near 311	Exit Signs	Regulated Waste - Batteries	2	EA
Hall near 311	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	12	EA
Hall near 311	Fluorescent Lamps - 2 FT	Regulated Waste - Mercury and Lead	24	EA
Hall near 311	Gray Spray Applied Fireproofing	No Asbestos Detected	742	SF

Room	Description	Hazard	Qty	Units
Hall near 311	Red Duct Mastic	3.4% Chrysotile Asbestos	4	SF
Hall near 311	Smoke Detectors	See Fire Safety Notes	2	EA
Hallway To Basement Tunnel	12X12 White With Black Floor Tile and Mastic	Black Mastic Contains Asbestos	264	SF
Hallway To Basement Tunnel	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	264	SF
Hallway To Basement Tunnel	Automatic Door Closers	Regulated Waste - Oil	4	EA
Hallway To Basement Tunnel	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	740	SF
Hallway To Basement Tunnel	Fire Doors	Assumed Asbestos	4	EA
Hallway To Basement Tunnel	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	3	EA
Hallway To Basement Tunnel	Fluorescent Lamps - 2 FT	Regulated Waste - Mercury and Lead	4	EA
Hallway To Basement Tunnel	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	2	EA
Janitor Closet	12x12 Tan Armstrong Floor Tile and Mastic	Mastic contains 4.3% Chrysotile Asbestos	30	SF
Janitor Closet	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	30	SF
Janitor Closet	Wood Doors	Information Only	1	EA
Joint Hearing Room	1x1 Spline Ceiling Tile (no glue)	Known to be NAD (Previous Survey)	3640	SF
Joint Hearing Room	Automatic Door Closers	Regulated Waste - Oil	8	EA
Joint Hearing Room	Can Lights (CFLs or LEDs)	Regulated Waste - Mercury and Lead	65	EA
Joint Hearing Room	Emergency Lights	Regulated Waste - Batteries	4	EA
Joint Hearing Room	Fire Doors - Double Doors	Assumed Asbestos	4	EA
Joint Hearing Room	Gold Carpet Glue	No Asbestos Detected	3640	SF
Joint Hearing Room	Small LED/CFLs like Candles	Regulated Waste - Mercury and Lead	28	EA
Joint Hearing Room	Smoke Detectors	See Fire Safety Notes	6	EA
Joint Hearing Room	Water/Mold damaged Ceiling Tiles	Water and Mold Damage	8	SF
Kitchen on 3rd Floor	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	127.5	SF
Kitchen on 3rd Floor	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	470	SF

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Room	Description	Hazard	Qty	Units
Kitchen on 3rd Floor	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	30	LF
Kitchen on 3rd Floor	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
Kitchen on 3rd Floor	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
Kitchen on 3rd Floor	Gray Spray Applied Fireproofing	No Asbestos Detected	127.5	SF
Kitchen on 3rd Floor	Laminate Flooring	Information Only	127.5	SF
Kitchen on 3rd Floor	Smoke Detectors	See Fire Safety Notes	1	EA
Lawyer's Mall Entry	12x12 Gray Non-Skid Floor Tile over two layers	Assumed Black Mastic	228	SF
Lawyer's Mall Entry	12X12 White Floor Tile And Mastic	Black Mastic Contains Asbestos	228	SF
Lawyer's Mall Entry	Automatic Door Closers	Regulated Waste - Oil	2	EA
Lawyer's Mall Entry	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	350	SF
Lawyer's Mall Entry	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	10	LF
Lawyer's Mall Entry	Exit Signs	Regulated Waste - Batteries	1	EA
Lawyer's Mall Entry	Small LED/CFLs like Candles	Regulated Waste - Mercury and Lead	3	EA
Lawyer's Mall Entry	Smoke Detectors	See Fire Safety Notes	1	EA
Mechanical Room on 3rd Floor	Cloth Duct Insulation	Not Suspect Material		
Mechanical Room on 3rd Floor	Emergency Lights	Regulated Waste - Batteries	1	EA
Mechanical Room on 3rd Floor	End Cap Sealant	No Asbestos Detected		
Mechanical Room on 3rd Floor	Exit Signs	Regulated Waste - Batteries	1	EA
Mechanical Room on 3rd Floor	Fire Doors	Assumed Asbestos	1	EA
Mechanical Room on 3rd Floor	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	19	EA
Mechanical Room on 3rd Floor	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	38	EA
Mechanical Room on 3rd Floor	Mercury Thermometers	Regulated Waste - Mercury	4	EA
Mechanical Room on 3rd Floor	Mudded Fittings	Assumed Asbestos	10	EA
Mechanical Room on 3rd Floor	Thermometers (unknown type)	Regulated Waste - Mercury	9	EA

Legislative Services Survey Notes: Hidden sources of asbestos may be present that were inaccessible at the time of the survey and are not reflected in the room assessment table. This includes but is not limited to duct seam sealant and end cap sealant.

Room	Description	Hazard	Qty	Units
Mechanical Room on 3rd Floor	Thermostat (Penn - unknown type)	Regulated Waste - Mercury	1	EA
Mechanical Room on 3rd Floor	Vinyl Vibration Dampeners	Information Only	172	LF
Mechanical Room on 3rd Floor	Wood Doors	Information Only	1	EA
Mens Bathroom First Floor	Automatic Door Closers	Regulated Waste - Oil	1	EA
Mens Bathroom First Floor	Sinks	Information Only	3	EA
Mens Bathroom First Floor	Toilets	Information Only	2	EA
Mens Bathroom First Floor	Urinals	Information Only	2	EA
Mens Restroom in Basement	1"x1" Ceramic Tile Floor	Regulated Waste - Lead	372	SF
Mens Restroom in Basement	3"x3" Ceramic Tile Walls	Regulated Waste - Lead		
Mens Restroom in Basement	Automatic Door Closers	Regulated Waste - Oil	1	EA
Mens Restroom in Basement	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	5	EA
Mens Restroom in Basement	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	10	EA
Mens Restroom in Basement	Mirrors (possible mastic patties)	Assumed Asbestos in Mastic Patties	3	EA
Mens Restroom in Basement	Sinks	Information Only	4	EA
Mens Restroom in Basement	Smoke Detectors	See Fire Safety Notes	1	EA
Mens Restroom in Basement	Toilets	Information Only	4	EA
Mens Restroom in Basement	Urinals	Information Only	2	EA
Mens Restroom in Basement	Wood Doors	Information Only	1	EA
Mens Restroom on 2nd Floor	1"x1" Ceramic Tile Floor	Regulated Waste - Lead	224	SF
Mens Restroom on 2nd Floor	3"x3" Ceramic Tile Walls	Regulated Waste - Lead		
Mens Restroom on 2nd Floor	Automatic Door Closers	Regulated Waste - Oil	1	EA
Mens Restroom on 2nd Floor	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	48	SF
Mens Restroom on 2nd Floor	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	4	EA
Mens Restroom on 2nd Floor	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	8	EA

Room	Description	Hazard	Qty	Units
Mens Restroom on 2nd Floor	Mirrors (possible mastic patties)	Assumed Asbestos in Mastic Patties	4	EA
Mens Restroom on 2nd Floor	Plaster Ceiling	Known to be NAD (Previous Survey)	224	SF
Mens Restroom on 2nd Floor	Wood Doors	Information Only	1	EA
Mens Restroom on 3rd Floor	1"x1" Ceramic Tile Floor	Regulated Waste - Lead	208	SF
Mens Restroom on 3rd Floor	3"x3" Ceramic Tile Walls	Regulated Waste - Lead		
Mens Restroom on 3rd Floor	Automatic Door Closers	Regulated Waste - Oil	1	EA
Mens Restroom on 3rd Floor	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	30	LF
Mens Restroom on 3rd Floor	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	5	EA
Mens Restroom on 3rd Floor	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	10	EA
Mens Restroom on 3rd Floor	Mirrors (possible mastic patties)	Assumed Asbestos in Mastic Patties	4	EA
Mens Restroom on 3rd Floor	Plaster Ceiling	Known to be NAD (Previous Survey)	208	SF
Mens Restroom on 3rd Floor	Red Duct Mastic	3.4% Chrysotile Asbestos	2	SF
Mens Restroom on 3rd Floor	Smoke Detectors	See Fire Safety Notes	1	EA
Mens Restroom on 3rd Floor	Wood Doors	Information Only	1	EA
NE Stairs To 1st Floor	12X12 White/Gray Floor Tile and Mastic	4.3-4.8% Chrysotile Asbestos (Tile and Mastic)	284	SF
NE Stairs To 1st Floor	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	128	SF
NE Stairs To 1st Floor	Automatic Door Closers	Regulated Waste - Oil	4	EA
NE Stairs To 1st Floor	Black Cove Base And Mastic	No Asbestos Detected	48	LF
NE Stairs To 1st Floor	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	168	SF
NE Stairs To 1st Floor	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	6	LF
NE Stairs To 1st Floor	Exit Signs	Regulated Waste - Batteries	1	EA
NE Stairs To 1st Floor	Fire Doors	Assumed Asbestos	2	EA
NE Stairs To 1st Floor	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
NE Stairs To 1st Floor	Fluorescent Lamps - 2 FT	Regulated Waste - Mercury and Lead	4	EA

Room	Description	Hazard	Qty	Units
NE Stairs To 1st Floor	Wood Doors	Information Only	2	EA
NE Stairwell	12X12 White With Light Gray Floor Tile and Mastic	Mastic Contains 1.3% Asbestos	140	SF
NE Stairwell	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	104	SF
NE Stairwell	Automatic Door Closers	Regulated Waste - Oil	1	EA
NE Stairwell	Black Cove Base and Mastic	No Asbestos Detected	42	LF
NE Stairwell	Fire Doors	Assumed Asbestos	1	EA
NE Stairwell	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
NE Stairwell	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
North Street Entry Vestibule	12X12 White Floor Tile And Mastic over 2 layers	No Asbestos Detected	72	SF
North Street Entry Vestibule	Automatic Door Closers	Regulated Waste - Oil	2	EA
North Street Entry Vestibule	Double Wood Exit Doors	Information Only	1	EA
North Street Entry Vestibule	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	192	SF
North Street Entry Vestibule	Small LED/CFLs like Candles	Regulated Waste - Mercury and Lead	3	EA
North Street Restroom Vestibule	3"x3" White Ceramic Tile Walls	Regulated Waste - Lead		
North Street Restroom Vestibule	Automatic Door Closers	Regulated Waste - Oil	1	EA
North Street Restroom Vestibule	Black Cove Base and Mastic	No Asbestos Detected	8	LF
North Street Restroom Vestibule	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	64	SF
North Street Restroom Vestibule	Exit Signs	Regulated Waste - Batteries	1	EA
North Street Restroom Vestibule	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	1	EA
North Street Restroom Vestibule	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	2	EA
North Street Restroom Vestibule	Metal Doors	Information Only	1	EA
North Street Restroom Vestibule	Plaster Ceiling	Known to be NAD (Previous Survey)	96	SF
North Street Restroom Vestibule	Smoke Detectors	See Fire Safety Notes	1	EA

Room	Description	Hazard	Qty	Units
North Street Restroom Vestibule	Terracotta Floor	No Asbestos Detected	96	SF
North Street Stair	12X12 White With Light Gray Floor Tile and Mastic	Mastic Contains 1.3% Asbestos	45	SF
North Street Stair	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	126	SF
North Street Stair	Automatic Door Closers	Regulated Waste - Oil	1	EA
North Street Stair	Exit Door	Information Only	1	EA
North Street Stair	Exit Signs	Regulated Waste - Batteries	1	EA
North Street Stair	Fire Doors	Assumed Asbestos	1	EA
North Street Stair	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
North Street Stair	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
NW Stairs in Basement	Automatic Door Closers	Regulated Waste - Oil	1	EA
NW Stairs in Basement	Blue Cove Base and Mastic	No Asbestos Detected	42	LF
NW Stairs in Basement	Fire Doors	Assumed Asbestos	1	EA
NW Stairs in Basement	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	1	EA
NW Stairs in Basement	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	1	EA
Print Services	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	280	SF
Print Services	Carpet Glue	No Asbestos Detected	280	SF
Print Services	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	544	SF
Print Services	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	10	LF
Print Services	Emergency Lights	Regulated Waste - Batteries	1	EA
Print Services	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	9	EA
Print Services	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	18	EA
Print Services	Smoke Detectors	See Fire Safety Notes	1	EA
Print Services	Wood Doors	Information Only	1	EA
Reception To G-15	2x4 Divot and Dot Ceiling Tile	Known to be NAD (Previous Survey)	264	SF

Room	Description	Hazard	Qty	Units
Reception To G-15	Carpet Glue	No Asbestos Detected	264	SF
Reception To G-15	Double Wood Door	Information Only	1	EA
Reception To G-15	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	20	LF
Reception To G-15	Fire Doors	Assumed Asbestos	2	EA
Reception To G-15	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	7	EA
Reception To G-15	Fluorescent Lamps - 2 FT	Regulated Waste - Mercury and Lead	10	EA
Reception To G-15	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
Reception To G-15	Mercury Thermostats	Regulated Waste - Mercury	1	EA
Reception To G-15	Smoke Detectors	See Fire Safety Notes	1	EA
Service Room near 224	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	360	SF
Service Room near 224	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	15	LF
Service Room near 224	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	5	EA
Service Room near 224	Fluorescent Lamps - 2 FT	Regulated Waste - Mercury and Lead	30	EA
Service Room near 224	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	10	EA
Service Room on 2nd Floor	12x12 White with Light Gray Streaks Floor Tile and Black Mastic	4.3-4.8% Chrysotile Asbestos (Tile and Mastic)	48	SF
Service Room on 2nd Floor	3"x3" Blue Ceramic Tile Walls	Regulated Waste - Lead		
Service Room on 2nd Floor	Automatic Door Closers	Regulated Waste - Oil	1	EA
Service Room on 2nd Floor	Black Cove Base and Mastic	No Asbestos Detected	28	LF
Service Room on 2nd Floor	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	112	SF
Service Room on 2nd Floor	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
Service Room on 2nd Floor	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
Service Room on 2nd Floor	Slop Sink	Information Only	1	EA
Service Room on 2nd Floor	Wood Doors	Information Only	1	EA
Space Above Elev Mech Rm	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA

Room	Description	Hazard	Qty	Units
Space Above Elev Mech Rm	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
Space Above Elev Mech Rm	Gray Spray Applied Fireproofing	No Asbestos Detected		
Space Above Elev Mech Rm	Window Glazing Compound	0.25% Chrysotile Asbestos	180	LF
Stair Lobby Ground Floor	12x12 Black And White Checkerboard Floor Tile and Mastic	No Asbestos Detected	328	SF
Stair Lobby Ground Floor	1x1 Spline Ceiling Tile (no glue)	Known to be NAD (Previous Survey)	96	SF
Stair Lobby Ground Floor	Automatic Door Closers	Regulated Waste - Oil	2	EA
Stair Lobby Ground Floor	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	846	SF
Stair Lobby Ground Floor	Fire Doors	Assumed Asbestos	2	EA
Stair Lobby Ground Floor	Marble Floor	Information Only		
Stair Lobby Ground Floor	Small LED/CFLs like Candles	Regulated Waste - Mercury and Lead	18	EA
Stair Lobby Ground Floor	Smoke Detectors	See Fire Safety Notes	1	EA
Stairwell near Restrooms in Basement	12x12 White with Light Gray Streaks Floor Tile and Mastic	4.3-4.8% Chrysotile Asbestos (Tile and Mastic)	35	SF
Stairwell near Restrooms in Basement	12X12 White/Gray Floor Tile And Mastic	4.3-4.8% Chrysotile Asbestos (Tile and Mastic)	27	SF
Stairwell near Restrooms in Basement	Automatic Door Closers	Regulated Waste - Oil	1	EA
Stairwell near Restrooms in Basement	Blue Cove Base and Mastic	No Asbestos Detected	22	LF
Stairwell near Restrooms in Basement	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	59	SF
Stairwell near Restrooms in Basement	Fire Doors	Assumed Asbestos	1	EA
Stairwell near Restrooms in Basement	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	3	EA
Stairwell near Restrooms in Basement	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	5	EA

Room	Description	Hazard	Qty	Units
Stairwell on Ground Floor at Restrooms	12x12 White with Light Gray Streaks Floor Tile and Mastic	4.3-4.8% Chrysotile Asbestos (Tile and Mastic)	88	SF
Stairwell on Ground Floor at Restrooms	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	32	SF
Stairwell on Ground Floor at Restrooms	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
Stairwell on Ground Floor at Restrooms	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
Stairwell To 1st Landing	12x12 Tan Armstrong Floor Tile and Mastic	Mastic contains 4.3% Chrysotile Asbestos	30	SF
Stairwell To 1st Landing	Automatic Door Closers	Regulated Waste - Oil	1	EA
Stairwell To 1st Landing	Blue Cove Base with Brown Mastic	No Asbestos Detected	10	LF
Stairwell To 1st Landing	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	80	SF
Stairwell To 1st Landing	Fire Doors	Assumed Asbestos	1	EA
Stairwell To 1st Landing	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	2	EA
Stairwell To 1st Landing	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	4	EA
State Circle Entry	12x12 Gray Non-Skid Floor Tile over two layers	Assumed Black Mastic	110	SF
State Circle Entry	1x1 Spline Ceiling Tile (no glue)	Known to be NAD (Previous Survey)	110	SF
State Circle Entry	Automatic Door Closers	Regulated Waste - Oil	2	EA
State Circle Entry	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	10	LF
State Circle Entry	Incandescent Lamps	Information Only	3	EA
Storage Room Next To B5	Concrete Floor	Information Only	90	SF
Storage Room Next To B5	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	1	EA
Storage Room Next To B5	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	5	EA
Storage Room Next To B5	Wood Doors	Information Only	1	EA
Storage Room under Basement Stairs	12x12 White with Light Gray Streaks Floor Tile and Mastic	4.3-4.8% Chrysotile Asbestos (Tile and Mastic)	67	SF

Legislative Services Survey Notes: Hidden sources of asbestos may be present that were inaccessible at the time of the survey and are not reflected in the room assessment table. This includes but is not limited to duct seam sealant and end cap sealant.

Room	Description	Hazard	Qty	Units
Storage Room under Basement Stairs	Black Cove Base and Mastic	No Asbestos Detected	51	LF
Storage Room under Basement Stairs	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	1	EA
Storage Room under Basement Stairs	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	2	EA
Storage Room under Basement Stairs	Wood Doors	Information Only	1	EA
Suite 15 Hall	2x4 Divot and Dot Ceiling Tile	Known to be NAD (Previous Survey)	612	SF
Suite 15 Hall	Carpet Glue	No Asbestos Detected	612	SF
Suite 15 Hall	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	10	LF
Suite 15 Hall	Emergency Lights	Regulated Waste - Batteries	1	EA
Suite 15 Hall	Exit Signs	Regulated Waste - Batteries	1	EA
Suite 15 Hall	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	11	EA
Suite 15 Hall	Fluorescent Lamps - 2 FT	Regulated Waste - Mercury and Lead	6	EA
Suite 15 Hall	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	16	EA
Suite 15 Hall	Mercury Thermostats	Regulated Waste - Mercury	2	EA
Suite 15 Hall	Smoke Detectors	See Fire Safety Notes	3	EA
Tunnel on Ground Floor	12x12 White with Light Gray Streaks Floor Tile and Mastic	4.3-4.8% Chrysotile Asbestos (Tile and Mastic)	96	SF
Tunnel on Ground Floor	2x4 Fissure and Dot Ceiling Tile	Known to be NAD (Previous Survey)	96	SF
Tunnel on Ground Floor	3"x3" Pink Ceramic Tile Walls	Regulated Waste - Lead	480	SF
Tunnel on Ground Floor	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	240	SF
Tunnel on Ground Floor	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	22	EA
Tunnel on Ground Floor	Fluorescent Lamps - 2 FT	Regulated Waste - Mercury and Lead	2	EA
Tunnel on Ground Floor	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	21	EA
Tunnel on Ground Floor	Plaster Ceiling	Known to be NAD (Previous Survey)	1000	SF

Room	Description	Hazard	Qty	Units
Tunnel on Ground Floor	Red Terrazzo Floor	No Asbestos Detected	1000	SF
Tunnel on Ground Floor	Smoke Detectors	See Fire Safety Notes	1	EA
Tunnel on Ground Floor	Structural Glazed Facing Tile	Regulated Waste - Lead	960	SF
Womens Restroom First Floor	1"x1" Ceramic Tile Floor	Regulated Waste - Lead	160	SF
Womens Restroom First Floor	3"x3" Ceramic Tile Walls	Regulated Waste - Lead		
Womens Restroom First Floor	Drywall and Joint Compound	Joint Compound over 1% Chrysotile Asbestos	160	SF
Womens Restroom First Floor	Duct seam sealant	2.1-4.8% Chrysotile Asbestos	10	LF
Womens Restroom First Floor	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	4	EA
Womens Restroom First Floor	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	8	EA
Womens Restroom First Floor	Mirrors (possible mastic patties)	Assumed Asbestos in Mastic Patties	2	EA
Womens Restroom First Floor	Sinks	Information Only	3	EA
Womens Restroom First Floor	Smoke Detectors	See Fire Safety Notes	1	EA
Womens Restroom First Floor	Toilets	Information Only	3	EA
Womens Restroom in Basement	1"x1" Ceramic Tile Floor	Regulated Waste - Lead	220	SF
Womens Restroom in Basement	3"x3" Ceramic Tile Walls	Regulated Waste - Lead		
Womens Restroom in Basement	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	10	LF
Womens Restroom in Basement	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	4	EA
Womens Restroom in Basement	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	8	EA
Womens Restroom on 2nd Floor	1"x1" Ceramic Tile Floor	Regulated Waste - Lead	216	SF
Womens Restroom on 2nd Floor	3"x3" Ceramic Tile Walls	Regulated Waste - Lead		
Womens Restroom on 2nd Floor	Automatic Door Closers	Regulated Waste - Oil	1	EA
Womens Restroom on 2nd Floor	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	5	EA
Womens Restroom on 2nd Floor	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	10	EA
Womens Restroom on 2nd Floor	Mirrors (possible mastic patties)	Assumed Asbestos in Mastic Patties	4	EA

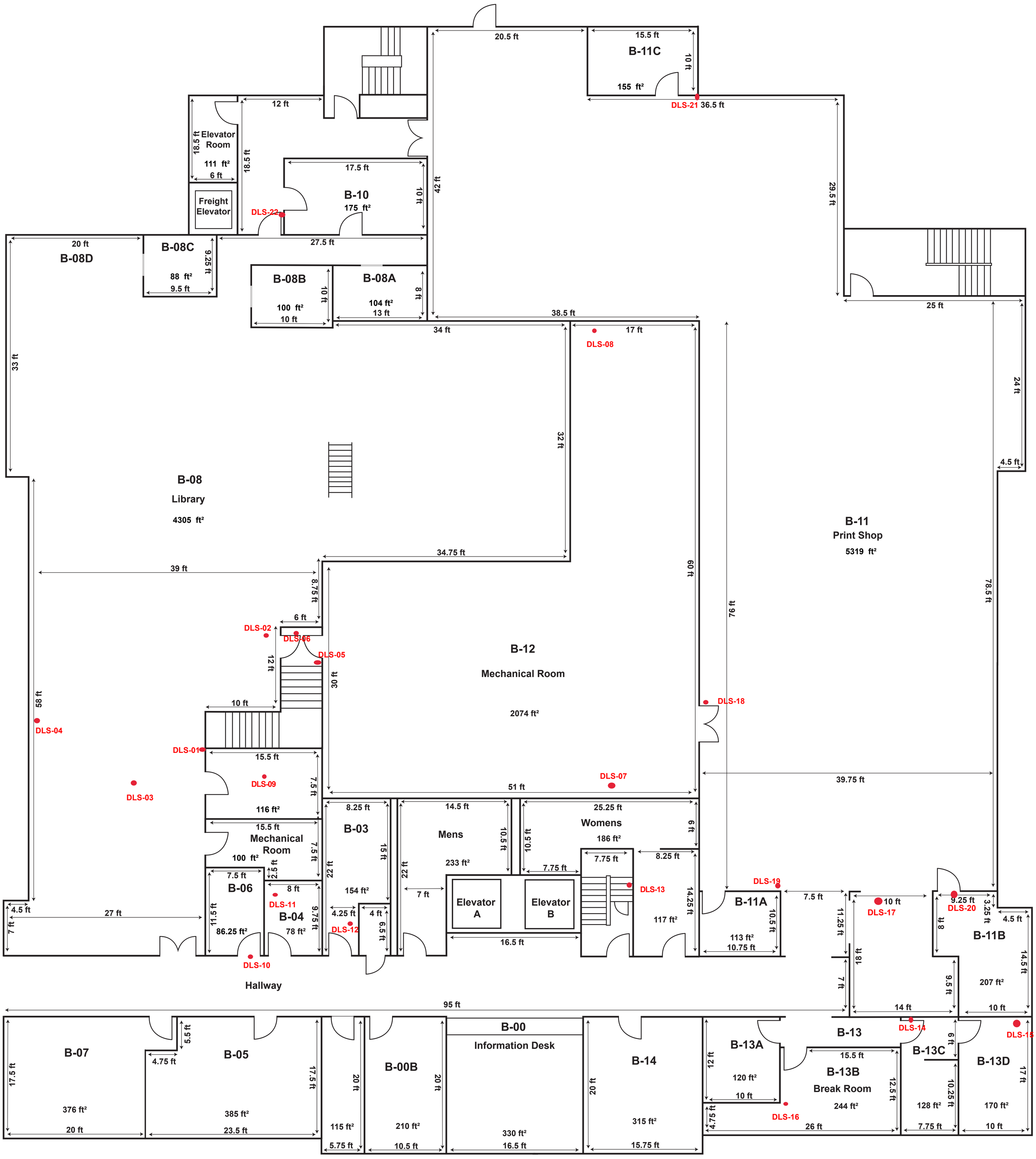
Legislative Services Survey Notes: Hidden sources of asbestos may be present that were inaccessible at the time of the survey and are not reflected in the room assessment table. This includes but is not limited to duct seam sealant and end cap sealant.

Room	Description	Hazard	Qty	Units
Womens Restroom on 2nd Floor	Plaster Ceiling	Known to be NAD (Previous Survey)	216	SF
Womens Restroom on 2nd Floor	Wood Doors	Information Only	1	EA
Womens Restroom on 3rd Floor	1"x1" Ceramic Tile Floor	Regulated Waste - Lead	208	SF
Womens Restroom on 3rd Floor	3"x3" Ceramic Tile Walls	Regulated Waste - Lead		
Womens Restroom on 3rd Floor	Automatic Door Closers	Regulated Waste - Oil	1	EA
Womens Restroom on 3rd Floor	Duct Seam Sealant	2.1-4.8% Chrysotile Asbestos	30	LF
Womens Restroom on 3rd Floor	Fluorescent Lamp Ballasts	Regulated Waste - PCBs	5	EA
Womens Restroom on 3rd Floor	Fluorescent Lamps - 4 FT	Regulated Waste - Mercury and Lead	10	EA
Womens Restroom on 3rd Floor	Mirrors (possible mastic patties)	Assumed Asbestos in Mastic Patties	4	EA
Womens Restroom on 3rd Floor	Plaster Ceiling	Known to be NAD (Previous Survey)	208	SF
Womens Restroom on 3rd Floor	Red Duct Mastic	3.4% Chrysotile Asbestos	2	SF
Womens Restroom on 3rd Floor	Smoke Detectors	See Fire Safety Notes	1	EA
Womens Restroom on 3rd Floor	Wood Doors	Information Only	1	EA

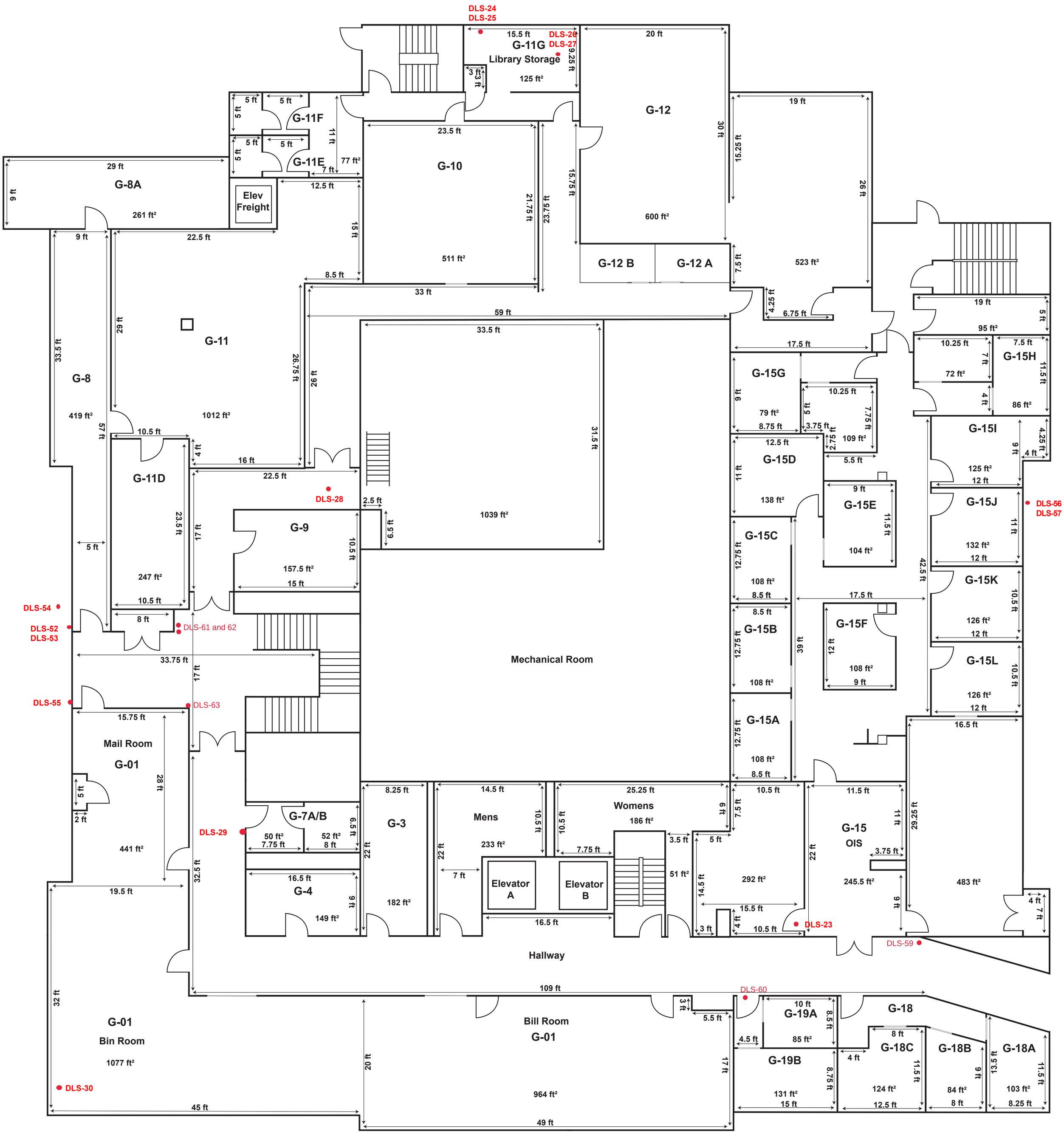
Attachment E:

Asbestos Sample Location Plan

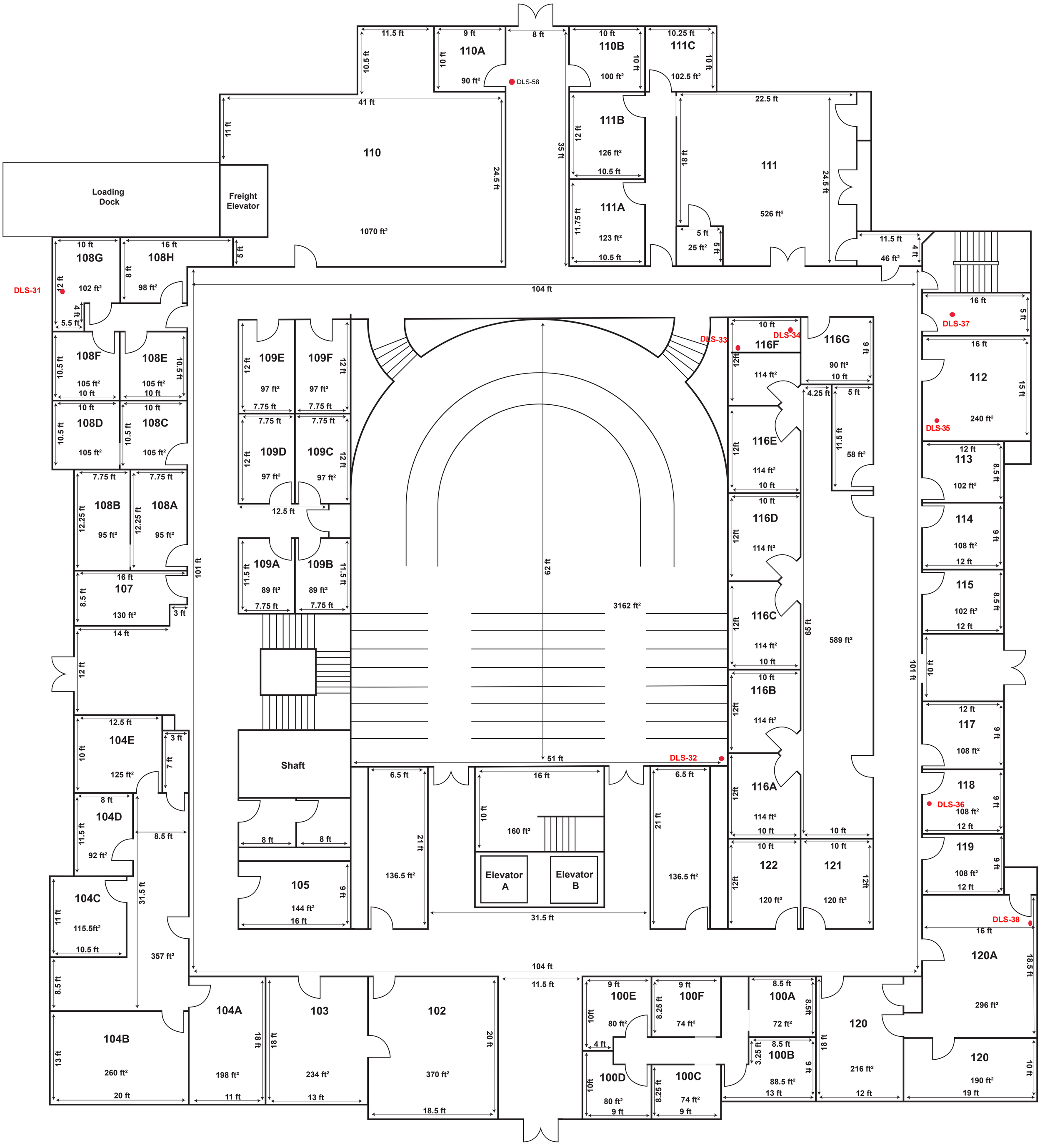
Legislative Services Basement



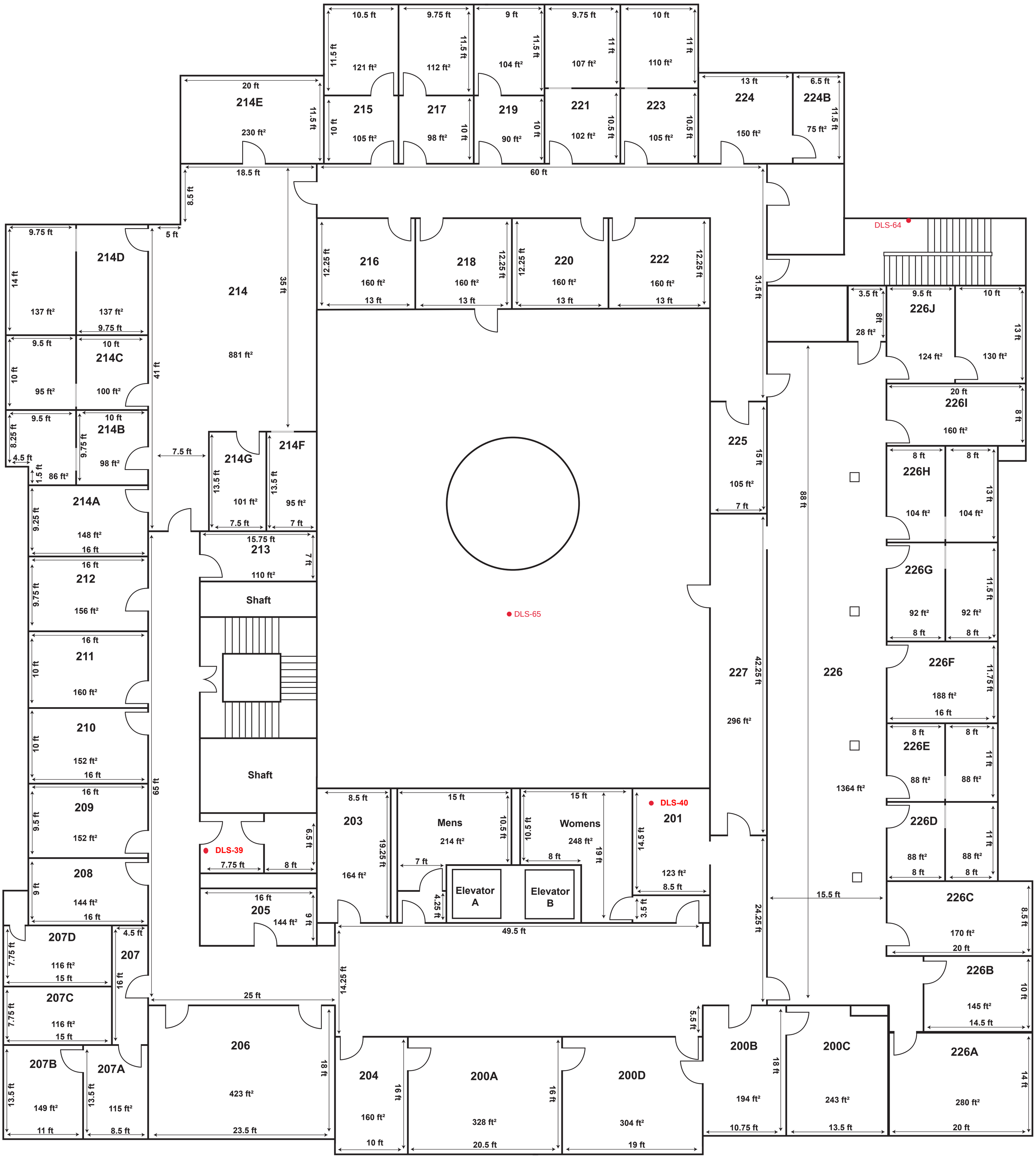
Legislative Services Ground



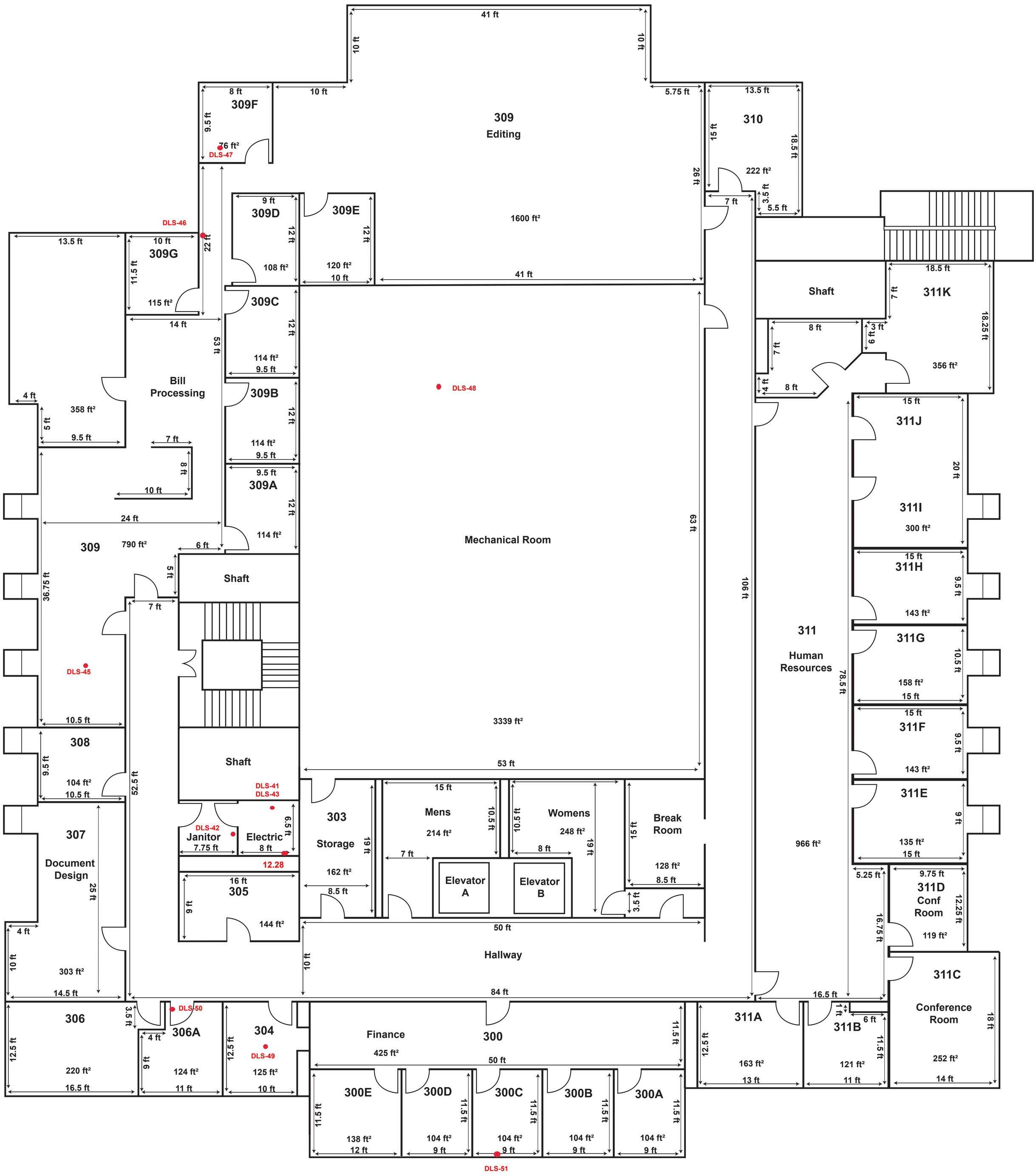
Legislative Services 1st Floor



Legislative Services 2nd Floor



Legislative Services 3rd Floor



Appendix C - Geotechnical Investigation Report

GEOTECHNICAL INVESTIGATION REPORT

FOR

MSA DEPT. OF LEGISLATIVE SERVICES BUILDING IMPROVEMENTS

ANNAPOLIS, MARYLAND

Findling Project No.: 20-1001

PREPARED FOR:

MURPHY & DITTENHAFER ARCHITECTS, INC.
805 NORTH CHARLES STREET
BALTIMORE, MARYLAND 21201

February 8, 2021

FINDLING, INC.

Findling Inc.

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February 8, 2021

Murphy & Dittenhafer Architects, Inc.
805 North Charles Street
Baltimore, Maryland 21201

Attention: Mr. Peter Colello, AIA

Re: Geotechnical Investigation Report
MSA Dept. of Legislative Services Building Improvements
Annapolis, Maryland
Findling Project No.: 20-1001

Dear Mr. Colello:

Findling, Inc. is pleased to submit this report containing the results of our geotechnical investigation for the MSA Dept. of Legislative Services Building Improvements project located at Annapolis, Maryland. The work described within this report was performed in accordance with our Proposal No. 19125-R2, dated October 7, 2019.

We wish to advise you that we will store the soil samples obtained from the soil test borings for a period of thirty (30) days from the date of this report, during which time the samples will be available for inspection. After that time, they will be discarded unless other disposition is requested.

We appreciate the opportunity to be of service to you during the design phase of this project. During the continuation of the design phase and the construction phase, we would like to provide our geotechnical analysis, design and review services, testing and inspections services, etc. so as to verify the assumptions made on both the subsurface conditions and the geotechnical design parameters. Should you have any questions or if we can be any further help to the project team, please call us.

Sincerely,

FINDLING, INC.

Amsalu Birhan, Ph.D., P.E.
Senior Geotechnical Engineer

M. Suri Surendra, Ph.D., P.E.
Chief Engineer

STATE OF MARYLAND
MARIAPPA SURENDRA
NO. 14620
REGISTERED
PROFESSIONAL ENGINEER

FINDLING, INC.

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EXECUTIVE SUMMARY

A brief summary of the important geotechnical findings and recommendations contained within this report are provided below. The executive summary is not all inclusive and the entire report must be read for the proper use of this report.

Proposed Construction: (Section 1.1)	It is our understanding that a new DLS building having six stories, two floors below-grade and four floors above-grade, is planned. The existing building will be demolished in its entirety, including most of the foundations.
Subsurface Conditions: (Section 3)	The subsurface explorations indicated that the site is underlain by a surface layer of Man-Placed Fill (10± to 20± ft. thick), which in turn is underlain by the Recent Alluvial soils to approximate depth of 35ft. below the ground surface. Alluvial Tertiary Formation soils consisting of Poorly Graded SAND was encountered starting from approximately 35 ft. below the existing grade to the bottom depths of the borings, which was 81.5 ft. below the existing ground surface.
Groundwater: (Section 3.3)	The groundwater elevations vary from EL + 15+ to EL + 17.5+ (i.e., 17.3 ft. to 19.3 ft. below the existing ground surface). It should be noted that groundwater levels will fluctuate due to seasonal changes, precipitation, and construction activity.
Seismic Site Class: (Section 4)	The site is considered a Site Class D as per IBC 2015.
Foundation System: (Section 5)	Shallow spread footings, Mat/raft foundation and Auger Pressure Grouted Pile (APG) are analyzed for the support of the building structure. These foundation options are discussed in the report.
Floor Slab: (Section 6)	If the mat foundation option is not utilized, we expect that the slabs for the lowest floor will be constructed directly on the subgrade. The floor slab subgrades are expected to consist of the natural Poorly Graded SANDS. Floor slabs on grade may be designed using a modulus of subgrade reaction, k equal to 100 pci.

Under-Slab Subdrainage:
(Section 6)

Groundwater was encountered above the proposed finished floor grades and a special under-floor subdrainage system is considered necessary to maintain groundwater below the floor level.

In order to maintain the groundwater below the lowest floor finish level, the subdrainage system will require pump(s) that will operate continuously throughout the year with backup pump(s) and power supply. The mat foundation system with monolithic perimeter walls designed for hydrostatic pressure can avoid the under-slab drainage system and its accessories. In addition, the construction time and hence the required dewatering during construction might be less for the mat foundation.

Below-Grade Walls:
(Section 7)

Lateral earth pressures and parameters required for the design of the below-grade walls are included in this report.

Earthwork:
(Section 8)

Excavation of this site is expected to be performed using conventional earthmoving equipment. However, the existing building will be razed and underground structures/remnants of this demolishing shall be anticipated, as they might not be completely removed. Some efforts, such as the use of jack hammer and/or hoe ram may be required in order to perform excavation at the site.

The visual classification and the laboratory tests conducted on the on-site fill materials indicated that the existing soils classify predominantly as Poorly Graded SANDs and Clayey SANDS. The Poorly Graded SANDY soils can be reused as site and structural backfill materials.

Based on the observation from the test borings, rock excavation is not expected.

Dewatering:
(Section 8.3)

Groundwater was encountered at or above the proposed lowest floor finish. Therefore, dewatering during construction is needed. Therefore, provisions should be made in the project specifications for dewatering.

Excavation Support System: (Section 8.4)	Excavation support systems are potentially required to allow excavation for the basement construction, and to install other utilities for this project. As such, excavation of up to 20^{+} ft. below the existing grade may be required in some areas. In addition, the excavation system to be selected should consider the proximity of existing structures (including tunnels), roadways, and utilities.
Construction Considerations: (Section 5.5.5.)	The risk of encountering obstructions may exist during installation of the Auger Cast Piles as discussed in Section 5.5.5.

This report is based on information available to us on the proposed construction at the time of writing the report. If the project characteristics are changed from those indicated herein, our recommendations may require some modifications. Please advise us of any changes in the proposed construction. The report is prepared in accordance with contemporary geotechnical engineering practices and Findling makes no warranties, either expressed or implied, as to the professional services provided under the terms of our agreement and included in this report. In addition, it is recommended that the following statement be included in the project specification: “The geotechnical report has been prepared for this project by Findling, Inc. only for design purposes and may not be sufficient to prepare an accurate bid for construction. The report shall be used by the prospective bidders and/or contractors for informational purposes only."

FINDLING, INC.

GEOTECHNICAL INVESTIGATION REPORT

MSA Dept. of Legislative Services Building Improvements
Annapolis, Maryland
Findling Project No.: 20-1001

1. INTRODUCTION

This report presents the results of the geotechnical investigation conducted for the MSA Dept. of Legislative Services Building Improvements project located at Annapolis, Maryland (see Figure 1: Site Vicinity Map, in the Appendix). This work was performed for Murphy & Dittenhafer Architects, Inc. pursuant to our Proposal No. 19125-R2, dated October 7, 2019.

1.1 Project Description and Project Site Condition

It is our understanding that a new DLS building having six stories, two floors below-grade and four floors above-grade, is planned. The existing building will be demolished in its entirety, including most of the foundations. The DLS building site is located at 90 State Circle in Annapolis, Maryland. The site is bordered by College Avenue and the House of Delegates Building to its Northwest, by North Street to its East, by State Circle and State House to its South, and by Lawyers Mall and Governor's Mansion to its Southwest. The Project Location Plan is shown in Figure 2, which is included in the Appendix. In addition, two heavily used existing below-grade pedestrian tunnels provide occupant access to neighboring government buildings – the State House at the South and the House of Delegates at the West.

It is our understanding that the existing building, which will be razed, has two below-grade levels (Basement and Ground Floor), where the foundation walls were supporting two floors above grade. As such, the existing building was a two and half story brick building above grade.

1.2 Purpose and Scope

The purpose of this study was to prepare a geotechnical report containing geotechnical related design and construction considerations for the proposed project. This report contains recommendations that pertain to the construction activities associated with the proposed new DLS building at the site. The report is based on the evaluation of four test borings performed on the project site, previous borings, available geologic data and our experience in the area. Four building borings (B-1 to B-4) were drilled at the site. The locations of these test borings are shown on the Boring Location Plan included as Figure 4 in the Appendix. The test borings were drilled to depths of 81.5 ft. below the existing grade. The scope also included conducting laboratory tests in order to classify and establish engineering properties of the underlying materials.

2. SUBSURFACE EXPLORATION

2.1 Utility Clearance

Prior to the drilling operation, the public utilities were marked and cleared by "Miss Utility". Due to the presence of existing utilities in the vicinity of proposed boring locations, additional clearing was performed by the services of a private utility locator. The area of proposed borings was scanned for existing underground utility lines and the lines that were detected were marked. The boring locations were then offset from the detected underground utility lines.

2.2 Field Investigation

The subsurface investigation was performed from December 9 to 19, 2020. Four building borings (B-1 to B-4) were drilled at the site. The boring locations were selected and staked by Findling, Inc. with an approval from M & D as shown on Figure 4: Boring Location Plan, which is included in the Appendix. The borings were drilled using a CME ATV 45 drill rig (with automatic hammer to obtain SPT samples). The depth of the borings was 81.5 ft. below the existing grade. Three of the test borings (B-1, B-3 and B-4) were converted to monitoring wells to monitor the groundwater level. The groundwater monitoring well details are included in the Appendix. The soil cuttings from the drilling operations were containerized in drums for disposal by others.

2.3 Soil Test Borings

The borings were advanced using hollow-stem augers (3-¼ inch I.D. HSA) and soil samples were recovered from the borings at selected intervals by driving a 1-3/8-inch ID (2-inch OD) split-spoon sampler in accordance with ASTM D-1586 specifications. The sampler was first seated about 6 inches to penetrate through the loose cuttings and then driven an additional 1 foot with blows of a 140-pound hammer falling 30 inches. The number of hammer blows required to drive the sampler 1 foot after the initial 6 inches is typically designated as the Standard Penetration Test resistance (N) value. The penetration resistance is an index of the soil's strength, density and behavior under applied loads.

The test boring B-2 was backfilled with grout and the other three borings were converted in to monitoring wells.

Soils obtained from the sampling device were sealed in glass sample jars and transported to our soils testing laboratory. The recovered soil samples were identified by a Geotechnical Engineer using visual examination and manual tests in general accordance with techniques outlined in ASTM D-2488 and the Unified Soil Classification System

(USCS), which is adopted by ASTM D-2487 for classification and identification of soils for general engineering purpose. A description of the soils and conditions encountered at each test boring location is presented on the Boring Logs included in the Appendix. The USCS classifications indicated in the logs are based on the ASTM D-2488, and should be considered approximate.

2.4 Laboratory Testing

Soil samples recovered from the field explorations were transported to our soil testing laboratory and selected soil samples were tested to determine additional engineering characteristics of the existing on-site soils. The laboratory tests that were conducted on selected soil samples included natural moisture content test (ASTM D2216), Atterberg limits (ASTM D4318), sieve analysis (ASTM D422), and Moisture vs. Density relations (ASTM D698/1557). All tests were performed in general accordance with the ASTM procedures. The results of these laboratory tests are included in the Appendix, along with a results summary table (Table 2.1).

Note that the soil samples obtained from the soil test borings and which were not used for the soil laboratory testing will be stored for a period of thirty (30) days from the date of this report, during which time they will be available for inspection. After that time, the samples will be discarded unless other disposition is requested.

3. SUBSURFACE CONDITIONS

3.1 Stratification

The Boring Logs included in the Appendix contain details related to the subsurface conditions encountered at the various boring locations. It should be noted that stratification lines shown on the Boring Logs represent approximate transitions between material types. Strata changes can occur gradually or at different levels than those shown on the Boring Logs and depict conditions at the indicated locations and depths at the time of our subsurface exploration program. Groundwater levels are variable and are influenced by the existing soil conditions, seasonal and climatic changes.

The test boring data, visual and laboratory classification of the sampled soils, and our knowledge of local geology was used to separate the soils into the following generalized strata to the depths investigated. The specific subsurface conditions relating to the proposed structures are discussed under foundations and general consideration sections of this report.

Two test borings (B-2 and B-3) were drilled in the paved area. Approximately 8 inches thick Concrete was observed on top of 10 inches thick aggregate base. These data are included on the Boring Logs, in the Appendix. Top soils of approximately 5 to 6 inches thick was encountered in test borings B-1 and B-4.

3.1.1 Stratum A: Man-Placed Fill

Man-Placed Fill was encountered in all of the test borings. The fill material was observed to consist of Clayey Sand and Poorly Graded Sand with varying percentages of gravel and rock fragments. The fill appears to have been placed during past construction and grading activities at the site. The fill stratum extended to depths ranging from 10± to 20± ft. below existing grade (i.e., elevations of EL + 15± to EL + 24±). The penetration resistance in the fill indicated loose to medium dense density with standard penetration resistance (SPT) N-values ranging from 3 blows per foot (BPF) to 13 BPF. Higher blow counts of up to 49 BPF were observed, which probably resulted from encountering gravels and rock fragments.

3.1.2 Stratum B: Recent Alluvial Soils

Recent alluvial soils consisting of predominantly Poorly Graded SAND derived from deposition within a flood plain with variable sediment input exist beneath the Fill stratum. This stratum extended to depth of 35± ft below the existing ground surface (i.e., elevations of EL – 1.0± to EL + 3±). The standard penetration resistance (SPT) N-values ranged from about 4 blows per foot (BPF) to 20 BPF.

3.1.3 Stratum C: Tertiary Formations

Soil consisting of Poorly Graded SAND was encountered in the test borings. This stratum was encountered at approximately 35 ft. below the existing grade to the bottom depths of the borings, which was 81.5 ft. below the existing ground surface. The standard penetration resistance (SPT) N-values ranged from about 19 blows per foot (BPF) to 77 BPF. Cemented Sand seam/layers were noted in this Stratum.

3.2 Site Geology

The site is located within the Atlantic Coastal Plain Physiographic Province of Maryland, specifically in the Embayed Section, Western Shore Uplands Region and Crownsville Upland District. The site is located within the Coastal Plain geology. Available general geological information suggests that the soils below the site consist of the Upper Paleocene, Tertiary Formations. This formation consists of well-sorted, medium-grained Sands, as shown on Figure 3, in the Appendix. Based on the test borings a site-specific geology suggests that underlying the Man-Placed Fill (10± to 20± ft. deep) is a layer of recent alluvial soils, likely the remnants of recent stream deposits. Below these recent alluvial soils, dense sands, of Tertiary formations extend to the bottom of borings.

3.3 Groundwater Conditions

Groundwater levels were noted in the borings during drilling operations, immediately and after 24 hrs. of completion of drilling. Groundwater was observed on the drill rods and samples during drilling operations in all of the test borings. Groundwater readings at the end of drilling and after the HSA auger is pulled out were noted. The groundwater depth and the corresponding groundwater reading time were recorded. These are included in the boring logs and are summarized in Table 3.1, which are included in the Appendix. In addition, three of the test borings were converted to groundwater monitoring wells and the groundwater level observations are summarized in Table 3.2, which is included in the Appendix. The groundwater elevations vary from EL + 15± to EL + 17.5± (i.e., 17.3 ft. to 19.3 ft. below the existing ground surface). It should be noted that groundwater levels will fluctuate due to seasonal changes, precipitation, and construction activity. The highest groundwater observations are normally encountered in late winter and early spring. Fluctuations of water table or the development of a perched water table at shallower depths above less permeable layers (within the Fill stratum) may occur depending upon the amount of precipitation and water runoff to the site from higher elevations, during wet season.

4. SEISMIC SITE CLASS

The seismic site class and design parameters are provided below for this project site per 2015 International Building Code (IBC). The U.S. Geological Survey Seismic Design Maps-Earthquake Hazards Program is used to get mapped acceleration parameters for the site with coordinates 38.979466°N, 76.491688°W. Table 4-1 has values of Risk-Targeted Maximum Considered Earthquake (MCE_R) Ground Motion Response Accelerations for Site Class B and 5% of Critical Damping. These values incorporate a target risk of structural collapse equal to 1% in 50 years.

Table 4-1: Mapped Spectral Response Acceleration Values for Soil Factors of 1.0

Description	Period (Sec)	Sa
Mapped Short Period Spectral Response Acceleration (S_S)	0.2	0.119 g
Mapped 1-Second Period Spectral Response Acceleration (S_1)	1.0	0.050 g

The Seismic Site Classification influences the determination of the Site Coefficients, the Design Spectral Response Acceleration values, and ultimately the Seismic Design Category. Note that the Seismic Site Classification is based on the characteristics of the upper 100-ft. of soils and rock below the site. The IBC requires the use of Standard Penetration Test Resistance (test borings), Shear Wave Velocity (geophysical methods), and/or Undrained Shear Strength (soil laboratory testing) to categorize the Seismic Site Classification.

Based on the explored soil properties in the test borings performed for this site, the Seismic Site Classification was determined to be Site Class D. For Site Class D and mapped spectral acceleration values obtained above, calculated Site Coefficient values and the Maximum and Design Spectral Response Acceleration values as per IBC Section 1613.5 are given in Table 4-2.

Table 4-2: Site Class, Site Coefficients, and Design Spectral Response Acceleration

Site Class	D
Soil Profile	Stiff Soil Profile
Site Coefficient (F_a)	1.6
Site Coefficient (F_v)	2.4
Short Period, Maximum Spectral Response Acceleration (S_{MS})	0.190 g
1 Second Period, Maximum Spectral Response Acceleration (S_{M1})	0.120 g
Short Period, Design Spectral Response Acceleration (S_{DS})	0.127 g
1 Second Period, Design Spectral Response Acceleration (S_{D1})	0.080 g

Design spectral response acceleration values are used with occupancy category (IBC 2015, Table 1604.5) of the building or structure to determine the Seismic Design Category. Additional seismic data can be obtained on the result summary provided in the Appendix.

5. FOUNDATION DESIGN CONSIDERATIONS

5.1 Proposed Construction

It is our understanding that a new DLS building having six stories, two floors below-grade and four floors above-grade, is planned. The existing building will be removed to grade level, and the configuration of the basement will be altered to fit the new building footprint. The existing building, which will be razed, has two below-grade levels (Basement and Ground Floor), where the foundation walls and spread footings were supporting two floors above grade. As such, the existing building was a two and half story brick building above grade.

Based on the data provided by Cagley & Associates, Inc., the preliminary load data are 500 kips to 650 kips for typical exterior columns and 750 kips to 950 kips for typical interior columns. In addition, based on the meeting held on February 4, 2021 with Murphy and Dittenhafer, Inc. and Cagley & Associates, Inc., we were informed that the majority of the column grid spacing is on the range of 24 feet to 30 feet, with some columns with smaller column loads at a closer spacing. Based on the data provided to us the proposed finish floor elevation of the new lowest level floor finish will be approximately at elevation EL + 12±.

5.2 Design Considerations

Based on the existing conditions and the results of the subsurface investigation, the following factors affect the design of proposed structure.

1) Site Conditions:

   a) The existing structure has two-level below grade and 4-level above grade structure that is to be demolished in its entirety, including most of the foundations and the new structure is to be constructed in the same area. The footprint of the proposed structure is planned to extend close to the property boundary, which is slightly beyond the existing footprint in some areas.

   b) The below grade level will be approximately 22± ft. below existing grade, with Finish Floor Elevation of Lower level at EL + 12±. The elevator shaft and other similar structures will be below EL + 12±.

   c) There are two (2) Tunnels (Tunnel to House of Delegates on the southwest portion and Tunnel to State House on the Southeast portion) that connect to the existing building. In addition, there are several utility ducts that feed the existing building.

d) Groundwater at the site is at a depth of 17± ft. below existing grade (that is near EL + 17.5±). The existing surrounding grade is near EL + 34.5±. Therefore, the lower-level FF of the below grade structure will be approximately 5.5± ft. below the groundwater table.

Note that, based on the 1973 construction drawings, the lowest level floor finish elevation of the currently existing building is approximately at EL + 18±. Based on the data provided to us the proposed finish floor elevation of the new lowest level floor finish will be approximately at elevation EL + 12±.

2) Foundations

a) A Mat Foundation with monolithic basement wall to form a water-tight below grade level:

With this option, the mat foundation is designed to support the structure and hydrostatic uplift pressure and the below grade wall will be designed to resist the hydrostatic pressures. The advantage of this method is that there is no need for long-term dewatering required and it provides a dry interior for the below grade space.

b) Spread footings or Pile supported foundation with Ground supported slab.

With this option, individual (or combined) spread footings or pile supported foundations are designed to support the structure loads. The blow grade walls will be designed to support the lateral earth pressures.

This option will require an under-slab drainage system that needs to lower the groundwater table to below the lowest finish floor elevation. This dewatering system is required to operate continuously throughout the life of the structure. In addition, a perimeter foundation drain is required to eliminate the hydrostatic pressures on the below grade walls.

It is our understanding that the lowest level floor finish elevation of the currently existing building is approximately at EL + 18±, and sump pumps are utilized to pump the water from the existing under slab subdrainage system just below EL + 18±. Note that the groundwater at the site is at a depth of 17± ft. below existing grade (i.e., near EL + 17.5±). We also understand that there is a water leakage issues in the existing building.

For the new proposed building the finish floor elevation of the lowest level floor finish is planned approximately at elevation EL + 12±, which will be

approximately 5.5± ft. below the groundwater table. Therefore, the foundation options, requiring the under-slab drainage system should be evaluated with the reliability of the required under-slab subdrainage system and its maintenance, etc.

3) Excavation Support:

a) The new structure will extend to close the property boundary. An excavation support system will have to be installed in order to protect the existing utilities and the surrounding structures (including existing tunnels, sidewalk and roadway, etc.) prior to the demolition of the existing below grade walls.

b) Considering the anticipated depth of excavation for the proposed below grade level, the excavation support system will require bracing or ground anchors.

c) In the areas of existing tunnels, the soils surrounding the tunnel may require stabilizing and the tunnel structure may require underpinning prior to the excavation of the existing basement walls.

The evaluations and recommendations presented in the subsequent sections of this report were based on our understanding of the proposed construction and on the general subsurface conditions indicated by the subsurface exploration program. Should the project characteristics be altered significantly from those discussed or should different subsurface conditions be encountered during construction, our office should be consulted, as the evaluations and recommendations presented herein may no longer be valid.

Based on the soils investigated and the loads provided, shallow spread footings, mat/raft foundation and auger cast piles are analyzed. We did not analyze driven HP piles due to the presence of tunnels and buildings. The analyzed foundation types are discussed in the following sections for the consideration of the design team.

5.3 Spread Footings

Based on the information we were provided that the majority of the column grid spacing is on the range of 24 feet to 30 feet, with some columns with smaller column loads at a closer spacing, shallow spread footings founded on the Natural Sandy soils of Stratum B (Alluvial soils). A design net allowable soil bearing pressure of 4.0 ksf is recommended for footings founded on the undisturbed natural soils of Stratum B (see Figure 5 in the Appendix). In order to utilize, the allowable bearing pressure of 4 ksf, the new building foundation subgrade should be at or below the old building foundation subgrade (i.e., the new foundation subgrade should not be placed on a fill, if any, that is required to backfill, the excavation during demolition of the existing building footings, etc.). The foundation

subgrade should be inspected and any loose soils should be undercut to establish a competent natural foundation soil subgrade.

Isolated spread footings are anticipated for the majority of the columns where the column grid spacing of 24 feet to 30 feet is available. In order to minimize stress overlaps, combined footings shall be utilized in the event that there are closely spaced columns per the recommendation shown in Figure 8, which is included in the Appendix.

5.4 Mat Foundation

Based on the anticipated loads discussed above, a thick concrete mat/ raft foundation can be utilized as the foundation for the proposed building. The mat foundation subgrades are expected to consist of the natural Poorly Graded Sand soils. The foundations subgrade is expected to be below the groundwater table. The exterior walls under the exterior finish grade can be designed to be water tight and constructed monolithically so as to avoid the issues associated with the groundwater. As such, this "bathtub" type of construction can be helpful to avoid sump pumps and continuous groundwater pumping during the rainy seasons. The mat foundation designed and constructed following the recommendations in this report shall be designed using a modulus of subgrade reaction, k equal to 100 pci. The allowable bearing pressure under the mat foundation can be taken as 1,200 psf. It is our understanding that at the basement level, the concrete mat foundation subgrade at the mat periphery is not exposed to frost conditions because of the soil backfill around the exterior basement walls. Note that, the mat foundation recommendation is based on the geotechnical feasibility and we expect that the structural feasibility of the mat foundation option will be checked by the structural engineer.

5.5 Auger Pressure Grouted Pile (APG)

Based on the design loads described above, the results of the soil test borings and our experience in the area, Auger Pressure Grouted Pile, also called Auger Cast Piling (ACP), can be used for the foundation of the proposed building. A 14-inch diameter APG pile with an allowable design capacity of 75 tons per pile in axial compression can be utilized. The tip of these piles may extend approximately to an elevation of EL - 45± (approximately 55 ft. long piles for the finished floor elevation of the lower basement assumed at EL + 12±). For these piles, the allowable tension/uplift capacity of 45 tons per pile can be utilized. If needed, the pile sizes and lengths can be revised later based on the number and arrangement of piles under the pile cap.

5.5.1 Pile Design Criteria

In order to meet the required allowable capacity of 75-tons per pile, the APG piling will be required to extend approximately 55 ft. below the bottom of the pile cap, which was

assumed approximately at EL + 10±. Allowable uplift capacities of 45 tons per pile may be used. This value utilizes a Factor of Safety of 3.0. Design recommendations for lateral loading are provided in Section 5.5.4.

We recommend that at least a full-length No.10 reinforcing bar be installed in each pile immediately after the grout is placed. This reinforcement will provide continuity of the pile and will provide additional assurance that the pile will not be damaged during excavation of the pile caps. If a minimum pile spacing of 3.0 pile diameters is used, the group efficiency for compression and uplift of the APG piles can be considered as 1.0. Additional reinforcement steel may be required depending on the lateral load requirements of these piles. A minimum grout compressive strength of 4,500 psi should be specified. A minimum grout take of 120-percent per pile should also be specified.

5.5.2 Pile Installation

APG piles are installed by drilling with a hollow stem auger with a plug at the tip of the auger. Drilling equipment capable of developing at a minimum of 65,000 ft-lbs. of torque, and a downward force of 8,000 pounds is recommended. After the required tip elevation is reached, a sand-cement grout is placed, under pressure, through the hollow stem as the augers are withdrawn. The pile is then cast to subgrade level. For an auger shaft diameter of 14-inches, the center opening should be at least 3 inches to limit head loss of grout. A grout fluidifier should be used to inhibit early set-up, decrease bleeding, eliminate shrinkage, and to increase fluidity. The grout pump should be a calibrated, high-pressure, positive displacement pump, equipped with a stroke counter to allow measurement of the grout volume per pile. A pump size having a maximum of 0.6 cf/stroke should be specified. The contractor should establish an accurate method of determining the auger depth at all times, and pressure gauges should be used to allow determination of the grout pressure. The auger should have a bottom discharge bit with discharge openings below the cutter blades. A pile should not be installed within five-feet of an adjacent pile (outside to outside dimensions) for a period of at least 15 hours after casting the adjacent pile.

During pumping, the auger withdrawal should be a smooth operation, with the withdrawal rate at a lower rate than the rate of grout pumping so that the grout will advance up the auger and will form a relatively uniform shaft to the surface. Construction of APG piles should be performed under the full-time observation of a Geotechnical Engineer. Quality control should include the monitoring of grout pressures, volumes and consistency; and observations of pile bearing levels.

Hard drilling through dense sandy soil layers will be encountered during the installation of APG piles. The pile contractor should make adequate provisions for installing the piles to the recommended tip elevations in these difficult drilling conditions. Piles that

refuse prior to reaching the required tip elevation will likely have to be offset and redrilled, unless the obstruction is shallow and can be removed with shallow excavation techniques. A refusal criterion of a drilling rate of less than 8-inches in 5 minutes at full crowd force may be specified.

5.5.3 Pile Load Testing

At least two control piles should be installed near test boring locations to evaluate the contractor's construction method and the ability to drill through the materials encountered at this site. A static load test should be conducted preferably on a sacrificial test pile according to ASTM 1143-07, Procedure B. Upon completing the test, the pile must be overloaded to 300 percent of the design load or to failure in accordance with ASTM 1143-07, Procedure C. The installation criteria for the production pile will be based on the results of the Static Load Test. The test pile should be instrumented with at least four vibrating wire strain gauges: one at the pile cut-off, one at approximate EL 0.0±, one at 2/3rd of pile length, and one at the pile tip.

5.5.4 Lateral Load Analysis of Piles

A lateral load analysis was performed for the APG piles recommended above. The analysis was performed for both a free head condition where the pile head is free to translate and rotate and a fixed head condition where the pile head is free to translate while the pile head rotation is restrained. The assumed lateral load values provide a range of lateral load capacities of the pile. These loads are working or service loads. For the analysis, bottom of the Pile Cap is assumed at EL + 10±. The Lateral Load analyses were performed using the lateral load analysis program LPILE. Summary of the lateral load analysis results is provided in Table 5-1.

The load-deflection characteristics presented here represents a single pile condition and load reduction factors should be applied for pile in a group to account for group effect, if necessary. Per IBC 2015, Section 1810.3.3.2, the lateral load capacity of a single deep foundation element or a group thereof shall be determined by an approved method of analysis or by lateral load tests to at least twice the proposed design working load. The resulting allowable load shall not be more than one-half of the load that produces a gross lateral movement of 1 inch at the lower top of the foundation element and the ground surface, unless it can be shown that the predicted lateral movement shall cause neither harmful distortion of, nor instability in, the structure, nor cause any element to be loaded beyond its capacity.

Table 5-1: Computed Lateral Load Capacity- Single Pile						
Pile Type	Free Head Condition			Fixed Head Condition		
	Applied Lateral Load (kips)	Lateral Movement (inch)	Maximum Bending Moment (in.-kips)	Applied Lateral Load (kips)	Lateral Movement (inch)	Maximum Bending Moment (in.-kips)
14" Φ APG	3.0	0.16	128	3.0	0.04	122
	5.0	0.36	249	5.0	0.10	228
	7.5	0.65	413	7.5	0.17	370
	10.0	1.0	598	10.0	0.25	519
* Bending moment is negligible below 22 ft. from top of pile.						

5.5.5 Pile Foundation Installation Obstruction

It is our understanding that the existing building will be razed and underground structures/remnants of this demolishing shall be anticipated, as they might not be completely removed. The installation of APG piles may encounter obstruction. In addition, depending on the thickness pf Cemented Sand seams/layers in Stratum B and Stratum C obstruction to drilling may be encountered while penetrating this stratum.

The contractor has to make provisions to install the foundations through the obstructions. This may require removal of obstructions if encountered at shallower depths or installing replacement piles adjacent to the initially planned locations, etc.

5.6 Foundation Settlement

Based on the boring data and the anticipated structural loads, we estimate that total settlements for the foundations discussed above should not exceed one inch with differential settlement expected to be less than half the total settlement. The magnitude of differential settlements will be influenced by the distribution of loads and the variability of underlying materials. These settlement values are based on our engineering experience of the soil and the anticipated structural loading and are to guide the structural engineer with his design. Quality control during construction is considered to be of extreme importance to ensure that subsequent settlements, following the construction process, are kept to a minimum.

6. FLOOR SLAB SUPPORT CONSIDERATIONS

6.1 Slab on Grade

If the mat foundation option is not utilized, we expect that the slabs for the lowest floor will be constructed directly on the subgrade. The floor slab subgrades are expected to consist of the natural Poorly Graded SANDS. Prior to placement of the floor slabs, the suitability of the slab subgrades should be determined by proofrolling. Proofrolling should be performed using the heaviest construction equipment, for example loaded 10-ton dump truck or equivalent (at least a 3,000-lb. walk-behind roller), which can access the area and under the observation of a Geotechnical Engineer. The areas subject to proofrolling should be traversed by the equipment in two orthogonal directions with overlapping passes of the vehicle under the observation of the Geotechnical Engineer or authorized representative.

Floor slabs on grade may be designed using a modulus of subgrade reaction, k equal to 100 pci. Groundwater was encountered above the proposed lowest finished floor grades and a special under-floor subdrainage system is considered necessary to maintain groundwater below the floor level. The use of a subdrainage system designed to collect groundwater below the floor slab of the structure in order to maintain groundwater below the floor level is required. A typical subdrainage system sketch (Figure 6), intended to graphically depict our preliminary recommendations, is included in the Appendix. The actual design, including sizing of sump pumps, pipes, etc. should be done by the civil engineer. The subdrainage system should be placed shortly before slab construction to minimize damage to the piping from construction operations.

In most projects, there exists a significant lag time between the initial grading and the placement of the floor slab. Environmental conditions and construction traffic often disturb the soil subgrade during this lag time. The contractor should make provisions in the construction specifications for the restoration of the subgrade to a stable condition prior to the placement of the floor slab at no additional cost to the owner.

A layer of polyethylene sheeting should be placed between the concrete and the subdrainage gravel layer to prevent concrete intrusion and to serve as a vapor barrier. We recommend a “true” vapor barrier similar to 15-mils Stego Wrap Vapor Barrier if moisture sensitive flooring materials are to be used over a slab on grade within a humidity conditioned space. A “true” vapor barrier with characteristics that conform to the requirements of ASTM E-1745, "*Standard Specification for Water Vapor Retarders Used in Contact with Soil or Granular Fill under Concrete Slabs*." is recommended. The standard requires that the permeance (a measure of how much vapor can pass through) must be less than 0.3 perms. The other characteristic of a good vapor barrier that makes it effective is resistance to punctures and tears. ACI 302.1, *Guide for Concrete Floor and*

Slab Construction, states that the minimum thickness of an effective vapor barrier is 10-mils. A 10-mils vapor barrier may be sufficient for residential construction in terms of puncture resistance, although the 10-mils barriers can't completely isolate the slab from ground moisture. The newer very low permeability barriers are available with 15-mils (15 thousandths of an inch) or greater. This thicker material is much less susceptible to tears or punctures and has a lower permeance. A 15-mils "true" vapor barrier can be used for this project.

6.2 General Note on Slab on Grade

It is our understanding that the lowest level floor finish elevation of the currently existing building is approximately at EL + 18±, and sump pumps are utilized to pump the water from the existing under slab subdrainage system just below EL + 18±. Note that the groundwater at the site is at a depth of 17± ft. below existing grade (i.e., near EL + 17.5±). We also understand that there is a water leakage issues in the existing building.

For the new proposed building the finish floor elevation of the lowest level floor finish is planned approximately at elevation EL + 12±, which will be approximately 5.5± ft. below the groundwater table. Therefore, the foundation options, requiring the under-slab drainage system should be evaluated with the reliability of the required under-slab subdrainage system and its maintenance, etc.

As discussed above, groundwater was encountered above the lowest floor finish elevation, and under-slab subdrainge system is required to maintain groundwater below the floor level. In order to maintain the groundwater below the lowest floor finish level, the subdrainage system will require pump(s) which operate continuously throughout the year with backup pump(s) and power supply. The mat foundation system with monolithic perimeter walls designed for hydrostatic pressure can avoid the under-slab drainage system and its accessories. In addition, the construction time and hence the required dewatering during construction might be less for the mat foundation. We understand that the design team will consider the overall effectiveness of the foundation options provided above.

7. BELOW-GRADE WALLS

The below-grade walls will be subjected to lateral soil loading. As a result, the walls will have to be designed to resist lateral earth pressure. The following information is provided to aid in the analysis of loading conditions on the sections of the walls.

7.1 Design Recommendations

Earth pressures on walls below grade are influenced by structural design of the walls, conditions of wall restraint, methods of construction and/or compaction, and the strength of the materials being restrained. The most common conditions for earth retaining wall design are the active and at-rest conditions. Active conditions apply to relatively flexible earth retention structures where some movement and rotation may occur to mobilize internal soil shear strength. Walls that are rigidly restrained, such as below grade walls, will require design using at-rest earth pressures.

The walls will most likely be subjected to exterior surcharge loading conditions. As a result, surcharge loads for the walls should be evaluated using the appropriate earth pressure coefficients. The effect of surcharge loads should then be added to the recommended earth pressures to determine total lateral stresses against the walls. The various drainage considerations as included in the subsequent Drainage Provisions section should be properly implemented so as to avoid the buildup of hydrostatic pressure on the walls.

The recommended lateral earth pressure coefficients and equivalent fluid pressure parameters for the design of the walls for horizontal surface grades behind the walls are provided in the following table and Figure 7 in the Appendix.

Table 7-1: Design Parameters for Below-Grade Walls

Earth Pressure Condition	Soil Class	Unit Weight (pcf)	Coefficient	Equivalent Fluid Pressure (psf/ft)	Friction Angle (Degree)	Remarks
At Rest (ko)	SP/SM	120	0.53	64	30	Braced walls
Passive (kp)	SP/SM	120	1.50	180	30	Braced walls

A soil moist unit weight of 120 pounds per cubic foot is considered appropriate for design calculations. Resistance to sliding can be calculated using a value of 0.30 for the coefficient of friction between concrete surfaces and approved underlying subgrade soils. A factor of safety of 1.5 should be used for design of resistance to sliding. An adequate drainage system should be constructed on the exterior of all of the walls (see subsequent

Drainage Provision section). Use of heavy compaction equipment should not be allowed within 10 feet of the walls during backfilling operations.

Specific material and compaction requirements for fill against walls below grade are included in Section 8.2. Compacted fill behind and in front of the walls should be free of organics and rocks larger than three-inches in diameter, and should consist of soils classifying SM or coarser. Clayey soils should not be used as backfill behind the retaining walls. Compaction equipment exceeding 3,000 pounds in dead weight should not be used within 5 ft. of the walls in order to avoid overloading the walls; hand-operated tamper is recommended for such use.

7.2 Drainage Provisions

It is anticipated that the below grade walls will be subjected to hydrostatic pressure from the groundwater around the walls. To avoid hydrostatic pressures on the walls, it is recommended that an approved vertical drain be constructed along the entire exterior of the sub-level walls. The drain would most likely be a commercial product such as Enka Drain or Geotech Drainboard. The commercial product would have filter fabric on its outer face. The system would incorporate drain tile to route the water to a gravity drain or sump pump. Note that, if the mat foundation option is selected, the walls can be designed to resist the hydrostatic pressure and the vertical drains may be avoided.

8. GENERAL GRADING CONSIDERATIONS

8.1 Site Preparation and Inspection of Subgrades:

Following the excavation to establish the proposed subgrade level of the structures, the exposed subgrade should be inspected and tested for adequate support conditions. As discussed previously, undercutting of the soft or loose soils may be required in order to establish the suitable bearing surface.

8.2 Fill Selection, Placement, and Compaction

All materials to be used as fill or backfill should be inspected, tested and approved by the Geotechnical Engineer. Earthwork is recommended to take place in the warmer, drier months between May and October. The use of scarification and drying techniques, or additives such as quick lime, kiln dust, fly ash, or Portland Cement may also be useful in expediting fill operations in inclement weather.

On-Site Materials:

The visual classification and the laboratory tests conducted on the on-site fill materials indicated that the existing soils classify predominantly as Poorly Graded SANDs and Clayey SANDS. The Poorly Graded SANDY soils can be reused as site and structural backfill materials.

Borrow Material

Compacted structural fill and backfill for use below structures should consist of satisfactory soils classified as SM or better in accordance with the Unified Soil Classification System, ASTM D-2487. Soils meeting this requirement are classified as SM, SP, SW, GM, GP, GW and combinations of these groups. GC and SC materials may be utilized as compacted structural fill if they contain less than 35% passing the No. 200 sieve and a Plasticity Index (PI) of less than 15. Unsatisfactory soils are those classified as OL, OH, CH, CL, MH, and ML. The soils classified as CL, ML; and CH / MH with a maximum Liquid Limit of 60% and Plasticity Index of 30%, can be used as structural fills at depths greater than 4 ft. below pavement subgrades and within non-structural areas. In addition, these soils can be used as a fill for site grading.

Soils used for compacted fill should be free of unsuitable materials such as topsoil, debris and other organics, rubble, and rocks larger than 3 inches in diameter. Open graded materials, such as Gravels (GW and GP), which contain void space in their mass should not be used in structural fills unless properly encapsulated with filter fabric.

Fill Compaction:

Compacted structural fill should be placed in approximately horizontal layers, each layer having a loose thickness of not more than 8 inches. All structural fill should be compacted to 95% of the maximum dry density in accordance with ASTM D1557, Modified Proctor. The contractor should select appropriate compaction equipment to achieve the required compaction. Fill placement should commence at the toe of the proposed slopes and progress upwards as additional fill is placed in horizontal lifts.

Field moisture contents of the fill may have to be adjusted in order to obtain suitable degrees of compaction. It is anticipated that field moisture contents of fill materials will need to be controlled to the range of optimum moisture content, plus or minus 3 percent, if stable fills with adequate degrees of compaction are to be obtained.

Compacted structural fill shall be placed to at least 5 ft. beyond the edge of the building. The supporting slopes of the fill shall be compacted to the same compaction requirements as the fills below the structure.

All fill placement and compaction operations in critical areas (i.e., structural areas) should be monitored by an experienced Soils Inspector on a full-time basis to ensure that fill materials are being placed and compacted in compliance with the project specifications. Should any compaction problems develop during grading operations, the Geotechnical Engineer should be consulted for an evaluation of the problems. Findling, Inc. should be called on to inspect and document the fill compaction.

Fill Placement Considerations:

Fill materials should not be placed on frozen soils, on frost-heaved soils, and/or on excessively wet soils. Borrow fill materials should not contain frozen or frost-heaved materials at the time of placement. Excessively wet soils or aggregates should be scarified, aerated, and moisture conditioned. At the end of each work day, all fill areas should be graded to facilitate drainage of any precipitation and the surface should be sealed by use of a smooth-drum roller to limit infiltration of surface water. During placement and compaction of new fill at the beginning of each workday, the Contractor may need to scarify existing subgrades to a depth on the order of 4 inches so that a weak plane will not be formed between the new fill and the existing subgrade soils. Drying and compaction of wet soils is typically difficult during the cold, winter months. Accordingly, earthwork should be performed during the warmer, drier times of the year, if practical. Proper drainage should be maintained during the earthwork phases of construction to prevent ponding of water which has a tendency to degrade subgrade soils.

We recommend that the earthwork contractor have equipment on site for both drying and wetting fill soils. We do not anticipate significant problems in controlling moisture within the fill during dry weather, but moisture control may be difficult during winter months or extended periods of rain. The control of moisture content of higher plasticity soils is difficult when these soils become wet. Further, such soils are easily degraded by construction traffic when the moisture content is elevated.

8.3 Construction Dewatering

As discussed in Section 3.3, the groundwater elevations vary from EL + 15± to EL + 17.5± (i.e., 17.3 ft. to 19.3 ft. below the existing ground surface). It should be noted that groundwater levels will fluctuate due to seasonal changes, precipitation, and construction activity. As mentioned in Section 5, the new proposed lowest level floor finish elevation is approximately EL + 12±. Accordingly, the groundwater was encountered above the proposed lowest floor finish. Therefore, dewatering during construction is needed and provisions should be made in the project specifications for dewatering.

It is essential to control the groundwater during demolition, excavation and backfilling. Based on the subsurface conditions indicated by the borings, highly permeable Sand and Silty SAND layers could be encountered above the depths of excavation. This permeable Sandy stratum may warrant the use of an extensive dewatering system to control/lower the groundwater. There are several dewatering systems available such as, deep wells, well points, cut off walls, slurry walls, pressure grouting, chemical grouting, etc. Each of the systems has certain requirements and limitations. The proposed dewatering system should be considered in conjunction with the method of earth retaining system as they might interfere with each other. In addition, extensive dewatering will increase the effective stress on the subsurface soils and may cause settlement of the adjacent structures (including tunnels), adjacent roadways, and utilities. It is recommended that the contractor be advised to carefully analyze the pros and cons of the method of the dewatering system before selecting a system(s).

8.4 Excavation and Excavation Support Considerations

Excavation of this site is expected to be performed using conventional earthmoving equipment. However, the existing building will be razed and underground structures/remnants of this demolishing shall be anticipated, as they might not be completely removed. Some efforts, such as the use of jack hammer and/or hoe ram may be required in order to perform excavation at the site. Before heavy machines and/or dynamic impact weight are utilized for demolition, their effects on the adjacent utilities, streets, and structures (tunnels) located very close to the construction area should be analyzed. The use of heavy machines and dynamic loads could cause detrimental effect

on the adjacent utilities and structures. Adjacent structures should be monitored for vibrations and settlements during construction.

As mentioned in Section 5, the new proposed lowest level floor finish elevation is approximately at EL + 12±. Accordingly, Support of Excavation (SOE) systems are potentially required to allow excavation, and to install other utilities for this project. It is anticipated that sloped excavation cannot be used because the excavation is too deep or too close to the existing structures. Hence, excavation support system should be selected and designed by the Contractor to facilitate the work. In addition, the existing tunnels may require underpinning and/or bracing, assuming the lower basement floor elevation is deeper than the tunnels.

There are numerous types of earth retaining systems available and technically feasible such as soldier pile and lagging, slurry wall, in-situ concrete pile wall, interlocking steel sheet piling, etc. We anticipate that type of retaining system selected will consider the following factors at a minimum:

- *Proximity to existing structures (tunnels), roadways, utilities etc.*: The installation (vibration) of certain retaining system may cause settlement and/or distress of the adjacent structures (tunnels), roadways, utilities, and the selection of the earth retaining system should take this in to account. If anchors/tiebacks are proposed, their interference with adjacent structures (tunnels), roadways, utilities, and should be analyzed. The location, length and angle of anchors/tiebacks may have to be adjusted to avoid the utilities and the structure foundations. At certain locations, to avoid the interference with utilities and structure foundations, the number of tiebacks/anchors may have to be increased while reducing the length and changing the angles to design the earth retaining system(s).

- *Method of Dewatering:* The dewatering may affect the method of excavation and the type of retaining system. On the other hand, certain types of retaining systems may also affect the method of dewatering.

9. ENVIRONMENTAL CONSIDERATIONS

The scope of this work did not include an environmental investigation at the site. Health and Safety issues, if any, should be determined by others.

10. LIMITATIONS

This geotechnical study has been conducted in accordance with generally accepted geotechnical engineering practices. The geotechnical study report has been prepared to aid in the evaluation of the site for the proposed MSA DLS Building Improvements project, in Annapolis, Maryland. It is intended for the exclusive use of Murphy & Dittenhafer Architects, Inc. for the design and construction of the proposed structures as described herein. This report includes both factual and interpreted information. It is considered that adequate recommendations have been provided to serve as a basis for design and preparation of plans and specifications. Additional recommendations can be provided as needed.

Regardless of the thoroughness of a subsurface exploration, there is the possibility that conditions in other areas will differ from those at the boring locations and the conditions may not be as anticipated by the designers. Additionally, the construction process may alter the soil conditions. Therefore, experienced geotechnical engineers should evaluate earthwork and foundation construction to verify that the conditions anticipated in design actually exist in the field at the time of construction. Otherwise, we assume no responsibility for construction compliance with the design concepts, specifications, or recommendations.

These analyses and recommendations are based on information made available to us at the time of our investigation and the actual conditions encountered at the test boring locations at that time. General assumptions have been made that the limited exploratory test borings represent the site conditions in relation to the lateral extent and depths of the borings. It should be noted, however, that the actual subsurface conditions between the test boring locations might vary from the conditions indicated on the appended test boring logs. Should the actual conditions encountered during construction differ significantly from those indicated by the test boring logs, we should be notified immediately so that the analyses and recommendations can be reviewed and/or revised as necessary.

APPENDIX

Figures

Figure 1: Site Vicinity Map (1 Page)

Figure 2: Project Location Plan (1 Page)

Figure 3: Site Geology (1 Page)

Figure 4: Boring Location Plan (1 Page)

Figure 5: Subsurface Profile (1 Page)

Figure 6: Typical Subdrainage Detail-Slab (1 Page)

Figure 7: Lateral Earth Pressure Diagram-Braced Walls (1 Page)

Figure 8: Combined Footing (1 Page)

Tables

Table 2.1: Summary of Laboratory Test Results (3 Pages)

Table 3.1: Summary of Boring Data (1 Page)

Table 3.2: Summary of Groundwater Level Monitoring Well Data (1 Page)

Laboratory Test Results

Gradation Curves (20 Pages)

Proctor Compaction Curves (4 Pages)

Monitoring Well Details

Monitoring Well Details (3 Pages)

Seismic Site Classification

Seismic Site Class and Design Parameters (4 Pages)

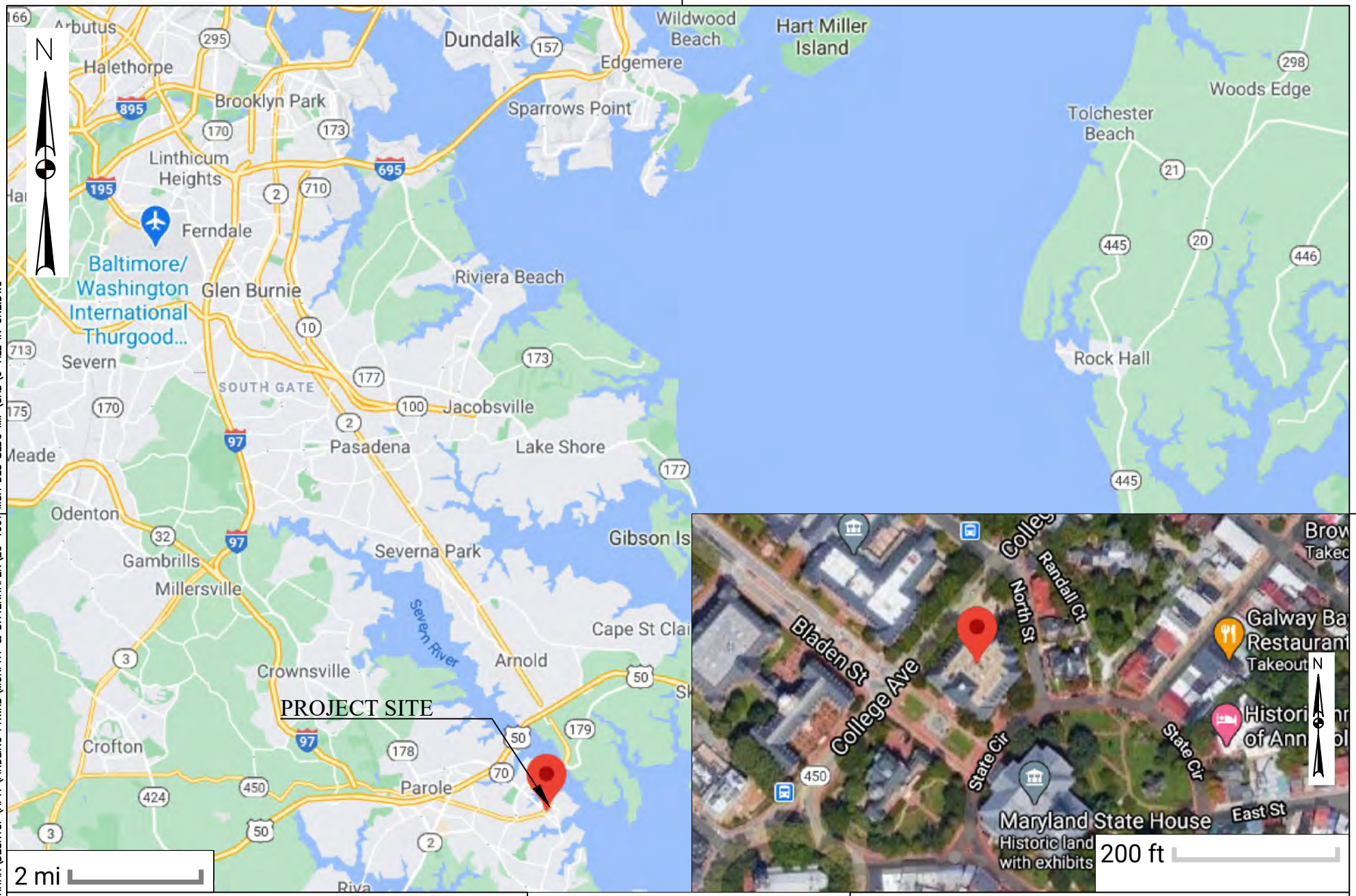
Lateral Load Analysis Results

Lateral Load Analysis Results (23 Pages)

Boring Logs

Boring Logs (4 Pages)

Figures



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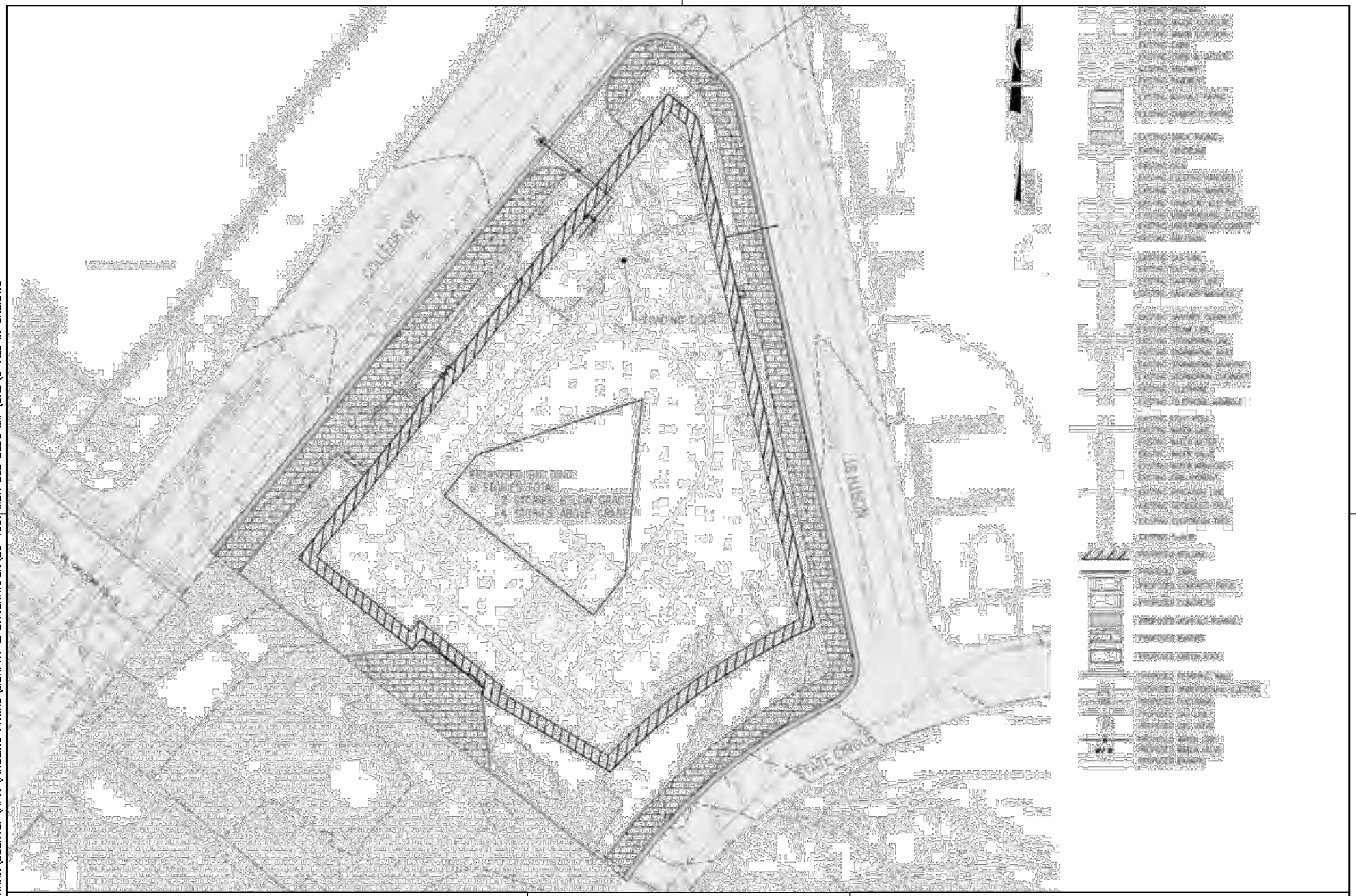
SITE VICINITY MAP
MSA DEPT. OF LEGISLATIVE SERVICES BUILDING IMPROVEMENTS
ANNAPOLIS, MARYLAND

PROJECT NUMBER: 20-1001	REVIEWED BY: MSS	SCALE: NOT TO SCALE
DATE: FEBRUARY 2020	DRAWN BY: AB	FIGURE: 1



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PROJECT LOCATION PLAN

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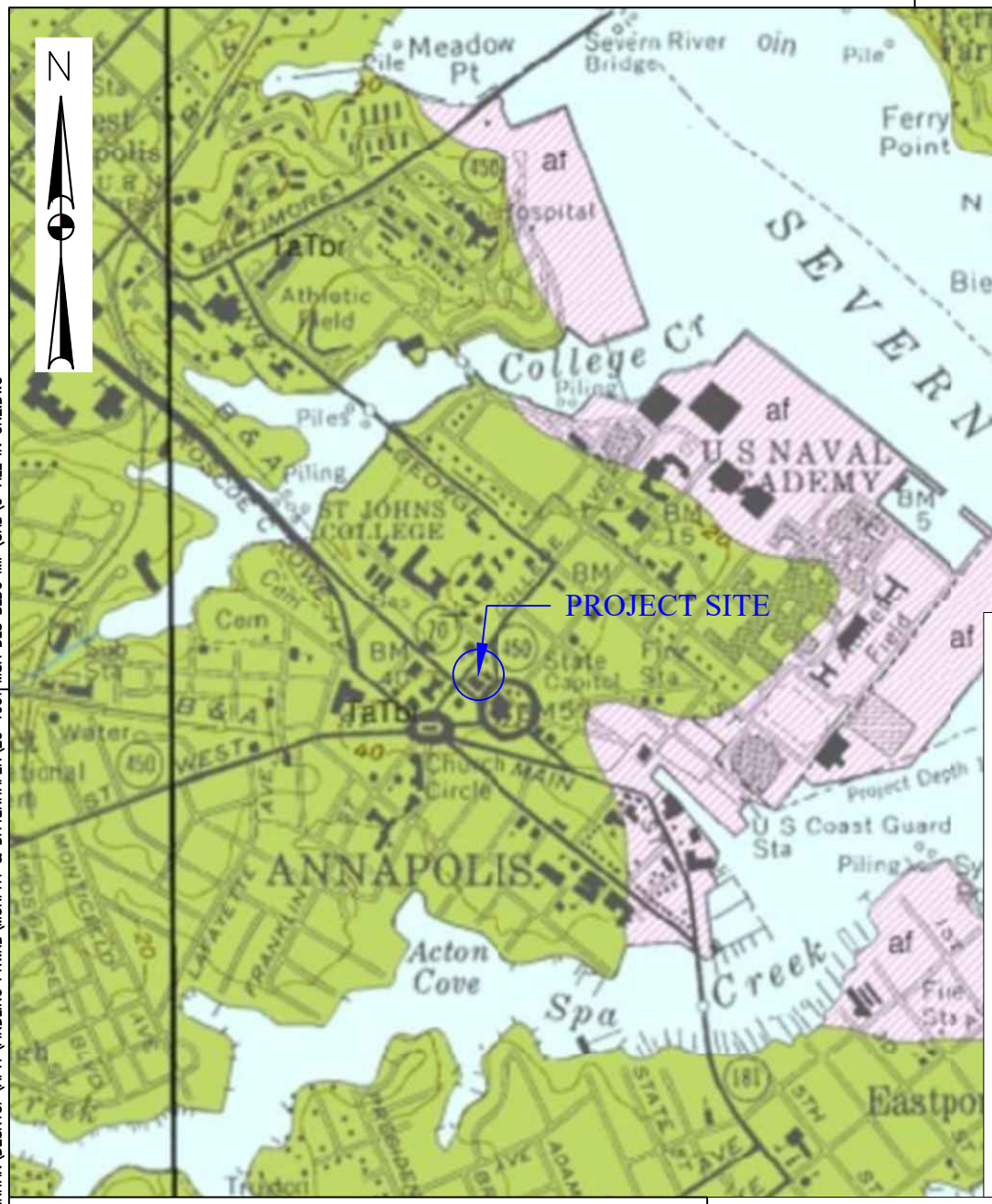

TaTbr

Aquia and Brightseat Formations (undivided)

Aquia Formation

Glauconitic sand and calcareous sandstone.

Most of the Aquia consists of well-sorted, medium-grained sand, always glauconitic to some degree, but rarely totaling more than 50 percent of the sediment. Some beds fine or coarse-grained. Color dark gray-green to olive-green in unweathered sand, "salt and pepper" sand where moderately weathered, and rusty-brown with abundant limonite crusts where deeply-weathered. Bedding massive and thick-bedded with abundant burrow-mottling. Highly fossiliferous in places with large oysters and *Turritella* dominant.

The Aquia is at the surface over most of the northern half of the South River Quadrangle and over nearly all of the Annapolis Quadrangle. Thus, outcrops are numerous, particularly in bluffs facing the lower Severn and South Rivers where as much as 80 feet of Aquia is exposed in

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SITE GEOLOGY
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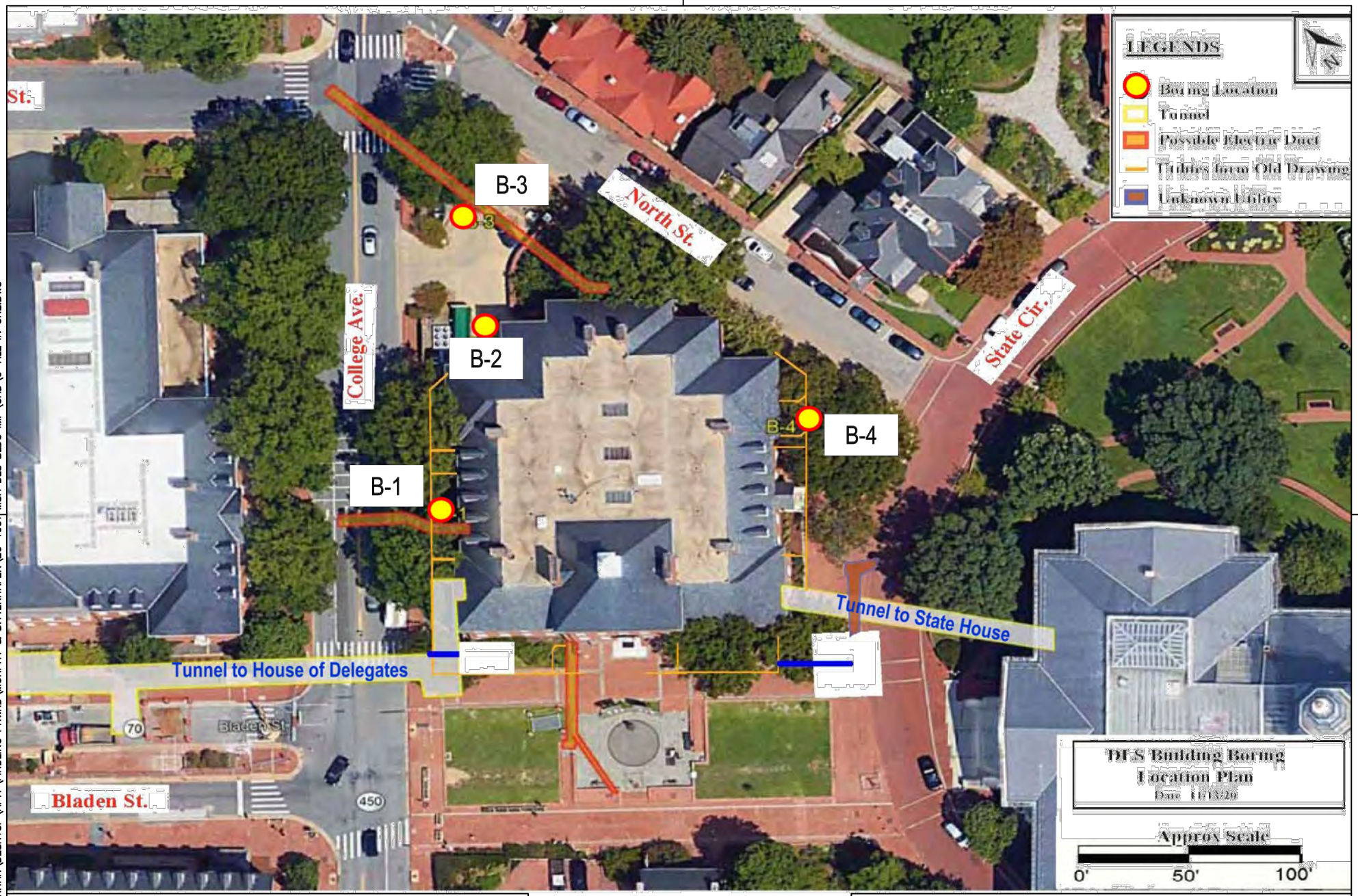

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BORING LOCATION PLAN
MSA DEPT. OF LEGISLATIVE SERVICES BUILDING IMPROVEMENTS
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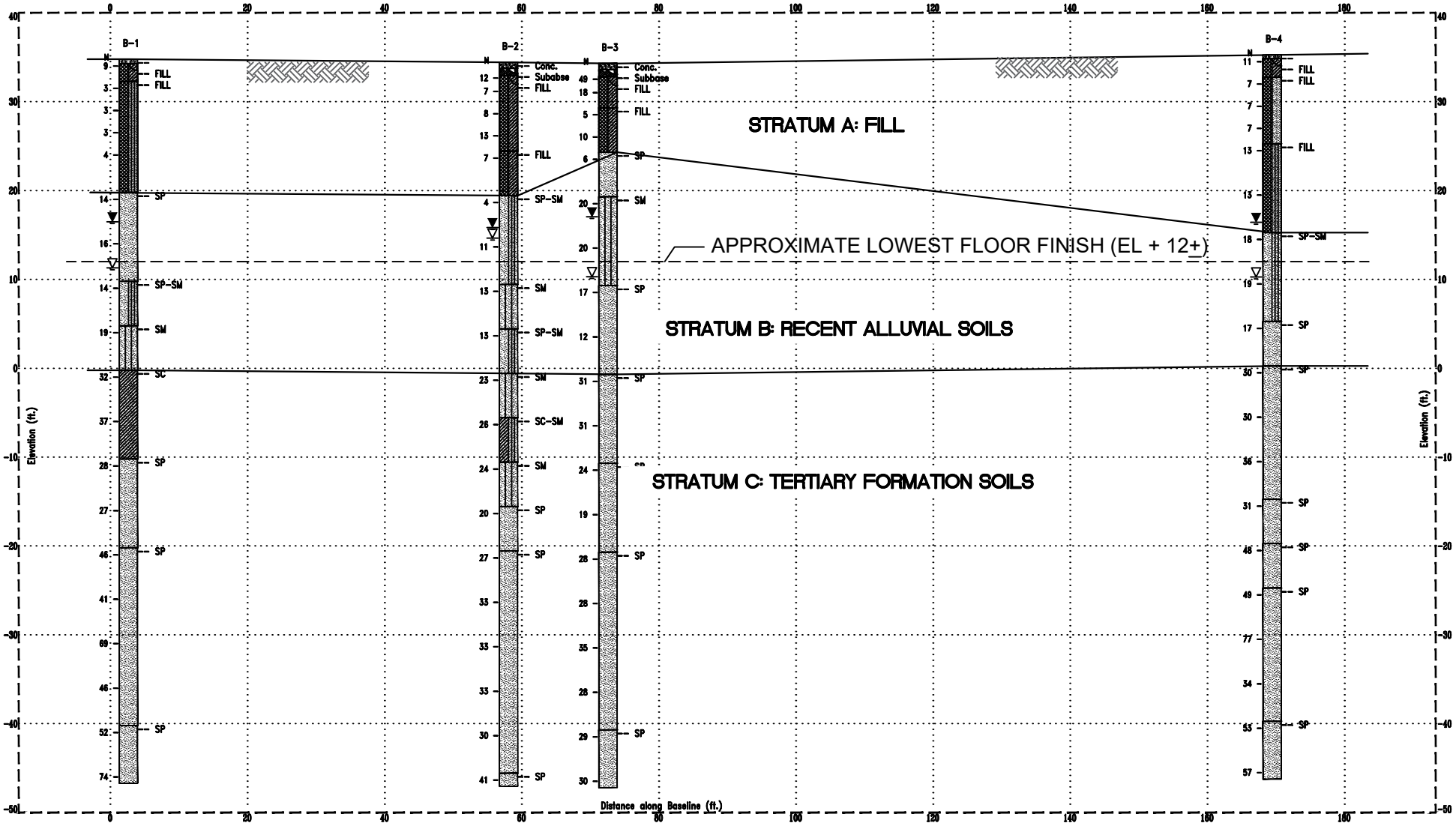
PROJECT NUMBER: 20-1001	REVIEWED BY: MSS	SCALE: NOT TO SCALE
DATE: FEBRUARY 2020	DRAWN BY: AB	FIGURE: 4



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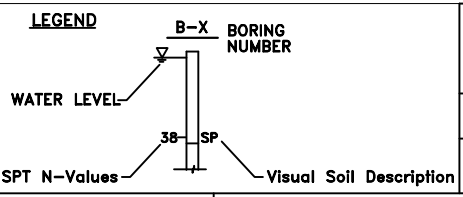
LEGEND



SUBSURFACE PROFILE

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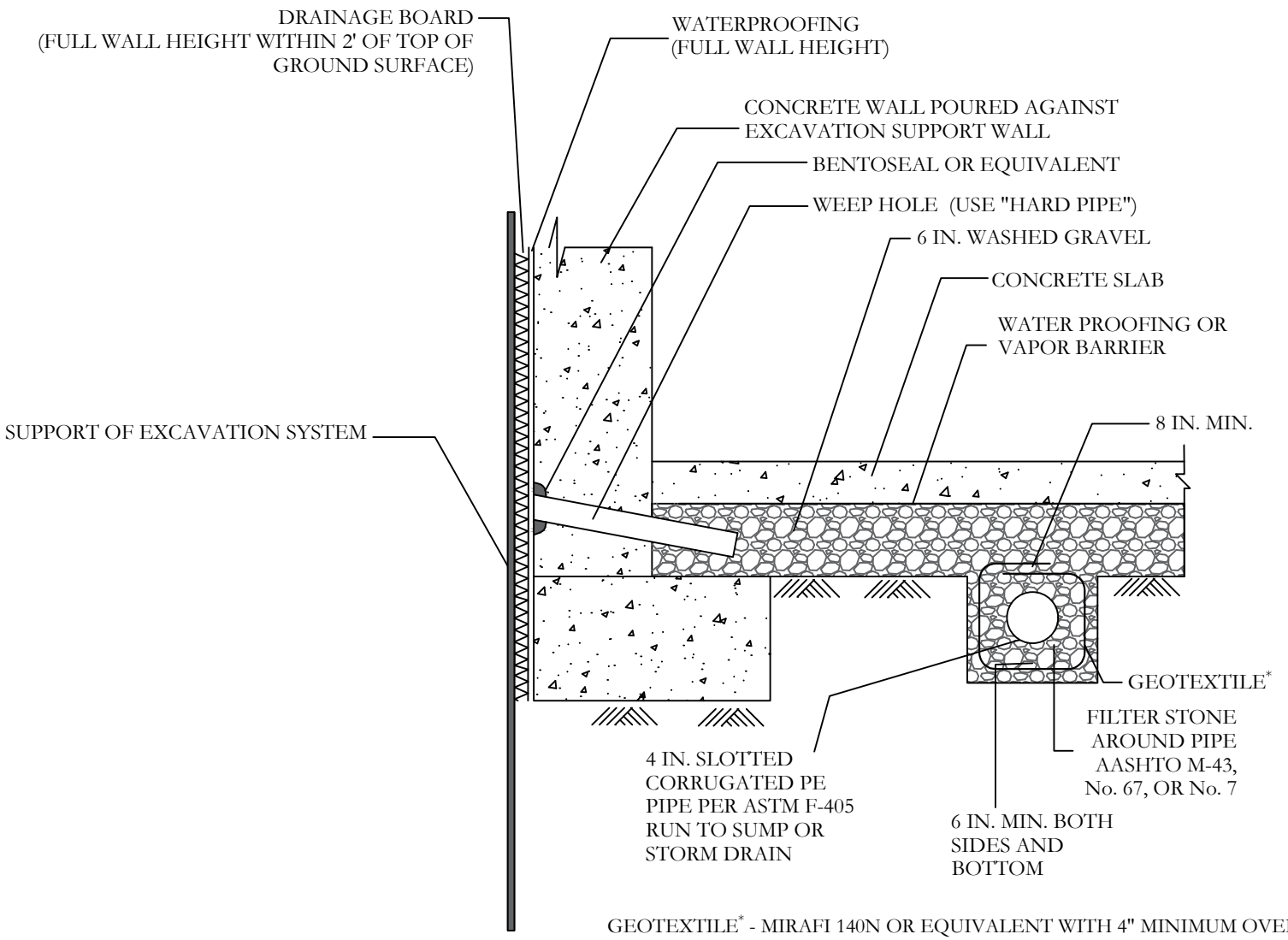
PROJECT NUMBER: 20-1001	REVIEWED BY: MSS	SCALE: NOT TO SCALE
DATE: FEBRUARY 2020	DRAWN BY: AB	FIGURE: 5



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TYPICAL SUBDRAINAGE DETAIL–SLAB
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PROJECT NUMBER: 20–1001	REVIEWED BY: MSS	SCALE: NOT TO SCALE
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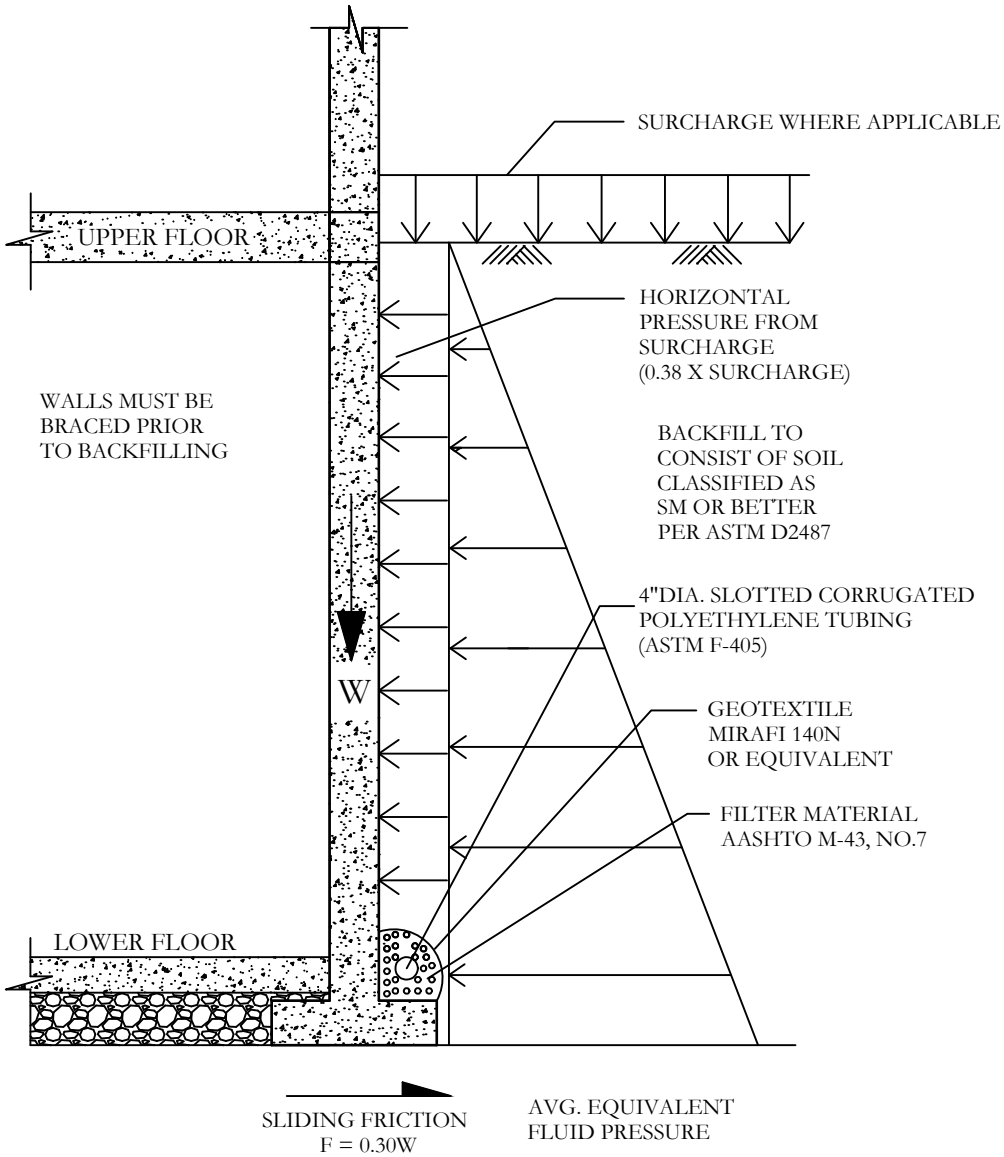

BRACED WALLS (BUILDING WALLS)

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LATERAL EARTH PRESSURE DIAGRAM–BRACED WALLS

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PROJECT NUMBER: 20–1001	REVIEWED BY: MSS	SCALE: NOT TO SCALE
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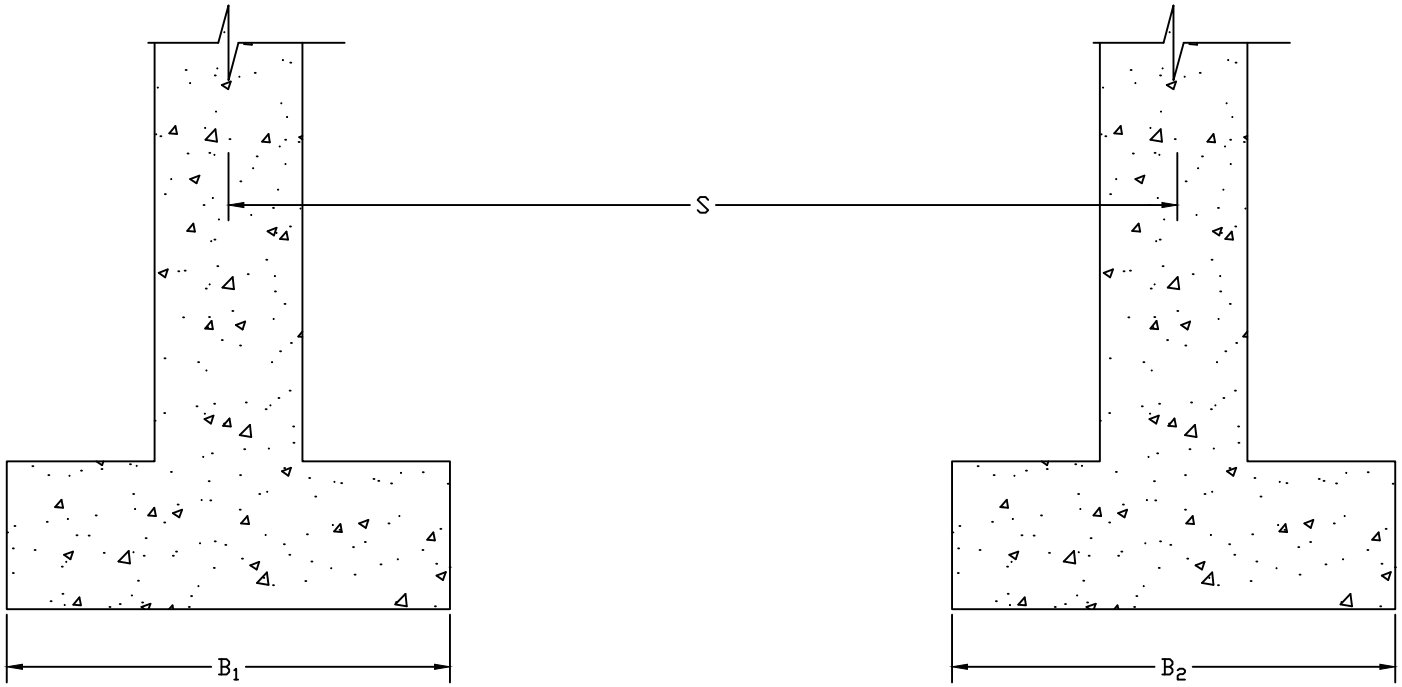

USE COMBINED FOOTING IF $(B_1+B_2) \leq 1.33 * S$

WHERE: B_1 AND B_2 ARE FOOTING DIMENSIONS IN FEET
S IS CENTER TO CENTER COLUMN SPACING IN FEET

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COMBINED FOOTING

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PROJECT NUMBER: 20-1001	REVIEWED BY: MSS	SCALE: NOT TO SCALE
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Tables

Table 2.1: Summary of Laboratory Test Results

Project: MSA Dept. of Legislative Services Building Improvements
Location: Annapolis, Maryland
Findling, Inc. Project No. : 20-1001

Boring No.	Sample ID	Sample Depth	Natural Moisture Content, %	Atterberg Limits			Grain Size Distribution			Modified Proctor (ASTM D1557) (AASHTO T-180)		USCS Classification	AASHTO Classification
				LL	PL	PI	GRAVEL (%)	SAND (%)	FINES (%)	Max Dry Density, pcf	Optimum Moisture Content, %		
B-1	Bulk	1.0 - 5.0	7.9	34	20	14	6.4	69.2	24.4	124.2	12.3	SC	A-2-6(0)
B-1	S-1	0.0 - 1.5	20.3										
B-1	S-2	2.5 - 4.0	15.0										
B-1	S-3	5.0 - 6.5	13.8										
B-1	S-4	7.5 - 9.0	18.5	NV	NP	NP	0.0	81.8	18.2			SM	A-2-4(0)
B-1	S-5	10.0 - 11.5	18.4										
B-1	S-6	15.0 - 16.5	24.5										
B-1	S-7	20.0 - 21.5	26.4	NV	NP	NP	0.5	88.7	10.8			SP-SM	A-1-b
B-1	S-8	25.0 - 26.5	30.1										
B-1	S-9	30.0 - 31.5	26.1	NV	NP	NP	0.0	86.3	13.7			SM	A-2-4(0)
B-1	S-10	35.0 - 36.5	24.2										
B-1	S-11	40.0 - 41.5	21.9	38	24	14	0.7	84.6	14.7			SC	A-2-6(0)
B-1	S-12	45.0 - 46.5	24.3										
B-1	S-13	50.0 - 51.5	19.2										
B-1	S-14	55.0 - 56.5	19.2										
B-1	S-15	60.0 - 61.5	23.4										
B-1	S-16	65.0 - 66.5	21.0										
B-1	S-17	70.0 - 71.5	26.4										
B-1	S-18	75.0 - 76.5	25.8										
B-1	S-19	80.0 - 81.5	21.3										
B-2	Bulk	2.0 - 6.0	5.4	36	20	16	2.9	69.9	27.2	122.4	9.3	SC	A-2-6(1)
B-2	S-1	1.0 - 2.5	17.4	NV	NP	NP	5.5	81.3	13.2			SM	A-2-4(0)
B-2	S-2	2.5 - 4.0	16.1										
B-2	S-3	5.0 - 6.5	14.8										
B-2	S-4	7.5 - 9.0	14.3										
B-2	S-5	10.0 - 11.5	18.9										
B-2	S-6	15.0 - 16.5	21.1	NV	NP	NP	1.9	86.7	11.4			SP-SM	A-2-4(0)
B-2	S-7	20.0 - 21.5	29.1										
B-2	S-8	25.0 - 26.5	26.3										
B-2	S-9	30.0 - 31.5	28.4	NV	NP	NP	0.7	88.1	11.2			SP-SM	A-2-4(0)
B-2	S-10	35.0 - 36.5	24.5										

Note: NV = Non Viscous, NP = Non Plastic

Table 2.1: Summary of Laboratory Test Results

Project: MSA Dept. of Legislative Services Building Improvements
Location: Annapolis, Maryland
Findling, Inc. Project No. : 20-1001

Boring No.	Sample ID	Sample Depth	Natural Moisture Content, %	Atterberg Limits			Grain Size Distribution			Modified Proctor (ASTM D1557) (AASHTO T-180)		USCS Classification	AASHTO Classification
				LL	PL	PI	GRAVEL (%)	SAND (%)	FINES (%)	Max Dry Density, pcf	Optimum Moisture Content, %		
B-2	S-11	40.0 - 41.5	23.3										
B-2	S-12	45.0 - 46.5	23.3										
B-2	S-13	50.0 - 51.5	22.3										
B-2	S-14	55.0 - 56.5	25.2										
B-2	S-15	60.0 - 61.5	26.4										
B-2	S-16	65.0 - 66.5	27.2										
B-2	S-17	70.0 - 71.5	25.0										
B-2	S-18	75.0 - 76.5	31.4										
B-2	S-19	80.0 - 81.5	24.6										
B-3	Bulk	1.0 - 5.0	5.9	34	17	17	5.2	59.9	34.9	121.9	12.1	SC	A-2-6(1)
B-3	S-1	0.0 - 1.5	11.0										
B-3	S-2	2.5 - 4.0	16.0										
B-3	S-3	5.0 - 6.5	18.0										
B-3	S-4	7.5 - 9.0	16.8	42	24	18	0.1	78.0	21.9			SC	A-2-7(0)
B-3	S-5	10.0 - 11.5	15.0										
B-3	S-6	15.0 - 16.5	22.9										
B-3	S-7	20.0 - 21.5	25.3	NV	NP	NP	2.3	81.3	16.4			SM	A-2-4(0)
B-3	S-8	25.0 - 26.5	23.7										
B-3	S-9	30.0 - 31.5	28.4										
B-3	S-10	35.0 - 36.5	25.7										
B-3	S-11	40.0 - 41.5	20.8										
B-3	S-12	45.0 - 46.5	22.4										
B-3	S-13	50.0 - 51.5	25.2										
B-3	S-14	55.0 - 56.5	24.6										
B-3	S-15	60.0 - 61.5	27.2										
B-3	S-16	65.0 - 66.5	28.1										
B-3	S-17	70.0 - 71.5	29.0										
B-3	S-18	75.0 - 76.5	29.3										
B-3	S-19	80.0 - 81.5	29.1										
B-4	Bulk	1.0 - 5.0	5.3	33	20	13	6.7	69.5	23.8			SC	A-2-6(0)
B-4	S-1	0.0 - 1.5	12.6										

Note: NV = Non Viscous, NP = Non Plastic

Table 2.1: Summary of Laboratory Test Results

Project: MSA Dept. of Legislative Services Building Improvements
Location: Annapolis, Maryland
Findling, Inc. Project No. : 20-1001

Boring No.	Sample ID	Sample Depth	Natural Moisture Content, %	Atterberg Limits			Grain Size Distribution			Modified Proctor (ASTM D1557) (AASHTO T-180)		USCS Classification	AASHTO Classification
				LL	PL	PI	GRAVEL (%)	SAND (%)	FINES (%)	Max Dry Density, pcf	Optimum Moisture Content, %		
B-4	S-2	2.5 - 4.0	13.5										
B-4	S-3	5.0 - 6.5	14.0										
B-4	S-4	7.5 - 9.0	15.6										
B-4	S-5	10.0 - 11.5	13.4										
B-4	S-6	15.0 - 16.5	13.1	NV	NP	NP	0.0	75.0	25.0	125.1	12.0	SM	A-2-4(0)
B-4	S-7	20.0 - 21.5	24.4										
B-4	S-8	25.0 - 26.5	26.9										
B-4	S-9	30.0 - 31.5	24.6										
B-4	S-10	35.0 - 36.5	20.3										
B-4	S-11	40.0 - 41.5	24.2										
B-4	S-12	45.0 - 46.5	21.1										
B-4	S-13	50.0 - 51.5	22.4										
B-4	S-14	55.0 - 56.5	19.2										
B-4	S-15	60.0 - 61.5	20.8										
B-4	S-16	65.0 - 66.5	20.1										
B-4	S-17	70.0 - 71.5	26.8										
B-4	S-18	75.0 - 76.5	25.7										

Note: NV = Non Viscous, NP = Non Plastic

FINDLING, INC.
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info@findlinginc.com

Table 3.1 : Summary of Boring Data
MSA Dept. of Legislative Services Building Improvements
Annapolis, Maryland
Findling Project No.:20-1001

Boring No.	Ground Surface **Elev** (±ft.)	Bottom of Explored Strata						Groundwater Level **						Caved-in		Boring Depth (±ft.) *	Bottom of Boring **Elev** (±ft.)
		Stratum A Fill		Stratum B Recent Alluvial		Potomac Formations		During Drilling		End of Drilling		After 24 hrs.					
		Depth (±ft.)*	**Elev (±ft.)**	Depth (±ft.)*	**Elev (±ft.)**	Depth (±ft.)*	**Elev (±ft.)**	Depth (±ft.)*	**Elev (±ft.)**	Depth (±ft.)*	**Elev (±ft.)**	Depth (±ft.)*	**Elev (±ft.)**	Depth (±ft.)*	**Elev (±ft.)**		
B-1	**38.0**	15.0	**23.0**	35.0	**3.0**	81.5	**-43.5**	25.0	**13.0**	23.5	**14.5**	18.3	**19.7**	-	**-**	81.5	**-43.5**
B-2	**36.0**	15.0	**21.0**	35.0	**1.0**	81.5	**-45.5**	25.0	**11.0**	19.8	**16.2**	18.6	**17.4**	34.0	**2.0**	81.5	**-45.5**
B-3	**34.0**	10.0	**24.0**	35.0	**-1.0**	81.5	**-47.5**	24.0	**10.0**	-	**-**	17.3	**16.7**	-	**-**	81.5	**-47.5**
B-4	**35.0**	20.0	**15.0**	35.0	**0.0**	81.5	**-46.5**	30.0	**5.0**	25	**10.0**	18.9	**16.1**	-	**-**	81.5	**-46.5**

Key: * Below the existing ground surface.
* Groundwater elevation could fluctuate due to seasonal conditions.
NE : Not Encountered within depth of boring.
NA : Not Applicable.

Table 3.2: Summary of Groundwater Level Monitoring Well Data

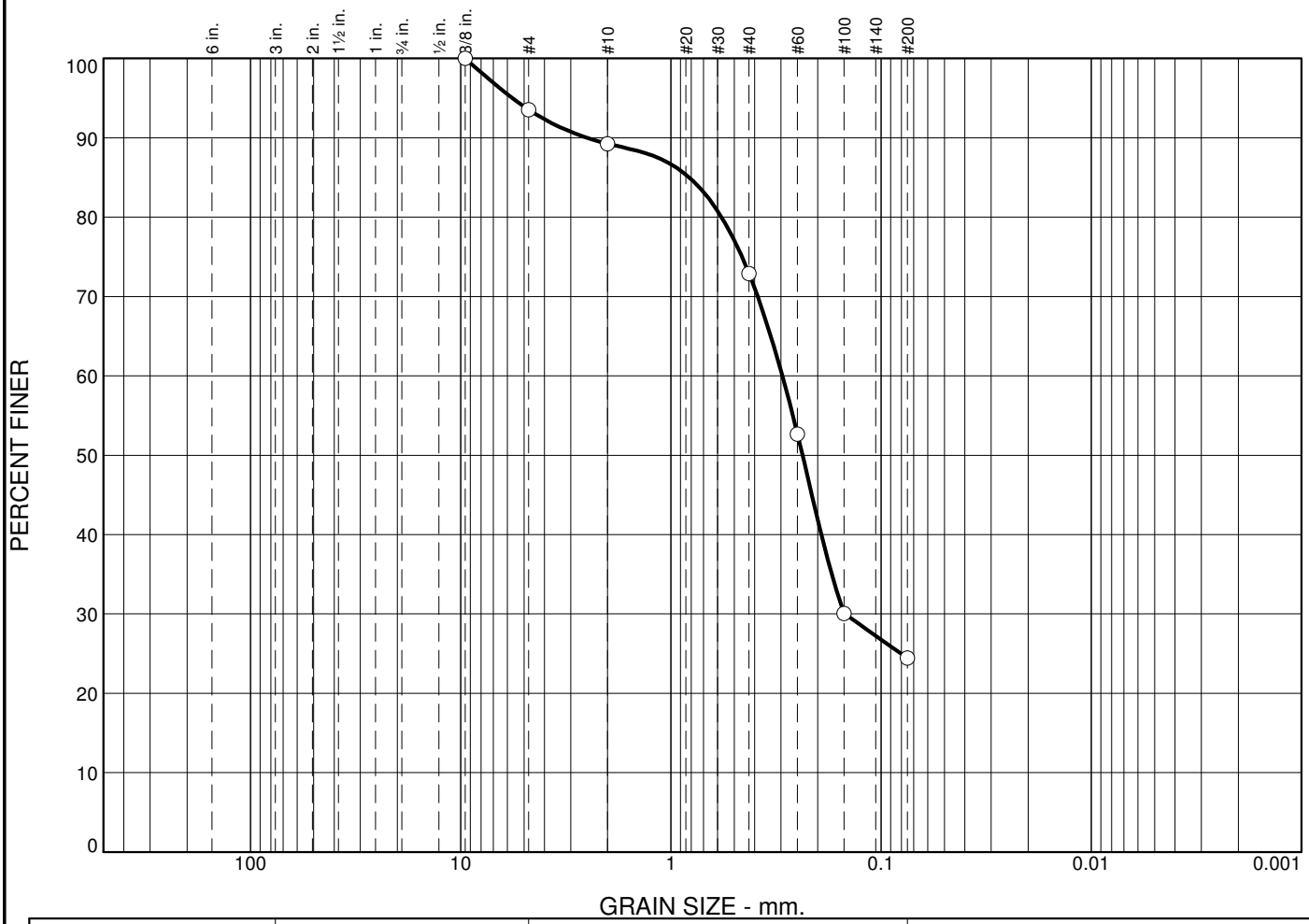
Project: MSA DLS Building Improvements
Location: Annapolis, Maryland
Findling, Inc. Project No. : 20-1001

Boring No.	Ground Surface Elevation (± ft.)*	Groundwater Level Reading Data							
		12/20/2020		1/6/2021		1/13/2021		1/26/2021	
		Depth (ft.)	Elevation (± ft.)	Depth (ft.)	Elevation (± ft.)	Depth (ft.)	Elevation (± ft.)	Depth (ft.)	Elevation (± ft.)
B-1	34.79	18.3	16.5	17.3	17.5	19.3	15.5	17.6	17.2
B-3	34.30	17.3	17.1	18.4	15.9	17.4	16.9	19.3	15.0
B-4	35.27	18.9	16.4	18.6	16.7	19.0	16.2	19.3	15.9

Minimum groundwater level elevation, EL + 15.0
Maximum groundwater level elevation, EL + 17.5
Minimum groundwater depth (ft.) = 17.3
Maximum groundwater depth (ft.) = 19.3

Laboratory Test Results

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	6.4	4.4	16.3	48.5	24.4	

	Colloids	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○		34	20	0.8177	0.2950	0.2365	0.1487				

Material Description	USCS	AASHTO
○ Brown Clayey SAND	SC	A-2-6(0)

Project No. 20-1001 **Client:** M & D

Project: MSA Dept. of Legislative Services Building Improvements

○ **Source of Sample:** B-1 **Depth:** 1.0'-5.0' **Sample Number:** Bulk

Date: ○ 12-19-20

Remarks:

○ Natural Moisture Content=7.9%

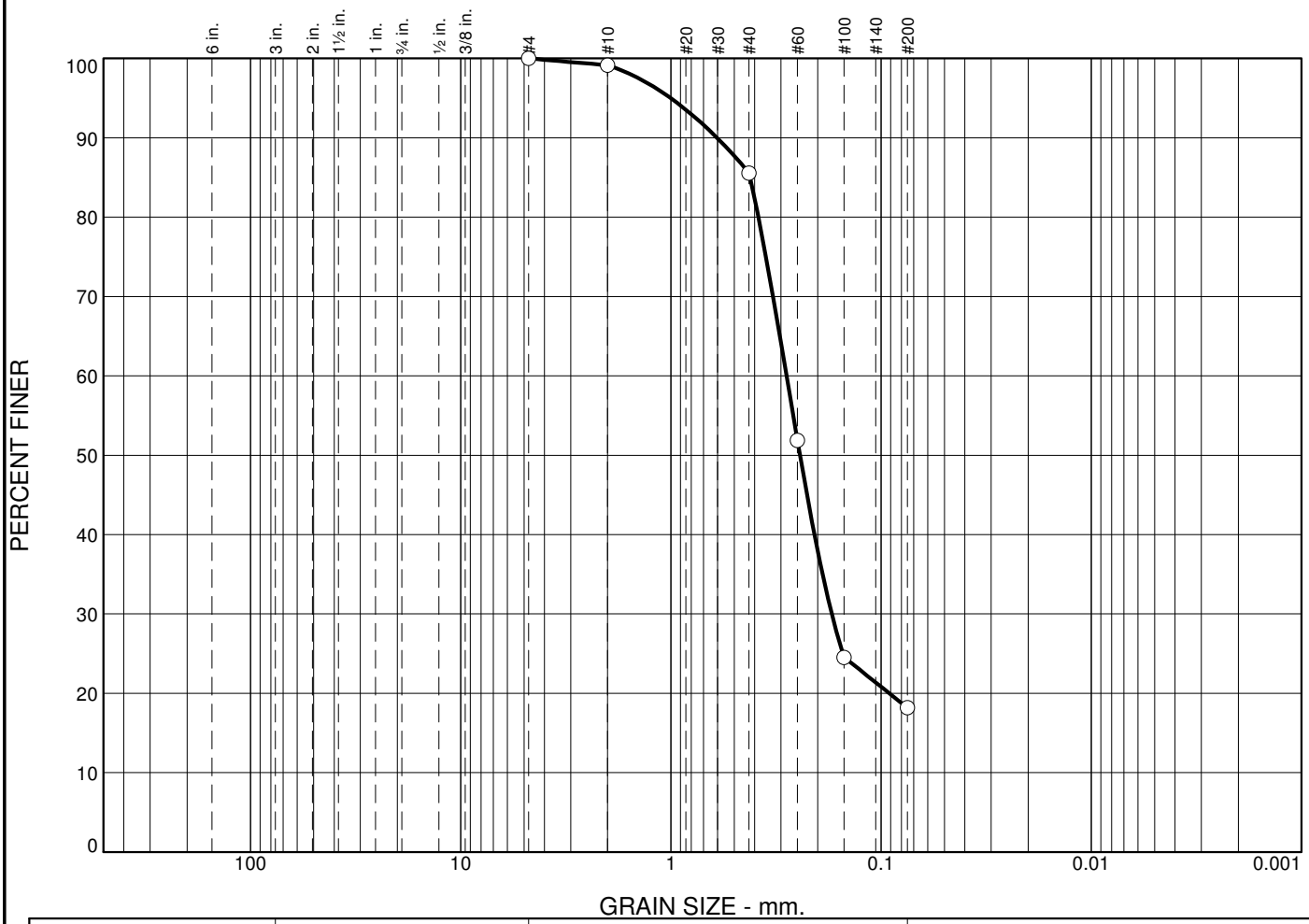
Findling, Inc.

Baltimore, Maryland

Figure

Tested By: BG **Checked By:** AB

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.0	0.8	13.6	67.4	18.2	

	Colloids	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○		NV	NP	0.4203	0.2819	0.2431	0.1719				

Material Description	USCS	AASHTO
○ Brown Silty SAND	SM	A-2-4(0)

Project No. 20-1001 **Client:** M & D

Project: MSA Dept. of Legislative Services Building Improvements

○ **Source of Sample:** B-1 **Depth:** 7.5'-9.0' **Sample Number:** S-4

Date: ○ 12-19-20

Remarks:

○ Natural Moisture Content= 18.5%

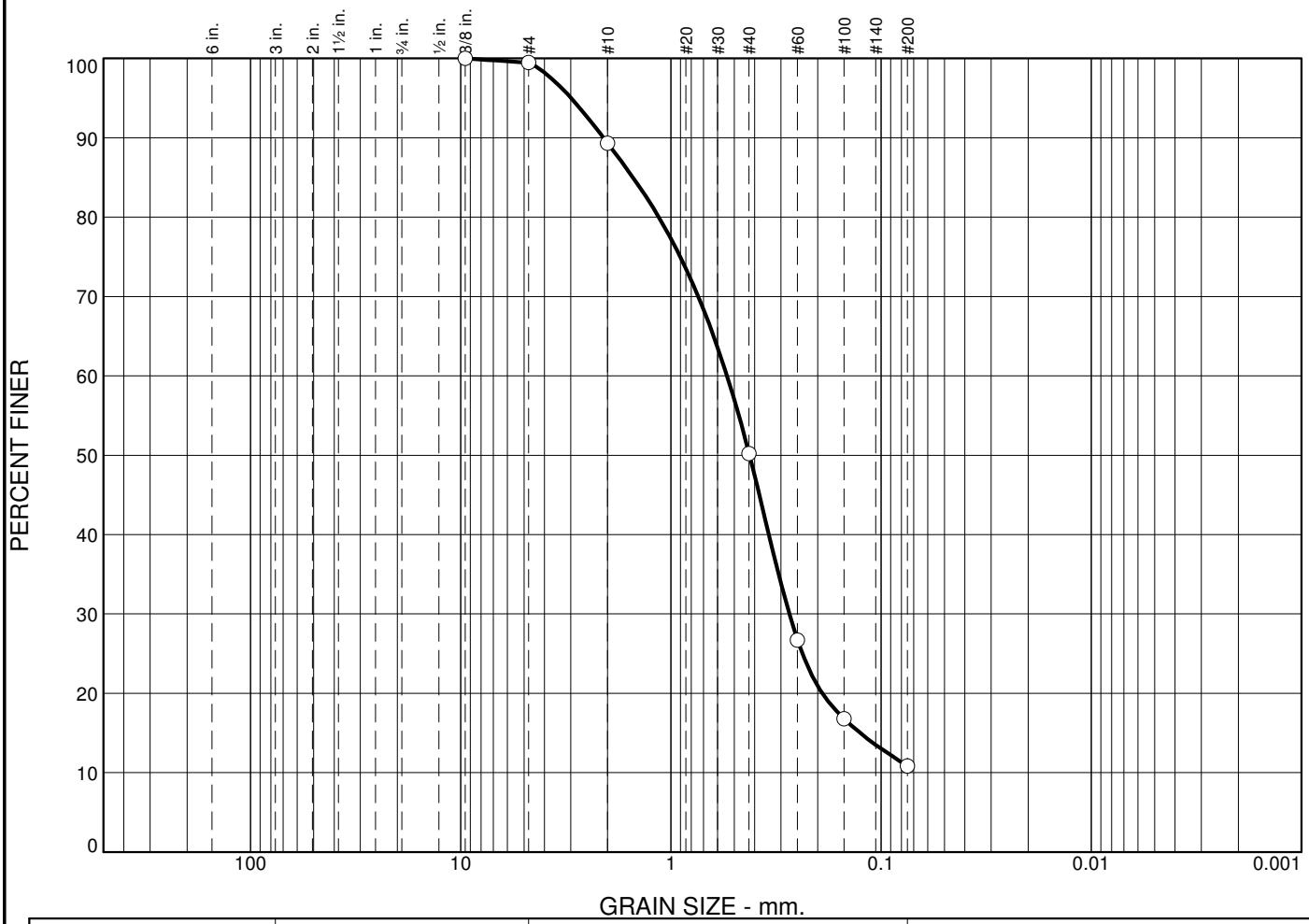
Findling, Inc.

Baltimore, Maryland

Figure

Tested By: BG **Checked By:** AB

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.5	10.2	39.1	39.4	10.8	

	Colloids	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○		NV	NP	1.5158	0.5412	0.4229	0.2733	0.1257			

Material Description	USCS	AASHTO
○ Brown Poorly Graded SAND with Silt	SP-SM	A-1-b

Project No. 20-1001 **Client:** M & D

Project: MSA Dept. of Legislative Services Building Improvements

○ **Source of Sample:** B-1 **Depth:** 20.0'-21.5' **Sample Number:** S-7

Date: ○ 12-19-20

Remarks:

○ Natural Moisture Content= 32.1%

Findling, Inc.

Baltimore, Maryland

Figure

Tested By: BG **Checked By:** AB

Particle Size Distribution Report

	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.0	0.1	5.9	80.3	13.7	

	Colloids	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○		NV	NP	0.2948	0.2075	0.1916	0.1623	0.0832			

Material Description	USCS	AASHTO
○ Light gray Silty SAND	SM	A-2-4(0)

Project No. 20-1001 **Client:** M & D

Project: MSA Dept. of Legislative Services Building Improvements

○ **Source of Sample:** B-1 **Depth:** 30.0'-31.5' **Sample Number:** S-9

Date: ○ 12-19-20

Remarks:

○ Natural Moisture Content= 26.1%

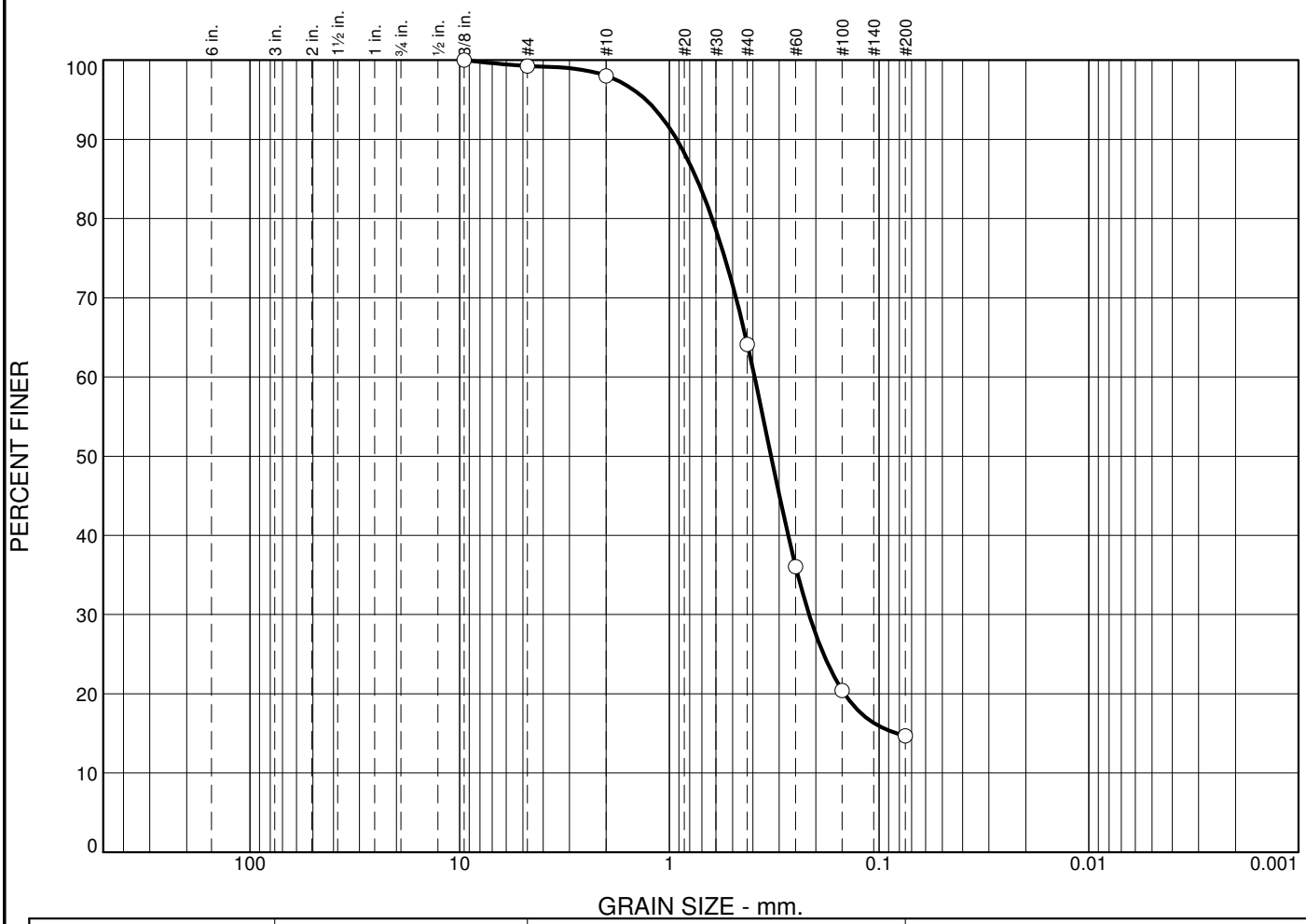
Findling, Inc.

Baltimore, Maryland

Figure

Tested By: BG **Checked By:** AB

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.7	1.3	33.9	49.4	14.7	

	Colloids	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○		38	24	0.7403	0.3925	0.3273	0.2156	0.0823			

Material Description	USCS	AASHTO
○ Light gray Clayey SAND	SC	A-2-6(0)

Project No. 20-1001 **Client:** M & D

Project: MSA Dept. of Legislative Services Building Improvements

○ **Source of Sample:** B-1 **Depth:** 40.0'-41.5' **Sample Number:** S-11

Date: ○ 12-19-20

Remarks:

○ Natural Moisture Content= 21.9%

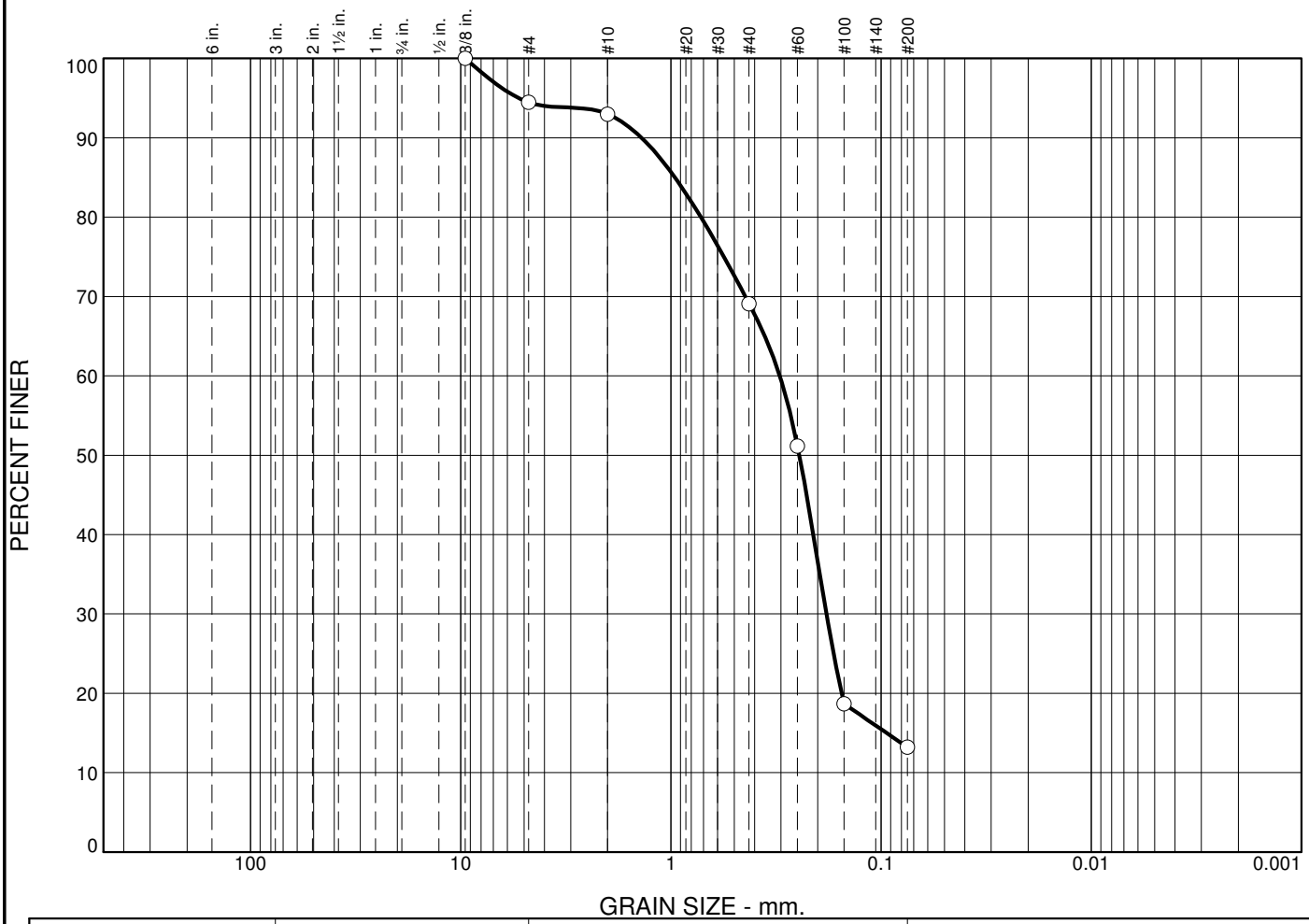
Findling, Inc.

Baltimore, Maryland

Figure

Tested By: BG **Checked By:** AB

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	5.5	1.5	23.9	55.9	13.2	

	Colloids	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○		NV	NP	0.9566	0.3035	0.2450	0.1820	0.0942			

Material Description	USCS	AASHTO
○ Brown Silty SAND	SM	A-2-4(0)

Project No. 20-1001 **Client:** M & D

Project: MSA Dept. of Legislative Services Building Improvements

○ **Source of Sample:** B-2 **Depth:** 1.0'-2.5' **Sample Number:** S-1

Date: ○ 12-9-20

Remarks:

○ Natural Moisture Content= 17.4%

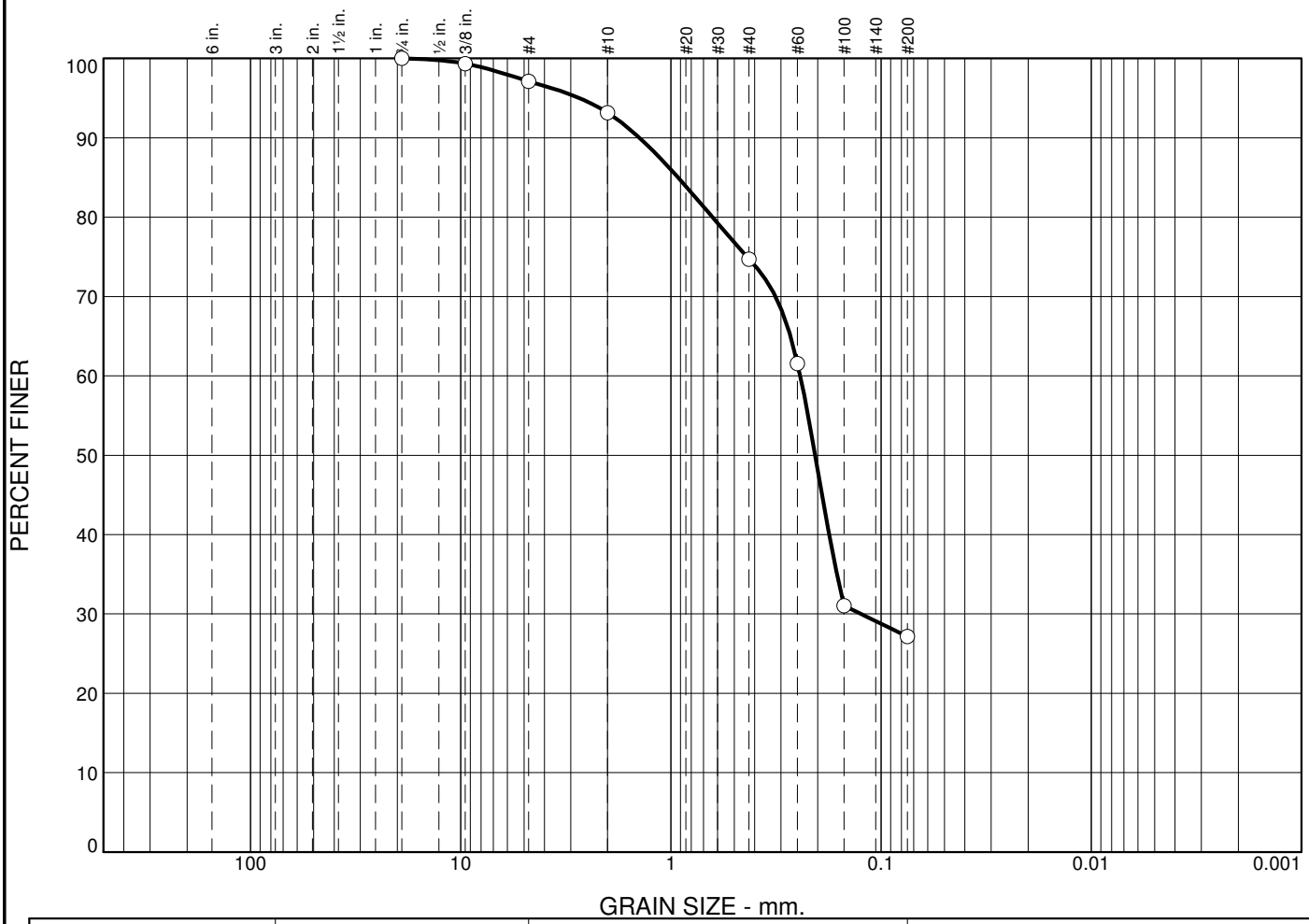
Findling, Inc.

Baltimore, Maryland

Figure

Tested By: BG **Checked By:** AB

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	2.9	4.0	18.4	47.5	27.2	

	Colloids	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○		36	20	0.9248	0.2426	0.2059	0.1247				

Material Description	USCS	AASHTO
○ Brown Clayey SAND	SC	A-2-6(1)

Project No. 20-1001 **Client:** M & D

Project: MSA Dept. of Legislative Services Building Improvements

○ **Source of Sample:** B-2 **Depth:** 2.0'-6.0' **Sample Number:** Bulk

Date: ○ 12-9-20

Remarks:

○ Natural Moisture Content=5.4%

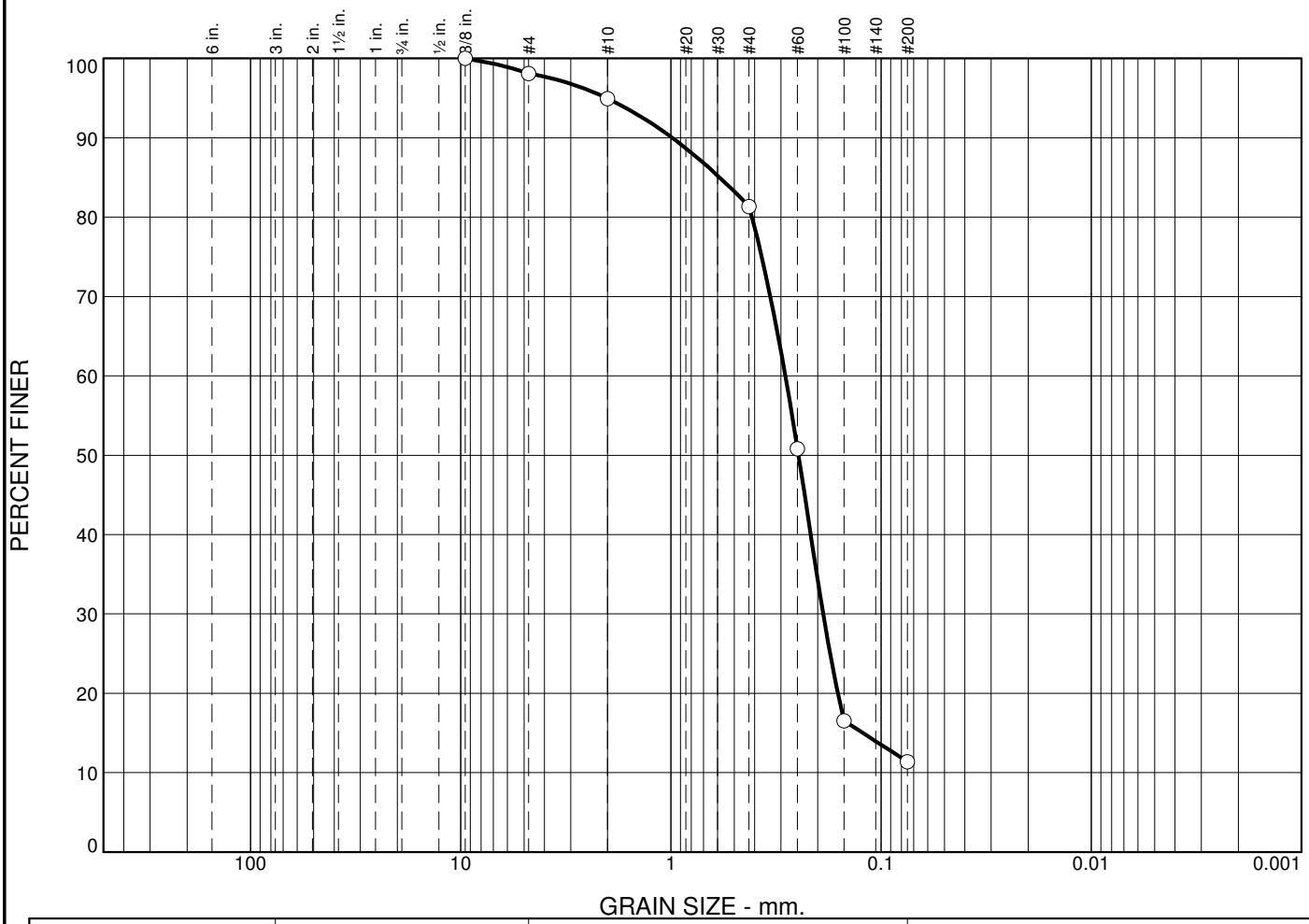
Findling, Inc.

Baltimore, Maryland

Figure

Tested By: BG **Checked By:** AB

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	1.9	3.2	13.6	69.9	11.4	

	Colloids	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○		NV	NP	0.5863	0.2856	0.2472	0.1886	0.1221			

Material Description	USCS	AASHTO
○ Brown Poorly Graded SAND with Silt	SP-SM	A-2-4(0)

Project No. 20-1001 **Client:** M & D

Project: MSA Dept. of Legislative Services Building Improvements

○ **Source of Sample:** B-2 **Depth:** 15.0'-16.5' **Sample Number:** S-6

Date: ○ 12-9-20

Remarks:

○ Natural Moisture Content= 21.1%

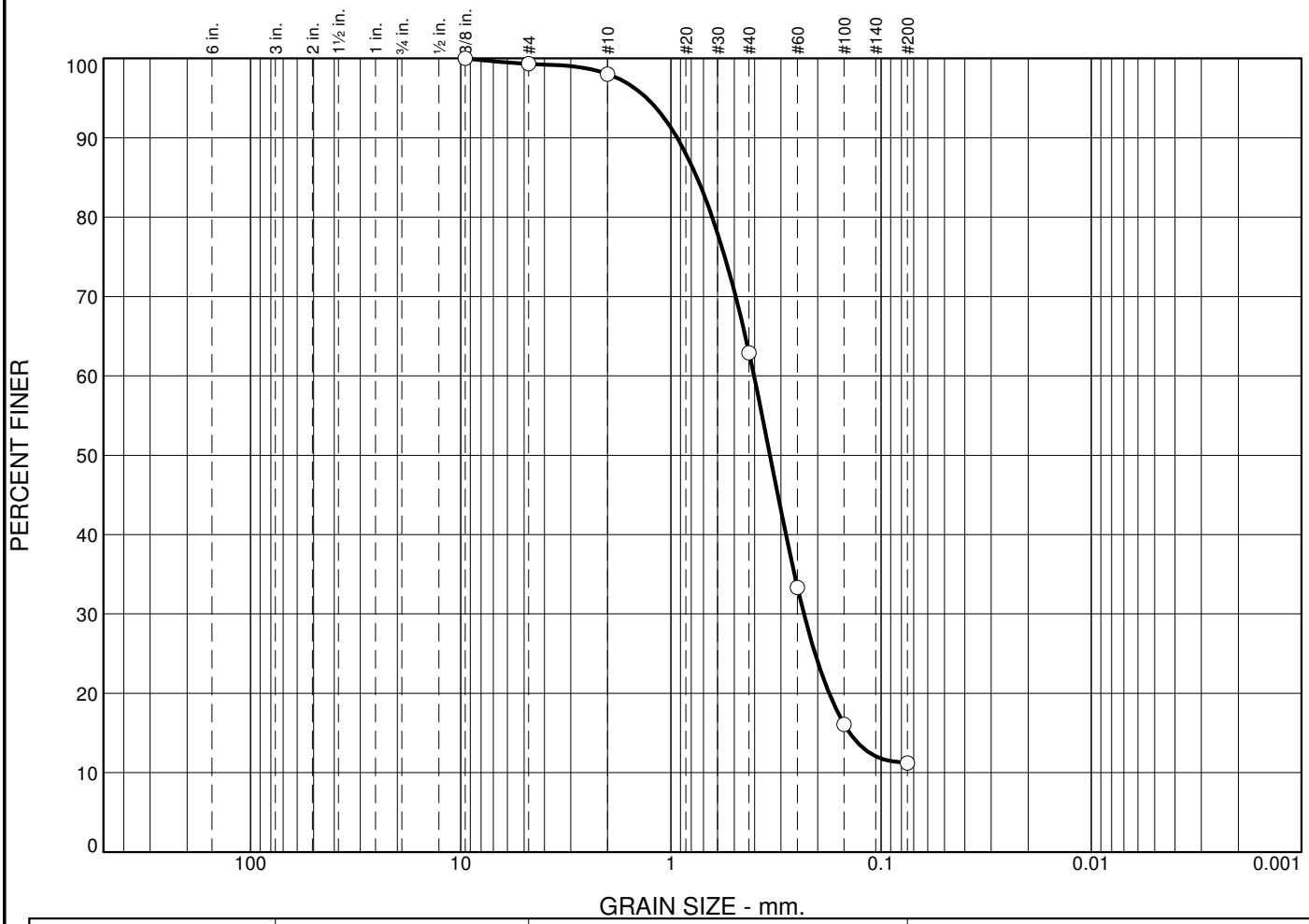
Findling, Inc.

Baltimore, Maryland

Figure

Tested By: BG **Checked By:** AB

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.7	1.3	35.1	51.7	11.2	

	Colloids	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○		NV	NP	0.7514	0.4024	0.3377	0.2328	0.1411			

Material Description	USCS	AASHTO
○ Brown Poorly Graded SAND with Silt	SP-SM	A-2-4(0)

Project No. 20-1001 **Client:** M & D

Project: MSA Dept. of Legislative Services Building Improvements

○ **Source of Sample:** B-2 **Depth:** 40.0'-41.5' **Sample Number:** S-11

Date: ○ 12-9-20

Remarks:

○ Natural Moisture Content= 23.3%

Findling, Inc.

Baltimore, Maryland

Figure

Tested By: BG **Checked By:** AB

Particle Size Distribution Report

	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	5.2	4.2	15.2	40.5	34.9	

	Colloids	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○		34	17	0.9996	0.2993	0.2353					

Material Description	USCS	AASHTO
○ Brown Clayey SAND	SC	A-2-6(1)

Project No. 20-1001 **Client:** M & D

Project: MSA Dept. of Legislative Services Building Improvements

○ **Source of Sample:** B-3 **Depth:** 1.0'-5.0' **Sample Number:** Bulk

Date: ○ 12-10-20

Remarks:

○ Natural Moisture Content=5.9%

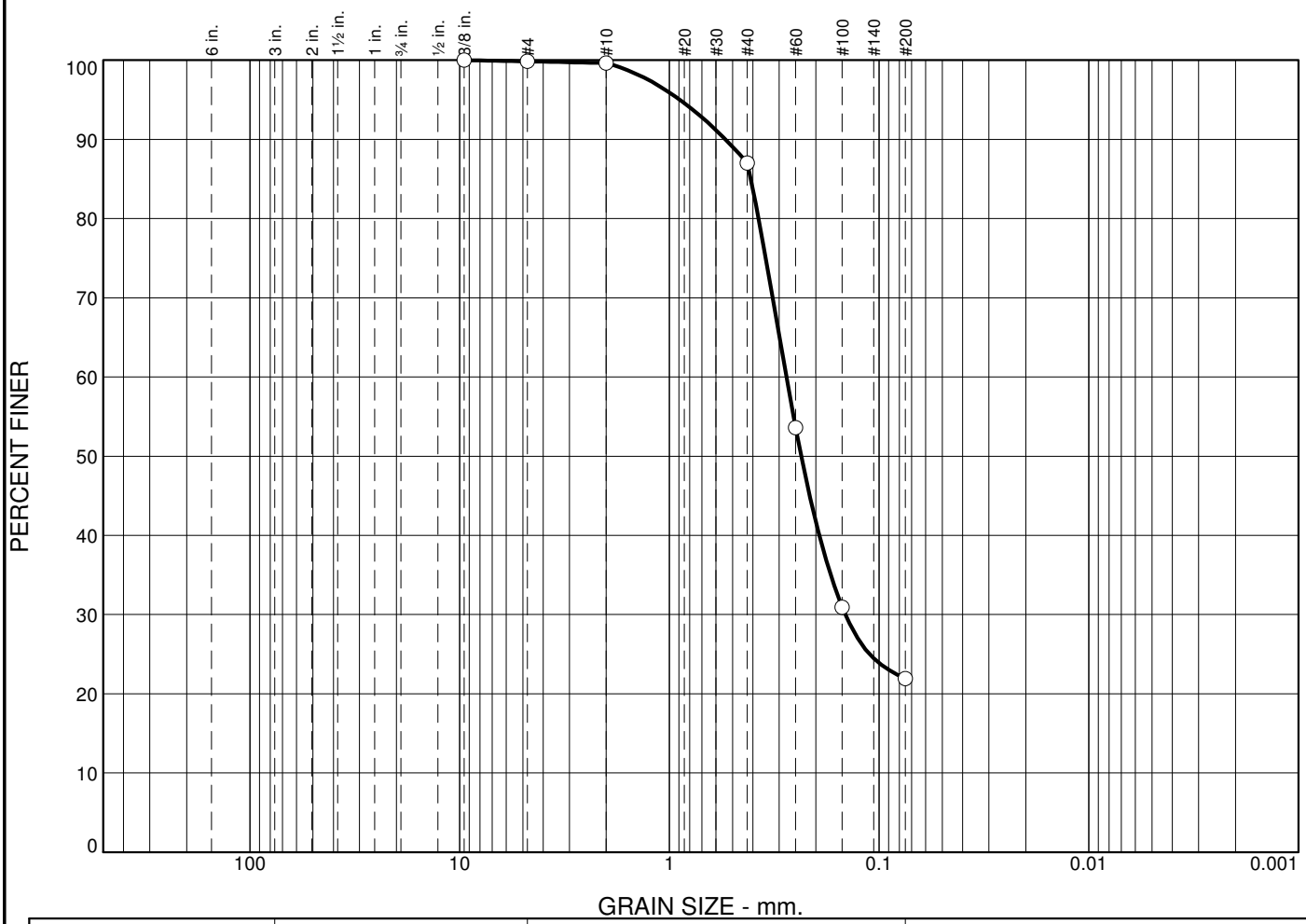
Findling, Inc.

Baltimore, Maryland

Figure

Tested By: BG **Checked By:** AB

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.1	0.3	12.6	65.1	21.9	

	Colloids	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○		42	24	0.4093	0.2767	0.2351	0.1449				

Material Description	USCS	AASHTO
○ Brown Clayey SAND	SC	A-2-7(1)

Project No. 20-1001 **Client:** M & D

Project: MSA Dept. of Legislative Services Building Improvements

○ **Source of Sample:** B-3 **Depth:** 7.5'-9.0' **Sample Number:** S-4

Date: ○ 12-10-20

Remarks:

○ Natural Moisture Content= 16.8%

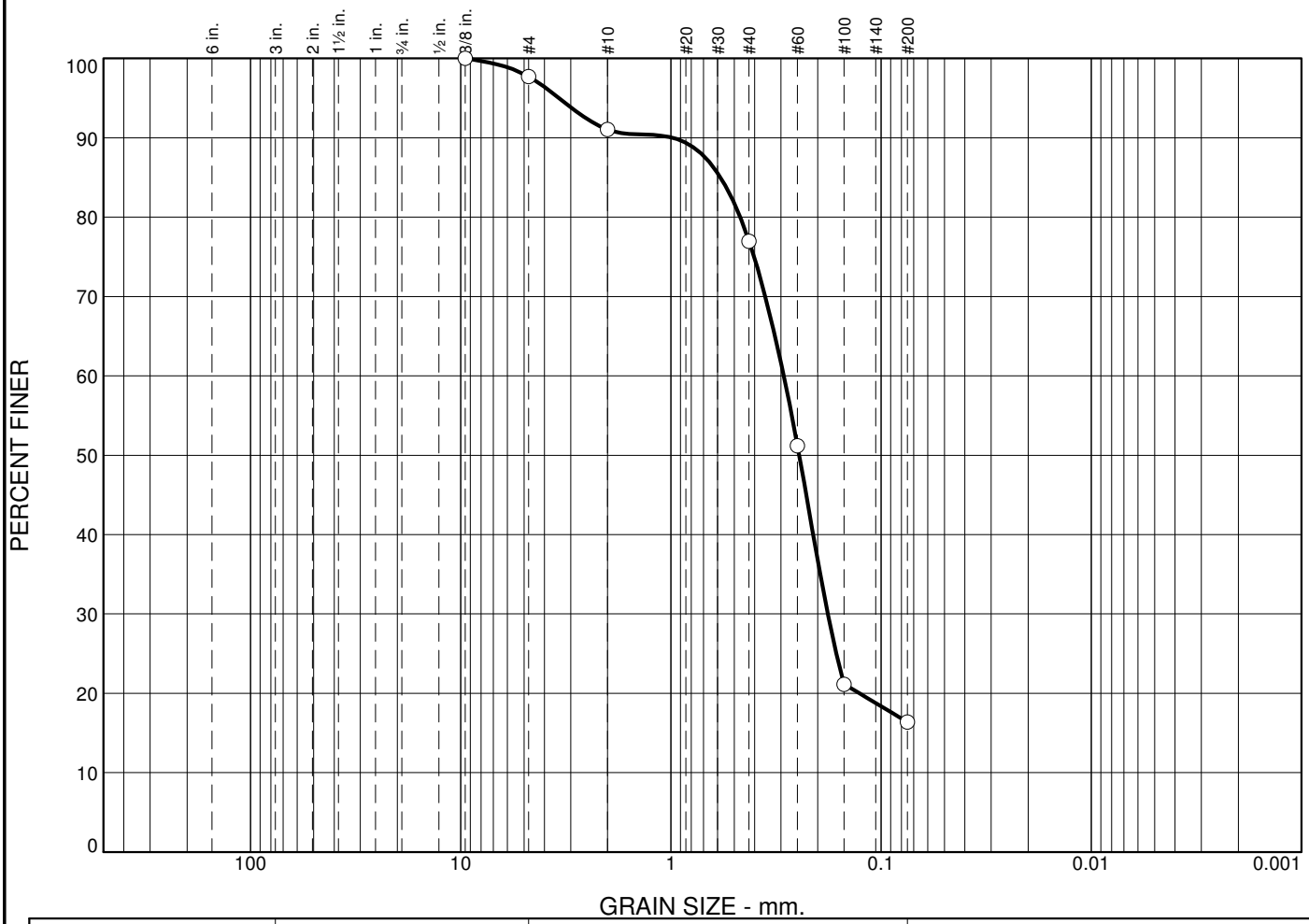
Findling, Inc.

Baltimore, Maryland

Figure

Tested By: BG **Checked By:** AB

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	2.3	6.7	14.0	60.6	16.4	

	Colloids	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○		NV	NP	0.5804	0.2906	0.2454	0.1793				

Material Description	USCS	AASHTO
○ Brown Silty SAND	SM	A-2-4(0)

Project No. 20-1001 **Client:** M & D

Project: MSA Dept. of Legislative Services Building Improvements

○ **Source of Sample:** B-3 **Depth:** 20.0'-21.5' **Sample Number:** S-7

Date: ○ 12-10-20

Remarks:

○ Natural Moisture Content= 25.3%

Findling, Inc.

Baltimore, Maryland

Figure

Tested By: BG **Checked By:** AB

Particle Size Distribution Report

	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	6.7	3.7	19.8	46.0	23.8	

	Colloids	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○		33	20	1.1806	0.2835	0.2268	0.1564				

Material Description	USCS	AASHTO
○ Brown Clayey SAND	SC	A-2-6(0)

Project No. 20-1001 **Client:** M & D

Project: MSA Dept. of Legislative Services Building Improvements

○ **Source of Sample:** B-4 **Depth:** 1.0'-5.0' **Sample Number:** Bulk

Date: ○ 12-15-20

Remarks:

○ Natural Moisture Content=5.3%

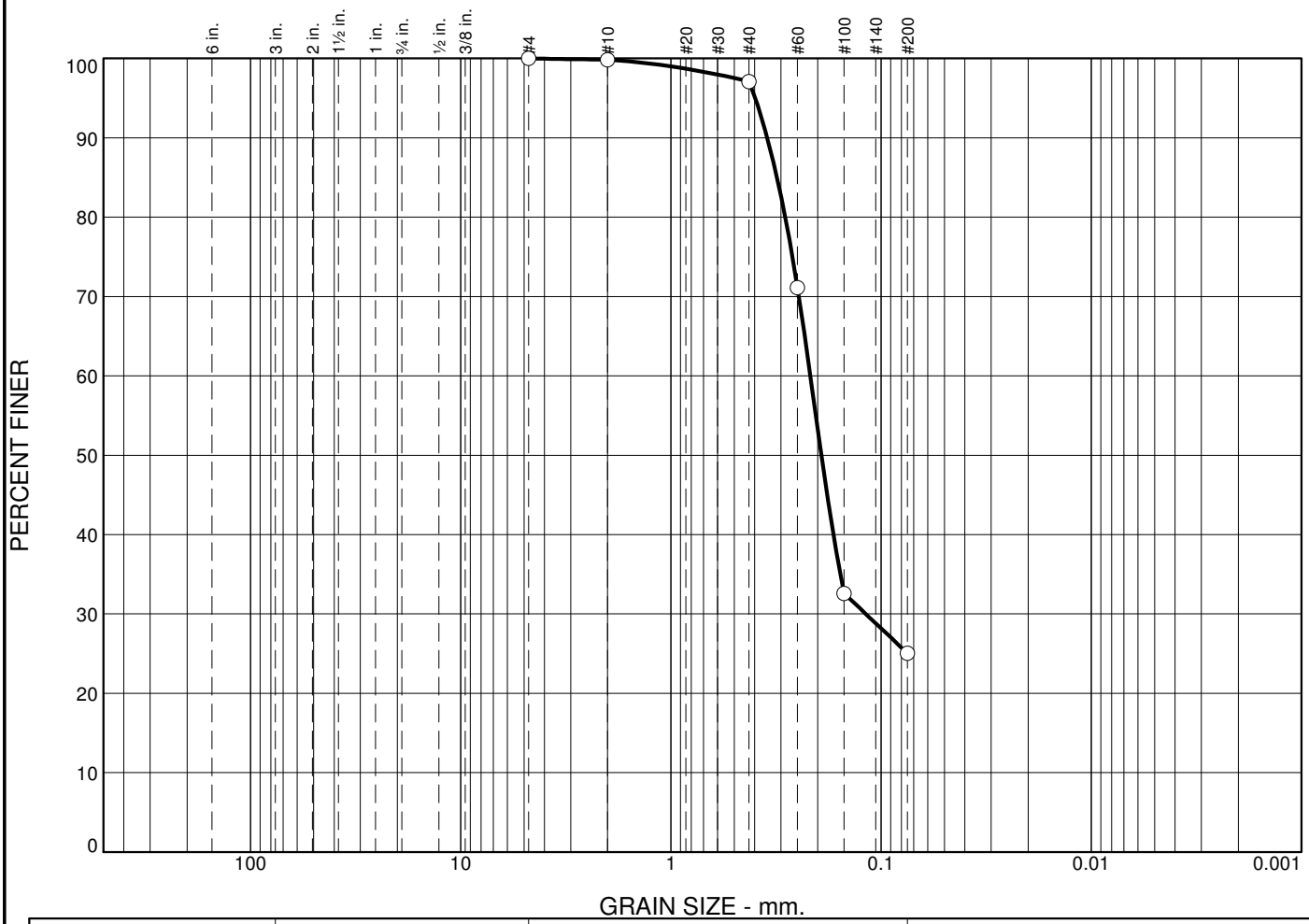
Findling, Inc.

Baltimore, Maryland

Figure

Tested By: BG **Checked By:** AB

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.0	0.2	2.7	72.1	25.0	

	Colloids	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○		NV	NP	0.3129	0.2171	0.1923	0.1182				

Material Description	USCS	AASHTO
○ Light gray Silty SAND	SM	A-2-4(0)

Project No. 20-1001 **Client:** M & D

Project: MSA Dept. of Legislative Services Building Improvements

○ **Source of Sample:** B-4 **Depth:** 15.0'-16.5' **Sample Number:** S-6

Date: ○ 12-15-20

Remarks:

○ Natural Moisture Content= 13.1%

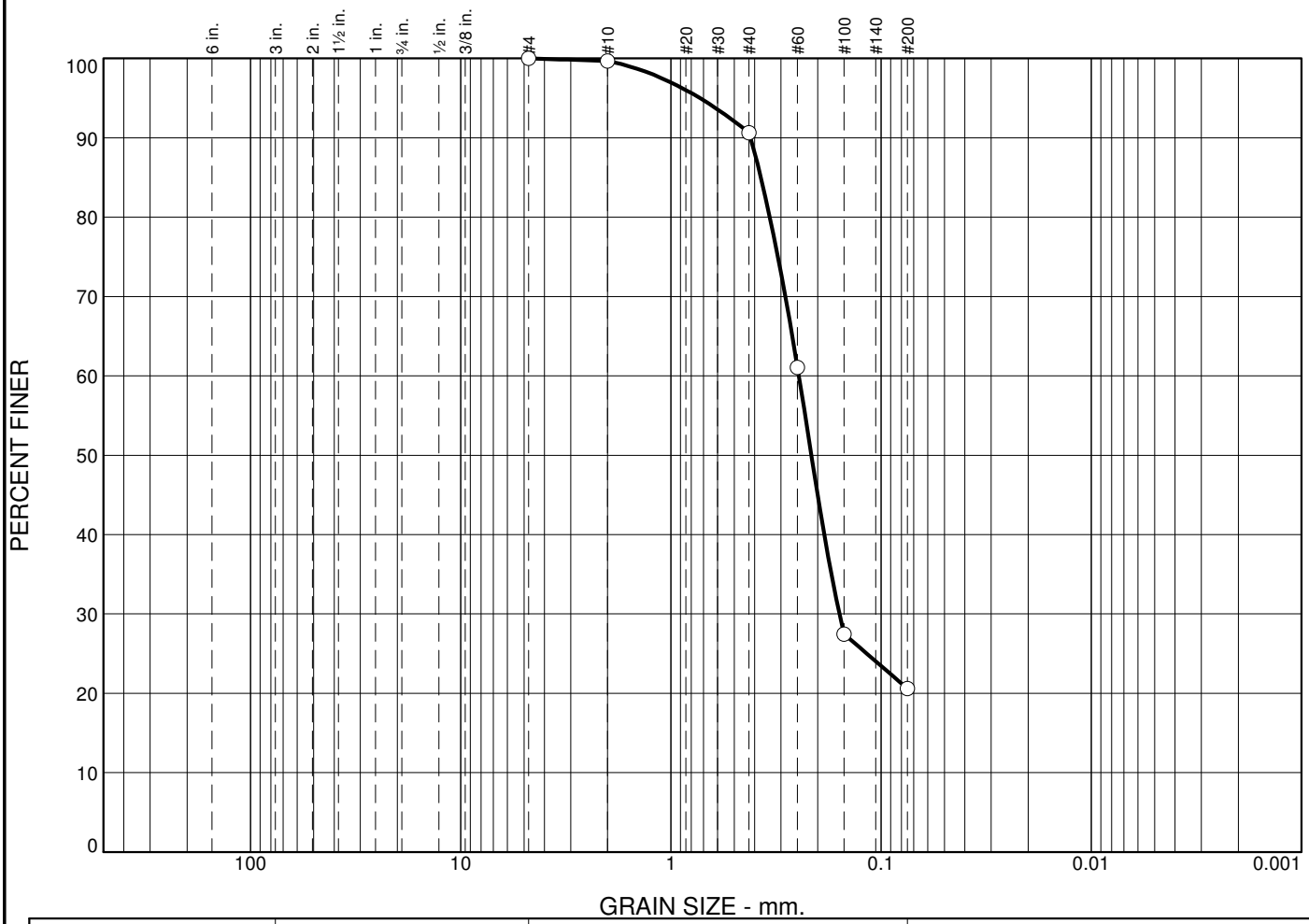
Findling, Inc.

Baltimore, Maryland

Figure

Tested By: BG **Checked By:** AB

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.0	0.3	9.1	70.0	20.6	

	Colloids	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○		NV	NP	0.3733	0.2462	0.2146	0.1581				

Material Description	USCS	AASHTO
○ Light brown Silty SAND	SM	A-2-4(0)

Project No. 20-1001 **Client:** M & D

Project: MSA Dept. of Legislative Services Building Improvements

○ **Source of Sample:** B-4 **Depth:** 20.0'-21.5' **Sample Number:** S-7

Date: ○ 12-15-20

Remarks:

○ Natural Moisture Content= 24.4%

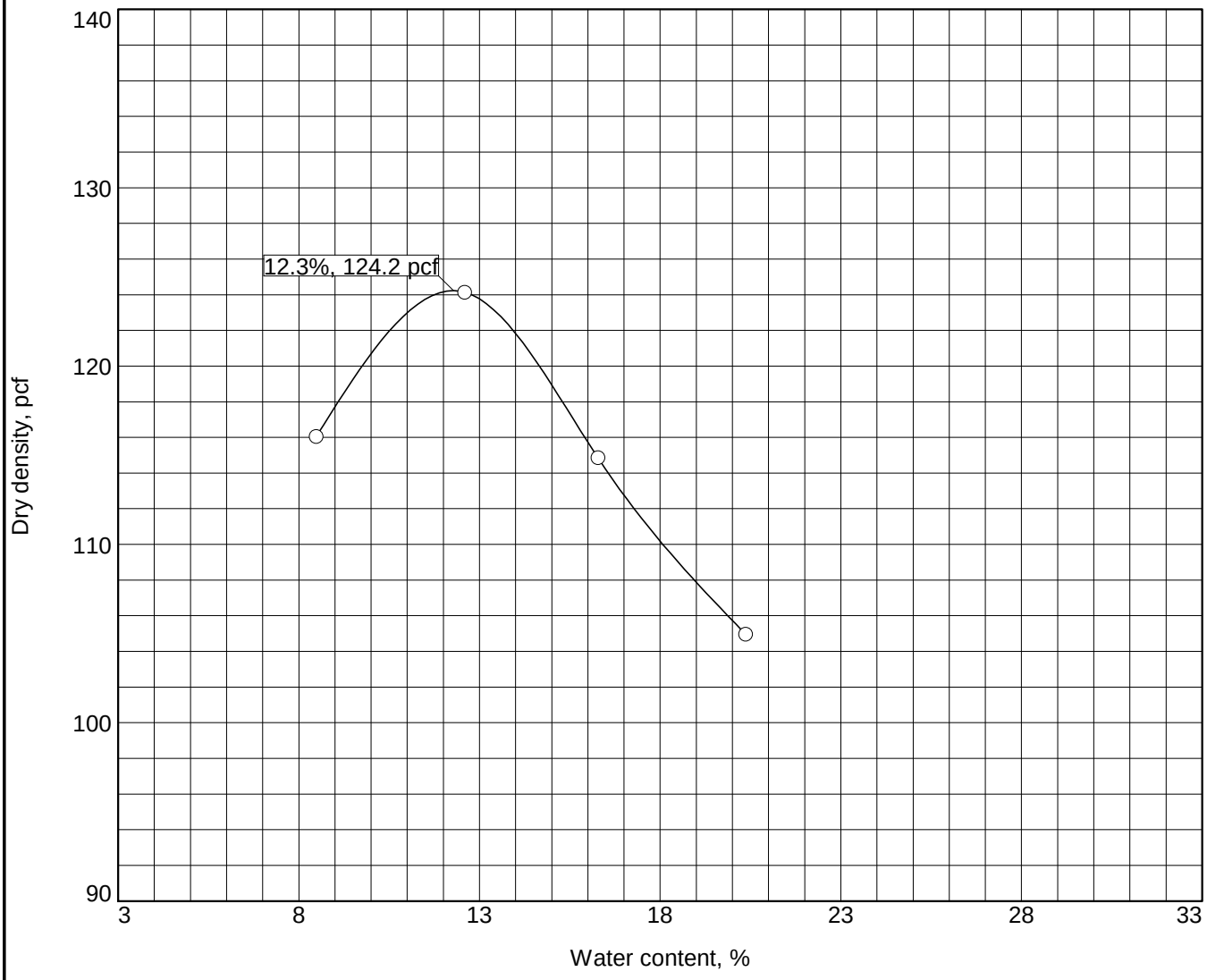
Findling, Inc.

Baltimore, Maryland

Figure

Tested By: BG **Checked By:** AB

COMPACTION TEST REPORT



Test specification: ASTM D 1557-12 Method A Modified

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > #4	% < No.200
	USCS	AASHTO						
1.0'-5.0'	SC	A-2-6(0)	7.9%		34	14	6.4	24.4

TEST RESULTS	MATERIAL DESCRIPTION
Maximum dry density = 124.2 pcf Optimum moisture = 12.3 %	Brown Clayey SAND

Project No. 20-1001 **Client:** M & D

Project: MSA Dept. of Legislative Services Building Improvements

Date:

○ **Source of Sample:** B-1 **Sample Number:** Bulk

Findling, Inc.

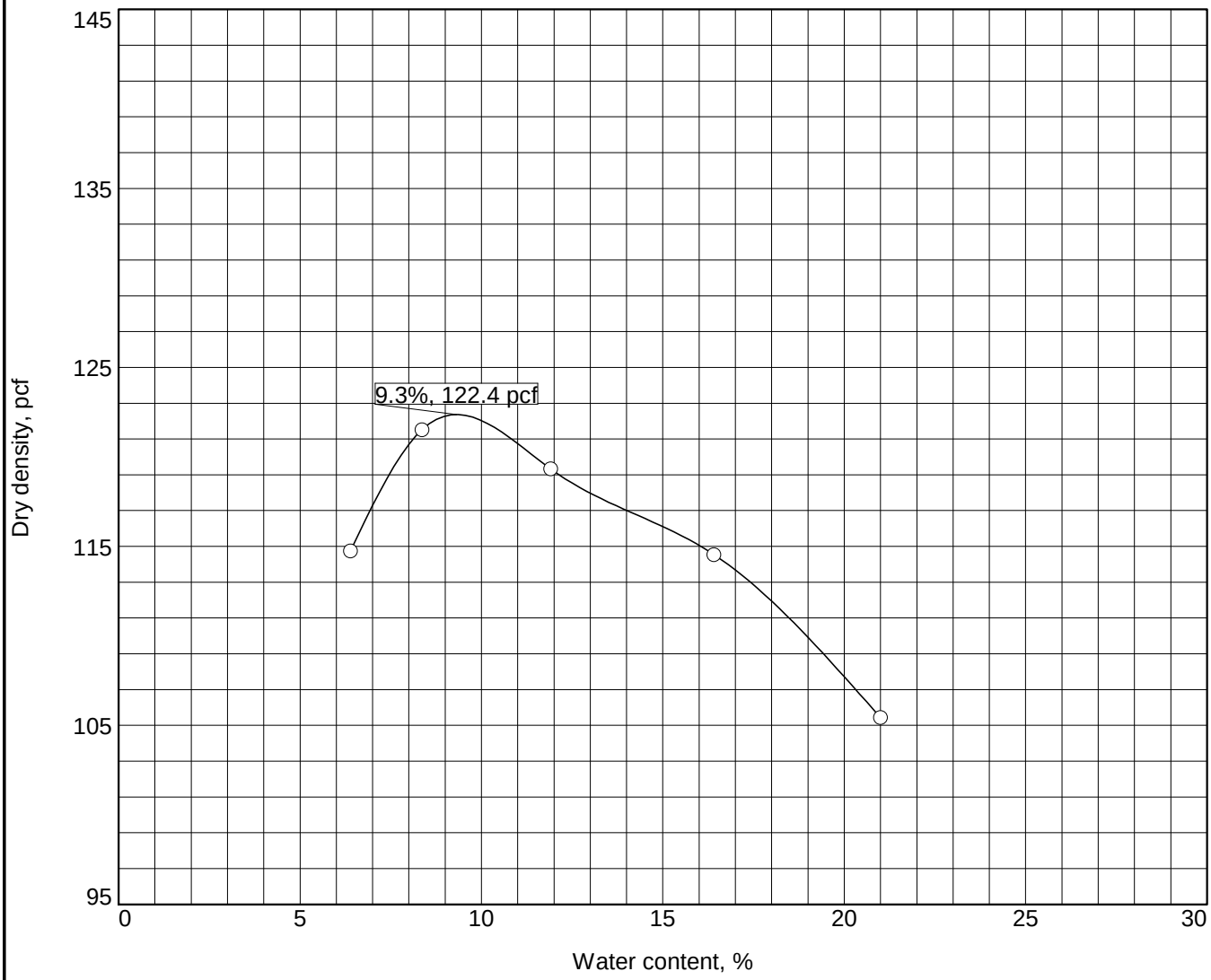
Baltimore, Maryland

Remarks:

Figure C-1

Tested By: BG **Checked By:** AB

COMPACTION TEST REPORT



Test specification: ASTM D 1557-12 Method A Modified

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > #4	% < No.200
	USCS	AASHTO						
2.0'-6.0'	SC	A-2-6(1)	5.4%		36	16	2.9	27.2

TEST RESULTS	MATERIAL DESCRIPTION
Maximum dry density = 122.4 pcf Optimum moisture = 9.3 %	Brown Clayey SAND

Project No. 20-1001 **Client:** M & D

Project: MSA Dept. of Legislative Services Building Improvements

Date:

○ **Source of Sample:** B-2 **Sample Number:** Bulk

Findling, Inc.

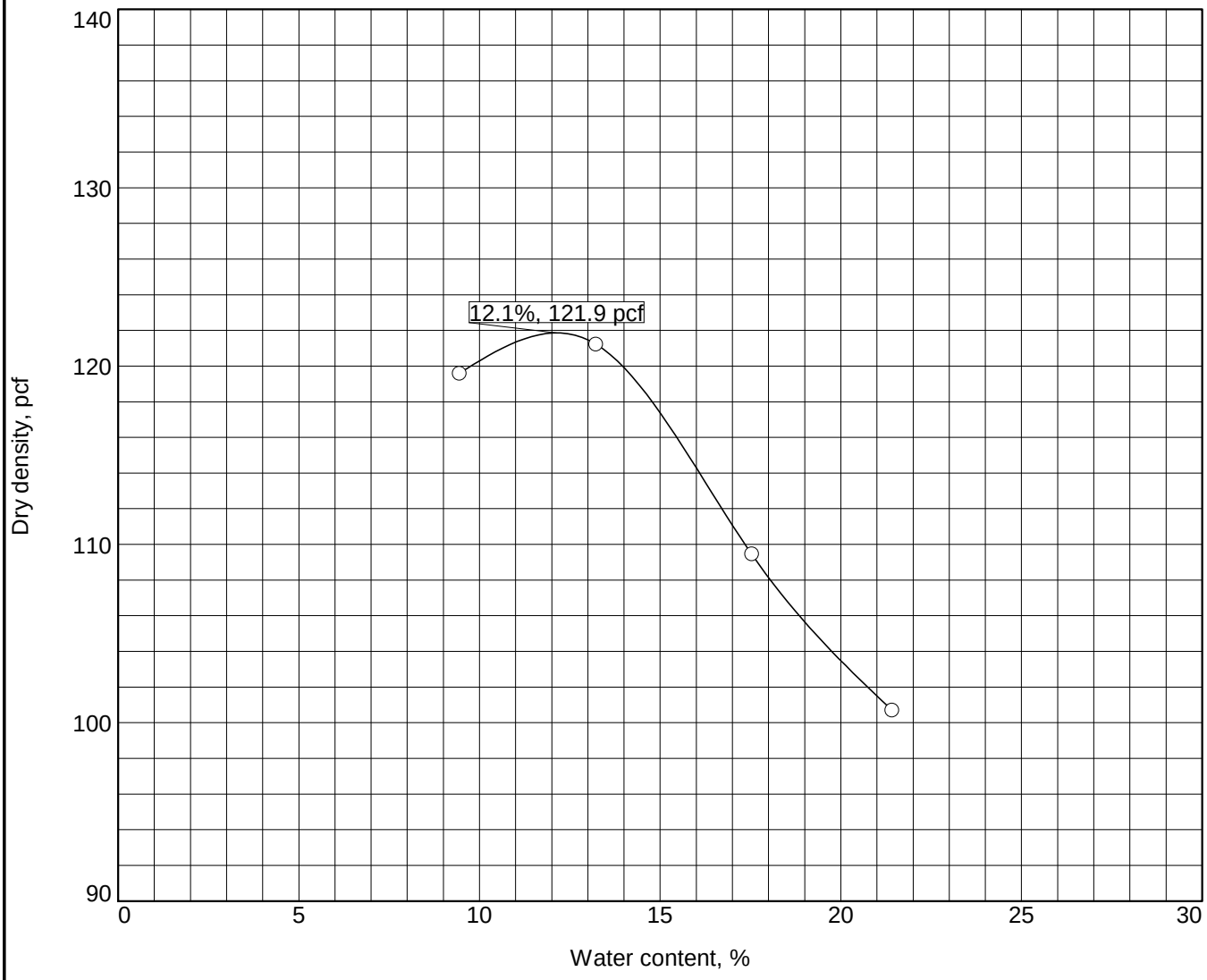
Baltimore, Maryland

Remarks:

Figure C-2

Tested By: BG **Checked By:** AB

COMPACTION TEST REPORT



Test specification: ASTM D 1557-12 Method A Modified

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > #4	% < No.200
	USCS	AASHTO						
1.0'-5.0'	SC	A-2-6(1)	5.9%		34	17	5.2	34.9

TEST RESULTS	MATERIAL DESCRIPTION
Maximum dry density = 121.9 pcf Optimum moisture = 12.1 %	Brown Clayey SAND

Project No. 20-1001 **Client:** M & D

Project: MSA Dept. of Legislative Services Building Improvements

Date:

○ **Source of Sample:** B-3 **Sample Number:** Bulk

Findling, Inc.

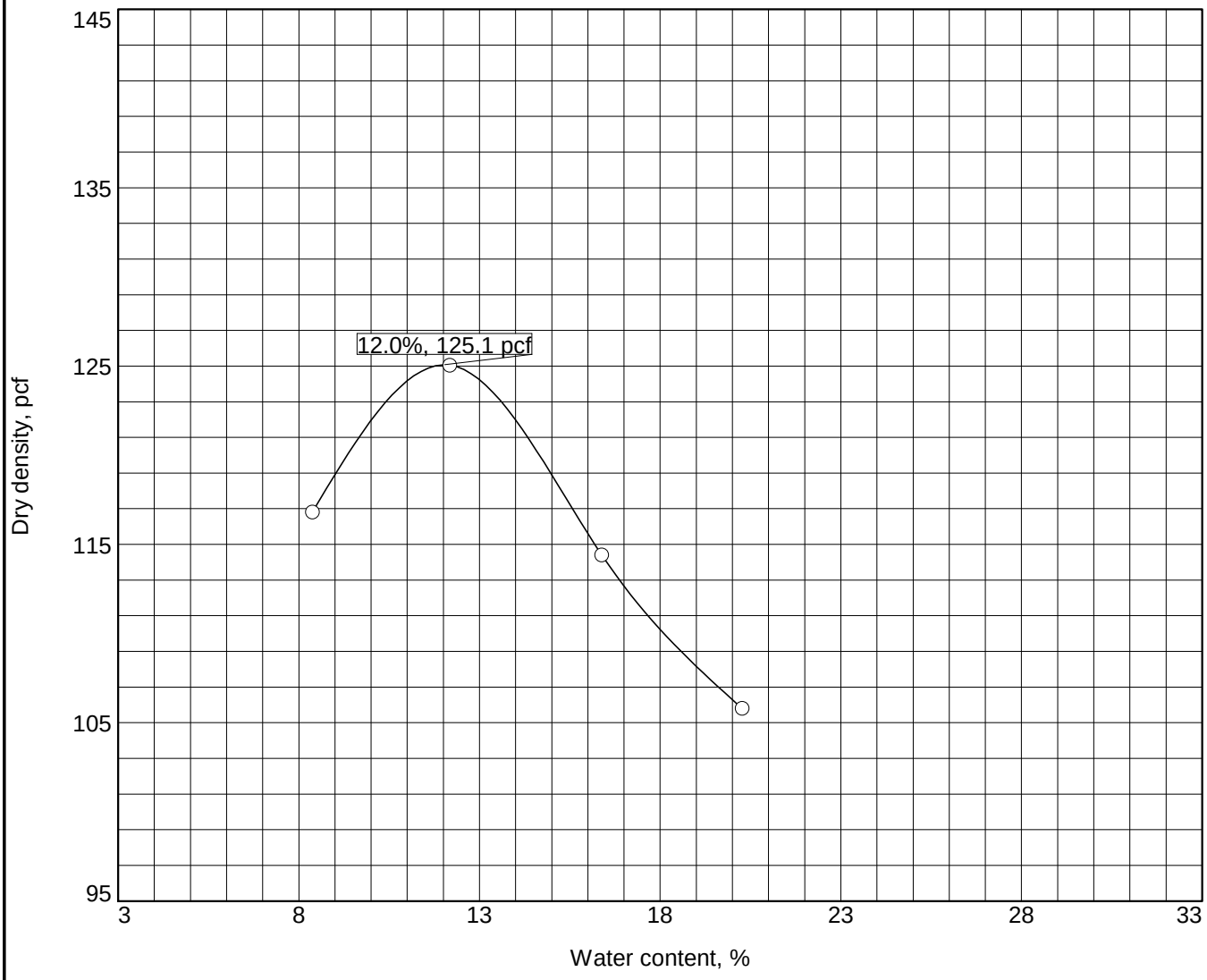
Baltimore, Maryland

Remarks:

Figure C-3

Tested By: BG **Checked By:** AB

COMPACTION TEST REPORT



Test specification: ASTM D 1557-12 Method A Modified

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > #4	% < No.200
	USCS	AASHTO						
1.0'-5.0'	SC	A-2-6(0)	5.3%		33	13	6.7	23.8

TEST RESULTS	MATERIAL DESCRIPTION
Maximum dry density = 125.1 pcf Optimum moisture = 12.0 %	Brown Clayey SAND

Project No. 20-1001 **Client:** M & D

Project: MSA Dept. of Legislative Services Building Improvements

Date:

○ **Source of Sample:** B-4 **Sample Number:** Bulk

Findling, Inc.

Baltimore, Maryland

Remarks:

Figure C-4

Tested By: BG **Checked By:** AB

Seismic Site Classification

MSA DLS Building Improvements

Latitude, Longitude: 38.979466, -76.491688

Date	1/11/2021, 11:08:00 AM
Design Code Reference Document	IBC-2015
Risk Category	III
Site Class	D - Stiff Soil

Type	Value	Description
S_S	0.119	MCE_R ground motion. (for 0.2 second period)
S_1	0.05	MCE_R ground motion. (for 1.0s period)
S_{MS}	0.19	Site-modified spectral acceleration value
S_{M1}	0.12	Site-modified spectral acceleration value
S_{DS}	0.127	Numeric seismic design value at 0.2 second SA
S_{D1}	0.08	Numeric seismic design value at 1.0 second SA

Type	Value	Description
SDC	B	Seismic design category
F_a	1.6	Site amplification factor at 0.2 second
F_v	2.4	Site amplification factor at 1.0 second
PGA	0.056	MCE_G peak ground acceleration
F_{PGA}	1.6	Site amplification factor at PGA
PGA_M	0.09	Site modified peak ground acceleration
T_L	8	Long-period transition period in seconds
SsRT	0.119	Probabilistic risk-targeted ground motion. (0.2 second)
SsUH	0.133	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration
SsD	1.5	Factored deterministic acceleration value. (0.2 second)
S1RT	0.05	Probabilistic risk-targeted ground motion. (1.0 second)
S1UH	0.056	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration.
S1D	0.6	Factored deterministic acceleration value. (1.0 second)
PGAd	0.6	Factored deterministic acceleration value. (Peak Ground Acceleration)
C_{RS}	0.894	Mapped value of the risk coefficient at short periods
C_{R1}	0.9	Mapped value of the risk coefficient at a period of 1 s

DISCLAIMER

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MSA DLS Building Improvements

Latitude, Longitude: 38.979466, -76.491688

Date	1/11/2021, 11:07:48 AM
Design Code Reference Document	IBC-2015
Risk Category	IV
Site Class	D - Stiff Soil

Type	Value	Description
S_S	0.119	MCE_R ground motion. (for 0.2 second period)
S_1	0.05	MCE_R ground motion. (for 1.0s period)
S_{MS}	0.19	Site-modified spectral acceleration value
S_{M1}	0.12	Site-modified spectral acceleration value
S_{DS}	0.127	Numeric seismic design value at 0.2 second SA
S_{D1}	0.08	Numeric seismic design value at 1.0 second SA

Type	Value	Description
SDC	C	Seismic design category
F_a	1.6	Site amplification factor at 0.2 second
F_v	2.4	Site amplification factor at 1.0 second
PGA	0.056	MCE_G peak ground acceleration
F_{PGA}	1.6	Site amplification factor at PGA
PGA_M	0.09	Site modified peak ground acceleration
T_L	8	Long-period transition period in seconds
SsRT	0.119	Probabilistic risk-targeted ground motion. (0.2 second)
SsUH	0.133	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration
SsD	1.5	Factored deterministic acceleration value. (0.2 second)
S1RT	0.05	Probabilistic risk-targeted ground motion. (1.0 second)
S1UH	0.056	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration.
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FINDLING, INC.

Monitoring Well Details

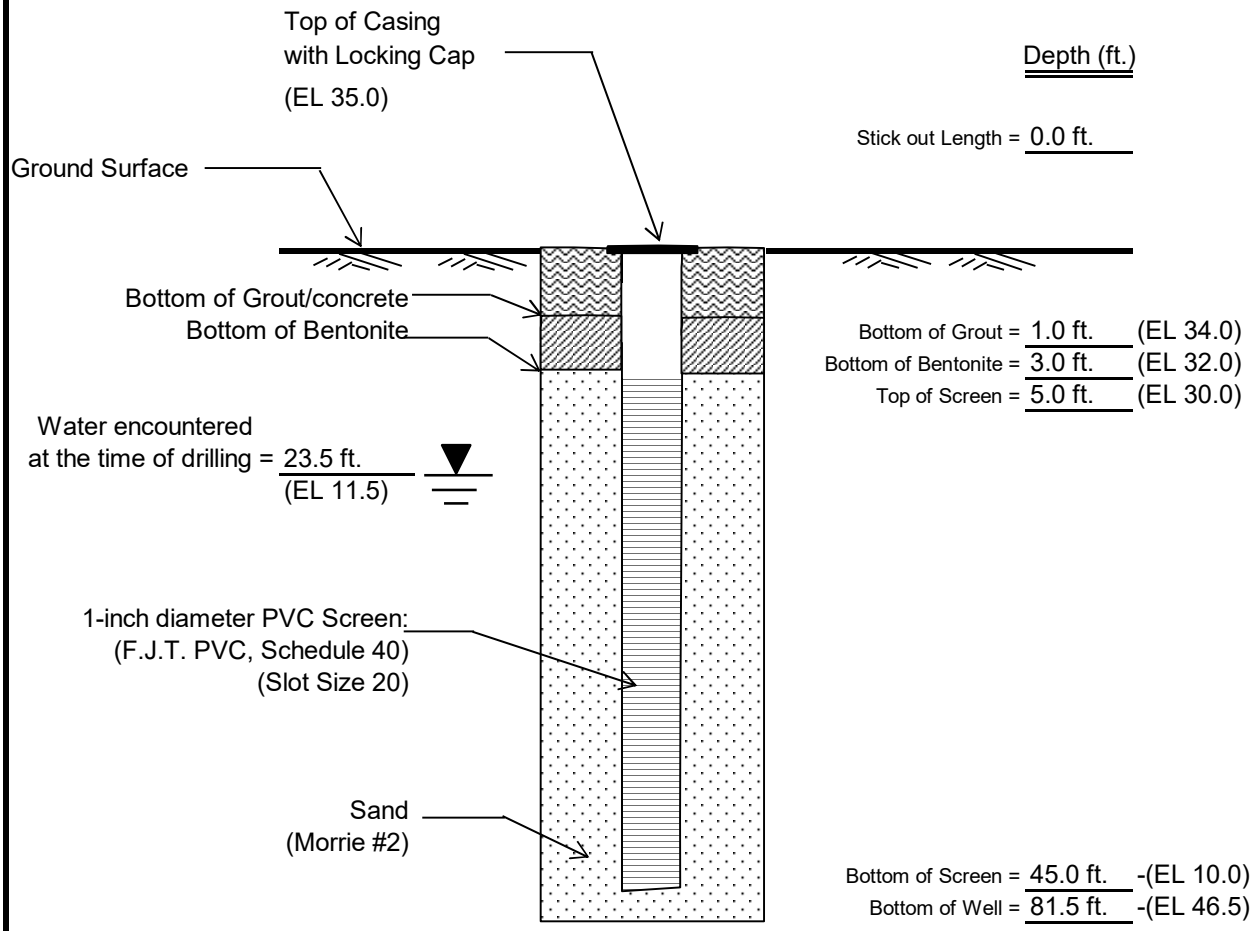
FINDLING, INC.

3401 Carlins Park Drive, Baltimore, Maryland 21215
TEL: 410-367-1400, FAX: 410-466-6867, EMAIL: info@findlinginc.com

MONITORING WELL CONSTRUCTION DETAIL

Project Name : **MSA DLS Building Improvements**
Findling Project No. : **20-1001**
Project Location : Annapolis, Maryland
Licensed Well Driller : Dan W. Fincham
Date Installed : 12/20/2020
Drilling Method : HSA
Approx. Northing (ft.): 478,607.81
Borehole Diameter : 8-inch
Approx. Easting (ft.) : 1,456,831.44
Well Permit No. : AA-20-0372
Approx. Ground Surface Elevation (ft.) : 35.0 (Estimated)

Monitoring Well No. : B - 1



Depths are from ground surface.
NOT TO SCALE

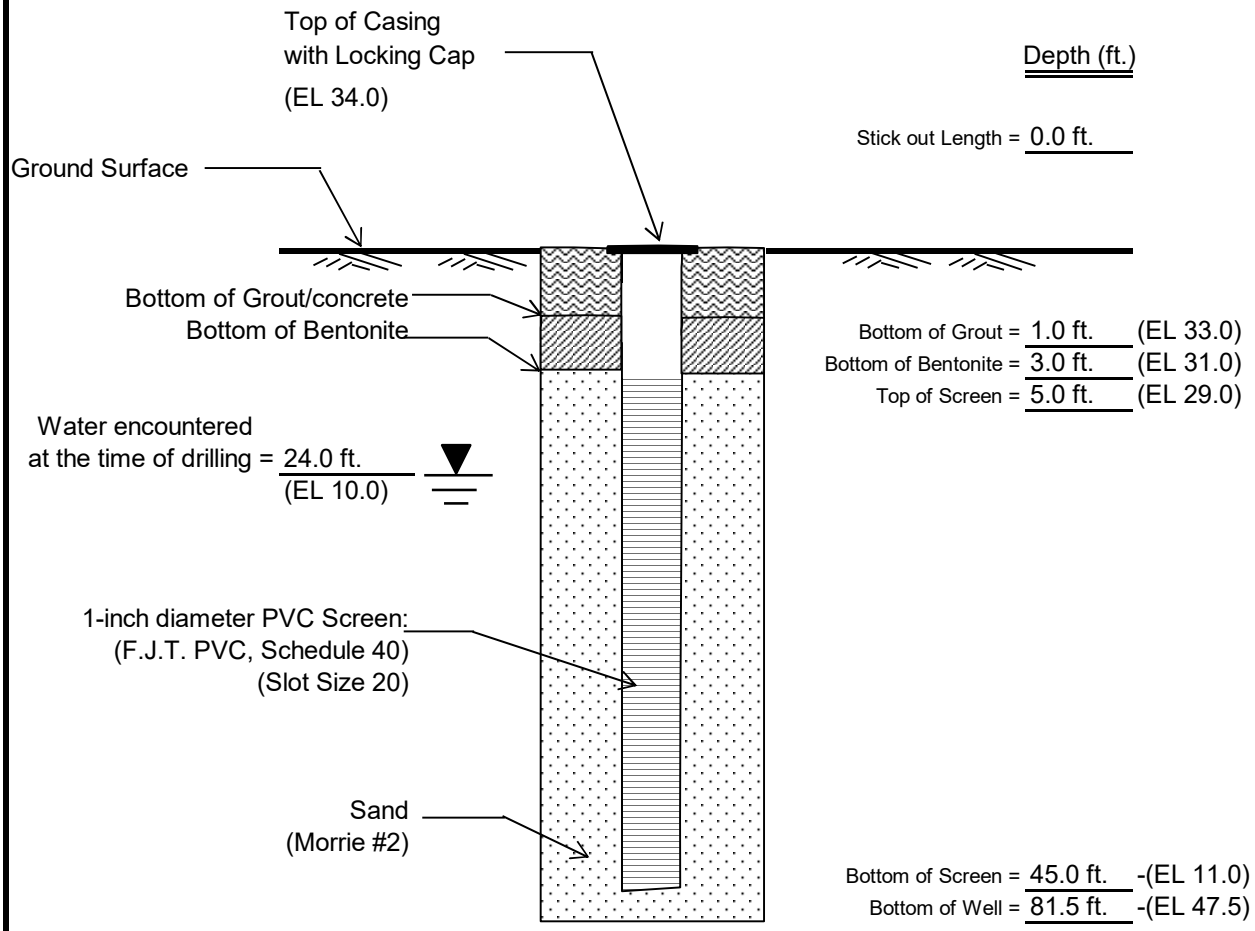
FINDLING, INC.

3401 Carlins Park Drive, Baltimore, Maryland 21215
TEL: 410-367-1400, FAX: 410-466-6867, EMAIL: info@findlinginc.com

MONITORING WELL CONSTRUCTION DETAIL

Project Name : **MSA DLS Building Improvements**
Findling Project No. : **20-1001**
Project Location : Annapolis, Maryland
Licensed Well Driller : Dan W. Fincham
Date Installed : 12/11/2020
Drilling Method : HSA
Approx. Northing (ft.): 478,705.46
Borehole Diameter : 8-inch
Approx. Easting (ft.) : 1,456,926.45
Well Permit No. : AA-20-0370
Approx. Ground Surface Elevation (ft.) : 34.0 (Estimated)

Monitoring Well No. : B - 3



Depths are from ground surface.
NOT TO SCALE

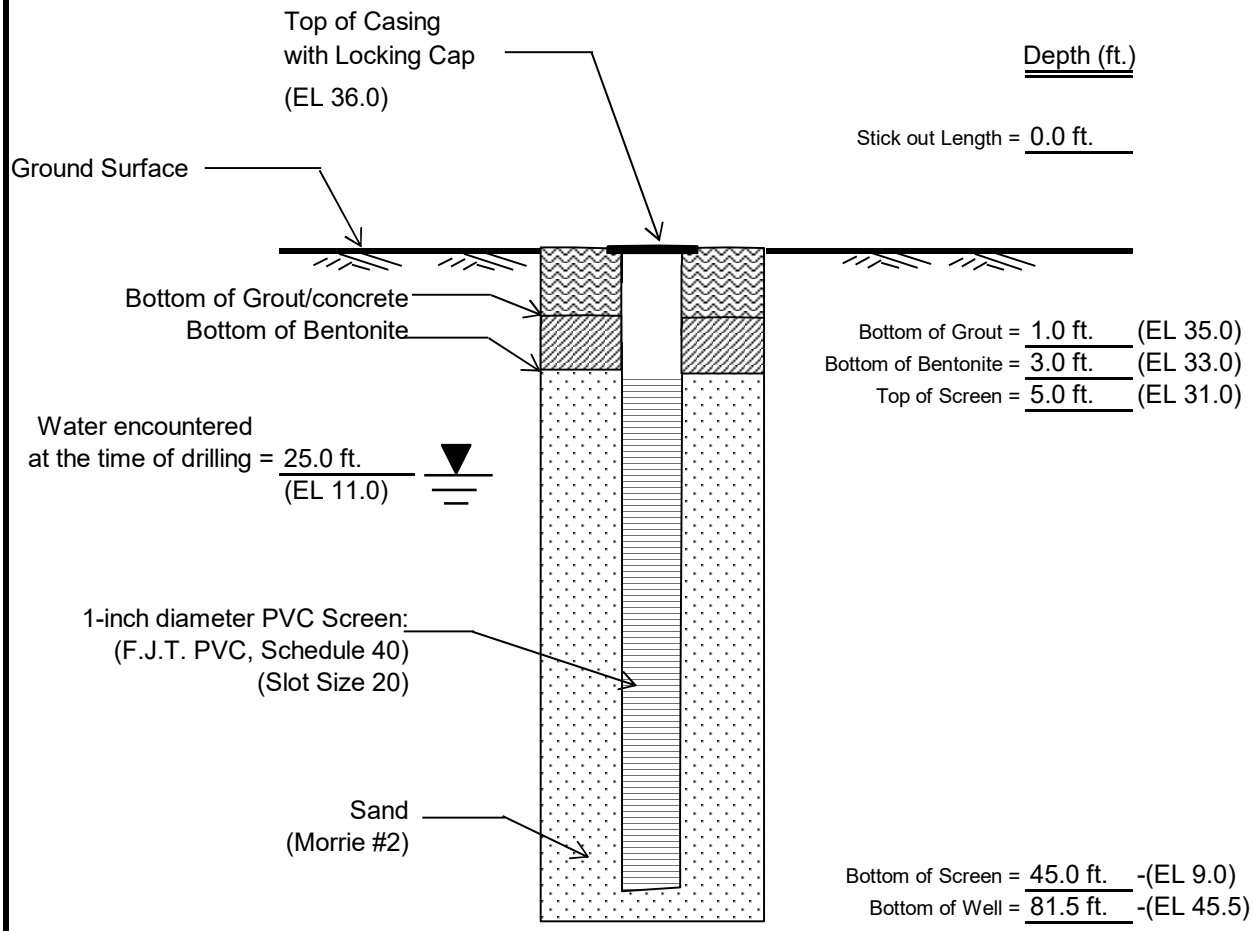
FINDLING, INC.

3401 Carlins Park Drive, Baltimore, Maryland 21215
TEL: 410-367-1400, FAX: 410-466-6867, EMAIL: info@findlinginc.com

MONITORING WELL CONSTRUCTION DETAIL

Project Name : **MSA DLS Building Improvements**
Findling Project No. : **20-1001**
Project Location : Annapolis, Maryland
Licensed Well Driller : Dan W. Fincham
Date Installed : 12/17/2020
Drilling Method : HSA
Approx. Northing (ft.): 478,527.70
Borehole Diameter : 8-inch
Approx. Easting (ft.) : 1,456,980.35
Well Permit No. : AA-20-0371
Approx. Ground Surface Elevation (ft.) : 36.0 (Estimated)

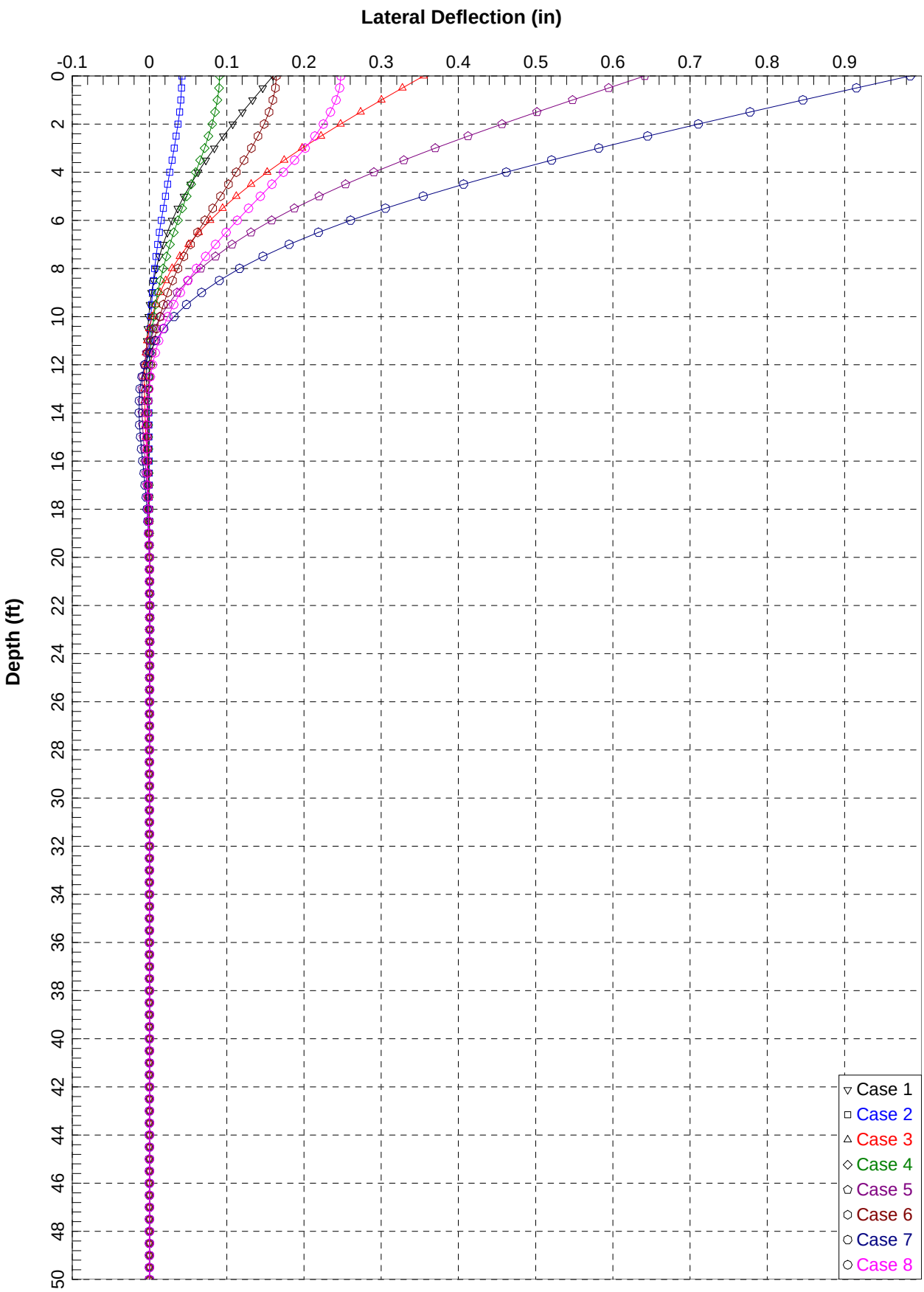
Monitoring Well No. : B - 4

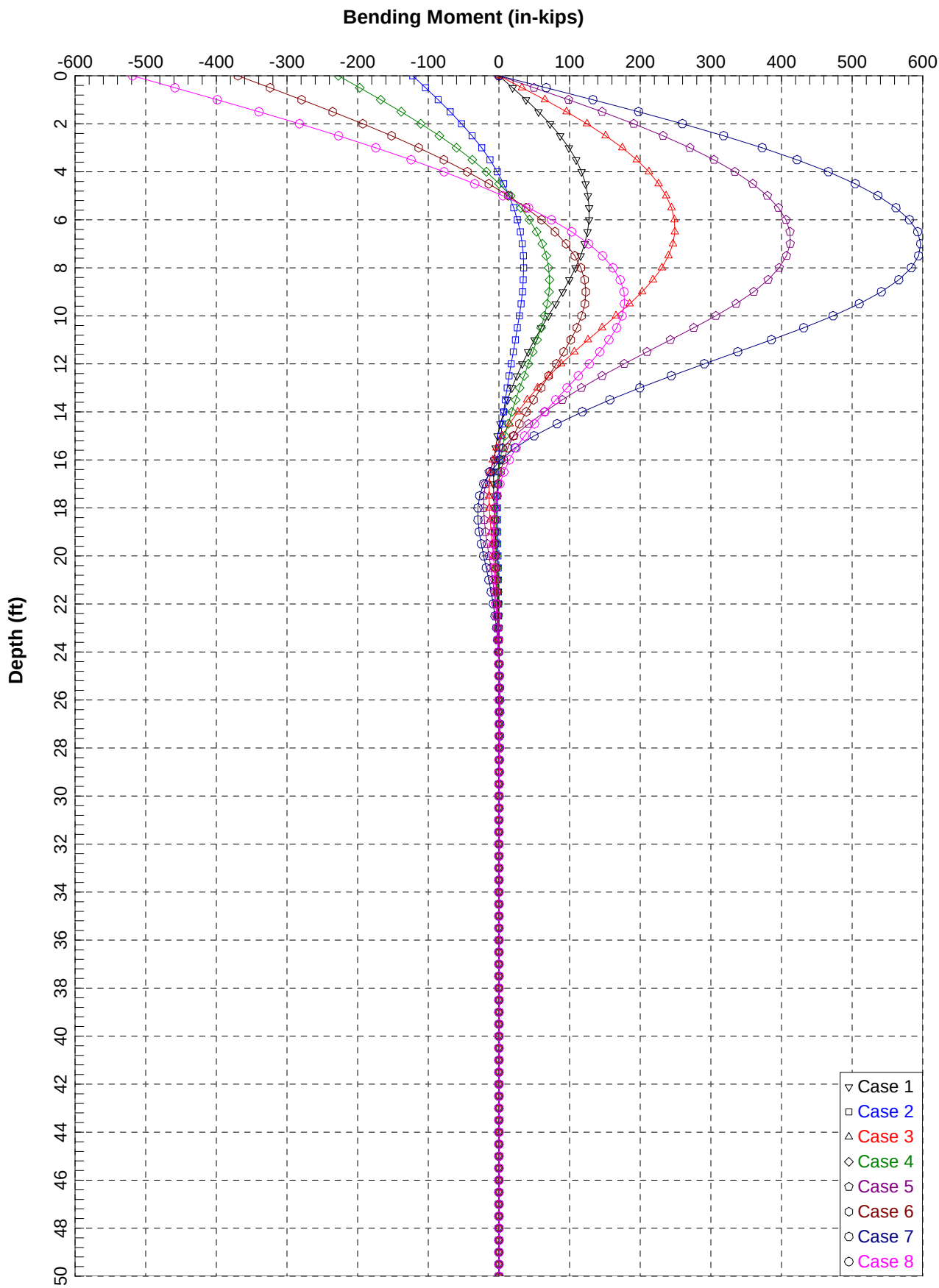


Depths are from ground surface.
NOT TO SCALE

FINDLING, INC.

Lateral Load Analysis Results


Lateral Deflection (in)
-0.1
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
Depth (ft)
0
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
36
38
40
42
44
46
48
50
Case 1
Case 2
Case 3
Case 4
Case 5
Case 6
Case 7
Case 8


Bending Moment (in-kips)
-600
-500
-400
-300
-200
-100
0
100
200
300
400
500
600
Depth (ft)
0
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
36
38
40
42
44
46
48
50
Case 1
Case 2
Case 3
Case 4
Case 5
Case 6
Case 7
Case 8

==========

LPILE Plus for Windows, Version 5.0 (5.0.39)

Analysis of Individual Piles and Drilled Shafts
Subjected to Lateral Loading Using the p-y Method

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All Rights Reserved

==========

This program is licensed to:

Findling, Inc.
Findling, Inc.

Path to file locations: C:\SURI\AB 2017\L-pile\
Name of input data file: 14 inch.lpd
Name of output file: 14 inch.lpo
Name of plot output file: 14 inch.lpp
Name of runtime file: 14 inch.lpr

Time and Date of Analysis

Date: April 26, 2020 Time: 7:12:23

Problem Title

MSA DLS

Program Options

Units Used in Computations - US Customary Units: Inches, Pounds

Basic Program Options:

Analysis Type 1:
- Computation of Lateral Pile Response Using User-specified Constant EI

Computation Options:
- Only internally-generated p-y curves used in analysis
- Analysis does not use p-y multipliers (individual pile or shaft action only)
- Analysis assumes no shear resistance at pile tip
- Analysis for fixed-length pile or shaft only
- No computation of foundation stiffness matrix elements
- Output pile response for full length of pile
- Analysis assumes no soil movements acting on pile
- No additional p-y curves to be computed at user-specified depths

Solution Control Parameters:
- Number of pile increments = 100
- Maximum number of iterations allowed = 100
- Deflection tolerance for convergence = 1.0000E-05 in
- Maximum allowable deflection = 1.0000E+02 in

Printing Options:
- Values of pile-head deflection, bending moment, shear force, and soil reaction are printed for full length of pile.
- Printing Increment (spacing of output points) = 1

Pile Structural Properties and Geometry

Pile Length = 600.00 in

Depth of ground surface below top of pile = .00 in

Slope angle of ground surface = .00 deg.

Structural properties of pile defined using 2 points

Point	Depth X in	Pile Diameter in	Moment of Inertia in**4	Pile Area Sq.in	Modulus of Elasticity lbs/Sq.in
1	0.0000	14.00000000	1885.7000	153.9000	3000000.
2	600.0000	14.00000000	1885.7000	153.9000	3000000.

Soil and Rock Layering Information

The soil profile is modelled using 2 layers

Layer 1 is sand, p-y criteria by Reese et al., 1974
Distance from top of pile to top of layer = .000 in
Distance from top of pile to bottom of layer = 180.000 in
p-y subgrade modulus k for top of soil layer = 40.000 lbs/in**3
p-y subgrade modulus k for bottom of layer = 40.000 lbs/in**3

Layer 2 is sand, p-y criteria by Reese et al., 1974
Distance from top of pile to top of layer = 180.000 in
Distance from top of pile to bottom of layer = 800.000 in
p-y subgrade modulus k for top of soil layer = 100.000 lbs/in**3
p-y subgrade modulus k for bottom of layer = 100.000 lbs/in**3

(Depth of lowest layer extends 200.00 in below pile tip)

Effective Unit Weight of Soil vs. Depth

Effective unit weight of soil with depth defined using 4 points

Point No.	Depth X in	Eff. Unit Weight lbs/in**3
1	.00	.02755
2	180.00	.02755
3	180.00	.03507
4	800.00	.03507

Shear Strength of Soils

Shear strength parameters with depth defined using 4 points

Point No.	Depth X in	Cohesion c lbs/in**2	Angle of Friction Deg.	E50 or k_rm	RQD %
1	.000	.00000	30.00	------	------
2	180.000	.00000	30.00	------	------
3	180.000	.00000	34.00	------	------
4	800.000	.00000	34.00	------	------

Notes:

(1) Cohesion = uniaxial compressive strength for rock materials.
(2) Values of E50 are reported for clay strata.
(3) Default values will be generated for E50 when input values are 0.
(4) RQD and k_rm are reported only for weak rock strata.

Loading Type

Static loading criteria was used for computation of p-y curves.

Pile-head Loading and Pile-head Fixity Conditions

Number of loads specified = 8

Load Case Number 1

Pile-head boundary conditions are Shear and Moment (BC Type 1)
Shear force at pile head = 3000.000 lbs
Bending moment at pile head = .000 in-lbs
Axial load at pile head = 100000.000 lbs

(Zero moment at pile head for this load indicates a free-head condition)

Load Case Number 2

Pile-head boundary conditions are Shear and Slope (BC Type 2)
Shear force at pile head = 3000.000 lbs
Slope at pile head = .000 in/in
Axial load at pile head = 100000.000 lbs

(Zero slope for this load indicates fixed-head condition)

Load Case Number 3

Pile-head boundary conditions are Shear and Moment (BC Type 1)
Shear force at pile head = 5000.000 lbs
Bending moment at pile head = .000 in-lbs
Axial load at pile head = 100000.000 lbs

(Zero moment at pile head for this load indicates a free-head condition)

Load Case Number 4

Pile-head boundary conditions are Shear and Slope (BC Type 2)

14 inch
Shear force at pile head = 5000.000 lbs
Slope at pile head = .000 in/in
Axial load at pile head = 100000.000 lbs

(Zero slope for this load indicates fixed-head condition)

Load Case Number 5

Pile-head boundary conditions are Shear and Moment (BC Type 1)
Shear force at pile head = 7500.000 lbs
Bending moment at pile head = .000 in-lbs
Axial load at pile head = 100000.000 lbs

(Zero moment at pile head for this load indicates a free-head condition)

Load Case Number 6

Pile-head boundary conditions are Shear and Slope (BC Type 2)
Shear force at pile head = 7500.000 lbs
Slope at pile head = .000 in/in
Axial load at pile head = 100000.000 lbs

(Zero slope for this load indicates fixed-head condition)

Load Case Number 7

Pile-head boundary conditions are Shear and Moment (BC Type 1)
Shear force at pile head = 10000.000 lbs
Bending moment at pile head = .000 in-lbs
Axial load at pile head = 100000.000 lbs

(Zero moment at pile head for this load indicates a free-head condition)

Load Case Number 8

Pile-head boundary conditions are Shear and Slope (BC Type 2)
Shear force at pile head = 10000.000 lbs
Slope at pile head = .000 in/in
Axial load at pile head = 100000.000 lbs

(Zero slope for this load indicates fixed-head condition)

Computed Values of Load Distribution and Deflection
for Lateral Loading for Load Case Number 1

Pile-head boundary conditions are Shear and Moment (BC Type 1)
Specified shear force at pile head = 3000.000 lbs
Specified moment at pile head = .000 in-lbs
Specified axial load at pile head = 100000.000 lbs

(Zero moment for this load indicates free-head conditions)

Depth X in	Deflect. y in	Moment M lbs-in	Shear V lbs	Slope S Rad.	Total Stress lbs/in**2	Soil Res. p lbs/in	Es*h F/L lbs/in
0.000	.159985	-2.1808E-08	3000.0000	-.0022242	649.7726	0.0000	0.0000
6.000	.146640	19334.5072	2960.1724	-.0022139	721.5452	-13.2759	543.2033
12.000	.133418	38178.7799	2837.9604	-.0021834	791.4979	-27.4615	1234.9870
18.000	.120438	56010.1432	2634.5154	-.0021335	857.6906	-40.3535	2010.3312
24.000	.107816	72353.1362	2361.4035	-.0020654	918.3582	-50.6838	2820.5743
30.000	.095654	86825.4706	2035.4610	-.0019810	972.0817	-57.9637	3635.8527

36.000	.084044	99155.8575	1676.3620	-.0018824	1017.8539	-61.7359	4407.4033
42.000	.073065	109201.	1307.7766	-.0017719	1055.1417	-61.1259	5019.5596
48.000	.062781	116975.	945.6559	-.0016519	1084.0028	-59.5810	5694.1343
54.000	.053242	122531.	607.2683	-.0015249	1104.6253	-53.2148	5996.9245
60.000	.044482	126093.	295.3116	-.0013931	1117.8469	-50.7708	6848.1928
66.000	.036525	127746.	-7.9498	-.0012585	1123.9858	-50.3164	8265.4641
72.000	.029381	127507.	-306.5847	-.0011231	1123.0987	-49.2286	10053.1448
78.000	.023048	125415.	-601.3578	-.0009890	1115.3316	-49.0291	12763.4986
84.000	.017513	121478.	-890.7361	-.0008580	1100.7162	-47.4303	16249.3963
90.000	.012752	115756.	-1166.0193	-.0007322	1079.4753	-44.3308	20858.8118
96.000	.008727	108364.	-1399.5419	-.0006134	1052.0367	-33.5101	23040.0000
102.000	.005391	99697.3237	-1566.0593	-.0005030	1019.8639	-21.9957	24480.0000
108.000	.002690	90175.1493	-1666.9096	-.0004024	984.5162	-11.6211	25920.0000
114.000	.000563	80177.2313	-1709.4730	-.0003120	947.4024	-2.5667	27360.0000
120.000	-.001054	70035.8901	-1701.9940	-.0002324	909.7563	5.0597	28800.0000
126.000	-.002225	60032.1287	-1653.1672	-.0001634	872.6208	11.2159	30240.0000
132.000	-.003015	50393.9385	-1571.7674	-.0001048	836.8424	15.9173	31680.0000
138.000	-.003483	41296.7027	-1466.3334	-5.6195E-05	803.0721	19.2273	33120.0000
144.000	-.003689	32865.3710	-1344.9058	-1.6866E-05	771.7737	21.2485	34560.0000
150.000	-.003686	25178.0719	-1214.8194	1.3915E-05	743.2373	22.1136	36000.0000
156.000	-.003522	18270.8411	-1082.5465	3.6956E-05	717.5967	21.9773	37440.0000
162.000	-.003242	12143.1663	-953.5875	5.3085E-05	694.8498	21.0090	38880.0000
168.000	-.002885	6764.0888	-832.3991	6.3111E-05	674.8819	19.3871	40320.0000
174.000	-.002485	2078.6430	-722.3553	6.7801E-05	657.4888	17.2942	41760.0000
180.000	-.002071	-1985.5351	-565.1245	6.7850E-05	657.1432	35.1161	101718.
186.000	-.001671	-4784.2715	-371.8045	6.4260E-05	667.5325	29.3239	105318.
192.000	-.001300	-6524.3016	-213.0220	5.8263E-05	673.9918	23.6036	108918.
198.000	-.000971	-7410.4518	-87.5593	5.0873E-05	677.2813	18.2174	112518.
204.000	-.000690	-7636.0612	7.1405	4.2894E-05	678.1188	13.3492	116118.
210.000	-.000457	-7376.2387	74.5263	3.4933E-05	677.1543	9.1127	119718.
216.000	-.000271	-6783.6652	118.5481	2.7424E-05	674.9546	5.5612	123318.
222.000	-.000128	-5986.5703	143.3305	2.0652E-05	671.9956	2.6996	126918.
228.000	-2.28E-05	-5088.4808	152.9145	1.4779E-05	668.6618	.4950884	130518.
234.000	4.97E-05	-4169.3300	151.0656	9.8691E-06	665.2498	-1.1114	134118.
240.000	9.57E-05	-3287.5369	141.1436	5.9146E-06	661.9764	-2.1959	137718.
246.000	.000121	-2482.7040	126.0276	2.8546E-06	658.9887	-2.8428	141318.
252.000	.000130	-1778.6309	108.0851	5.9483E-07	656.3751	-3.1381	144918.
258.000	.000128	-1186.3967	89.1780	-9.7755E-07	654.1767	-3.1643	148518.
264.000	.000118	-707.3221	70.6954	-1.9818E-06	652.3983	-2.9966	152118.
270.000	.000104	-335.6743	53.6041	-2.5349E-06	651.0187	-2.7005	155718.
276.000	8.78E-05	-61.0304	38.5106	-2.7453E-06	649.9991	-2.3307	159318.
282.000	7.11E-05	129.7470	25.7259	-2.7088E-06	650.2542	-1.9308	162918.
288.000	5.53E-05	250.9316	15.3318	-2.5070E-06	650.7041	-1.5339	166518.
294.000	4.10E-05	316.7364	7.2405	-2.2059E-06	650.9484	-1.1632	170118.
300.000	2.88E-05	340.4642	1.2494	-1.8574E-06	651.0364	-.8337948	173718.
306.000	1.87E-05	333.9587	-2.9131	-1.4998E-06	651.0123	-.5537361	177318.
312.000	1.08E-05	307.3061	-5.5514	-1.1597E-06	650.9133	-.3256855	180918.
318.000	4.82E-06	268.7334	-6.9732	-8.5421E-07	650.7702	-.1482522	184518.
324.000	5.51E-07	224.6525	-7.4698	-5.9257E-07	650.6065	-.0172604	188118.
330.000	-2.29E-06	179.8073	-7.3020	-3.7808E-07	650.4401	.0731751	191718.
336.000	-3.99E-06	137.4820	-6.6932	-2.0982E-07	650.2829	.1297710	195318.
342.000	-4.81E-06	99.7409	-5.8257	-8.4019E-08	650.1428	.1593973	198918.
348.000	-4.99E-06	67.6747	-4.8417	4.7623E-09	650.0238	.1685857	202518.
354.000	-4.75E-06	41.6345	-3.8464	6.2730E-08	649.9271	.1632036	206118.
360.000	-4.24E-06	21.4431	-2.9119	9.6180E-08	649.8522	.1482682	209718.
366.000	-3.60E-06	6.5757	-2.0835	1.1104E-07	649.7970	.1278706	213318.
372.000	-2.91E-06	-3.6925	-1.3844	1.1257E-07	649.7863	.1051859	216918.
378.000	-2.25E-06	-10.1716	-.8211794	1.0522E-07	649.8103	.0825401	220518.
384.000	-1.65E-06	-13.6729	-.3890115	9.2571E-08	649.8233	.0615158	224118.
390.000	-1.13E-06	-14.9509	-.0752386	7.7391E-08	649.8281	.0430751	227718.
396.000	-7.18E-07	-14.6686	.1370510	6.1684E-08	649.8270	.0276881	231318.
402.000	-3.95E-07	-13.3803	.2664826	4.6809E-08	649.8222	.0154558	234918.
408.000	-1.56E-07	-11.5270	.3315105	3.3601E-08	649.8154	.0062202	238518.
414.000	8.46E-09	-9.4425	.3491473	2.2481E-08	649.8076	-.0003413	242118.
420.000	1.13E-07	-7.3642	.3342042	1.3568E-08	649.7999	-.0046398	245718.
426.000	1.71E-07	-5.4483	.2989342	6.7733E-09	649.7928	-.0071168	249318.

432.000	1.95E-07	-3.7851	.2529779	1.8768E-09	649.7866	-.0082019	252918.
438.000	1.94E-07	-2.4148	.2035164	-1.4111E-09	649.7815	-.0082852	256518.
444.000	1.78E-07	-1.3412	.1555568	-3.4030E-09	649.7776	-.0077013	260118.
450.000	1.53E-07	-.5440466	.1122841	-4.4027E-09	649.7746	-.0067229	263718.
456.000	1.25E-07	.0114599	.0754334	-4.6852E-09	649.7726	-.0055606	267318.
462.000	9.67E-08	.3667762	.0456478	-4.4846E-09	649.7739	-.0043679	270918.
468.000	7.10E-08	.5646154	.0227996	-3.9907E-09	649.7747	-.0032482	274518.
474.000	4.88E-08	.6451596	.0062623	-3.3491E-09	649.7750	-.0022642	278118.
480.000	3.08E-08	.6437817	-.0048695	-2.6656E-09	649.7750	-.0014464	281718.
486.000	1.69E-08	.5899238	-.0116140	-2.0113E-09	649.7748	-.0008018	285318.
492.000	6.67E-09	.5068274	-.0149827	-1.4297E-09	649.7745	-.0003211	288918.
498.000	-2.96E-10	.4118472	-.0159028	-9.4254E-10	649.7741	1.4451E-05	292518.
504.000	-4.64E-09	.3171253	-.0151722	-5.5596E-10	649.7738	.0002291	296118.
510.000	-6.97E-09	.2304476	-.0134409	-2.6558E-10	649.7734	.0003481	299718.
516.000	-7.83E-09	.1561537	-.0112094	-6.0560E-11	649.7732	.0003957	303318.
522.000	-7.69E-09	.0960070	-.0088414	7.3163E-11	649.7729	.0003936	306918.
528.000	-6.95E-09	.0499689	-.0065815	1.5057E-10	649.7728	.0003597	310518.
534.000	-5.89E-09	.0168480	-.0045777	1.8601E-10	649.7726	.0003082	314118.
540.000	-4.72E-09	-.0051870	-.0029035	1.9219E-10	649.7726	.0002498	317718.
546.000	-3.58E-09	-.0182245	-.0015786	1.7978E-10	649.7726	.0001918	321318.
552.000	-2.56E-09	-.0243458	-.0005872	1.5720E-10	649.7727	.0001387	324918.
558.000	-1.70E-09	-.0254593	.0001073	1.3079E-10	649.7727	9.2808E-05	328518.
564.000	-9.91E-10	-.0232155	.0005503	1.0498E-10	649.7727	5.4871E-05	332118.
570.000	-4.35E-10	-.0189816	.0007880	8.2599E-11	649.7727	2.4357E-05	335718.
576.000	-1.05E-13	-.0138588	.0008611	6.5184E-11	649.7726	5.9180E-09	339318.
582.000	3.47E-10	-.0087269	.0008016	5.3207E-11	649.7726	-1.9826E-05	342918.
588.000	6.38E-10	-.0043033	.0006315	4.6297E-11	649.7726	-3.6868E-05	346518.
594.000	9.02E-10	-.0012041	.0003629	4.3376E-11	649.7726	-5.2661E-05	350118.
600.000	1.16E-09	0.0000	0.0000	4.2737E-11	649.7726	-6.8320E-05	176859.

Output Verification:

Computed forces and moments are within specified convergence limits.

Output Summary for Load Case No. 1:

```
Pile-head deflection             =      .15998465 in
Computed slope at pile head      =     -.00222418
Maximum bending moment           =   127746.25880 lbs-in
Maximum shear force              =     3000.00000 lbs
Depth of maximum bending moment  =    66.00000000 in
Depth of maximum shear force     =        0.00000 in
Number of iterations             =             13
Number of zero deflection points =              6
```

Computed Values of Load Distribution and Deflection
for Lateral Loading for Load Case Number 2

```
Pile-head boundary conditions are Shear and Slope (BC Type 2)
Specified shear force at pile head  =        3000.000 lbs
Specified slope at pile head        =       0.000E+00 in/in
Specified axial load at pile head   =      100000.000 lbs
```

(Zero slope for this load indicates fixed-head conditions)

Depth X in	Deflect. y in	Moment M lbs-in	Shear V lbs	Slope S Rad.	Total Stress lbs/in**2	Soil Res. p lbs/in	Es*h F/L lbs/in
0.000	.041958	-121939.	3000.0000	0.0000	1102.4290	0.0000	0.0000

6.000	.041570	-103900.	2972.0117	-.0001198	1035.4663	-9.3294	1346.5536
12.000	.040521	-86131.3290	2885.8651	-.0002205	969.5049	-19.3861	2870.5204
18.000	.038924	-69005.3593	2743.6313	-.0003028	905.9308	-28.0251	4320.0000
24.000	.036887	-52844.3819	2553.3202	-.0003674	845.9388	-35.4119	5760.0000
30.000	.034515	-37924.6041	2323.0768	-.0004156	790.5544	-41.3359	7185.7970
36.000	.031901	-24468.7853	2067.1457	-.0004487	740.6044	-43.9744	8270.8880
42.000	.029131	-12580.4748	1807.6167	-.0004683	696.4732	-42.5352	8760.8575
48.000	.026281	-2215.4273	1559.5567	-.0004761	657.9966	-40.1514	9166.6216
54.000	.023417	6705.5789	1335.6768	-.0004738	674.6647	-34.4752	8833.3277
60.000	.020596	14381.2099	1134.2009	-.0004626	703.1578	-32.6834	9521.3289
66.000	.017866	20871.0870	937.3864	-.0004439	727.2492	-32.9215	11056.0138
72.000	.015269	26162.5101	739.4183	-.0004189	746.8917	-33.0679	12993.9142
78.000	.012839	30246.8388	537.1546	-.0003890	762.0534	-34.3533	16054.3810
84.000	.010601	33075.2004	329.2299	-.0003554	772.5527	-34.9549	19784.1002
90.000	.008573	34624.1366	131.7717	-.0003195	778.3025	-30.8644	21600.0000
96.000	.006766	35039.9190	-38.7698	-.0002826	779.8460	-25.9827	23040.0000
102.000	.005182	34498.0244	-180.1482	-.0002457	777.8344	-21.1434	24480.0000
108.000	.003818	33173.0146	-293.0544	-.0002098	772.9158	-16.4920	25920.0000
114.000	.002664	31233.1813	-378.9754	-.0001757	765.7148	-12.1483	27360.0000
120.000	.001709	28836.1335	-440.0351	-.0001438	756.8166	-8.2049	28800.0000
126.000	.000938	26125.3580	-478.8343	-.0001147	746.7538	-4.7281	30240.0000
132.000	.000333	23227.7443	-498.2956	-8.8513E-05	735.9974	-1.7590	31680.0000
138.000	-.000124	20252.0262	-501.5185	-6.5455E-05	724.9511	.6846534	33120.0000
144.000	-.000452	17288.0680	-491.6484	-4.5547E-05	713.9485	2.6054	34560.0000
150.000	-.000671	14406.9020	-471.7615	-2.8739E-05	703.2532	4.0236	36000.0000
156.000	-.000797	11661.4174	-444.7672	-1.4915E-05	693.0615	4.9745	37440.0000
162.000	-.000850	9087.5939	-413.3278	-3.9118E-06	683.5071	5.5053	38880.0000
168.000	-.000844	6706.1776	-379.7942	4.4638E-06	674.6669	5.6726	40320.0000
174.000	-.000796	4524.7072	-346.1556	1.0420E-05	666.5690	5.5403	41760.0000
180.000	-.000719	2539.8070	-292.9620	1.4166E-05	659.2007	12.1909	101718.
186.000	-.000626	992.1637	-223.4235	1.6039E-05	653.4556	10.9886	105318.
192.000	-.000527	-160.5216	-161.7778	1.6480E-05	650.3685	9.5600	108918.
198.000	-.000428	-968.9460	-109.0042	1.5881E-05	653.3695	8.0312	112518.
204.000	-.000336	-1487.6296	-65.3992	1.4578E-05	655.2949	6.5038	116118.
210.000	-.000253	-1771.2308	-30.7242	1.2850E-05	656.3477	5.0546	119718.
216.000	-.000182	-1871.7405	-4.3473	1.0918E-05	656.7208	3.7377	123318.
222.000	-.000122	-1836.5005	14.6272	8.9517E-06	656.5899	2.5871	126918.
228.000	-7.44E-05	-1706.9557	27.2463	7.0726E-06	656.1091	1.6192	130518.
234.000	-3.74E-05	-1518.0319	34.6143	5.3624E-06	655.4077	.8367486	134118.
240.000	-1.01E-05	-1298.0192	37.8193	3.8690E-06	654.5910	.2315790	137718.
246.000	8.99E-06	-1068.8435	37.8785	2.6138E-06	653.7403	-.2118514	141318.
252.000	2.13E-05	-846.6143	35.7012	1.5981E-06	652.9153	-.5138991	144918.
258.000	2.82E-05	-642.3468	32.0675	8.0845E-07	652.1571	-.6973265	148518.
264.000	3.10E-05	-462.7742	27.6194	2.2240E-07	651.4905	-.7853921	152118.
270.000	3.08E-05	-311.1812	22.8620	-1.8803E-07	650.9277	-.8003956	155718.
276.000	2.87E-05	-188.2045	18.1729	-4.5286E-07	650.4712	-.7626517	159318.
282.000	2.54E-05	-92.5634	13.8154	-6.0175E-07	650.1162	-.6898454	162918.
288.000	2.15E-05	-21.6979	9.9557	-6.6235E-07	649.8531	-.5967121	166518.
294.000	1.75E-05	27.6998	6.6806	-6.5917E-07	649.8754	-.4949778	170118.
300.000	1.36E-05	59.2607	4.0152	-6.1305E-07	649.9926	-.3934954	173718.
306.000	1.01E-05	76.6180	1.9392	-5.4099E-07	650.0570	-.2985176	177318.
312.000	7.10E-06	83.1799	.4014571	-4.5625E-07	650.0814	-.2140540	180918.
318.000	4.63E-06	81.9830	-.6675038	-3.6866E-07	650.0769	-.1422663	184518.
324.000	2.67E-06	75.6123	-1.3459	-2.8509E-07	650.0533	-.0838685	188118.
330.000	1.21E-06	66.1742	-1.7130	-2.0990E-07	650.0182	-.0385042	191718.
336.000	1.56E-07	55.3079	-1.8438	-1.4548E-07	649.9779	-.0050845	195318.
342.000	-5.41E-07	44.2233	-1.8053	-9.2694E-08	649.9367	.0179253	198918.
348.000	-9.56E-07	33.7558	-1.6547	-5.1341E-08	649.8979	.0322725	202518.
354.000	-1.16E-06	24.4288	-1.4386	-2.0485E-08	649.8633	.0397387	206118.
360.000	-1.20E-06	16.5167	-1.1934	1.2284E-09	649.8339	.0420121	209718.
366.000	-1.14E-06	10.1066	-.9455456	1.5347E-08	649.8101	.0406028	213318.
372.000	-1.02E-06	5.1518	-.7133482	2.3439E-08	649.7917	.0367964	216918.
378.000	-8.61E-07	1.5183	-.5080512	2.6976E-08	649.7782	.0316360	220518.
384.000	-6.94E-07	-.9772269	-.3353647	2.7263E-08	649.7762	.0259262	224118.
390.000	-5.34E-07	-2.5388	-.1968286	2.5398E-08	649.7820	.0202525	227718.
396.000	-3.89E-07	-3.3696	-.0910441	2.2265E-08	649.7851	.0150090	231318.

402.000	-2.66E-07	-3.6580	-.0147211	1.8538E-08	649.7862	.0104320	234918.
408.000	-1.67E-07	-3.5685	.0364736	1.4706E-08	649.7858	.0066329	238518.
414.000	-9.00E-08	-3.2380	.0672644	1.1096E-08	649.7846	.0036307	242118.
420.000	-3.37E-08	-2.7747	.0822968	7.9076E-09	649.7829	.0013801	245718.
426.000	4.92E-09	-2.2599	.0858240	5.2377E-09	649.7810	-.0002043	249318.
432.000	2.92E-08	-1.7511	.0815244	3.1106E-09	649.7791	-.0012289	252918.
438.000	4.22E-08	-1.2854	.0724195	1.5004E-09	649.7774	-.0018061	256518.
444.000	4.72E-08	-.8838534	.0608680	3.5000E-10	649.7759	-.0020444	260118.
450.000	4.64E-08	-.5553734	.0486106	-4.1324E-10	649.7746	-.0020414	263718.
456.000	4.22E-08	-.3000298	.0368463	-8.6686E-10	649.7737	-.0018801	267318.
462.000	3.60E-08	-.1121772	.0263239	-1.0855E-09	649.7730	-.0016274	270918.
468.000	2.92E-08	.0171596	.0174374	-1.1358E-09	649.7726	-.0013347	274518.
474.000	2.24E-08	.0984349	.0103166	-1.0745E-09	649.7729	-.0010389	278118.
480.000	1.63E-08	.1422483	.0049071	-9.4691E-10	649.7731	-.0007643	281718.
486.000	1.10E-08	.1584560	.0010379	-7.8744E-10	649.7732	-.0005254	285318.
492.000	6.83E-09	.1556476	-.0015249	-6.2087E-10	649.7732	-.0003288	288918.
498.000	3.60E-09	.1409025	-.0030377	-4.6361E-10	649.7731	-.0001755	292518.
504.000	1.27E-09	.1197514	-.0037514	-3.2538E-10	649.7730	-6.2453E-05	296118.
510.000	-3.06E-10	.0962758	-.0038930	-2.1082E-10	649.7729	1.5277E-05	299718.
516.000	-1.26E-09	.0732889	-.0036554	-1.2090E-10	649.7729	6.3921E-05	303318.
522.000	-1.76E-09	.0525566	-.0031940	-5.4165E-11	649.7728	8.9859E-05	306918.
528.000	-1.91E-09	.0350257	-.0026272	-7.7199E-12	649.7727	9.9077E-05	310518.
534.000	-1.85E-09	.0210393	-.0020395	2.2012E-11	649.7727	9.6816E-05	314118.
540.000	-1.65E-09	.0105250	-.0014869	3.8751E-11	649.7726	8.7388E-05	317718.
546.000	-1.38E-09	.0031498	-.0010024	4.6002E-11	649.7726	7.4133E-05	321318.
552.000	-1.10E-09	-.0015585	-.0006015	4.6846E-11	649.7726	5.9474E-05	324918.
558.000	-8.22E-10	-.0041248	-.0002881	4.3832E-11	649.7726	4.5015E-05	328518.
564.000	-5.72E-10	-.0050679	-5.7992E-05	3.8958E-11	649.7726	3.1677E-05	332118.
570.000	-3.55E-10	-.0048674	9.6570E-05	3.3689E-11	649.7726	1.9844E-05	335718.
576.000	-1.68E-10	-.0039495	.0001846	2.9013E-11	649.7726	9.5011E-06	339318.
582.000	-6.49E-12	-.0026870	.0002142	2.5494E-11	649.7726	3.7103E-07	342918.
588.000	1.38E-10	-.0014094	.0001914	2.3321E-11	649.7726	-7.9654E-06	346518.
594.000	2.73E-10	-.0004177	.0001197	2.2352E-11	649.7726	-1.5952E-05	350118.
600.000	4.06E-10	0.0000	0.0000	2.2131E-11	649.7726	-2.3944E-05	176859.

Output Verification:

Computed forces and moments are within specified convergence limits.

Output Summary for Load Case No. 2:

```
Pile-head deflection             =      .04195827 in
Computed slope at pile head      =        0.00000
Maximum bending moment           =  -121939.18646 lbs-in
Maximum shear force              =     3000.00000 lbs
Depth of maximum bending moment  =        0.00000 in
Depth of maximum shear force     =        0.00000 in
Number of iterations             =              8
Number of zero deflection points =              6
```

Computed Values of Load Distribution and Deflection
for Lateral Loading for Load Case Number 3

```
Pile-head boundary conditions are Shear and Moment (BC Type 1)
Specified shear force at pile head  =        5000.000 lbs
Specified moment at pile head       =            .000 in-lbs
Specified axial load at pile head   =      100000.000 lbs
```

(Zero moment for this load indicates free-head conditions)

14 inch

Depth X in	Deflect. y in	Moment M lbs-in	Shear V lbs	Slope S Rad.	Total Stress lbs/in**2	Soil Res. p lbs/in	Es*h F/L lbs/in
0.000	.354827	6.1062E-08	5000.0000	-.0045636	649.7726	0.0000	0.0000
6.000	.327445	32738.1514	4949.5246	-.0045462	771.3015	-16.8251	308.2981
12.000	.300272	64849.7649	4793.9144	-.0044945	890.5046	-35.0450	700.2642
18.000	.273511	95658.4917	4533.1873	-.0044094	1004.8712	-51.8641	1137.7383
24.000	.247360	124539.	4179.8651	-.0042926	1112.0808	-65.9100	1598.7237
30.000	.222001	150968.	3752.2272	-.0041465	1210.1882	-76.6360	2071.2381
36.000	.197602	174542.	3272.4630	-.0039739	1297.6976	-83.2854	2528.8838
42.000	.174314	195006.	2764.2294	-.0037779	1373.6646	-86.1258	2964.5016
48.000	.152267	212246.	2238.7822	-.0035619	1437.6613	-89.0233	3507.9063
54.000	.131571	226146.	1714.1950	-.0033294	1489.2597	-85.8391	3914.4932
60.000	.112314	236812.	1197.9576	-.0030839	1528.8527	-86.2400	4607.0784
66.000	.094564	244222.	673.8297	-.0028288	1556.3613	-88.4693	5613.2875
72.000	.078368	248292.	140.2711	-.0025676	1571.4702	-89.3836	6843.3528
78.000	.063752	248986.	-400.9116	-.0023039	1574.0475	-91.0106	8565.3853
84.000	.050721	246246.	-945.5546	-.0020413	1563.8743	-90.5370	10709.9984
90.000	.039257	240089.	-1480.6312	-.0017834	1541.0202	-87.8218	13422.7064
96.000	.029320	230618.	-1992.3262	-.0015338	1505.8627	-82.7432	16932.3199
102.000	.020851	218022.	-2466.0671	-.0012959	1459.1028	-75.1704	21630.4262
108.000	.013770	202581.	-2870.0353	-.0010728	1401.7823	-59.4856	25920.0000
114.000	.007978	184869.	-3157.6245	-.0008673	1336.0338	-36.3774	27360.0000
120.000	.003362	165730.	-3315.1643	-.0006814	1264.9871	-16.1358	28800.0000
126.000	-.000200	145905.	-3360.5542	-.0005162	1191.3926	1.0059	30240.0000
132.000	-.002832	126023.	-3312.6727	-.0003720	1117.5879	14.9546	31680.0000
138.000	-.004663	106599.	-3190.5886	-.0002486	1045.4839	25.7401	33120.0000
144.000	-.005815	88034.0077	-3012.8771	-.0001454	976.5680	33.4970	34560.0000
150.000	-.006408	70618.9093	-2797.0486	-6.1246E-05	911.9205	38.4458	36000.0000
156.000	-.006550	54542.9202	-2559.0874	5.1282E-06	852.2440	40.8746	37440.0000
162.000	-.006346	39903.7061	-2313.0957	5.5214E-05	797.9011	41.1227	38880.0000
168.000	-.005888	26719.5156	-2071.0286	9.0545E-05	748.9594	39.5663	40320.0000
174.000	-.005260	14942.7090	-1842.5101	.0001126	705.2421	36.6065	41760.0000
180.000	-.004536	4474.2282	-1501.9848	.0001229	666.3816	76.9019	101718.
186.000	-.003784	-3228.6315	-1071.9999	.0001236	661.7577	66.4264	105318.
192.000	-.003053	-8538.0862	-706.4557	.0001174	681.4672	55.4217	108918.
198.000	-.002376	-11846.9276	-406.5159	.0001065	693.7501	44.5583	112518.
204.000	-.001774	-13544.1318	-169.8164	9.3081E-05	700.0504	34.3416	116118.
210.000	-.001259	-13996.4209	8.5764	7.8476E-05	701.7294	25.1227	119718.
216.000	-.000833	-13535.3857	135.2926	6.3875E-05	700.0180	17.1160	123318.
222.000	-.000493	-12449.5605	217.8999	5.0095E-05	695.9872	10.4198	126918.
228.000	-.000232	-10980.7018	264.2751	3.7670E-05	690.5346	5.0387	130518.
234.000	-4.05E-05	-9323.4639	282.1101	2.6903E-05	684.3827	.9063755	134118.
240.000	9.12E-05	-7627.6632	278.5492	1.7913E-05	678.0876	-2.0934	137718.
246.000	.000174	-6002.3696	259.9453	1.0685E-05	672.0543	-4.1079	141318.
252.000	.000219	-4521.1418	231.7222	5.1046E-06	666.5557	-5.2998	144918.
258.000	.000236	-3227.8291	198.3224	9.9526E-07	661.7548	-5.8335	148518.
264.000	.000231	-2142.4674	163.2243	-1.8527E-06	657.7257	-5.8659	152118.
270.000	.000213	-1266.9142	129.0088	-3.6607E-06	654.4756	-5.5393	155718.
276.000	.000187	-589.9693	97.4596	-4.6454E-06	651.9626	-4.9771	159318.
282.000	.000158	-91.8248	69.6829	-5.0069E-06	650.1134	-4.2818	162918.
288.000	.000127	252.2340	46.2339	-4.9219E-06	650.7089	-3.5345	166518.
294.000	9.86E-05	468.8889	27.2411	-4.5395E-06	651.5132	-2.7964	170118.
300.000	7.29E-05	584.5746	12.5213	-3.9808E-06	651.9426	-2.1102	173718.
306.000	5.09E-05	623.9213	1.6816	-3.3399E-06	652.0887	-1.5030	177318.
312.000	3.28E-05	608.7620	-5.7949	-2.6862E-06	652.0324	-.9891471	180918.
318.000	1.86E-05	557.6061	-10.4806	-2.0677E-06	651.8425	-.5727396	184518.
324.000	7.99E-06	485.4767	-12.9505	-1.5145E-06	651.5747	-.2505694	188118.
330.000	4.49E-07	404.0178	-13.7453	-1.0428E-06	651.2724	-.0143571	191718.
336.000	-4.52E-06	321.7850	-13.3467	-6.5794E-07	650.9671	.1472112	195318.
342.000	-7.45E-06	244.6470	-12.1645	-3.5756E-07	650.6807	.2468566	198918.
348.000	-8.81E-06	176.2401	-10.5315	-1.3436E-07	650.4268	.2974620	202518.
354.000	-9.06E-06	118.4298	-8.7056	2.1906E-08	650.2122	.3111796	206118.
360.000	-8.55E-06	71.7465	-6.8755	1.2276E-07	650.0389	.2988493	209718.
366.000	-7.59E-06	35.7762	-5.1699	1.7978E-07	649.9054	.2696765	213318.

372.000	-6.39E-06	9.4914	-3.6676	2.0378E-07	649.8078	.2311151	216918.
378.000	-5.14E-06	-8.4792	-2.4075	2.0432E-07	649.8041	.1889028	220518.
384.000	-3.94E-06	-19.6440	-1.3992	1.8941E-07	649.8455	.1472025	224118.
390.000	-2.87E-06	-25.4969	-.6311705	1.6547E-07	649.8672	.1088080	227718.
396.000	-1.96E-06	-27.4166	-.0786064	1.3741E-07	649.8744	.0753801	231318.
402.000	-1.22E-06	-26.6051	.2906014	1.0876E-07	649.8713	.0476892	234918.
408.000	-6.50E-07	-24.0599	.5112014	8.1892E-08	649.8619	.0258441	238518.
414.000	-2.35E-07	-20.5690	.6172216	5.8225E-08	649.8489	.0094960	242118.
420.000	4.86E-08	-16.7231	.6397413	3.8448E-08	649.8347	-.0019894	245718.
426.000	2.26E-07	-12.9382	.6055928	2.2719E-08	649.8206	-.0093934	249318.
432.000	3.21E-07	-9.4832	.5367936	1.0829E-08	649.8078	-.0135397	252918.
438.000	3.56E-07	-6.5097	.4505142	2.3474E-09	649.7967	-.0152201	256518.
444.000	3.49E-07	-4.0799	.3594150	-3.2683E-09	649.7877	-.0151463	260118.
450.000	3.17E-07	-2.1928	.2722055	-6.5947E-09	649.7807	-.0139235	263718.
456.000	2.70E-07	-.8055011	.1943158	-8.1847E-09	649.7756	-.0120398	267318.
462.000	2.19E-07	.1488443	.1285899	-8.5330E-09	649.7731	-.0098688	270918.
468.000	1.68E-07	.7478176	.0759460	-8.0575E-09	649.7754	-.0076792	274518.
474.000	1.22E-07	1.0699	.0359608	-7.0935E-09	649.7766	-.0056492	278118.
480.000	8.27E-08	1.1879	.0073616	-5.8963E-09	649.7770	-.0038838	281718.
486.000	5.11E-08	1.1653	-.0115824	-4.6484E-09	649.7769	-.0024309	285318.
492.000	2.69E-08	1.0544	-.0227663	-3.4712E-09	649.7765	-.0012971	288918.
498.000	9.46E-09	.8962503	-.0280418	-2.4368E-09	649.7759	-.0004614	292518.
504.000	-2.30E-09	.7208708	-.0290849	-1.5792E-09	649.7753	.0001137	296118.
510.000	-9.49E-09	.5491269	-.0273221	-9.0570E-10	649.7746	.0004738	299718.
516.000	-1.32E-08	.3940919	-.0239028	-4.0550E-10	649.7740	.0006659	303318.
522.000	-1.44E-08	.2627795	-.0197026	-5.7161E-11	649.7736	.0007341	306918.
528.000	-1.39E-08	.1577290	-.0153485	1.6584E-10	649.7732	.0007172	310518.
534.000	-1.24E-08	.0783984	-.0112553	2.9106E-10	649.7729	.0006472	314118.
540.000	-1.04E-08	.0223165	-.0076670	3.4447E-10	649.7727	.0005489	317718.
546.000	-8.23E-09	-.0140188	-.0046983	3.4887E-10	649.7726	.0004406	321318.
552.000	-6.18E-09	-.0344818	-.0023724	3.2315E-10	649.7727	.0003346	324918.
558.000	-4.35E-09	-.0428756	-.0006539	2.8212E-10	649.7727	.0002382	328518.
564.000	-2.79E-09	-.0426669	.0005247	2.3676E-10	649.7727	.0001547	332118.
570.000	-1.51E-09	-.0368630	.0012421	1.9458E-10	649.7727	8.4453E-05	335718.
576.000	-4.59E-10	-.0279954	.0015733	1.6019E-10	649.7727	2.5966E-05	339318.
582.000	4.13E-10	-.0181752	.0015804	1.3571E-10	649.7726	-2.3600E-05	342918.
588.000	1.17E-09	-.0091930	.0013070	1.2119E-10	649.7726	-6.7532E-05	346518.
594.000	1.87E-09	-.0026361	.0007776	1.1492E-10	649.7726	-.0001090	350118.
600.000	2.55E-09	0.0000	0.0000	1.1352E-10	649.7726	-.0001502	176859.

Output Verification:

Computed forces and moments are within specified convergence limits.

Output Summary for Load Case No. 3:

```
Pile-head deflection             =      .35482667 in
Computed slope at pile head      =     -.00456359
Maximum bending moment           =   248986.46951 lbs-in
Maximum shear force              =     5000.00000 lbs
Depth of maximum bending moment  =    78.00000000 in
Depth of maximum shear force     =        0.00000 in
Number of iterations             =             14
Number of zero deflection points =              6
```

Computed Values of Load Distribution and Deflection
for Lateral Loading for Load Case Number 4

Pile-head boundary conditions are Shear and Slope (BC Type 2)
Specified shear force at pile head = 5000.000 lbs

14 inch

Specified slope at pile head = 0.000E+00 in/in
Specified axial load at pile head = 100000.000 lbs

(Zero slope for this load indicates fixed-head conditions)

Depth X in	Deflect. y in	Moment M lbs-in	Shear V lbs	Slope S Rad.	Total Stress lbs/in**2	Soil Res. p lbs/in	Es*h F/L lbs/in
0.000	.090728	-227188.	5000.0000	1.6191E-17	1493.1275	0.0000	0.0000
6.000	.090005	-197115.	4965.2577	-.0002250	1381.4946	-11.5808	772.0059
12.000	.088028	-167335.	4857.5578	-.0004183	1270.9438	-24.3192	1657.6002
18.000	.084986	-138323.	4675.6634	-.0005804	1163.2476	-36.3123	2563.6477
24.000	.081063	-110530.	4427.7745	-.0007123	1060.0773	-46.3173	3428.2259
30.000	.076438	-84334.7328	4127.3961	-.0008157	962.8357	-53.8088	4223.7355
36.000	.071275	-60022.6722	3791.1481	-.0008922	872.5857	-58.2739	4905.5303
42.000	.065731	-37770.2746	3440.4405	-.0009441	789.9815	-58.6287	5351.6964
48.000	.059946	-17604.4730	3089.5158	-.0009735	715.1230	-58.3462	5839.8602
54.000	.054049	472.0674	2753.5573	-.0009825	651.5250	-53.6399	5954.5457
60.000	.048156	16617.2694	2433.2523	-.0009735	711.4584	-53.1284	6619.5851
66.000	.042368	30839.2747	2109.0277	-.0009483	764.2526	-54.9465	7781.3888
72.000	.036776	43063.5817	1774.9042	-.0009091	809.6310	-56.4280	9206.2640
78.000	.031458	53229.0760	1427.9095	-.0008581	847.3669	-59.2369	11298.2435
84.000	.026479	61228.1688	1067.2493	-.0007974	877.0607	-60.9832	13818.4081
90.000	.021890	66992.9031	699.5839	-.0007294	898.4602	-61.5719	16876.9250
96.000	.017727	70498.4153	332.0599	-.0006565	911.4732	-60.9361	20625.1690
102.000	.014012	71765.3662	-22.2589	-.0005810	916.1763	-57.1702	24480.0000
108.000	.010755	70928.5211	-333.1489	-.0005053	913.0698	-46.4598	25920.0000
114.000	.007948	68373.9866	-581.2601	-.0004315	903.5870	-36.2439	27360.0000
120.000	.005577	64471.1591	-770.3006	-.0003610	889.0991	-26.7696	28800.0000
126.000	.003616	59563.5998	-905.2836	-.0002952	870.8816	-18.2248	30240.0000
132.000	.002034	53962.0441	-992.1782	-.0002350	850.0877	-10.7401	31680.0000
138.000	.000796	47939.5059	-1037.5733	-.0001810	827.7312	-4.3916	33120.0000
144.000	-.000138	41728.3627	-1048.3656	-.0001334	804.6745	.7941411	34560.0000
150.000	-.000806	35519.2540	-1031.4792	-9.2482E-05	781.6254	4.8347	36000.0000
156.000	-.001248	29461.5901	-993.6192	-5.8022E-05	759.1384	7.7853	37440.0000
162.000	-.001502	23665.4501	-941.0635	-2.9848E-05	737.6223	9.7332	38880.0000
168.000	-.001606	18204.6460	-879.4903	-7.6442E-06	717.3509	10.7912	40320.0000
174.000	-.001594	13120.7394	-813.8389	8.9679E-06	698.4787	11.0926	41760.0000
180.000	-.001498	8427.8182	-704.3632	2.0395E-05	681.0579	25.3992	101718.
186.000	-.001349	4643.9061	-557.1271	2.7327E-05	667.0115	23.6795	105318.
192.000	-.001170	1709.4999	-422.3560	3.0697E-05	656.1185	21.2442	108918.
198.000	-.000981	-461.2021	-303.4519	3.1359E-05	651.4846	18.3905	112518.
204.000	-.000794	-1969.5532	-202.1825	3.0069E-05	657.0839	15.3660	116118.
210.000	-.000620	-2923.4751	-118.9818	2.7475E-05	660.6250	12.3676	119718.
216.000	-.000464	-3430.3040	-53.2514	2.4105E-05	662.5064	9.5425	123318.
222.000	-.000331	-3591.4186	-3.6460	2.0382E-05	663.1045	6.9926	126918.
228.000	-.000220	-3498.5138	31.6699	1.6622E-05	662.7596	4.7794	130518.
234.000	-.000131	-3231.3254	54.8003	1.3053E-05	661.7677	2.9308	134118.
240.000	-6.31E-05	-2856.5734	67.9360	9.8244E-06	660.3766	1.4478	137718.
246.000	-1.32E-05	-2427.8824	73.2136	7.0220E-06	658.7852	.3113749	141318.
252.000	2.12E-05	-1986.4368	72.6125	4.6810E-06	657.1465	-.5117180	144918.
258.000	4.30E-05	-1562.1491	67.8878	2.7992E-06	655.5715	-1.0632	148518.
264.000	5.48E-05	-1175.1422	60.5320	1.3476E-06	654.1349	-1.3888	152118.
270.000	5.91E-05	-837.3827	51.7624	2.8033E-07	652.8811	-1.5344	155718.
276.000	5.81E-05	-554.3296	42.5277	-4.5771E-07	651.8303	-1.5438	159318.
282.000	5.36E-05	-326.5009	33.5276	-9.2482E-07	650.9846	-1.4562	162918.
288.000	4.70E-05	-150.8888	25.2421	-1.1780E-06	650.3327	-1.3056	166518.
294.000	3.95E-05	-22.1817	17.9660	-1.2698E-06	649.8549	-1.1198	170118.
300.000	3.18E-05	66.2267	11.8440	-1.2464E-06	650.0184	-.9208727	173718.
306.000	2.45E-05	121.4416	6.9058	-1.1469E-06	650.2234	-.7251739	177318.
312.000	1.80E-05	150.4729	3.0981	-1.0027E-06	650.3312	-.5440565	180918.
318.000	1.25E-05	159.8225	.3121897	-8.3813E-07	650.3659	-.3845932	184518.
324.000	7.99E-06	155.2250	-1.5927	-6.7106E-07	650.3488	-.2503729	188118.
330.000	4.45E-06	141.5152	-2.7707	-5.1370E-07	650.2979	-.1422916	191718.
336.000	1.82E-06	122.5930	-3.3754	-3.7364E-07	650.2277	-.0592873	195318.

342.000	-3.05E-08	101.4583	-3.5503	-2.5482E-07	650.1492	.0010113	198918.
348.000	-1.24E-06	80.2955	-3.4220	-1.5844E-07	650.0706	.0417394	202518.
354.000	-1.93E-06	60.5843	-3.0977	-8.3727E-08	649.9975	.0663613	206118.
360.000	-2.24E-06	43.2235	-2.6636	-2.8677E-08	649.9330	.0783415	209718.
366.000	-2.28E-06	28.6554	-2.1858	9.4406E-09	649.8790	.0809141	213318.
372.000	-2.13E-06	16.9821	-1.7123	3.3642E-08	649.8356	.0769355	216918.
378.000	-1.87E-06	8.0676	-1.2751	4.6927E-08	649.8025	.0688076	220518.
384.000	-1.56E-06	1.6251	-.8932718	5.2067E-08	649.7786	.0584550	224118.
390.000	-1.25E-06	-2.7141	-.5758831	5.1489E-08	649.7827	.0473412	227718.
396.000	-9.47E-07	-5.3473	-.3243227	4.7214E-08	649.7924	.0365122	231318.
402.000	-6.81E-07	-6.6627	-.1348202	4.0845E-08	649.7973	.0266552	234918.
408.000	-4.57E-07	-7.0142	-.0003619	3.3592E-08	649.7986	.0181642	238518.
414.000	-2.78E-07	-6.7073	.0877479	2.6315E-08	649.7975	.0112057	242118.
420.000	-1.41E-07	-5.9928	.1387057	1.9580E-08	649.7948	.0057802	245718.
426.000	-4.27E-08	-5.0664	.1613726	1.3716E-08	649.7914	.0017754	249318.
432.000	2.34E-08	-4.0728	.1637339	8.8691E-09	649.7877	-.0009883	252918.
438.000	6.37E-08	-3.1122	.1525984	5.0589E-09	649.7841	-.0027235	256518.
444.000	8.42E-08	-2.2477	.1334831	2.2165E-09	649.7809	-.0036483	260118.
450.000	9.03E-08	-1.5131	.1106312	2.2219E-10	649.7782	-.0039690	263718.
456.000	8.68E-08	-.9203642	.0871200	-1.0683E-09	649.7760	-.0038681	267318.
462.000	7.75E-08	-.4663360	.0650201	-1.8036E-09	649.7743	-.0034985	270918.
468.000	6.52E-08	-.1379580	.0455786	-2.1241E-09	649.7731	-.0029820	274518.
474.000	5.20E-08	.0831559	.0294026	-2.1532E-09	649.7729	-.0024100	278118.
480.000	3.93E-08	.2174569	.0166315	-1.9938E-09	649.7734	-.0018470	281718.
486.000	2.81E-08	.2851264	.0070864	-1.7272E-09	649.7736	-.0013347	285318.
492.000	1.86E-08	.3045658	.0003938	-1.4145E-09	649.7737	-.0008962	288918.
498.000	1.11E-08	.2915490	-.0039172	-1.0984E-09	649.7737	-.0005408	292518.
504.000	5.43E-09	.2588769	-.0063437	-8.0649E-10	649.7735	-.0002680	296118.
510.000	1.42E-09	.2163918	-.0073598	-5.5446E-10	649.7734	-7.0693E-05	299718.
516.000	-1.22E-09	.1712241	-.0073864	-3.4890E-10	649.7732	6.1827E-05	303318.
522.000	-2.77E-09	.1281732	-.0067756	-1.9013E-10	649.7731	.0001418	306918.
528.000	-3.50E-09	.0901446	-.0058062	-7.4352E-11	649.7729	.0001814	310518.
534.000	-3.66E-09	.0585881	-.0046866	4.5216E-12	649.7728	.0001918	314118.
540.000	-3.45E-09	.0338995	-.0035631	5.3568E-11	649.7727	.0001827	317718.
546.000	-3.02E-09	.0157667	-.0025296	7.9907E-11	649.7726	.0001618	321318.
552.000	-2.49E-09	.0034482	-.0016395	9.0097E-11	649.7726	.0001349	324918.
558.000	-1.94E-09	-.0040156	-.0009161	8.9796E-11	649.7726	.0001062	328518.
564.000	-1.41E-09	-.0076531	-.0003627	8.3608E-11	649.7726	7.8262E-05	332118.
570.000	-9.37E-10	-.0084683	2.9299E-05	7.5058E-11	649.7726	5.2404E-05	335718.
576.000	-5.13E-10	-.0073916	.0002736	6.6648E-11	649.7726	2.9021E-05	339318.
582.000	-1.37E-10	-.0052654	.0003841	5.9936E-11	649.7726	7.8184E-06	342918.
588.000	2.06E-10	-.0028544	.0003718	5.5630E-11	649.7726	-1.1901E-05	346518.
594.000	5.31E-10	-.0008700	.0002432	5.3655E-11	649.7726	-3.0971E-05	350118.
600.000	8.50E-10	0.0000	0.0000	5.3193E-11	649.7726	-5.0105E-05	176859.

Output Verification:

Computed forces and moments are within specified convergence limits.

Output Summary for Load Case No. 4:

```
Pile-head deflection             =      .09072810 in
Computed slope at pile head      =   1.619075E-17
Maximum bending moment           =  -227187.75685 lbs-in
Maximum shear force              =     5000.00000 lbs
Depth of maximum bending moment  =        0.00000 in
Depth of maximum shear force     =        0.00000 in
Number of iterations             =             11
Number of zero deflection points =              6
```

14 inch
for Lateral Loading for Load Case Number 5

Pile-head boundary conditions are Shear and Moment (BC Type 1)
Specified shear force at pile head = 7500.000 lbs
Specified moment at pile head = .000 in-lbs
Specified axial load at pile head = 100000.000 lbs

(Zero moment for this load indicates free-head conditions)

Depth X in	Deflect. y in	Moment M lbs-in	Shear V lbs	Slope S Rad.	Total Stress lbs/in**2	Soil Res. p lbs/in	Es*h F/L lbs/in
0.000	.641405	-2.7914E-07	7500.0000	-.0078363	649.7726	0.0000	0.0000
6.000	.594387	49701.7659	7438.7772	-.0078099	834.2730	-20.4076	206.0032
12.000	.547686	98637.2292	7245.1160	-.0077313	1015.9287	-44.1461	483.6290
18.000	.501612	145921.	6913.3291	-.0076016	1191.4519	-66.4495	794.8316
24.000	.456467	190719.	6461.3154	-.0074230	1357.7502	-84.2217	1107.0468
30.000	.412536	232364.	5915.3711	-.0071987	1512.3428	-97.7597	1421.8376
36.000	.370083	270342.	5302.8972	-.0069321	1653.3222	-106.3982	1724.9905
42.000	.329350	304317.	4646.7980	-.0066273	1779.4441	-112.3015	2045.8722
48.000	.290555	334056.	3949.7955	-.0062888	1889.8395	-120.0327	2478.6939
54.000	.253885	359261.	3224.8827	-.0059211	1983.4049	-121.6049	2873.8613
60.000	.219501	379860.	2480.4935	-.0055292	2059.8706	-126.5248	3458.5199
66.000	.187535	395662.	1702.5188	-.0051179	2118.5306	-132.8001	4248.8185
72.000	.158086	406432.	893.2842	-.0046926	2158.5088	-136.9448	5197.6015
78.000	.131224	412013.	58.9738	-.0042585	2179.2260	-141.1587	6454.2475
84.000	.106984	412250.	-792.0803	-.0038214	2180.1058	-142.5260	7993.3250
90.000	.085367	407094.	-1642.1765	-.0033869	2160.9649	-140.8394	9898.8599
96.000	.066341	396608.	-2472.5018	-.0029607	2122.0410	-135.9358	12294.3025
102.000	.049839	380976.	-3263.3549	-.0025483	2064.0140	-127.6819	15371.4523
108.000	.035761	360506.	-3994.2212	-.0021551	1988.0241	-115.9402	19452.6604
114.000	.023977	335632.	-4643.5154	-.0017860	1895.6885	-100.4912	25146.8698
120.000	.014329	306927.	-5151.3289	-.0014452	1789.1307	-68.7800	28800.0000
126.000	.006634	275550.	-5457.9824	-.0011363	1672.6563	-33.4379	30240.0000
132.000	.000693	242795.	-5569.2784	-.0008614	1551.0624	-3.6608	31680.0000
138.000	-.003703	209753.	-5518.9434	-.0006214	1428.4057	20.4392	33120.0000
144.000	-.006764	177313.	-5340.7435	-.0004162	1307.9850	38.9608	34560.0000
150.000	-.008697	146163.	-5067.3157	-.0002446	1192.3520	52.1817	36000.0000
156.000	-.009700	116799.	-4729.1913	-.0001052	1083.3471	60.5264	37440.0000
162.000	-.009959	89539.0725	-4354.0042	4.2305E-06	982.1550	64.5360	38880.0000
168.000	-.009649	64545.6673	-3965.8728	8.5943E-05	889.3757	64.8411	40320.0000
174.000	-.008928	41845.4677	-3584.9339	.0001424	805.1092	62.1385	41760.0000
180.000	-.007941	21355.6251	-3014.5933	.0001759	729.0478	127.9750	96698.9742
186.000	-.006817	5459.2935	-2271.6707	.0001901	670.0383	119.6658	105318.
192.000	-.005659	-6132.5420	-1604.4659	.0001897	672.5375	102.7358	108918.
198.000	-.004540	-14021.9873	-1040.8146	.0001791	701.8243	85.1480	112518.
204.000	-.003511	-18837.1822	-581.5376	.0001616	719.6990	67.9444	116118.
210.000	-.002601	-21194.3923	-222.0136	.0001404	728.4493	51.8970	119718.
216.000	-.001826	-21669.8248	46.2667	.0001177	730.2142	37.5298	123318.
222.000	-.001189	-20780.3940	234.3052	9.5156E-05	726.9125	25.1497	126918.
228.000	-.000684	-18972.3495	354.3997	7.4075E-05	720.2008	14.8818	130518.
234.000	-.000300	-16616.4882	419.1654	5.5202E-05	711.4555	6.7068	134118.
240.000	-2.17E-05	-14008.6078	440.7798	3.8962E-05	701.7746	.4980292	137718.
246.000	.000167	-11373.8838	430.4387	2.5501E-05	691.9941	-3.9451	141318.
252.000	.000284	-8873.9449	398.0023	1.4763E-05	682.7140	-6.8670	144918.
258.000	.000345	-6615.5727	351.8070	6.5493E-06	674.3306	-8.5314	148518.
264.000	.000363	-4660.1195	298.6107	5.6968E-07	667.0716	-9.2007	152118.
270.000	.000351	-3032.9277	243.6414	-3.5100E-06	661.0313	-9.1224	155718.
276.000	.000321	-1732.2112	190.7208	-6.0370E-06	656.2028	-8.5178	159318.
282.000	.000279	-737.0339	142.4360	-7.3464E-06	652.5086	-7.5771	162918.
288.000	.000233	-14.1632	100.3363	-7.7448E-06	649.8252	-6.4561	166518.
294.000	.000186	476.2957	65.1372	-7.4997E-06	651.5407	-5.2769	170118.
300.000	.000143	776.4831	36.9177	-6.8354E-06	652.6550	-4.1296	173718.
306.000	.000104	927.5104	15.3004	-5.9317E-06	653.2156	-3.0762	177318.

312.000	7.15E-05	967.2055	-.3914862	-4.9270E-06	653.3630	-2.1544	180918.
318.000	4.50E-05	928.7249	-11.0034	-3.9215E-06	653.2201	-1.3828	184518.
324.000	2.44E-05	839.8707	-17.4462	-2.9836E-06	652.8903	-.7647686	188118.
330.000	9.16E-06	722.9504	-20.6189	-2.1549E-06	652.4563	-.2927768	191718.
336.000	-1.47E-06	595.0301	-21.3540	-1.4559E-06	651.9814	.0477261	195318.
342.000	-8.31E-06	468.4492	-20.3845	-8.9195E-07	651.5115	.2754470	198918.
348.000	-1.22E-05	351.4863	-18.3259	-4.5714E-07	651.0773	.4107589	202518.
354.000	-1.38E-05	249.0871	-15.6720	-1.3865E-07	650.6972	.4738651	206118.
360.000	-1.38E-05	163.5885	-12.7999	8.0197E-08	650.3798	.4835163	209718.
366.000	-1.28E-05	95.3923	-9.9807	2.1754E-07	650.1267	.4562031	213318.
372.000	-1.12E-05	43.5588	-7.3949	2.9122E-07	649.9343	.4057414	216918.
378.000	-9.34E-06	6.3043	-5.1482	3.1767E-07	649.7960	.3431614	220518.
384.000	-7.41E-06	-18.6005	-3.2882	3.1114E-07	649.8416	.2768197	224118.
390.000	-5.60E-06	-33.5279	-1.8198	2.8350E-07	649.8970	.2126592	227718.
396.000	-4.01E-06	-40.7782	-.7181517	2.4410E-07	649.9240	.1545552	231318.
402.000	-2.67E-06	-42.4386	.0596083	1.9997E-07	649.9301	.1046982	234918.
408.000	-1.61E-06	-40.3029	.5656286	1.5609E-07	649.9222	.0639753	238518.
414.000	-8.01E-07	-35.8384	.8545270	1.1571E-07	649.9056	.0323242	242118.
420.000	-2.21E-07	-30.1874	.9786290	8.0695E-08	649.8846	.0090431	245718.
426.000	1.67E-07	-24.1917	.9849031	5.1857E-08	649.8624	-.0069518	249318.
432.000	4.01E-07	-18.4308	.9132787	2.9254E-08	649.8410	-.0169230	252918.
438.000	5.18E-07	-13.2674	.7960270	1.2444E-08	649.8218	-.0221609	256518.
444.000	5.51E-07	-8.8934	.6579083	6.9214E-10	649.8056	-.0238787	260118.
450.000	5.27E-07	-5.3734	.5168284	-6.8736E-09	649.7925	-.0231479	263718.
456.000	4.68E-07	-2.6832	.3847903	-1.1146E-08	649.7825	-.0208648	267318.
462.000	3.93E-07	-.7425009	.2689743	-1.2963E-08	649.7753	-.0177406	270918.
468.000	3.13E-07	.5600283	.1728234	-1.3060E-08	649.7747	-.0143097	274518.
474.000	2.36E-07	1.3471	.0970507	-1.2048E-08	649.7776	-.0109479	278118.
480.000	1.68E-07	1.7391	.0405172	-1.0412E-08	649.7790	-.0078966	281718.
486.000	1.11E-07	1.8458	.0009571	-8.5105E-09	649.7794	-.0052901	285318.
492.000	6.61E-08	1.7608	-.0244554	-6.5980E-09	649.7791	-.0031808	288918.
498.000	3.21E-08	1.5602	-.0386882	-4.8368E-09	649.7784	-.0015635	292518.
504.000	8.01E-09	1.3023	-.0445652	-3.3188E-09	649.7774	-.0003955	296118.
510.000	-7.76E-09	1.0294	-.0445896	-2.0822E-09	649.7764	.0003874	299718.
516.000	-1.70E-08	.7697616	-.0408532	-1.1281E-09	649.7754	.0008580	303318.
522.000	-2.13E-08	.5405190	-.0350115	-4.3328E-10	649.7746	.0010892	306918.
528.000	-2.22E-08	.3501431	-.0283015	3.9047E-11	649.7739	.0011475	310518.
534.000	-2.08E-08	.2008542	-.0215884	3.3124E-10	649.7733	.0010902	314118.
540.000	-1.82E-08	.0906850	-.0154269	4.8585E-10	649.7729	.0009636	317718.
546.000	-1.50E-08	.0151483	-.0101271	5.4197E-10	649.7726	.0008030	321318.
552.000	-1.17E-08	-.0314911	-.0058185	5.3331E-10	649.7727	.0006333	324918.
558.000	-8.59E-09	-.0553131	-.0025070	4.8727E-10	649.7728	.0004706	328518.
564.000	-5.85E-09	-.0621597	-.0001244	4.2498E-10	649.7728	.0003236	332118.
570.000	-3.49E-09	-.0573162	.0014330	3.6162E-10	649.7728	.0001955	335718.
576.000	-1.51E-09	-.0453971	.0022753	3.0715E-10	649.7727	8.5236E-05	339318.
582.000	1.91E-10	-.0303807	.0024983	2.6696E-10	649.7727	-1.0932E-05	342918.
588.000	1.70E-09	-.0157385	.0021715	2.4251E-10	649.7726	-9.7971E-05	346518.
594.000	3.10E-09	-.0046132	.0013347	2.3171E-10	649.7726	-.0001810	350118.
600.000	4.48E-09	0.0000	0.0000	2.2927E-10	649.7726	-.0002639	176859.

Output Verification:

Computed forces and moments are within specified convergence limits.

Output Summary for Load Case No. 5:

```
Pile-head deflection             =      .64140471 in
Computed slope at pile head      =     -.00783628
Maximum bending moment           =   412249.90040 lbs-in
Maximum shear force              =     7500.00000 lbs
Depth of maximum bending moment  =    84.00000000 in
Depth of maximum shear force     =        0.00000 in
Number of iterations             =             14
Number of zero deflection points =              6
```

Computed Values of Load Distribution and Deflection
for Lateral Loading for Load Case Number 6

Pile-head boundary conditions are Shear and Slope (BC Type 2)
Specified shear force at pile head = 7500.000 lbs
Specified slope at pile head = 0.000E+00 in/in
Specified axial load at pile head = 100000.000 lbs

(Zero slope for this load indicates fixed-head conditions)

Depth X in	Deflect. y in	Moment M lbs-in	Shear V lbs	Slope S Rad.	Total Stress lbs/in**2	Soil Res. p lbs/in	Es*h F/L lbs/in
0.000	.164214	-369268.	7500.0000	3.4694E-17	2020.5494	0.0000	0.0000
6.000	.163039	-324150.	7458.9739	-.0003677	1853.0665	-13.6754	503.2672
12.000	.159801	-279319.	7331.1040	-.0006877	1686.6454	-28.9479	1086.8978
18.000	.154786	-235352.	7113.6505	-.0009607	1523.4330	-43.5365	1687.6145
24.000	.148273	-192802.	6814.8911	-.0011877	1365.4828	-56.0500	2268.1100
30.000	.140533	-152148.	6449.1862	-.0013707	1214.5675	-65.8517	2811.5060
36.000	.131825	-113767.	6034.8006	-.0015117	1072.0930	-72.2769	3289.6691
42.000	.122393	-77916.0489	5593.2241	-.0016133	939.0086	-74.9153	3672.5276
48.000	.112465	-44712.3899	5135.6789	-.0016784	815.7516	-77.5997	4139.9348
54.000	.102253	-14273.8681	4677.4862	-.0017096	702.7593	-75.1312	4408.5569
60.000	.091949	13469.0153	4221.3495	-.0017101	699.7716	-76.9144	5018.9131
66.000	.081732	38434.4093	3747.1946	-.0016825	792.4468	-81.1373	5956.3470
72.000	.071759	60454.4037	3249.6176	-.0016301	874.1884	-84.7217	7083.8635
78.000	.062171	79385.9445	2726.5584	-.0015559	944.4651	-89.6313	8650.1906
84.000	.053088	95040.2384	2178.4162	-.0014634	1002.5761	-93.0827	10520.2827
90.000	.044609	107283.	1614.4098	-.0013562	1048.0234	-94.9194	12766.7620
96.000	.036814	116041.	1044.5819	-.0012377	1080.5324	-95.0232	15487.1279
102.000	.029757	121303.	479.5661	-.0011119	1100.0686	-93.3154	18815.7079
108.000	.023471	123130.	-69.6436	-.0009822	1106.8479	-89.7545	22943.8986
114.000	.017970	121646.	-584.7347	-.0008524	1101.3417	-81.9425	27360.0000
120.000	.013242	117136.	-1021.2523	-.0007258	1084.5976	-63.5633	28800.0000
126.000	.009260	110262.	-1351.9576	-.0006052	1059.0824	-46.6718	30240.0000
132.000	.005980	101638.	-1586.6940	-.0004928	1027.0695	-31.5737	31680.0000
138.000	.003346	91813.2837	-1736.8291	-.0003902	990.5972	-18.4713	33120.0000
144.000	.001297	81264.7600	-1814.6536	-.0002985	951.4395	-7.4702	34560.0000
150.000	-.000235	70395.5950	-1832.8289	-.0002180	911.0915	1.4117	36000.0000
156.000	-.001320	59532.4554	-1803.8923	-.0001491	870.7659	8.2338	37440.0000
162.000	-.002025	48927.8473	-1739.8270	-9.1616E-05	831.4001	13.1213	38880.0000
168.000	-.002419	38764.4706	-1651.6978	-4.5113E-05	793.6721	16.2551	40320.0000
174.000	-.002566	29161.6086	-1549.3493	-9.0908E-06	758.0248	17.8611	41760.0000
180.000	-.002528	20183.1875	-1367.1945	1.7077E-05	724.6956	42.8572	101718.
186.000	-.002361	12734.7826	-1114.2780	3.4534E-05	697.0460	41.4483	105318.
192.000	-.002114	6770.4108	-874.8288	4.4877E-05	674.9054	38.3681	108918.
198.000	-.001823	2182.9838	-657.1760	4.9625E-05	657.8761	34.1828	112518.
204.000	-.001518	-1175.2514	-466.4886	5.0160E-05	654.1353	29.3796	116118.
210.000	-.001221	-3475.0715	-305.2695	4.7694E-05	662.6726	24.3601	119718.
216.000	-.000946	-4895.7176	-173.8742	4.3255E-05	667.9462	19.4384	123318.
222.000	-.000702	-5613.4675	-71.0226	3.7682E-05	670.6106	14.8455	126918.
228.000	-.000494	-5793.2065	5.7250	3.1633E-05	671.2778	10.7370	130518.
234.000	-.000322	-5582.7262	59.5442	2.5600E-05	670.4965	7.2027	134118.
240.000	-.000186	-5109.3958	93.9870	1.9930E-05	668.7394	4.2782	137718.
246.000	-8.31E-05	-4478.7983	112.6912	1.4845E-05	666.3985	1.9565	141318.
252.000	-8.25E-06	-3774.9157	119.1585	1.0468E-05	663.7856	.1992546	144918.
258.000	4.25E-05	-3061.4577	116.5968	6.8427E-06	661.1372	-1.0532	148518.
264.000	7.39E-05	-2383.9658	107.8194	3.9549E-06	658.6222	-1.8726	152118.
270.000	9.00E-05	-1772.3713	95.1937	1.7508E-06	656.3519	-2.3359	155718.
276.000	9.49E-05	-1243.7423	80.6286	1.5130E-07	654.3895	-2.5191	159318.

282.000	9.18E-05	-805.0102	65.5915	-9.3517E-07	652.7609	-2.4932	162918.
288.000	8.36E-05	-455.5223	51.1472	-1.6036E-06	651.4635	-2.3215	166518.
294.000	7.26E-05	-189.3193	38.0092	-1.9456E-06	650.4754	-2.0578	170118.
300.000	6.03E-05	2.9231	26.5980	-2.0444E-06	649.7834	-1.7459	173718.
306.000	4.80E-05	132.3102	17.1006	-1.9727E-06	650.2637	-1.4199	177318.
312.000	3.66E-05	210.4979	9.5276	-1.7909E-06	650.5540	-1.1045	180918.
318.000	2.66E-05	248.7901	3.7643	-1.5474E-06	650.6961	-.8166015	184518.
324.000	1.81E-05	257.5264	-.3842982	-1.2789E-06	650.7286	-.5662642	188118.
330.000	1.12E-05	245.7132	-3.1574	-1.0120E-06	650.6847	-.3581009	191718.
336.000	5.92E-06	220.8520	-4.8095	-7.6458E-07	650.5924	-.1926142	195318.
342.000	2.03E-06	188.9162	-5.5895	-5.4727E-07	650.4739	-.0673736	198918.
348.000	-6.50E-07	154.4347	-5.7258	-3.6519E-07	650.3459	.0219507	202518.
354.000	-2.35E-06	120.6452	-5.4177	-2.1931E-07	650.2204	.0807329	206118.
360.000	-3.28E-06	89.6853	-4.8314	-1.0777E-07	650.1055	.1147196	209718.
366.000	-3.64E-06	62.7982	-4.0986	-2.6912E-08	650.0057	.1295337	213318.
372.000	-3.61E-06	40.5344	-3.3190	2.7886E-08	649.9230	.1303335	216918.
378.000	-3.31E-06	22.9367	-2.5632	6.1545E-08	649.8577	.1216070	220518.
384.000	-2.87E-06	9.7024	-1.8771	7.8854E-08	649.8086	.1070728	224118.
390.000	-2.36E-06	.3164266	-1.2869	8.4167E-08	649.7738	.0896646	227718.
396.000	-1.86E-06	-5.8418	-.8032117	8.1237E-08	649.7943	.0715739	231318.
402.000	-1.39E-06	-9.4196	-.4254951	7.3144E-08	649.8075	.0543316	234918.
408.000	-9.79E-07	-11.0355	-.1457715	6.2296E-08	649.8135	.0389096	238518.
414.000	-6.40E-07	-11.2436	.0484496	5.0481E-08	649.8143	.0258308	242118.
420.000	-3.73E-07	-10.5147	.1717692	3.8943E-08	649.8116	.0152758	245718.
426.000	-1.73E-07	-9.2291	.2391383	2.8473E-08	649.8068	.0071806	249318.
432.000	-3.13E-08	-7.6792	.2646429	1.9506E-08	649.8011	.0013209	252918.
438.000	6.13E-08	-6.0768	.2607478	1.2211E-08	649.7951	-.0026193	256518.
444.000	1.15E-07	-4.5649	.2379076	6.5677E-09	649.7895	-.0049941	260118.
450.000	1.40E-07	-3.2298	.2044547	2.4342E-09	649.7846	-.0061569	263718.
456.000	1.44E-07	-2.1143	.1666829	-3.9985E-10	649.7804	-.0064337	267318.
462.000	1.35E-07	-1.2291	.1290567	-2.1729E-09	649.7771	-.0061083	270918.
468.000	1.18E-07	-.5630351	.0944897	-3.1233E-09	649.7747	-.0054140	274518.
474.000	9.78E-08	-.0914962	.0646476	-3.4704E-09	649.7729	-.0045333	278118.
480.000	7.67E-08	.2169005	.0402455	-3.4039E-09	649.7734	-.0036007	281718.
486.000	5.70E-08	.3955347	.0213185	-3.0791E-09	649.7740	-.0027083	285318.
492.000	3.97E-08	.4764176	.0074531	-2.6167E-09	649.7743	-.0019135	288918.
498.000	2.56E-08	.4881122	-.0020247	-2.1052E-09	649.7744	-.0012458	292518.
504.000	1.45E-08	.4546477	-.0079052	-1.6053E-09	649.7743	-.0007144	296118.
510.000	6.29E-09	.3951764	-.0109909	-1.1546E-09	649.7740	-.0003142	299718.
516.000	6.20E-10	.3241424	-.0120275	-7.7314E-10	649.7738	-3.1325E-05	303318.
522.000	-2.99E-09	.2517744	-.0116629	-4.6773E-10	649.7735	.0001528	306918.
528.000	-4.99E-09	.1847483	-.0104292	-2.3624E-10	649.7733	.0002584	310518.
534.000	-5.82E-09	.1269073	-.0087395	-7.0963E-11	649.7731	.0003048	314118.
540.000	-5.84E-09	.0799596	-.0068965	3.8740E-11	649.7729	.0003095	317718.
546.000	-5.36E-09	.0441027	-.0051073	1.0453E-10	649.7727	.0002869	321318.
552.000	-4.59E-09	.0185470	-.0035008	1.3775E-10	649.7726	.0002486	324918.
558.000	-3.70E-09	.0019282	-.0021465	1.4861E-10	649.7726	.0002028	328518.
564.000	-2.81E-09	-.0073893	-.0010718	1.4572E-10	649.7726	.0001554	332118.
570.000	-1.96E-09	-.0111087	-.0002774	1.3591E-10	649.7726	.0001095	335718.
576.000	-1.18E-09	-.0108809	.0002505	1.2425E-10	649.7726	6.6509E-05	339318.
582.000	-4.65E-10	-.0082518	.0005298	1.1410E-10	649.7726	2.6587E-05	342918.
588.000	1.93E-10	-.0046603	.0005761	1.0725E-10	649.7726	-1.1155E-05	346518.
594.000	8.22E-10	-.0014674	.0003988	1.0400E-10	649.7726	-4.7957E-05	350118.
600.000	1.44E-09	0.0000	0.0000	1.0322E-10	649.7726	-8.4962E-05	176859.

Output Verification:

Computed forces and moments are within specified convergence limits.

Output Summary for Load Case No. 6:

```
Pile-head deflection              =      .16421398 in
Computed slope at pile head       =   3.469447E-17
Maximum bending moment            =  -369267.68776 lbs-in
Maximum shear force               =     7500.00000 lbs
```

14 inch
Depth of maximum bending moment = 0.00000 in
Depth of maximum shear force = 0.00000 in
Number of iterations = 12
Number of zero deflection points = 6

Computed Values of Load Distribution and Deflection
for Lateral Loading for Load Case Number 7

Pile-head boundary conditions are Shear and Moment (BC Type 1)
Specified shear force at pile head = 10000.000 lbs
Specified moment at pile head = .000 in-lbs
Specified axial load at pile head = 100000.000 lbs

(Zero moment for this load indicates free-head conditions)

Depth X in	Deflect. y in	Moment M lbs-in	Shear V lbs	Slope S Rad.	Total Stress lbs/in**2	Soil Res. p lbs/in	Es*h F/L lbs/in
0.000	.985035	-6.9785E-08	10000.0000	-.0116140	649.7726	0.0000	0.0000
6.000	.915351	66968.3765	9938.7776	-.0115784	898.3692	-20.4075	133.7680
12.000	.846094	133159.	9745.1180	-.0114723	1144.0804	-44.1458	313.0559
18.000	.777683	197677.	9408.8459	-.0112969	1383.5775	-67.9449	524.2103
24.000	.710531	259622.	8934.3413	-.0110544	1613.5277	-90.2232	761.8799
30.000	.645031	318154.	8333.0236	-.0107480	1830.8074	-110.2160	1025.2157
36.000	.581556	372516.	7621.5964	-.0103817	2032.6065	-126.9264	1309.5195
42.000	.520451	422071.	6810.2930	-.0099603	2216.5635	-143.5081	1654.4286
48.000	.462032	466192.	5911.7205	-.0094893	2380.3455	-156.0161	2026.0435
54.000	.406579	504399.	4958.2923	-.0089746	2522.1765	-161.7934	2387.6274
60.000	.354337	536461.	3963.2258	-.0084226	2641.1944	-169.8955	2876.8457
66.000	.305508	562065.	2916.7723	-.0078400	2736.2406	-178.9223	3513.9264
72.000	.260257	580870.	1822.9308	-.0072339	2806.0484	-185.6915	4280.9633
78.000	.218701	592621.	688.1541	-.0066116	2849.6686	-192.5674	5283.0243
84.000	.180917	597062.	-478.0329	-.0059807	2866.1547	-196.1616	6505.5689
90.000	.146933	594061.	-1654.3129	-.0053491	2855.0158	-195.9317	8000.8749
96.000	.116729	583629.	-2817.0876	-.0047245	2816.2898	-191.6599	9851.5658
102.000	.090238	565925.	-3941.6145	-.0041149	2750.5722	-183.1824	12179.8861
108.000	.067350	541267.	-5002.2643	-.0035278	2659.0376	-170.3675	15177.5611
114.000	.047905	510132.	-5972.5670	-.0029702	2543.4570	-153.0667	19171.0919
120.000	.031708	473161.	-6824.7744	-.0024487	2406.2158	-131.0024	24789.5201
126.000	.018521	431173.	-7497.8133	-.0019692	2250.3501	-93.3439	30240.0000
132.000	.008078	385550.	-7905.7935	-.0015361	2080.9916	-42.6495	31680.0000
138.000	8.80E-05	338146.	-8035.1993	-.0011523	1905.0227	-.4857930	33120.0000
144.000	-.005750	290510.	-7937.3021	-.0008189	1728.1902	33.1182	34560.0000
150.000	-.009739	243882.	-7662.6518	-.0005355	1555.0971	58.4319	36000.0000
156.000	-.012176	199201.	-7259.4280	-.0003005	1389.2367	75.9760	37440.0000
162.000	-.013345	157129.	-6772.0737	-.0001116	1233.0589	86.4755	38880.0000
168.000	-.013514	118070.	-6240.1971	3.4377E-05	1088.0663	90.8167	40320.0000
174.000	-.012932	82205.3805	-5697.7175	.0001406	954.9312	90.0098	41760.0000
180.000	-.011827	49528.7451	-4938.5289	.0002104	833.6307	163.0530	82716.4356
186.000	-.010407	22690.5001	-3901.3417	.0002487	734.0031	182.6761	105318.
192.000	-.008842	2414.1533	-2871.7621	.0002621	658.7343	160.5171	108918.
198.000	-.007262	-12085.1127	-1981.6331	.0002569	694.6343	136.1925	112518.
204.000	-.005759	-21673.7565	-1238.6746	.0002390	730.2288	111.4603	116118.
210.000	-.004394	-27236.0374	-641.2648	.0002131	750.8768	87.6763	119718.
216.000	-.003202	-29624.6390	-180.7867	.0001829	759.7437	65.8164	123318.
222.000	-.002199	-29624.9984	156.2046	.0001515	759.7450	46.5140	126918.
228.000	-.001384	-27932.0004	386.0725	.0001210	753.4603	30.1086	130518.
234.000	-.000747	-25137.3169	526.4945	9.2848E-05	743.0861	16.6987	134118.
240.000	-.000270	-21725.4839	595.1785	6.7996E-05	730.4208	6.1960	137718.
246.000	6.89E-05	-18076.7704	608.8975	4.6889E-05	716.8763	-1.6230	141318.

252.000	.000293	-14474.9804	582.8183	2.9626E-05	703.5059	-7.0701	144918.
258.000	.000424	-11118.5022	530.0910	1.6054E-05	691.0461	-10.5057	148518.
264.000	.000485	-8133.1534	461.6574	5.8445E-06	679.9641	-12.3055	152118.
270.000	.000495	-5585.6263	386.2355	-1.4307E-06	670.5073	-12.8352	155718.
276.000	.000468	-3496.6107	310.4338	-6.2471E-06	662.7525	-12.4320	159318.
282.000	.000420	-1852.9237	238.9584	-9.0840E-06	656.6509	-11.3931	162918.
288.000	.000359	-618.2095	174.8733	-1.0394E-05	652.0675	-9.9686	166518.
294.000	.000295	258.0288	119.8873	-1.0585E-05	650.7304	-8.3601	170118.
300.000	.000232	833.1410	74.6416	-1.0007E-05	652.8653	-6.7219	173718.
306.000	.000175	1165.7363	38.9807	-8.9468E-06	654.1000	-5.1651	177318.
312.000	.000125	1311.6456	12.1958	-7.6330E-06	654.6416	-3.7632	180918.
318.000	8.32E-05	1321.2455	-6.7677	-6.2368E-06	654.6772	-2.5580	184518.
324.000	5.00E-05	1237.9169	-19.1411	-4.8796E-06	654.3679	-1.5665	188118.
330.000	2.46E-05	1097.4081	-26.2008	-3.6412E-06	653.8463	-.7867842	191718.
336.000	6.27E-06	927.8766	-29.1733	-2.5672E-06	653.2170	-.2040386	195318.
342.000	-6.18E-06	750.4093	-29.1705	-1.6771E-06	652.5582	.2049744	198918.
348.000	-1.39E-05	579.8436	-27.1523	-9.7171E-07	651.9250	.4677451	202518.
354.000	-1.78E-05	425.7476	-23.9102	-4.3843E-07	651.3530	.6129654	206118.
360.000	-1.91E-05	293.4475	-20.0665	-5.7039E-08	650.8619	.6682691	209718.
366.000	-1.85E-05	185.0183	-16.0855	1.9670E-07	650.4594	.6587119	213318.
372.000	-1.68E-05	100.1851	-12.2918	3.4794E-07	650.1445	.6058785	216918.
378.000	-1.44E-05	37.0997	-8.8917	4.2074E-07	649.9103	.5274908	220518.
384.000	-1.17E-05	-7.0197	-5.9970	4.3670E-07	649.7986	.4373966	224118.
390.000	-9.11E-06	-35.3883	-3.6473	4.1421E-07	649.9039	.3458268	227718.
396.000	-6.74E-06	-51.2846	-1.8304	3.6824E-07	649.9630	.2598218	231318.
402.000	-4.69E-06	-57.7947	-.4996685	3.1040E-07	649.9871	.1837476	234918.
408.000	-3.01E-06	-57.6531	.4110894	2.4917E-07	649.9866	.1198384	238518.
414.000	-1.70E-06	-53.1606	.9767649	1.9041E-07	649.9699	.0687201	242118.
420.000	-7.30E-07	-46.1604	1.2726	1.3774E-07	649.9439	.0298821	245718.
426.000	-5.01E-08	-38.0551	1.3685	9.3078E-08	649.9138	.0020823	249318.
432.000	3.87E-07	-29.8505	1.3257	5.7067E-08	649.8834	-.0163247	252918.
438.000	6.35E-07	-22.2147	1.1954	2.9457E-08	649.8550	-.0271352	256518.
444.000	7.41E-07	-15.5416	1.0176	9.4345E-09	649.8303	-.0321139	260118.
450.000	7.48E-07	-10.0147	.8226495	-4.1182E-09	649.8098	-.0328729	263718.
456.000	6.91E-07	-5.6649	.6316274	-1.2433E-08	649.7936	-.0308011	267318.
462.000	5.99E-07	-2.4203	.4581232	-1.6721E-08	649.7816	-.0270337	270918.
468.000	4.91E-07	-.1473229	.3096711	-1.8082E-08	649.7731	-.0224504	274518.
474.000	3.82E-07	1.3175	.1892379	-1.7462E-08	649.7775	-.0176940	278118.
480.000	2.81E-07	2.1445	.0965542	-1.5626E-08	649.7805	-.0132006	281718.
486.000	1.94E-07	2.4949	.0292466	-1.3166E-08	649.7818	-.0092353	285318.
492.000	1.23E-07	2.5112	-.0162505	-1.0511E-08	649.7819	-.0059303	288918.
498.000	6.81E-08	2.3125	-.0439989	-7.9528E-09	649.7812	-.0033192	292518.
504.000	2.77E-08	1.9928	-.0580609	-5.6697E-09	649.7800	-.0013682	296118.
510.000	4.50E-11	1.6226	-.0621722	-3.7524E-09	649.7786	-2.2474E-06	299718.
516.000	-1.73E-08	1.2512	-.0595542	-2.2284E-09	649.7772	.0008749	303318.
522.000	-2.67E-08	.9105990	-.0528328	-1.0820E-09	649.7760	.0013656	306918.
528.000	-3.03E-08	.6185424	-.0440332	-2.7106E-10	649.7749	.0015676	310518.
534.000	-2.99E-08	.3825265	-.0346266	2.5981E-10	649.7740	.0015679	314118.
540.000	-2.72E-08	.2027116	-.0256062	5.7017E-10	649.7733	.0014389	317718.
546.000	-2.31E-08	.0745673	-.0175773	7.1721E-10	649.7729	.0012374	321318.
552.000	-1.86E-08	-.0090770	-.0108488	7.5194E-10	649.7726	.0010054	324918.
558.000	-1.41E-08	-.0565207	-.0055192	7.1715E-10	649.7728	.0007711	328518.
564.000	-9.96E-09	-.0761685	-.0015519	6.4679E-10	649.7729	.0005513	332118.
570.000	-6.32E-09	-.0759200	.0011632	5.6614E-10	649.7729	.0003537	335718.
576.000	-3.17E-09	-.0628890	.0027617	4.9252E-10	649.7728	.0001791	339318.
582.000	-4.12E-10	-.0433709	.0033695	4.3617E-10	649.7727	2.3525E-05	342918.
588.000	2.07E-09	-.0229783	.0030819	4.0099E-10	649.7727	-.0001194	346518.
594.000	4.40E-09	-.0068695	.0019534	3.8516E-10	649.7726	-.0002568	350118.
600.000	6.69E-09	0.0000	0.0000	3.8152E-10	649.7726	-.0003944	176859.

Output Verification:

Computed forces and moments are within specified convergence limits.

Output Summary for Load Case No. 7:

```
Pile-head deflection             =      .98503503 in
Computed slope at pile head      =     -.01161396
Maximum bending moment           =   597061.68285 lbs-in
Maximum shear force              =    10000.00000 lbs
Depth of maximum bending moment  =    84.00000000 in
Depth of maximum shear force     =        0.00000 in
Number of iterations             =             16
Number of zero deflection points =              6
```

Computed Values of Load Distribution and Deflection
for Lateral Loading for Load Case Number 8

Pile-head boundary conditions are Shear and Slope (BC Type 2)
Specified shear force at pile head = 10000.000 lbs
Specified slope at pile head = 0.000E+00 in/in
Specified axial load at pile head = 100000.000 lbs

(Zero slope for this load indicates fixed-head conditions)

Depth X in	Deflect. y in	Moment M lbs-in	Shear V lbs	Slope S Rad.	Total Stress lbs/in**2	Soil Res. p lbs/in	Es*h F/L lbs/in
0.000	.247693	-518711.	10000.0000	6.9389E-18	2575.3067	0.0000	0.0000
6.000	.246043	-458546.	9953.9526	-.0005182	2351.9650	-15.3491	374.3042
12.000	.241474	-398642.	9809.9128	-.0009728	2129.5914	-32.6641	811.6169
18.000	.234369	-339660.	9563.8355	-.0013643	1910.6412	-49.3617	1263.6913
24.000	.225102	-282239.	9223.8927	-.0016941	1697.4852	-63.9526	1704.6290
30.000	.214039	-226940.	8804.8928	-.0019642	1492.2089	-75.7140	2122.4335
36.000	.201532	-174223.	8326.1625	-.0021769	1296.5147	-83.8628	2496.7559
42.000	.187916	-124414.	7808.4234	-.0023353	1111.6162	-88.7169	2832.6506
48.000	.173509	-77719.6875	7258.9143	-.0024425	938.2797	-94.4528	3266.2125
54.000	.158607	-34376.1429	6691.3021	-.0025019	777.3820	-94.7513	3584.3840
60.000	.143486	5578.2320	6109.4121	-.0025172	670.4798	-99.2120	4148.6455
66.000	.128401	41957.4237	5493.5573	-.0024920	805.5248	-106.0729	4956.6553
72.000	.113582	74491.2908	4839.3120	-.0024302	926.2954	-112.0089	5916.8879
78.000	.099238	102945.	4145.9609	-.0023361	1031.9214	-119.1082	7201.3703
84.000	.085549	127046.	3415.4017	-.0022142	1121.3869	-124.4116	8725.6682
90.000	.072668	146587.	2659.0564	-.0020691	1193.9263	-127.7035	10544.1349
96.000	.060720	161438.	1889.5032	-.0019057	1249.0535	-128.8142	12728.6579
102.000	.049800	171548.	1120.1908	-.0017291	1286.5848	-127.6232	15376.4272
108.000	.039971	176955.	365.1433	-.0015443	1306.6557	-124.0593	18622.5407
114.000	.031268	177783.	-361.3262	-.0013562	1309.7297	-118.0972	22661.6822
120.000	.023696	174246.	-1044.8604	-.0011695	1296.6014	-109.7475	27788.3003
126.000	.017234	166648.	-1634.6795	-.0009887	1268.3952	-86.8589	30240.0000
132.000	.011832	155817.	-2082.6721	-.0008177	1228.1877	-62.4720	31680.0000
138.000	.007421	142637.	-2392.9851	-.0006594	1179.2635	-40.9656	33120.0000
144.000	.003918	127892.	-2583.5935	-.0005160	1124.5278	-22.5705	34560.0000
150.000	.001230	112253.	-2673.4370	-.0003886	1066.4737	-7.3773	36000.0000
156.000	-.000745	96277.3829	-2681.6214	-.0002780	1007.1686	4.6491	37440.0000
162.000	-.002107	80407.5315	-2626.7143	-.0001843	948.2573	13.6532	38880.0000
168.000	-.002957	64978.0275	-2526.1371	-.0001072	890.9807	19.8725	40320.0000
174.000	-.003394	50222.5832	-2395.6539	-4.6156E-05	836.2063	23.6219	41760.0000
180.000	-.003511	36285.5675	-2146.2178	-2.8011E-07	784.4700	59.5235	101718.
186.000	-.003397	24468.3057	-1788.7483	3.1938E-05	740.6026	59.6330	105318.
192.000	-.003128	14782.2624	-1439.5106	5.2753E-05	704.6465	56.7795	108918.
198.000	-.002764	7130.8744	-1113.6566	6.4374E-05	676.2435	51.8385	112518.
204.000	-.002355	1341.1348	-821.3920	6.8866E-05	654.7511	45.5830	116118.
210.000	-.001938	-2808.4693	-568.6433	6.8088E-05	660.1980	38.6665	119718.
216.000	-.001538	-5564.2905	-357.7944	6.3648E-05	670.4281	31.6164	123318.

222.000	-.001174	-7178.3794	-188.4376	5.6891E-05	676.4198	24.8358	126918.
228.000	-.000856	-7893.8107	-58.0945	4.8898E-05	679.0756	18.6119	130518.
234.000	-.000587	-7934.1911	37.1269	4.0504E-05	679.2255	13.1286	134118.
240.000	-.000370	-7496.8923	101.9598	3.2321E-05	677.6022	8.4823	137718.
246.000	-.000199	-6749.4586	141.5020	2.4766E-05	674.8276	4.6984	141318.
252.000	-7.24E-05	-5828.5877	160.8404	1.8096E-05	671.4092	1.7478	144918.
258.000	1.77E-05	-4841.0883	164.7718	1.2437E-05	667.7434	-.4372875	148518.
264.000	7.69E-05	-3866.2505	157.6120	7.8199E-06	664.1247	-1.9493	152118.
270.000	.000112	-2959.1277	143.0825	4.2003E-06	660.7573	-2.8939	155718.
276.000	.000127	-2154.3014	124.2610	1.4886E-06	657.7697	-3.3800	159318.
282.000	.000129	-1469.7825	103.5829	-4.3324E-07	655.2286	-3.5127	162918.
288.000	.000122	-910.7865	82.8795	-1.6957E-06	653.1536	-3.3884	166518.
294.000	.000109	-473.1940	63.4411	-2.4296E-06	651.5291	-3.0910	170118.
300.000	9.29E-05	-146.5779	46.0956	-2.7583E-06	650.3167	-2.6908	173718.
306.000	7.59E-05	83.2628	31.2922	-2.7919E-06	650.0817	-2.2437	177318.
312.000	5.94E-05	232.2781	19.1847	-2.6245E-06	650.6348	-1.7921	180918.
318.000	4.44E-05	316.6291	9.7096	-2.3334E-06	650.9480	-1.3662	184518.
324.000	3.14E-05	351.5940	2.6543	-1.9791E-06	651.0777	-.9855234	188118.
330.000	2.07E-05	350.8562	-2.2843	-1.6066E-06	651.0750	-.6607063	191718.
336.000	1.22E-05	326.1098	-5.4535	-1.2476E-06	650.9831	-.3956646	195318.
342.000	5.71E-06	286.9119	-7.2080	-9.2247E-07	650.8376	-.1891964	198918.
348.000	1.08E-06	240.7203	-7.8855	-6.4266E-07	650.6662	-.0366178	202518.
354.000	-2.01E-06	193.0573	-7.7887	-4.1262E-07	650.4892	.0688829	206118.
360.000	-3.87E-06	147.7512	-7.1766	-2.3189E-07	650.3211	.1351498	209718.
366.000	-4.79E-06	107.2165	-6.2605	-9.6680E-08	650.1706	.1702221	213318.
372.000	-5.03E-06	72.7416	-5.2046	-1.2468E-09	650.0426	.1817330	216918.
378.000	-4.80E-06	44.7628	-4.1299	6.1067E-08	649.9387	.1765174	220518.
384.000	-4.29E-06	23.1101	-3.1191	9.7060E-08	649.8584	.1603928	224118.
390.000	-3.64E-06	7.2169	-2.2237	1.1314E-07	649.7994	.1380761	227718.
396.000	-2.94E-06	-3.7103	-1.4699	1.1500E-07	649.7864	.1132017	231318.
402.000	-2.26E-06	-10.5597	-.8650487	1.0743E-07	649.8118	.0884096	234918.
408.000	-1.65E-06	-14.2198	-.4033953	9.4294E-08	649.8254	.0654749	238518.
414.000	-1.13E-06	-15.5136	-.0705946	7.8526E-08	649.8302	.0454586	242118.
420.000	-7.05E-07	-15.1611	.1523635	6.2259E-08	649.8289	.0288607	245718.
426.000	-3.79E-07	-13.7600	.2862431	4.6922E-08	649.8237	.0157658	249318.
432.000	-1.42E-07	-11.7825	.3514549	3.3377E-08	649.8163	.0059715	252918.
438.000	2.11E-08	-9.5826	.3666622	2.2047E-08	649.8082	-.0009024	256518.
444.000	1.23E-07	-7.4090	.3479710	1.3036E-08	649.8001	-.0053280	260118.
450.000	1.78E-07	-5.4226	.3085769	6.2313E-09	649.7927	-.0078034	263718.
456.000	1.98E-07	-3.7136	.2587461	1.3863E-09	649.7864	-.0088069	267318.
462.000	1.94E-07	-2.3193	.2060226	-1.8130E-09	649.7812	-.0087676	270918.
468.000	1.76E-07	-1.2391	.1555737	-3.7000E-09	649.7772	-.0080487	274518.
474.000	1.50E-07	-.4479544	.1106000	-4.5947E-09	649.7742	-.0069425	278118.
480.000	1.21E-07	.0935803	.0727595	-4.7826E-09	649.7729	-.0056710	281718.
486.000	9.24E-08	.4308987	.0425672	-4.5045E-09	649.7742	-.0043931	285318.
492.000	6.67E-08	.6097920	.0197486	-3.9526E-09	649.7748	-.0032131	288918.
498.000	4.50E-08	.6726255	.0035348	-3.2725E-09	649.7751	-.0021915	292518.
504.000	2.75E-08	.6561361	-.0071050	-2.5679E-09	649.7750	-.0013551	296118.
510.000	1.41E-08	.5904467	-.0132888	-1.9068E-09	649.7748	-.0007062	299718.
516.000	4.57E-09	.4989589	-.0161012	-1.3291E-09	649.7744	-.0002313	303318.
522.000	-1.81E-09	.3988275	-.0165169	-8.5298E-10	649.7741	9.2688E-05	306918.
528.000	-5.66E-09	.3017791	-.0153600	-4.8145E-10	649.7737	.0002930	310518.
534.000	-7.59E-09	.2150854	-.0132891	-2.0735E-10	649.7734	.0003973	314118.
540.000	-8.15E-09	.1425585	-.0108026	-1.7689E-11	649.7731	.0004315	317718.
546.000	-7.80E-09	.0854756	-.0082546	1.0324E-10	649.7729	.0004178	321318.
552.000	-6.91E-09	.0433790	-.0058786	1.7157E-10	649.7727	.0003742	324918.
558.000	-5.74E-09	.0147263	-.0038127	2.0239E-10	649.7726	.0003144	328518.
564.000	-4.48E-09	-.0026162	-.0021252	2.0881E-10	649.7726	.0002481	332118.
570.000	-3.24E-09	-.0110266	-.0008376	2.0157E-10	649.7726	.0001811	335718.
576.000	-2.06E-09	-.0129096	5.5703E-05	1.8888E-10	649.7726	.0001167	339318.
582.000	-9.71E-10	-.0105848	.0005721	1.7642E-10	649.7726	5.5467E-05	342918.
588.000	5.43E-11	-.0062565	.0007290	1.6749E-10	649.7726	-3.1379E-06	346518.
594.000	1.04E-09	-.0020372	.0005377	1.6309E-10	649.7726	-6.0650E-05	350118.
600.000	2.01E-09	0.0000	0.0000	1.6201E-10	649.7726	-.0001186	176859.

Output Verification:

Computed forces and moments are within specified convergence limits.

Output Summary for Load Case No. 8:

```
Pile-head deflection            =      .24769326 in
Computed slope at pile head     =   6.938894E-18
Maximum bending moment          =  -518711.37892 lbs-in
Maximum shear force             =    10000.00000 lbs
Depth of maximum bending moment =        0.00000 in
Depth of maximum shear force    =        0.00000 in
Number of iterations            =             12
Number of zero deflection points =             6
```

Summary of Pile Response(s)

Definition of Symbols for Pile-Head Loading Conditions:

```
Type 1 = Shear and Moment,          y = pile-head displacment in
Type 2 = Shear and Slope,           M = Pile-head Moment lbs-in
Type 3 = Shear and Rot. Stiffness,  V = Pile-head Shear Force lbs
Type 4 = Deflection and Moment,     S = Pile-head Slope, radians
Type 5 = Deflection and Slope,      R = Rot. Stiffness of Pile-head in-lbs/rad
```

Load Type	Pile-Head Condition 1	Pile-Head Condition 2	Axial Load lbs	Pile-Head Deflection in	Maximum Moment in-lbs	Maximum Shear lbs
1	V= 3000.000	M= 0.000	100000.0000	.1599846	127746.	3000.0000
2	V= 3000.000	S= 0.000	100000.0000	.0419583	-121939.	3000.0000
1	V= 5000.000	M= 0.000	100000.0000	.3548267	248986.	5000.0000
2	V= 5000.000	S= 0.000	100000.0000	.0907281	-227188.	5000.0000
1	V= 7500.000	M= 0.000	100000.0000	.6414047	412250.	7500.0000
2	V= 7500.000	S= 0.000	100000.0000	.1642140	-369268.	7500.0000
1	V= 10000.	M= 0.000	100000.0000	.9850350	597062.	10000.0000
2	V= 10000.	S= 0.000	100000.0000	.2476933	-518711.	10000.0000

The analysis ended normally.

Boring Logs

FINDLING, INC.

BORING LOG

Sheet 1 of 1

Boring 1 of 4

Project No.: 20-1001 **Project Description:** MSA DLS Building

Boring No. B-1 **Station:** , ' **Ground Surface Elevation:** 34.8 ft

Easting: 1456830.3869 **Northing:** 478599.1572 **Logged by:** D. Tajhya

Date Started: 12/19/20 **Date Completed:** 12/19/20

Inspector: **Driller:** D. Fincham

Rig Type	ATV 45	
Rig No.	R-3	
Drive Hammer Weight	140	LB
Auger Size	3-1/4	IN
Size of Core		IN
Size of Bit OD		IN
Hammer Energy Ratio		%
Auger Depth		FT

WATER TABLE

Depth Below Surface		Time (hours)	Date
Depth (ft)	Elev (ft)		
▼ 23.50	11.29		12/19/20
▽ 18.30	16.49	24 hrs.	12/20/20

CAVE-IN TABLE

Depth Below Surface		Time (hours)	Date
Depth (ft)	Elev (ft)		
			12/19/20
			12/20/20

DEPTH IN FEET	ELEV. IN FEET	MATL	MATERIAL DESCRIPTION	SPT SPOON/ROCK CORE SAMPLE NO.	BLOWS/ RQD	SAMPLE DEPTH	REC. SPT(in) or Core (%)	LAB. INDEX TESTS NMC (%)	LL (%)	PI (%)	REMARKS
0.5	34.29		Topsoil = 6"	1	1-2-7	0.0-1.5	10				Bulk @ 1.0'-5.0'
2.5	32.29		Brown, moist, loose, Silty Clayey SAND (SC-SM); little Gravel (FILL)	2	2-2-1	2.5-4.0	8				
				3	1-1-2	5.0-6.5	8				
			Red, brown, grey, moist, very looseSilty SAND (SM); little Clay (Possible FILL)	4	1-2-1	7.5-9.0	12				
				5	1-2-2	10.0-11.5	10				
15.0	19.79		Red, brown, green, moist, medium dense SAND (SP); little Silt, Cemented Sand Fragments ▽	6	5-7-7	15.0-16.5	14				
			▼	7	5-6-10	20.0-21.5	18				
25.0	9.79		Red, brown, wet, medium dense SAND (SP); some Silt, Cemented Sand Fragments	8	4-6-8	25.0-26.5	18				Kept water in Auger from 25'
30.0	4.79		Brown, green, red, wet, medium dense to dense Silty SAND (SM); trace to little Cemented Sand Fragments	9	7-9-10	30.0-31.5	18				
35.0	-0.22		Red, brown, wet, dense Clayey SAND (SC); some Silt, Cemented Sand Fragments	10	7-14-18	35.0-36.5	18				
				11	11-19-18	40.0-41.5	18				
45.0	-10.22		Red, brown, green, wet, dense SAND (SP); little to some Silt; little Cemented Sand Fragments	12	10-13-15	45.0-46.5	18				
				13	8-11-16	50.0-51.6	18				
55.0	-20.22		Green, brown, wet, dense to very dense to dense SAND (SP); little Silt	14	14-21-25	55.0-56.5	18				
				15	12-18-23	60.0-61.5	18				
				16	15-28-41	65.0-66.5	18				
				17	10-19-27	70.0-71.5	18				
75.0	-40.22		Dark green, wet, very dense SAND (SP); little Silt; trace Mica	18	11-20-32	75.0-76.5	18				
81.5	-46.72		Bottom of Boring @ 81.5 '	19	15-26-48	80.0-81.5	18				4 Drums Auger Cuttings

20-1001 M&D MSA DLS BUILDING.GPJ-1/29/21

Legend: NMC - Natural Moisture Content; PI - Plasticity Index; REC - Recovery; MATL- Material Graphics; SPT- Standard Penetration Test; RQD - Rock Quality Designation; LL - Liquid Limit; Elev - Elevation; Geotech - Geotechnical; OD - Outside Diameter

Boring and Sampling Conforms to ASTM/AASHTO:

FINDLING, INC.

BORING LOG

Sheet 1 of 1

Boring 2 of 4

Project No.: 20-1001 **Project Description:** MSA DLS Building

Boring No. B-2 **Station:** , ' **Ground Surface Elevation:** 34.4 ft

Easting: 1456903.8357 **Northing:** 478654.8283 **Logged by:** D. Tajhya

Date Started: 12/9/20 **Date Completed:** 12/9/20

Inspector: **Driller:** D. Fincham

Rig Type	Truck 75	
Rig No.	R-1	
Drive Hammer Weight	140	LB
Auger Size	3-1/4	IN
Size of Core		IN
Size of Bit OD		IN
Hammer Energy Ratio		%
Auger Depth		FT

WATER TABLE

Depth Below Surface		Time (hours)	Date
Depth (ft)	Elev (ft)		
19.80	14.63	END	12/9/20
18.60	15.83	24 hrs.	12/10/20

CAVE-IN TABLE

Depth Below Surface		Time (hours)	Date
Depth (ft)	Elev (ft)		
46.30	-11.87	END	12/9/20
34.00	0.43	24 hrs.	12/10/20

DEPTH IN FEET	ELEV. IN FEET	MATL	MATERIAL DESCRIPTION	SPT SPOON/ROCK CORE SAMPLE NO.	BLOWS/ RQD	SAMPLE DEPTH	REC. SPT(in) or Core (%)	LAB. INDEX TESTS NMC (%)	LL (%)	PI (%)	REMARKS
0.7	33.73		Concrete = 8"								
1.5	32.93		Subbase = 10"	1	5-6-6	1.0-2.5	12				Bulk @ 2.0'-6.0'
			Brown, moist, medium dense to loose to medium dense, Silty Clayey SAND (FILL)	2	5-4-3		14				
				3	4-4-4	2.5-4.0	16				
10.0	24.43			4	4-6-7	5.0-6.5	18				
			Brown, moist, loose, Silty Clayey SAND (SC-SM)	5	4-3-4	7.5-9.0	18				
15.0	19.43										
			Orange, brown, green, moist, very loose to medium dense, Silty Poorly Graded SAND (SP-SM)	6	2-2-2	10.0-11.5	18				
						15.0-16.5					
				7	3-4-7	20.0-21.5	18				
25.0	9.43										
			Red, brown, green, wet, medium dense, Silty SAND (SM); little Cemented Sand Fragments	8	4-6-7	25.0-26.5	18				Water on Rod @ 25'; Kept water in Auger from 25'
30.0	4.43			9	4-6-7	30.0-31.5	14				
35.0	-0.57		Green, brown, wet, medium dense SAND (SP-SM); with some Silt	10	6-9-14	35.0-36.5	18				
40.0	-5.57		Green, brown, wet, medium dense, Silty SAND (SM); trace Clay	11	6-14-12	40.0-41.5	18				
45.0	-10.57		Red, brown, green, wet, dense, Silty Clayey SAND (SC-SM); little Cemented Sand Fragments	12	9-11-13	45.0-46.5	18				
50.0	-15.57			13	7-8-12	50.0-51.5	18				
55.0	-20.57		Red, brown, green, wet, medium dense, Silty SAND (SM); little Cemented Sand Fragments	14	7-12-15	55.0-56.5	18				
			Green, brown, wet, medium dense SAND (SP); little Silt, Cemented Sand Fragments	15	10-14-19	60.0-61.5	18				
			Brown, green, red, wet, dense SAND (SP); little Silt	16	10-15-18	65.0-66.5	18				
				17	9-15-18	70.0-71.5	18				
				18	9-12-18	75.0-76.5	18				
80.0	-45.57										
81.5	-47.07		Green, wet, dense SAND (SP); some Silt	19	9-16-25	80.0-81.5	18				3 Drums Auger Cuttings
			Bottom of Boring @ 81.5 '								

20-1001 M&D MSA DLS BUILDING.GPJ-1/29/21

Legend: NMC - Natural Moisture Content; PI - Plasticity Index; REC - Recovery; MATL- Material Graphics; SPT- Standard Penetration Test; RQD - Rock Quality Designation; LL - Liquid Limit; Elev - Elevation; Geotech - Geotechnical; OD - Outside Diameter

Boring and Sampling Conforms to ASTM/AASHTO:

FINDLING, INC.

BORING LOG

Sheet 1 of 1

Boring 3 of 4

Project No.: 20-1001 **Project Description:** MSA DLS Building

Boring No. B-3 **Station:** , ' **Ground Surface Elevation:** 34.3 ft

Easting: 1456932.7603 **Northing:** 478703.5762 **Logged by:** D. Tajhya

Date Started: 12/10/20 **Date Completed:** 12/10/20

Inspector: **Driller:** D. Fincham

Rig Type	Truck 75	
Rig No.	R-1	
Drive Hammer Weight	140	LB
Auger Size	3-1/4	IN
Size of Core		IN
Size of Bit OD		IN
Hammer Energy Ratio		%
Auger Depth		FT

WATER TABLE

Depth Below Surface		Time (hours)	Date
Depth (ft)	Elev (ft)		
▼ 24.00	10.30		12/10/20
▽ 17.25	17.05	24 hrs.	12/20/20

CAVE-IN TABLE

Depth Below Surface		Time (hours)	Date
Depth (ft)	Elev (ft)		
			12/10/20
			12/20/20

DEPTH IN FEET	ELEV. IN FEET	MATL	MATERIAL DESCRIPTION	SPT SPOON/ROCK CORE SAMPLE NO.	BLOWS/ RQD	SAMPLE DEPTH	REC. SPT(in) or Core (%)	LAB. INDEX TESTS NMC (%)	LL (%)	PI (%)	REMARKS
0.7	33.60		Concrete = 8"								
1.5	32.80		Subbase = 10"	1	4-30-19	1.0-2.5	12				Bulk @ 2.0'-6.0'
5.0	29.30		Brown, grey, damp, dense Clayey SAND (SC); some Brick; little Silt, trace Shells (FILL)	2	9-9-9		10				
				3	2-2-3	2.5-4.0	14				
10.0	24.30			4	4-5-5	5.0-6.5	14				
				5	3-3-3		16				
15.0	19.30		Brown, moist, loose, Silty Clayey SAND (SC-SM)			7.5-9.0					
			Red, brown, damp, loose SAND (SP); little Silt	6	5-9-11	10.0-11.5	18				
			Red, brown, green, moist, medium dense Silty SAND (SM); little Clay; trace Cemented Sand Fragments	7	4-9-11	15.0-16.5	18				
25.0	9.30					20.0-21.5					
				8	4-7-10	25.0-26.5	18				Kept water in Auger from 25'
			Red, brown, green, wet, medium dense SAND (SP); little Silt; trace Cemented Sand Fragments	9	4-5-7	30.0-31.5	18				
35.0	-0.70										
			Red, brown, green, wet, dense SAND (SP); little Silt; trace Clay; trace to little Cemented Sand Fragments	10	6-13-18	35.0-36.5	18				
				11	9-12-19	40.0-41.5	18				
45.0	-10.70										
			Red, brown, green, wet, medium dense SAND (SP); little Silt	12	7-15-9	45.0-46.5	18				
				13	5-7-12	50.0-51.5	18				
55.0	-20.70										
			Green, red, brown, wet, dense SAND (SP); little Silt; trace Cemented Sand Fragments	14	8-12-16	55.0-56.5	18				
				15	9-13-15	60.0-61.5	18				
				16	8-15-20	65.0-66.5	18				
				17	7-14-14	70.0-71.5	18				
75.0	-40.70										
			Dark green, wet, dense SAND (SP); little to some Silt	18	8-12-17	75.0-76.5	18				
81.5	-47.20			19	11-14-16	80.0-81.5	18				4 Drums Auger Cuttings
			Bottom of Boring @ 81.5 '								

Legend: NMC - Natural Moisture Content; PI - Plasticity Index; REC - Recovery; MATL- Material Graphics; SPT- Standard Penetration Test; RQD - Rock Quality Designation; LL - Liquid Limit; Elev - Elevation; Geotech - Geotechnical; OD - Outside Diameter

Boring and Sampling Conforms to ASTM/AASHTO:

FINDLING, INC.

BORING LOG

Sheet 1 of 1
Boring 4 of 4

Project No.: 20-1001 **Project Description:** MSA DLS Building

Boring No. B-4 **Station:** , ' **Ground Surface Elevation:** 35.3 ft

Easting: 1456983.3009 **Northing:** 478527.0641 **Logged by:** D. Tajhya

Date Started: 12/15/20 **Date Completed:** 12/15/20

Inspector: **Driller:** D. Fincham

Rig Type	ATV 45	
Rig No.	R-3	
Drive Hammer Weight	140	LB
Auger Size	3-1/4	IN
Size of Core		IN
Size of Bit OD		IN
Hammer Energy Ratio		%
Auger Depth		FT

WATER TABLE

Depth Below Surface		Time (hours)	Date
Depth (ft)	Elev (ft)		
▼ 25.00	10.27		12/15/20
▽ 18.85	16.42	24 hrs.	12/20/20

CAVE-IN TABLE

Depth Below Surface		Time (hours)	Date
Depth (ft)	Elev (ft)		
			12/15/20
			12/20/20

DEPTH IN FEET	ELEV. IN FEET	MATL	MATERIAL DESCRIPTION	SPT SPOON/ROCK CORE SAMPLE NO.	BLOWS/ RQD	SAMPLE DEPTH	REC. SPT(in) or Core (%)	LAB. INDEX TESTS NMC (%)	LL (%)	PI (%)	REMARKS
0.4	34.87		Topsoil = 5"	1	1-4-7	0.0-1.5	10				
2.5	32.77		Brown, damp, medium dense Clayey SAND (SC); little Silt (FILL)	2	4-4-3	2.5-4.0	10				Bulk @ 1.0'-5.0'
				3	1-3-4	5.0-6.5	10				
10.0	25.27		Red, brown, moist, loose SAND (SP); little Silt, Clay; trace Concrete Fragments (FILL)	4	3-3-4	7.5-9.0	12				
				5	4-6-7	10.0-11.5	16				
20.0	15.27		Red, brown, damp, medium dense Silty SAND (SM); trace Clay (Possible FILL) ▽	6	7-7-6	15.0-16.5	8				
			Red, brown, green, moist, medium dense Silty SAND (SP-SM); little Clay ▼	7	5-7-11	20.0-21.5	14				
30.0	5.27			8	5-7-12	25.0-26.5	18				
35.0	0.27		Green, brown, red, moist, medium dense to dense SAND (SP); little Silt	9	5-7-10	30.0-31.5	18				Kept water in Auger from 30'
			Red, brown, green, miost, dense SAND (SP); little Silt, Clay, Cemented Sand Fragments	10	6-10-20	35.0-36.5	18				
				11	6-11-19	40.0-41.5	18				
50.0	-14.73			12	12-18-18	45.0-46.5	18				
55.0	-19.73		Red, brown, wet, dense SAND (SP); little Silt; trace Cemented Sand Fragments	13	10-17-14	50.0-51.5	18				
60.0	-24.73		Green, brown, moist, dense SAND (SP); little Silt, Clay	14	14-19-29	55.0-56.5	18				
			Brown, green, wet, dense to very dense to dense SAND (SP); little Silt	15	15-22-27	60.0-61.5	18				
				16	14-30-47	65.0-66.5	18				
75.0	-39.73			17	11-15-19	70.0-71.5	18				
81.5	-46.23		Dark green, wet, very dense SAND (SP); little Silt; trace Mica	18	12-24-29	75.0-76.5	18				
			Bottom of Boring @ 81.5 '	19	14-22-35	80.0-81.5	18				4 Drums Auger Cuttings

Legend: NMC - Natural Moisture Content; PI - Plasticity Index; REC - Recovery; MATL- Material Graphics; SPT- Standard Penetration Test; RQD - Rock Quality Designation; LL - Liquid Limit; Elev - Elevation; Geotech - Geotechnical; OD - Outside Diameter

Boring and Sampling Conforms to ASTM/AASHTO:

(Blank Page – End of Report)

Attachment D

MBE Instructions and Forms

Attachment D. Minority Business Enterprise (MBE) Forms

D-1A
MBE UTILIZATION AND FAIR SOLICITATION AFFIDAVIT
& MBE PARTICIPATION SCHEDULE

PART 1 - INSTRUCTIONS

PLEASE READ BEFORE COMPLETING THIS DOCUMENT

This form includes Instructions and the MBE Utilization and Fair Solicitation Affidavit & MBE Participation Schedule which must be submitted with the bid/proposal. If the bidder/offeror fails to accurately complete and submit this Affidavit and Schedule with the bid or proposal, the Procurement Officer shall deem the bid non-responsive or shall determine that the proposal is not reasonably susceptible of being selected for award.

1. Contractor shall structure its procedures for the performance of the work required in this Contract to attempt to achieve the minority business enterprise (MBE) subcontractor participation goal stated in the Invitation for Bids or Request for Proposals. Contractor agrees to exercise good faith efforts to carry out the requirements set forth in these Instructions, as authorized by the Code of Maryland Regulations (COMAR) 21.11.03.

2. MBE Goals and Subgoals: Please review the solicitation for information regarding the Contract's MBE overall participation goals and subgoals. After satisfying the requirements for any established subgoals, the Contractor is encouraged to use a diverse group of subcontractors and suppliers from the various MBE classifications to meet the remainder of the overall MBE participation goal.

3. MBE means a minority business enterprise that is certified by the Maryland Department of Transportation ("MDOT"). Only MBEs certified by MDOT may be counted for purposes of achieving the MBE participation goals. In order to be counted for purposes of achieving the MBE participation goals, the MBE firm, including a MBE prime, must be MDOT-certified for the services, materials or supplies that it is committed to perform on the MBE Participation Schedule. A firm whose MBE certification application is pending may not be counted.

4. Please refer to the MDOT MBE Directory at https://mbe.mdot.maryland.gov/directory/ to determine if a firm is certified with the appropriate North American Industry Classification System ("NAICS") Code **and** the product/services description (specific product that a firm is certified to provide or specific areas of work that a firm is certified to perform). For more general information about NAICS codes, please visit https://www.census.gov/eos/www/naics/. Only those specific products and/or services for which a firm is certified in the MDOT Directory can be used for purposes of achieving the MBE participation goals. **CAUTION:** If the firm's NAICS Code is in graduated status, such services/products may not be counted for purposes of achieving the MBE participation goals. A NAICS Code is in the graduated status if the term "Graduated" follows the Code in the MDOT MBE Directory.

5. **Guidelines Regarding MBE Prime Self-Performance.** Please note that when a certified MBE firm participates as a prime contractor on a Contract, a procurement agency may count the distinct, clearly defined portion of the work of the Contract that the certified MBE firm performs with its own workforce toward fulfilling up to, but no more than, fifty-percent (50%) of the overall MBE participation goal, including up to one hundred percent (100%) of not more than one of the MBE participation subgoals, if any, established for the Contract.

- ✓ In order to receive credit for self-performance, an MBE prime must be certified in the appropriate NAICS code to do the work and must list its firm in the MBE Participation Schedule, including the certification category under which the MBE prime is self-performing and include information regarding the work it will self-perform.
- ✓ For the remaining portion of the overall goal and the remaining subgoals, the MBE prime must also identify on the MBE Participation Schedule the other certified MBE subcontractors used to meet those goals or request a waiver.
- ✓ These guidelines apply to the work performed by the MBE Prime that can be counted for purposes of meeting the MBE participation goals. These requirements do not affect the MBE Prime's ability to self-perform a greater portion of the work in excess of what is counted for purposes of meeting the MBE participation goals.
- ✓ Please note that the requirements to meet the MBE participation overall goal and subgoals are distinct and separate. If the contract has subgoals, regardless of MBE Prime's ability to self-perform up to 50% of the overall goal (including up to 100% of any subgoal), the MBE Prime must either commit to use other MBEs for each of any remaining subgoals or request a waiver. As set forth in Attachment 1-B Waiver Guidance, the MBE Prime's ability to self-perform certain portions of the work of the Contract will not be deemed a substitute for the good faith efforts to meet any remaining subgoal or the balance of the overall goal.
- ✓ In certain instances where the percentages allocated to MBE participation subgoals add up to more than 50% of the overall goal, the portion of self-performed work that an MBE Prime may count toward the overall goal may be limited to less than 50%. Please refer to the Governor's Office of Small Minority & Women Business Affairs' website for the MBE Prime Regulations Q&A for illustrative examples. http://www.goMDsmallbiz.maryland.gov/Documents/MBE_Toolkit/MBEPrimeRegulation_QA.pdf

6. Subject to items 1 through 5 above, when a certified MBE performs as a participant in a joint venture, a procurement agency may count a portion of the total dollar value of the Contract equal to the distinct, clearly-defined portion of the work of the Contract that the certified MBE performs with its own forces toward fulfilling the Contract goal, and not more than one of the Contract subgoals, if any.

7. The work performed by a certified MBE firm, including an MBE prime, can only be counted towards the MBE participation goal(s) if the MBE firm is performing a commercially useful function on the Contract. Please refer to COMAR 21.11.03.12-1 for more information regarding these requirements.

8. **Materials and Supplies: New Guidelines Regarding MBE Participation.**

   - ✓ Regular Dealer (generally identified as a wholesaler or supplier in the MDOT Directory): Up to 60% of the costs of materials and supplies provided by a certified MBE may be counted towards the MBE participation goal(s) if such MBE is a Regular Dealer of such materials and supplies. Regular Dealer is defined as a firm that owns, operates, or maintains a store, a warehouse, or any other establishment in which the materials, supplies, articles, or equipment are of the general character described by the specifications required under the contract and are bought, kept in stock, or regularly sold or leased to the public in the usual course of business; and does not include a packager, a broker, a manufacturer's representative, or any other person that arranges or expedites transactions.

Example for illustrative purposes of applying the 60% rule:

Overall contract value: $2,000,000
Total value of supplies: $100,000

Calculate Percentage of Supplies to overall contract value: $100,000 divided by $2,000,000 = 5%

Apply 60% Rule - Total percentage of Supplies/Products 5% x 60% = 3%

***3%** would be counted towards achieving the MBE Participation Goal and Subgoal, if any, for the MBE supplier in this example.*

- ✓ Manufacturer: A certified MBE firm's participation may be counted in full if the MBE is certified in the appropriate NAICS code(s) to provide products and services as a manufacturer.

- ✓ Broker: With respect to materials or supplies purchased from a certified MBE that is neither a manufacturer nor a regular dealer, a unit may apply the entire amount of fees or commissions charged for assistance in the procurement of the materials and supplies, fees, or transportation charges for the delivery of materials and supplies required on a procurement toward the MBE contract goals, provided a unit determines the fees to be reasonable and not excessive as compared with fees customarily allowed for similar services. A unit may not apply any portion of the costs of the materials and supplies toward MBE goals.

- ✓ Furnish and Install and other Services: The participation of a certified MBE supplier, wholesaler, and/or regular dealer certified in the proper NAICS code(s) to furnish and install materials necessary for successful contract completion may be counted in full. Includes the participation of other MBE service providers in the proper NAICS code(s) may be counted in full.

9. **Dually certified firms**. An MBE that is certified in more than one subgroup category may only be counted toward goal fulfillment of ONE of those categories with regard to a particular contract.

   Example: A woman-owned Hispanic American (dually certified) firm may be used to fulfill the women-owned OR Hispanic American subgoal, but not both on the same contract.

10. CAUTION: The percentage of MBE participation, computed using the percentage amounts determined for all of the MBE firms listed in PART 3, MUST meet or exceed the MBE participation goal and subgoals (if applicable) as set forth in PART 2- for this solicitation. If a bidder/offeror is unable to meet the MBE participation goal or any subgoals (if applicable), then the bidder/offeror must request a waiver in PART 2 or the bid will be deemed not responsive, or the proposal not reasonably susceptible of being selected for award. You may wish to use the attached Goal/Subgoal Worksheet to assist in calculating the percentages and confirming that your commitment meets or exceeds the applicable MBE participation goal and subgoals (if any).

11. If you have any questions as to whether a firm is certified to perform the specific services or provide specific products, please contact MDOT's Office of Minority Business Enterprise at 1-800-544-6056 or via email to mbe@mdot.state.md.us sufficiently prior to the submission due date.

Subgoals (if applicable)

Total African American MBE Participation:	_____%
Total Asian American MBE Participation:	_____%
Total Hispanic American MBE Participation:	_____%
Total Women-Owned MBE Participation:	_____%

Overall Goal

Total MBE Participation (include all categories):	_____%

PART 2 - MBE UTILIZATION AND FAIR SOLICITATION AFFIDAVIT & MBE PARTICIPATION SCHEDULE

This MBE Utilization and Fair Solicitation Affidavit and MBE Participation Schedule must be completed in its entirety and included with the bid/proposal. If the bidder/offeror fails to accurately complete and submit this Affidavit and Schedule with the bid or proposal as required, the Procurement Officer shall deem the bid non-responsive or shall determine that the proposal is not reasonably susceptible of being selected for award.

In connection with the bid/proposal submitted in response to the Request for Proposals for Code Consulting Services for the Razing and Replacement of the Department of Legislative Services Building, I affirm the following:

1. **MBE Participation (PLEASE CHECK ONLY ONE)**

☐ I acknowledge and intend to meet IN FULL both the overall certified Minority Business Enterprise (MBE) participation goal of ten (10%) percent, with no subgoals.

Therefore, I am not seeking a waiver pursuant to COMAR 21.11.03.11. I acknowledge that by checking the above box and agreeing to meet the stated goal and subgoal(s), if any, I must complete PART 3 - MBE Participation Schedule and Part 4 Signature Page in order to be considered for award.

OR

☐ After making good faith outreach efforts prior to making this submission, I conclude that I am unable to achieve the MBE participation goal and/or subgoals. I hereby request a waiver, in whole or in part, of the overall goal and/or subgoals I acknowledge that by checking this box and requesting a partial waiver of the stated goal and/or one or more of the stated subgoal(s) if any, I must complete Part 3, the MBE Participation Schedule and Part 4 Signature Page for the portion of the goal and/or subgoal(s) if any, for which I am not seeking a waiver, in order to be considered for award. I acknowledge that by checking this box and requesting a full waiver of the stated goal and the stated subgoal(s) if any, I must complete Part 4 Signature Page in order to be considered for award.

Additional MBE Documentation

I understand that if I am notified that I am the apparent awardee or as requested by the Procurement Officer, I must submit the following documentation within 10 working days of receiving notice of the potential award or from the date of conditional award (per COMAR 21.11.03.10), whichever is earlier:

(a) Good Faith Efforts Documentation to Support Waiver Request (Attachment D-1C)

(b) Outreach Efforts Compliance Statement (Attachment D-2);

(c) MBE Subcontractor/MBE Prime Project Participation Statement (Attachments D-3A and 3B);

(d) Any other documentation, including additional waiver documentation if applicable, required by the Procurement Officer to ascertain bidder or offeror responsibility in connection with the certified MBE participation goal and subgoals, if any.

I understand that if I fail to return each completed document within the required time, the Procurement Officer may determine that I am not responsible and therefore not eligible for contract award. If the contract has already been awarded, the award is voidable.

Information Provided to MBE firms

In the solicitation of subcontract quotations or offers, MBE firms were provided not less than the same information and amount of time to respond as were non-MBE firms.

PART 3 - MBE PARTICIPATION SCHEDULE

SET FORTH BELOW ARE THE (I) CERTIFIED MBES I INTEND TO USE, (II) THE PERCENTAGE OF THE TOTAL CONTRACT VALUE ALLOCATED TO EACH MBE FOR THIS PROJECT AND, (III) THE ITEMS OF WORK EACH MBE WILL PROVIDE UNDER THE CONTRACT. I HAVE CONFIRMED WITH THE MDOT DATABASE THAT THE MBE FIRMS IDENTIFIED BELOW (INCLUDING ANY SELF-PERFORMING MBE PRIME FIRMS) ARE PERFORMING WORK ACTIVITIES FOR WHICH THEY ARE MDOT-CERTIFIED.

Prime Contractor	Project Description	Project/Contract Number
	Code Consulting Services - Razing & Replacement of the Department of Legislative Services Building	

LIST INFORMATION FOR EACH CERTIFIED MBE FIRM YOU AGREE TO USE TO ACHIEVE THE MBE PARTICIPATION GOAL AND SUBGOALS, IF ANY. MBE PRIMES: PLEASE COMPLETE BOTH SECTIONS A AND B BELOW.

SECTION A: For MBE Prime Contractors ONLY (including MBE Primes in a Joint Venture)

MBE Prime Firm Name:_____

MBE Certification Number: _____

(If dually certified, check only one box.)

☐ African American-Owned
☐ Hispanic American- Owned
☐ Asian American-Owned
☐ Women-Owned
☐ Other MBE Classification

NAICS code: _____

Percentage of total Contract Value to be performed with own forces and counted towards the MBE **overall participation goal** (up to 50% of the overall goal): _____% **Please refer to Item #8 in Part 1- Instructions of this document for new MBE participation guidelines regarding materials and supplies.**

Percentage of total Contract Value to be performed with own forces and counted towards the **subgoal**, if any, for my MBE classification (up to 100% of not more than one subgoal): _____%

☐ Supplier, wholesaler and/or regular dealer (count 60%)
☐ Manufacturer (count 100%)
☐ Broker (count reasonable fee/commission only)
☐ Furnish and Install and other Services (count 100%)

Complete the applicable prompt (select only one) from prompts A-C below that applies to the type of work your firm is self-performing to calculate amount to be counted towards achieving the MBE Participation Goal and Subgoal, if any.

A. Percentage amount of subcontract where the MBE Prime firm is being used for manufacturer, furnish and install, and/or services (excluding products / services from suppliers, wholesalers, regular dealers and brokers) **___%**

B. Percentage amount for items of work where the MBE Prime firm is being used as supplier, wholesaler, and/or regular dealer (60% Rule).
Total percentage of Supplies/Products ___% x 60% = **___%**

C. Percentage amount of fee where the MBE Prime firm is being used as broker (count reasonable fee/commission only) **___ %**

Description of the work to be performed with MBE prime's own forces:
_____
_____

SECTION B: For all Contractors (including MBE Primes and MBE Primes in a Joint Venture)

MBE Firm Name:_____ MBE Certification Number: _____ (If dually certified, check only one box.) ☐ African American-Owned ☐ Hispanic American- Owned ☐ Asian American-Owned ☐ Women-Owned ☐ Other MBE Classification NAICS code: _____	**Please refer to Item #8 in Part 1- Instructions of this document for new MBE participation guidelines regarding materials and supplies.** ☐ Supplier, wholesaler and/or regular dealer (count 60%) ☐ Manufacturer (count 100%) ☐ Broker (count reasonable fee/commission only) ☐ Furnish and Install and other Services (count 100%) **Complete the applicable prompt (select only one) from prompts A-C below that applies to the type of work that the MBE firm named to the left will be performing to calculate the amount to be counted towards achieving the MBE Participation Goal and Subgoal, if any.** **A. Percentage of total contract amount where the MBE firm is being used for manufacturer, furnish and install, and/or services** (excluding products/services from suppliers, wholesalers, regular dealers and brokers) **___%** **B. Percentage of total contract amount for items of work where the MBE firm is being used as supplier, wholesaler, and/or regular dealer** (60% Rule)**)**. Total percentage of Supplies/Products ___% X 60% = **___%** **C. Percentage amount of fee where the MBE firm is being used as broker** (count reasonable fee/commission only) **___ %** Description of the work to be performed: _____ _____
MBE Firm Name:_____ MBE Certification Number: _____ (If dually certified, check only one box.) ☐ African American-Owned ☐ Hispanic American- Owned ☐ Asian American-Owned ☐ Women-Owned ☐ Other MBE Classification NAICS code: _____	**Please refer to Item #8 in Part 1- Instructions of this document for new MBE participation guidelines regarding materials and supplies.** ☐ Supplier, wholesaler and/or regular dealer (count 60%) ☐ Manufacturer (count 100%) ☐ Broker (count reasonable fee/commission only) ☐ Furnish and Install and other Services (count 100%) **Complete the applicable prompt (select only one) from prompts A-C below that applies to the type of work that the MBE Firm named to the left will be performing to calculate the amount to be counted towards achieving the MBE Participation Goal and Subgoal, if any.** **A. Percentage of total contract amount where the MBE firm is being used for manufacturer, furnish and install, and/or services** (excluding products/services from suppliers, wholesalers, regular dealers and brokers) **___%** **B. Percentage of total contract amount for items of work where the MBE firm is being used as supplier, wholesaler, and/or regular dealer** (60% Rule)**)**. Total percentage of Supplies/Products ___% X 60% = **___%** **C. Percentage amount of fee where the MBE firm is being used as broker** (count reasonable fee/commission only) **___ %** Description of the work to be performed: _____ _____

MBE Firm Name:_____ MBE Certification Number: _____ (If dually certified, check only one box.) ☐ African American-Owned ☐ Hispanic American- Owned ☐ Asian American-Owned ☐ Women-Owned ☐ Other MBE Classification NAICS code: _____	**Please refer to Item #8 in Part 1- Instructions of this document for new MBE participation guidelines regarding materials and supplies.** ☐ Supplier, wholesaler and/or regular dealer (count 60%) ☐ Manufacturer (count 100%) ☐ Broker (count reasonable fee/commission only) ☐ Furnish and Install and other Services (count 100%) **Complete the applicable prompt (select only one) from prompts A-C below that applies to the type of work that for the MBE firm named to the left will be performing to calculate the amount to be counted towards achieving the MBE Participation Goal and Subgoal, if any.** **A. Percentage of total contract amount where the MBE firm is being used for manufacturer, furnish and install, and/or services** (excluding products/services from suppliers, wholesalers, regular dealers and brokers) **___%** **B. Percentage of the total contract amount for items of work where the MBE firm is being used as supplier, wholesaler, and/or regular dealer** (60% Rule). Total percentage of Supplies/Products ___% X 60% = **___%** **C. Percentage amount of fee where the MBE firm is being used as broker** (count reasonable fee/commission only) **___ %** Description of the work to be performed: _____ _____
MBE Firm Name:_____ MBE Certification Number: _____ (If dually certified, check only one box.) ☐ African American-Owned ☐ Hispanic American- Owned ☐ Asian American-Owned ☐ Women-Owned ☐ Other MBE Classification NAICS code: _____	**Please refer to Item #8 in Part 1- Instructions of this document for new MBE participation guidelines regarding materials and supplies.** ☐ Supplier, wholesaler and/or regular dealer (count 60%) ☐ Manufacturer (count 100%) ☐ Broker (count reasonable fee/commission only) ☐ Furnish and Install and other Services (count 100%) **Complete the applicable prompt (select only one) from prompts A-C below that applies to the type of work that the MBE firm named to the left will be performing to calculate the amount to be counted towards achieving the MBE Participation Goal and Subgoal, if any.** **A. Percentage of total contract amount where the MBE firm is being used for manufacturer, furnish and install, and/or services** (excluding products/services from suppliers, wholesalers, regular dealers and brokers) **___%** **B. Percentage of total contract amount for items of work where the MBE firm is being used as supplier, wholesaler, and/or regular dealer** (60% Rule)**)**. Total percentage of Supplies/Products ___% X 60% = **___%** **C. Percentage amount of fee where the MBE firm is being used as broker___ %** Description of the work to be performed: _____ _____

CONTINUE ON SEPARATE PAGE IF NEEDED

PART 4 – SIGNATURE PAGE

To complete Affidavit committing to MBE(s) or requesting waiver, Bidder/Offeror must sign below:

I solemnly affirm under the penalties of perjury that: (i) I have reviewed the instructions for the MBE Utilization & Fair Solicitation Affidavit and MBE Schedule, and (ii) the information contained in the MBE Utilization & Fair Solicitation Affidavit and MBE Schedule is true to the best of my knowledge, information and belief.

_____	_____
Bidder/Offeror Name *(PLEASE PRINT OR TYPE)*	Signature of Authorized Representative
_____	_____
Address	Printed Name and Title
_____	_____
City, State and Zip Code	Date

SUBMIT THIS AFFIDAVIT WITH BID/PROPOSAL

D-1B WAIVER GUIDANCE

GUIDANCE FOR DOCUMENTING GOOD FAITH EFFORTS TO MEET MBE PARTICIPATION GOALS

In order to show that it has made good faith efforts to meet the Minority Business Enterprise (MBE) participation goal (including any MBE subgoals) on a contract, the Offeror must either (1) meet the MBE Goal(s) and document its commitments for participation of MBE Firms, or (2) when it does not meet the MBE Goal(s), document its Good Faith Efforts to meet the goal(s).

I. Definitions

MBE Goal(s) – "MBE Goal(s)" refers to the MBE participation goal and MBE participation subgoal(s).

Good Faith Efforts - The "Good Faith Efforts" requirement means that when requesting a waiver, the Offeror must demonstrate that it took all necessary and reasonable steps to achieve the MBE Goal(s), which, by their scope, intensity, and appropriateness to the objective, could reasonably be expected to obtain sufficient MBE participation, even if those steps were not fully successful. Whether the Offeror that requests a waiver made adequate good faith efforts will be determined by considering the quality, quantity, and intensity of the different kinds of efforts that the Offeror has made. The efforts employed by the Offeror should be those that one could reasonably expect the Offeror to take if the Offeror were actively and aggressively trying to obtain MBE participation sufficient to meet the MBE contract goal and subgoals. Mere *pro forma* efforts are not good faith efforts to meet the MBE contract requirements. The determination concerning the sufficiency of the Offeror's good faith efforts is a judgment call; meeting quantitative formulas is not required.

Identified Firms – "Identified Firms" means a list of the MBEs identified by the procuring agency during the goal setting process and listed in the procurement as available to perform the Identified Items of Work. It also may include additional MBEs identified by the Offeror as available to perform the Identified Items of Work, such as MBEs certified or granted an expansion of services after the procurement was issued. If the procurement does not include a list of Identified Firms, this term refers to all of the MBE Firms (if State-funded) the Offeror identified as available to perform the Identified Items of Work and should include all appropriately certified firms that are reasonably identifiable.

Identified Items of Work – "Identified Items of Work" means the Proposal items identified by the procuring agency during the goal setting process and listed in the procurement as possible items of work for performance by MBE Firms. It also may include additional portions of items of work the Offeror identified for performance by MBE Firms to increase the likelihood that the MBE Goal(s) will be achieved. If the procurement does not include a list of Identified Items of Work, this term refers to all of the items of work the Offeror identified as possible items of work for performance by MBE Firms and should include all reasonably identifiable work opportunities.

MBE Firms – "MBE Firms" refers to firms certified by the Maryland Department of Transportation ("MDOT") under COMAR 21.11.03. Only MDOT-certified MBE Firms can participate in the State's MBE Program.

II. Types of Actions Agency will Consider

The Offeror is responsible for making relevant portions of the work available to MBE subcontractors and suppliers and select those portions of the work or material needs consistent with the available MBE subcontractors and suppliers, so as to facilitate MBE participation. The following is a list of types of actions the procuring agency will consider as part of the Offeror's Good Faith Efforts when the Offeror fails to meet the MBE Goal(s). This list is not intended to be a mandatory checklist, nor is it intended to be exclusive or exhaustive. Other factors or types of efforts may be relevant in appropriate cases.

A. Identify Proposal Items as Work for MBE Firms

1. Identified Items of Work in Procurements

   (a) Certain procurements will include a list of Proposal items identified during the goal setting process as possible work for performance by MBE Firms. If the procurement provides a list of Identified Items of Work, the Offeror shall make all reasonable efforts to solicit quotes from MBE Firms to perform that work.

   (b) Offerors may, and are encouraged to, select additional items of work to be performed by MBE Firms to increase the likelihood that the MBE Goal(s) will be achieved.

2. Identified Items of Work by Offerors

   (a) When the procurement does not include a list of Identified Items of Work or for additional Identified Items of Work, Offerors should reasonably identify sufficient items of work to be performed by MBE Firms.

(b) Where appropriate, Offerors should break out contract work items into economically feasible units to facilitate MBE participation, rather than perform these work items with their own forces. The ability or desire of a prime contractor to perform the work of a contract with its own organization does not relieve the Offeror of the responsibility to make Good Faith Efforts.

B. Identify MBE Firms to Solicit

1. MBE Firms Identified in Procurements

(a) Certain procurements will include a list of the MBE Firms identified during the goal setting process as available to perform the items of work. If the procurement provides a list of Identified MBE Firms, the Offeror shall make all reasonable efforts to solicit those MBE firms.

(b) Offerors may, and are encouraged to, search the MBE Directory to identify additional MBEs who may be available to perform the items of work, such as MBEs certified or granted an expansion of services after the solicitation was issued.

2. MBE Firms Identified by Offerors

(a) When the procurement does not include a list of Identified MBE Firms, Offerors should reasonably identify the MBE Firms that are available to perform the Identified Items of Work.

(b) Any MBE Firms identified as available by the Offeror should be certified to perform the Identified Items of Work.

C. Solicit MBEs

1. Solicit <u>all</u> Identified Firms for all Identified Items of Work by providing written notice. The Offeror should:

(a) provide the written solicitation at least 10 days prior to Proposal opening to allow sufficient time for the MBE Firms to respond;

(b) send the written solicitation by first-class mail, facsimile, or e-mail using contact information in the MBE Directory, unless the Offeror has a valid basis for using different contact information; and

(c) provide adequate information about the plans, specifications, anticipated time schedule for portions of the work to be performed by the MBE, and other requirements of the contract to assist MBE Firms in responding. (This information may be provided by including hard copies in the written solicitation or by <u>electronic means</u> as described in C.3 below.)

2. "<u>All</u>" Identified Firms includes the MBEs listed in the procurement and any MBE Firms you identify as potentially available to perform the Identified Items of Work, but it does not include MBE Firms who are no longer certified to perform the work as of the date the Offeror provides written solicitations.

3. "<u>Electronic Means</u>" includes, for example, information provided *via* a website or file transfer protocol (FTP) site containing the plans, specifications, and other requirements of the contract. If an interested MBE cannot access the information provided by electronic means, the Offeror must make the information available in a manner that is accessible to the interested MBE.

4. Follow up on initial written solicitations by contacting MBEs to determine if they are interested. The follow up contact may be made:

(a) by telephone using the contact information in the MBE Directory, unless the Offeror has a valid basis for using different contact information; or

(b) in writing *via* a method that differs from the method used for the initial written solicitation.

5. In addition to the written solicitation set forth in C.1 and the follow up required in C.4, use all other reasonable and available means to solicit the interest of MBE Firms certified to perform the work of the contract. Examples of other means include:

(a) attending any pre-Proposal meetings at which MBE Firms could be informed of contracting and subcontracting opportunities; and

(b) if recommended by the procurement, advertising with or effectively using the services of at least two minority focused entities or media, including trade associations, minority/women community organizations, minority/women contractors' groups, and local, state, and federal minority/women business assistance offices listed on the MDOT Office of Minority Business Enterprise website.

D. Negotiate with Interested MBE Firms

Offerors must negotiate in good faith with interested MBE Firms.

1. Evidence of negotiation includes, without limitation, the following:
   (a) the names, addresses, and telephone numbers of MBE Firms that were considered;
   (b) a description of the information provided regarding the plans and specifications for the work selected for subcontracting and the means used to provide that information; and
   (c) evidence as to why additional agreements could not be reached for MBE Firms to perform the work.
2. The Offeror using good business judgment would consider a number of factors in negotiating with subcontractors, including MBE subcontractors, and would take a firm's price and capabilities as well as contract goals into consideration.
3. The fact that there may be some additional costs involved in finding and using MBE Firms is not in itself sufficient reason for the Offeror's failure to meet the contract MBE goal(s), as long as such costs are reasonable. Factors to take into consideration when determining whether an MBE Firm's quote is excessive or unreasonable include, without limitation, the following:
   (a) dollar difference between the MBE subcontractor's quote and the average of the other subcontractors' quotes received by the Offeror;
   (b) percentage difference between the MBE subcontractor's quote and the average of the other subcontractors' quotes received by the Offeror;
   (c) percentage that the MBE subcontractor's quote represents of the overall contract amount;
   (d) number of MBE firms that the Offeror solicited for that portion of the work;
   (e) whether the work described in the MBE and Non-MBE subcontractor quotes (or portions thereof) submitted for review is the same or comparable; and
   (f) number of quotes received by the Offeror for that portion of the work.
4. The above factors are not intended to be mandatory, exclusive, or exhaustive, and other evidence of an excessive or unreasonable price may be relevant.
5. The Offeror may not use its price for self-performing work as a basis for rejecting an MBE Firm's quote as excessive or unreasonable.
6. The "average of the other subcontractors' quotes received" by the Offeror refers to the average of the quotes received from all subcontractors. Offeror should attempt to receive quotes from at least three subcontractors, including one quote from an MBE and one quote from a Non-MBE.
7. The Offeror shall not reject an MBE Firm as unqualified without sound reasons based on a thorough investigation of the firm's capabilities. For each certified MBE that is rejected as unqualified or that placed a subcontract quotation or offer that the Offeror concludes is not acceptable, the Offeror must provide a written detailed statement listing the reasons for this conclusion. The Offeror also must document the steps taken to verify the capabilities of the MBE and Non-MBE Firms quoting similar work.
   (a) The factors to take into consideration when assessing the capabilities of an MBE Firm, include, but are not limited to the following: financial capability, physical capacity to perform, available personnel and equipment, existing workload, experience performing the type of work, conduct and performance in previous contracts, and ability to meet reasonable contract requirements.
   (b) The MBE Firm's standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations (for example union vs. non-union employee status) are not legitimate causes for the rejection or non-solicitation of Proposals in the efforts to meet the project goal.

E. Assisting Interested MBE Firms

When appropriate under the circumstances, the decision-maker will consider whether the Offeror Offeror made reasonable efforts to assist interested MBR Firms in obtaining:

1. The bonding, lines of credit, or insurance required by the procuring agency or the Offeror; and
2. Necessary equipment, supplies, materials, or related assistance or services.

III. Other Considerations

In making a determination of Good Faith Efforts the decision-maker may consider engineering estimates, catalogue prices, general market availability and availability of certified MBE Firms in the area in which the work is to be performed, other Proposals or offers and subcontract Proposals or offers substantiating significant variances between certified MBE and Non-MBE costs of participation, and their impact on the overall cost of the contract to the State and any other relevant factors.

The decision-maker may take into account whether the Offeror decided to self-perform subcontract work with its own forces, especially where the self-performed work is Identified Items of Work in the procurement. The decision-maker also may take into account the performance of other Offerors in meeting the contract. For example, when the apparent successful Offeror fails to meet the contract goal, but others meet it, this reasonably raises the question of whether, with additional reasonable efforts, the apparent successful Offeror could have met the goal. If the apparent successful Offeror fails to meet the goal, but meets or exceeds the average MBE participation obtained by other Offerors, this, when viewed in conjunction with other factors, could be evidence of the apparent successful Offeror having made Good Faith Efforts.

IV. Documenting Good Faith Efforts

At a minimum, the Offeror seeking a waiver of the MBE Goal(s) or a portion thereof must provide written documentation of its Good Faith Efforts, in accordance with COMAR 21.11.03.11, within 10 Business Days after receiving notice that it is the apparent awardee. The written documentation shall include the following:

A. Items of Work (Complete Good Faith Efforts Documentation Attachment D-1C, Part 1)

A detailed statement of the efforts made to select portions of the work proposed to be performed by certified MBE Firms in order to increase the likelihood of achieving the stated MBE Goal(s).

B. Outreach/Solicitation/Negotiation

1. The record of the Offeror's compliance with the outreach efforts prescribed by COMAR 21.11.03.09C(2)(a). **(Complete Outreach Efforts Compliance Statement - D-2)**.
2. A detailed statement of the efforts made to contact and negotiate with MBE Firms including:
   (a) the names, addresses, and telephone numbers of the MBE Firms who were contacted, with the dates and manner of contacts (letter, fax, e-mail, telephone, etc.) (**Complete Good Faith Efforts Attachment D-1C- Part 2, and submit letters, fax cover sheets, e-mails, etc. documenting solicitations**); and
   (b) a description of the information provided to MBE Firms regarding the plans, specifications, and anticipated time schedule for portions of the work to be performed and the means used to provide that information.

C. Rejected MBE Firms (Complete Good Faith Efforts Attachment D-1C, Part 3)

1. For each MBE Firm that the Offeror concludes is not acceptable or qualified, a detailed statement of the reasons for the Offeror’s conclusion, including the steps taken to verify the capabilities of the MBE and Non-MBE Firms quoting similar work.
2. For each certified MBE Firm that the Offeror concludes has provided an excessive or unreasonable price, a detailed statement of the reasons for the Offeror’s conclusion, including the quotes received from all MBE and Non-MBE firms proposing on the same or comparable work. **(Include copies of all quotes received.)**
3. A list of MBE Firms contacted but found to be unavailable. This list should be accompanied by an MBE Unavailability Certificate (see **D-1B - Exhibit A** to this Part 1) signed by the MBE contractor or a statement from the Offeror that the MBE contractor refused to sign the MBE Unavailability Certificate.

D. Other Documentation

1. Submit any other documentation requested by the Procurement Officer to ascertain the Offeror's Good Faith Efforts.
2. Submit any other documentation the Offeror believes will help the Procurement Officer ascertain its Good Faith Efforts.

D-1B - Exhibit A
MBE Subcontractor Unavailability Certificate

1. It is hereby certified that the firm of _____
(Name of Minority firm)

located at _____
(Number) (Street)

_____
(City) (State) (Zip)

was offered an opportunity to bid on Solicitation No. _____

in _____County by _____
(Name of Prime Contractor's Firm)

****

2. _____(Minority Firm), is either unavailable for the work/service or unable to prepare a Proposal for this project for the following reason(s):

_____

_____

_____

_____

****

_____

(Signature of Minority Firm's MBE Representative) (Title) (Date)

_____

(MDOT Certification #) (Telephone #)

****

3. To be completed by the prime contractor if Section 2 of this form is not completed by the minority firm.

To the best of my knowledge and belief, said Certified Minority Business Enterprise is either unavailable for the work/service for this project, is unable to prepare a Proposal, or did not respond to a request for a price Proposal and has not completed the above portion of this submittal.

_____

(Signature of Prime Contractor) (Title) (Date)

D-1C
GOOD FAITH EFFORTS DOCUMENTATION TO SUPPORT WAIVER REQUEST

PAGE __ OF ___

Prime Contractor:	**Project Description:**	**PROJECT/CONTRACT**
Offeror Company Name, Street Address, Phone		**Solicitation #:**

Parts 1, 2, and 3 must be included with this certificate along with all documents supporting your waiver request.

I affirm that I have reviewed **Attachment D-1B**, Waiver Guidance. I further affirm under penalties of perjury that the contents of Parts 1, 2, and 3 of this **Attachment D-1C** Good Faith Efforts Documentation Form are true to the best of my knowledge, information, and belief.

Company:

Company Name (please print or type)

By:

Signature of Authorized Representative

Printed Name:

Printed Name

Title:

Title

Date:

Date

Address:

Company Address

D- 2
OUTREACH EFFORTS COMPLIANCE STATEMENT

Complete and submit this form within 10 Business Days of notification of apparent award or actual award, whichever is earlier.

In conjunction with the Proposal submitted in response to Solicitation No. _____, I state the following:

1. Offeror identified subcontracting opportunities in these specific work categories:

   _____

   _____

   _____

2. Attached to this form are copies of written solicitations (with Proposal instructions) used to solicit certified MBE firms for these subcontract opportunities.

3. Offeror made the following attempts to personally contact the solicited MDOT-certified MBE firms:

   _____

   _____

   _____

4. **Please Check One:**

   □ This project does not involve bonding requirements.

   □ Offeror assisted MDOT-certified MBE firms to fulfill or seek waiver of bonding requirements. (DESCRIBE EFFORTS):

   _____

   _____

   _____

5. **Please Check One:**

   _____ Offeror did attend the pre-Proposal conference.

   _____ No pre -Proposal meeting/conference was held.

   _____ Offeror did not attend the pre-Proposal conference.

GOOD FAITH EFFORTS DOCUMENTATION TO SUPPORT WAIVER REQUEST

PART 1 – IDENTIFIED ITEMS OF WORK OFFEROR MADE AVAILABLE TO MBE FIRMS

PAGE __ OF ___

Prime Contractor:	**Project Description:**	**PROJECT/CONTRACT**
Offeror Company Name, Street Address, Phone		**Solicitation #:**

Identify those items of work that the Offeror made available to MBE Firms. This includes, where appropriate, those items the Offeror identified and determined to subdivide into economically feasible units to facilitate the MBE participation. For each item listed, show the anticipated percentage of the total contract amount. It is the Offeror's responsibility to demonstrate that sufficient work to meet the goal was made available to MBE Firms, and the total percentage of the items of work identified for MBE participation equals or exceeds the percentage MBE goal set for the procurement. Note: If the procurement includes a list of Proposal items identified during the goal setting process as possible items of work for performance by MBE Firms, the Offeror should make all of those items of work available to MBE Firms or explain why that item was not made available. If the Offeror selects additional items of work to make available to MBE Firms, those additional items should also be included below.

Identified Items of Work	**Was this work listed in the procurement?**	**Does Offeror normally self-perform this work?**	**Was this work made available to MBE Firms? If no, explain why not.**
	□ Yes □ No	□ Yes □ No	□ Yes □ No
	□ Yes □ No	□ Yes □ No	□ Yes □ No
	□ Yes □ No	□ Yes □ No	□ Yes □ No
	□ Yes □ No	□ Yes □ No	□ Yes □ No
	□ Yes □ No	□ Yes □ No	□ Yes □ No
	□ Yes □ No	□ Yes □ No	□ Yes □ No
	□ Yes □ No	□ Yes □ No	□ Yes □ No

☐ Please check if Additional Sheets are attached.

GOOD FAITH EFFORTS DOCUMENTATION TO SUPPORT WAIVER REQUEST

PART 2 – IDENTIFIED MBE FIRMS AND RECORD OF SOLICITATIONS

PAGE __ OF ___

Prime Contractor:	**Project Description:**	**PROJECT/CONTRACT**
Offeror Company Name, Street Address, Phone		**Solicitation #:**

Identify the MBE Firms solicited to provide quotes for the Identified Items of Work made available for MBE participation. Include the name of the MBE Firm solicited, items of work for which quotes were solicited, date and manner of initial and follow-up solicitations, whether the MBE provided a quote, and whether the MBE is being used to meet the MBE participation goal. MBE Firms used to meet the participation goal must be included on the MBE Participation Schedule. Note: If the procurement includes a list of the MBE Firms identified during the goal setting process as potentially available to perform the items of work, the Offeror should solicit all of those MBE Firms or explain why a specific MBE was not solicited. If the Offeror identifies additional MBE Firms who may be available to perform Identified Items of Work, those additional MBE Firms should also be included below. Copies of all written solicitations and documentation of follow-up calls to MBE Firms must be attached to this form. This list should be accompanied by a Minority Contractor Unavailability Certificate signed by the MBE contractor or a statement from the Offeror that the MBE contractor refused to sign the Minority Contractor Unavailability Certificate (**Attachment D-1B - Exhibit A**). If the Offeror used a Non-MBE or is self-performing the identified items of work, Part 4 must be completed.

Name of Identified MBE Firm & MBE Classification	**Describe Item of Work Solicited**	**Initial Solicitation Date & Method**	**Follow-up Solicitation Date & Method**	**Details for Follow-up Calls**	**Quote Rec'd**	**Quote Used**	**Reason Quote Rejected**
Firm Name: MBE Classification (Check only if requesting waiver of MBE subgoal.) ☐ African American-Owned ☐ Hispanic American- Owned ☐ Asian American-Owned ☐ Women-Owned ☐ Other MBE Classification _____		Date: □ Mail □ Facsimile □ E-mail	Date: □ Phone □ Mail □ Facsimile □ E-mail	Time of Call: Spoke with: _____ □ Left Message	□ Yes □ No	□ Yes □ No	□ Used Other MBE □ Used Non-MBE □ Self-performing
Firm Name: MBE Classification (Check only if requesting waiver of MBE subgoal.) ☐ African American-Owned ☐ Hispanic American- Owned ☐ Asian American-Owned ☐ Women-Owned ☐ Other MBE Classification _____		Date: □ Mail □ Facsimile □ E-mail	Date: □ Phone □ Mail □ Facsimile □ E-mail	Time of Call: Spoke with: _____ □ Left Message	□ Yes □ No	□ Yes □ No	□ Used Other MBE □ Used Non-MBE □ Self-performing

☐ Please check if Additional Sheets are attached.

GOOD FAITH EFFORTS DOCUMENTATION TO SUPPORT WAIVER REQUEST

PART 3 – ADDITIONAL INFORMATION REGARDING REJECTED MBE QUOTES

PAGE __ OF ___

Prime Contractor:	**Project Description:**	**PROJECT/CONTRACT NUMBER:**
Offeror Company Name, Street Address, Phone		**Solicitation #:**

This form must be completed if Part 1 indicates that an MBE quote was rejected because the Offeror is using a Non-MBE or is self-performing the Identified Items of Work. Provide the Identified Items Work, indicate whether the work will be self-performed or performed by a Non-MBE, and if applicable, state the name of the Non-MBE. Also include the names of all MBE and Non-MBE Firms that provided a quote and the amount of each quote.

Describe Identified Items of Work Not Being Performed by MBE (Include spec/ section number from Proposal)	**Self-performing or Using Non-MBE (Provide name)**	**Amount of Non-MBE Quote**	**Name of Other Firms who Provided Quotes & Whether MBE or Non-MBE**	**Amount Quoted**	**Indicate Reason Why MBE Quote Rejected & Briefly Explain**
	□ Self-performing □ Using Non-MBE _____	$_____	_____ □ MBE □ Non-MBE	$_____	□ Price □ Capabilities □ Other
	□ Self-performing □ Using Non-MBE _____	$_____	_____ □ MBE □ Non-MBE	$_____	□ Price □ Capabilities □ Other
	□ Self-performing □ Using Non-MBE _____	$_____	_____ □ MBE □ Non-MBE	$_____	□ Price □ Capabilities □ Other
	□ Self-performing □ Using Non-MBE _____	$_____	_____ □ MBE □ Non-MBE	$_____	□ Price □ Capabilities □ Other
	□ Self-performing □ Using Non-MBE _____	$_____	_____ □ MBE □ Non-MBE	$_____	□ Price □ Capabilities □ Other
	□ Self-performing □ Using Non-MBE _____	$_____	_____ □ MBE □ Non-MBE	$_____	□ Price □ Capabilities □ Other

☐ Please check if Additional Sheets are attached.

D- 2
OUTREACH EFFORTS COMPLIANCE STATEMENT

Complete and submit this form within 10 Business Days of notification of apparent award or actual award, whichever is earlier.

In conjunction with the Proposal submitted in response to Solicitation No. _____, I state the following:

1. Offeror identified subcontracting opportunities in these specific work categories:

   _____

   _____

   _____

2. Attached to this form are copies of written solicitations (with Proposal instructions) used to solicit certified MBE firms for these subcontract opportunities.

3. Offeror made the following attempts to personally contact the solicited MDOT-certified MBE firms:

   _____

   _____

   _____

4. **Please Check One:**

   □ This project does not involve bonding requirements.

   □ Offeror assisted MDOT-certified MBE firms to fulfill or seek waiver of bonding requirements. (DESCRIBE EFFORTS):

   _____

   _____

   _____

5. **Please Check One:**

   _____ Offeror did attend the pre-Proposal conference.

   _____ No pre -Proposal meeting/conference was held.

   _____ Offeror did not attend the pre-Proposal conference.

D-3A
CERTIFED MBE SUBCONTRACTOR PARTICIPATION CERTIFICATION

INSTRUCTIONS:

PRIME CONTRACTOR: After completing SECTIONS A, B, and D, provide this form to ***each*** certified Minority Business Enterprise subcontractor (MBE) listed on the MBE Participation Schedule (Attachment D-1A) allowing sufficient time for the MBE to respond within the required timeframe.

CERTIFIED MBE SUBCONTRACTOR: Complete SECTION C to acknowledge and certify the information in SECTION A. Return the completed form directly to the Procurement Officer identified in SECTION D within 10 days after notice from the Prime Contractor of the State's intent to award the Contract. Provide a copy to the Prime Contractor.

IF THIS FORM IS NOT RETURNED WITHIN THE REQUIRED TIME, THE PROCUREMENT OFFICER MAY DETERMINE THAT THE PRIME CONTRACTOR IS NOT RESPONSIBLE AND THEREFORE NOT ELIGIBLE FOR CONTRACT AWARD.

SECTION A

Provided that (Prime Contractor) _____ is awarded the State contract in conjunction with Solicitation Number _____, (Prime Contractor) _____ intends to enter into a subcontract with (Certified MBE Subcontractor) _____ with MDOT Certification Number _____ committing to participation by (Certified MBE Subcontractor) _____ of at least $_____ which equals _____% of the Total Contract Value for the following products/services:

NAICS CODE	WORK ITEM, SPECIFICATION NUMBER, LINE ITEMS OR WORK CATEGORIES (IF APPLICABLE)	DESCRIPTION OF SPECIFIC PRODUCTS AND/OR SERVICES

The Contractor and certified MBE each acknowledge that, for purposes of determining the accuracy of the information provided herein, the Procurement Officer may request additional information, including, without limitation, copies of the subcontract agreements and quotes. The Contractor and certified MBE each solemnly affirms under the penalties of perjury that: (i) the information provided in this Certified MBE Subcontractor Participation Certification is true to the best of its knowledge, information and belief, and (ii) it has fully complied with the State Minority Business Enterprise law, State Finance and Procurement Article §14-308(a)(2), Annotated Code of Maryland which provides that, except as otherwise provided by law, a Contractor may not identify a certified MBE in a Bid/Proposal and:

(1) fail to request, receive, or otherwise obtain authorization from the MBE to identify the MBE in its Bid/Proposal;

(2) fail to notify the MBE before execution of the Contract of its inclusion of the Bid/Proposal;

(3) fail to use the MBE in the performance of the Contract; or

(4) pay the MBE solely for the use of its name in the Bid/Proposal.

SECTION B – Prime Contractor

Signature of Representative:

_____

Printed Name and Title:

_____

Prime Firm's Name: _____

Federal Identification Number: _____

Street Address, City, State, Zip Code:

_____

_____

Phone: _____

Date: _____

SECTION C – Certified MBE Subcontractor

Signature of Representative:

_____

Printed Name and Title:

_____

MBE Firm's Name: _____

Federal Identification Number: _____

Street Address, City, State, Zip Code:

_____

_____

Phone: _____

Date: _____

SECTION D

This completed form is due to the Procurement Officer on or before: _____

Solicitation #: _____ Solicitation Title: _____

Agency/Dept.: _____ Procurement Officer: _____

Phone: _____ Email: _____

Street Address, City, State, Zip Code:

_____

_____

D-3B
MBE PRIME PROJECT PARTICIPATION CERTIFICATION

Please complete and submit this form to attest to each specific item of work that your MBE firm has listed on the MBE Participation Schedule (Attachment D-1A) for purposes of meeting the MBE participation goals. This form must be submitted within 10 Business Days of notification of apparent award. If the Offeror fails to return this affidavit within the required time, the Procurement Officer may determine that Proposal is not susceptible of being selected for Contract award.

Provided that _____ (Prime Contractor's Name) with Certification Number _____ is awarded the State contract in conjunction with Solicitation No. _____, such MBE Prime Contractor intends to perform with its own forces at least $_____ which equals to___% of the Total Contract Amount for performing the following goods and services for the Contract:

NAICS CODE	WORK ITEM, SPECIFICATION NUMBER, LINE ITEMS OR WORK CATEGORIES (IF APPLICABLE) For Construction Projects, General Conditions must be listed separately	DESCRIPTION OF SPECIFIC PRODUCTS AND/OR SERVICES	VALUE OF THE WORK

MBE Prime Contractor

Company:

Company Name (please print or type)

FEIN:

Federal Identification Number

Company Address: _____

Phone:

Printed Name:

Title:

By:

Signature of Authorized Representative

Date:

D-4A
Minority Business Enterprise Participation
Prime Contractor Paid/Unpaid Invoice Report

Report #:	Contract #:
Reporting Period (Month/Year):	Contracting Unit:
Prime Contractor: Report is due to the MBE Liaison by the 10th of the month following the month the services were provided. **Note: Please number reports in sequence**	Contract Amount: MBE Subcontract Amt: Project Begin Date: Project End Date: Services Provided:

Prime Contractor:		Contact Person:	
Address:			
City:		State:	ZIP:
Phone:	FAX:	E-mail:	
MBE Subcontractor Name:		Contact Person:	
Phone:	FAX:	E-mail:	
Subcontractor Services Provided:			

List all payments made to MBE subcontractor named above during this reporting period:			**List dates and amounts of any outstanding invoices:**		
	Invoice #	**Amount**		**Invoice #**	**Amount**
1.			1.		
2.			2.		
3.			3.		
4.			4.		
Total Dollars Paid: $			**Total Dollars Unpaid: $**		

- If more than one MBE subcontractor is used for this contract, you must use separate **Attachment D-4A** forms. Information regarding payments that the MBE prime will use for purposes of meeting the MBE participation goals must be reported separately in **Attachment D-4B**.
- **Return one copy (hard or electronic) of this form to the following addresses (electronic copy with signature and date is preferred):**

Contract Monitor Name	Contracting Unit
Address	City, State Zip
Email	Phone Number
Signature (Required)	Date

D-4A
Minority Business Enterprise Participation
Prime Contractor Paid/Unpaid Invoice Report

Report #:	Contract #:
Reporting Period (Month/Year):	Contracting Unit:
Prime Contractor: Report is due to the MBE Liaison by the 10th of the month following the month the services were provided. **Note: Please number reports in sequence**	Contract Amount: MBE Subcontract Amt: Project Begin Date: Project End Date: Services Provided:

Prime Contractor:		Contact Person:	
Address:			
City:		State:	ZIP:
Phone:	FAX:	E-mail:	
MBE Subcontractor Name:		Contact Person:	
Phone:	FAX:	E-mail:	
Subcontractor Services Provided:			

List all payments made to MBE subcontractor named above during this reporting period:			**List dates and amounts of any outstanding invoices:**		
	Invoice #	**Amount**		**Invoice #**	**Amount**
1.			1.		
2.			2.		
3.			3.		
4.			4.		
Total Dollars Paid: $			**Total Dollars Unpaid: $**		

- If more than one MBE subcontractor is used for this contract, you must use separate **Attachment D-4A** forms. Information regarding payments that the MBE prime will use for purposes of meeting the MBE participation goals must be reported separately in **Attachment D-4B**.
- **Return one copy (hard or electronic) of this form to the following addresses (electronic copy with signature and date is preferred):**

Contract Monitor Name	Contracting Unit
Address	City, State Zip
Email	Phone Number
Signature (Required)	Date

D-4B
Minority Business Enterprise Participation
MBE Prime Contractor Report

MBE Prime Contractor:	Contract #:
Certification Number:	Contracting Unit:
Report #:	Contract Amount:
Reporting Period (Month/Year):	Total Value of the Work to the Self-Performed for purposes of Meeting the MBE participation goal/subgoals:
MBE Prime Contractor: Report is due to the MBE Liaison by the 10th of the month following the month the services were provided. **Note: Please number reports in sequence**	Project Begin Date:
	Project End Date:

Contact Person:			
Address:			
City:		State:	ZIP:
Phone:	FAX:	E-mail:	

Invoice Number	**Value of the Work**	**NAICS Code**	**Description of Specific Products and/or Services**

Return one copy (hard or electronic) of this form to the following addresses (electronic copy with signature and date is preferred):

Contract Monitor Name

Contracting Unit

Address

City, State Zip

Email

Phone Number

Signature (Required)

Date

D-5
Minority Business Enterprise Participation
MBE Subcontractor Paid/Unpaid Invoice Report

Report #:	Contract #:
Reporting Period (Month/Year):	Contracting Unit:
Report is due by the 10th of the month following the month the services were performed.	MBE Subcontract Amt:
	Project Begin Date:
	Project End Date:
	Services Provided:

MBE Subcontractor Name:					
MDOT Certification #:					
Contact Person:					
Address:					
City:			State:		ZIP:
Phone:	FAX:		E-mail:		
Subcontractor Services Provided:					
List all payments received from Prime Contractor during reporting period indicated above.			**List dates and amounts of any unpaid invoices over 30 days old.**		
	Invoice Amount	**Date**		**Invoice Amount**	**Date**
1.			1.		
2.			2.		
3.			3.		
4.			4.		
Total Dollars Paid: $			**Total Dollars Unpaid: $**		
Prime Contractor:			Contract Person:		

Return one copy of this form to the following addresses (electronic copy with signature and date is preferred):

Contract Monitor Name	Contracting Unit
Address	City, State Zip
Email	Phone Number
Signature (Required)	Date

Attachment E

Consultant Qualifications (SF330)

ARCHITECT-ENGINEER QUALIFICATIONS

OMB Control Number: 9000-0157
Expiration Date: 2/29/2024

Paperwork Reduction Act Statement - This information collection meets the requirements of 44 USC § 3507, as amended by section 2 of the Paperwork Reduction Act of 1995. You do not need to answer these questions unless we display a valid Office of Management and Budget (OMB) control number. The OMB control number for this collection is 9000-0157. We estimate that it will take 29 hours (25 hours for part 1 and 4 hours for Part 2) to read the instructions, gather the facts, and answer the questions. Send only comments relating to our time estimate, including suggestions for reducing this burden, or any other aspects of this collection of information to: U.S. General Services Administration, Regulatory Secretariat Division (M1V1CB), 1800 F Street, NW, Washington, DC 20405.

PURPOSE

Federal agencies use this form to obtain information from architect-engineer (A-E) firms about their professional qualifications. Federal agencies select firms for A-E contracts on the basis of professional qualifications as required by 40 U.S.C. chapter 11, Selection of Architects Engineers, and Part 36 of the Federal Acquisition Regulation (FAR).

The Selection of Architects and Engineers statute requires the public announcement of requirements for A-E services (with some exceptions provided by other statutes), and the selection of at least three of the most highly qualified firms based on demonstrated competence and professional qualifications according to specific criteria published in the announcement. The Act then requires the negotiation of a contract at a fair and reasonable price starting first with the most highly qualified firm.

The information used to evaluate firms is from this form and other sources, including performance evaluations, any additional data requested by the agency, and interviews with the most highly qualified firms and their references.

GENERAL INSTRUCTIONS

Part I presents the qualifications for a specific contract.

Part II presents the general qualifications of a firm or a specific branch office of a firm. Part II has two uses:

1. An A-E firm may submit Part II to the appropriate central, regional or local office of each Federal agency to be kept on file. A public announcement is not required for certain contracts, and agencies may use Part II as a basis for selecting at least three of the most highly qualified firms for discussions prior to requesting submission of Part I. Firms are encouraged to update Part II on file with agency offices, as appropriate, according to FAR Part 36. If a firm has branch offices, submit a separate Part II for each branch office seeking work.

2. Prepare a separate Part II for each firm that will be part of the team proposed for a specific contract and submitted with Part I. If a firm has branch offices, submit a separate Part II for each branch office that has a key role on the team.

INDIVIDUAL AGENCY INSTRUCTIONS

Individual agencies may supplement these instructions. For example, they may limit the number of projects or number of pages submitted in Part I in response to a public announcement for a particular project. Carefully comply with any agency instructions when preparing and submitting this form. Be as concise as possible and provide only the information requested by the agency.

DEFINITIONS

Architect-Engineer Services: Defined in FAR 2.101.

Branch Office: A geographically distinct place of business or subsidiary office of a firm that has a key role on the team.

Discipline: Primary technical capabilities of key personnel, as evidenced by academic degree, professional registration, certification, and/or extensive experience.

Firm: Defined in FAR 36.102.

Key Personnel: Individuals who will have major contract responsibilities and/or provide unusual or unique expertise.

SPECIFIC INSTRUCTIONS

Part I - Contract-Specific Qualifications

Section A. Contract Information.

1. Title and Location. Enter the title and location of the contract for which this form is being submitted, exactly as shown in the public announcement or agency request.

2. Public Notice Date. Enter the posted date of the agency's notice on the Federal Business Opportunity website (FedBizOpps), other form of public announcement or agency request for this contract.

3. Solicitation or Project Number. Enter the agency's solicitation number and/or project number, if applicable, exactly as shown in the public announcement or agency request for this contract.

Section B. Architect-Engineer Point of Contact.

4-8. Name, Title, Name of Firm, Telephone Number, Fax (Facsimile) Number and E-mail (Electronic Mail) Address. Provide information for a representative of the prime contractor or joint venture that the agency can contact for additional information.

Section C. Proposed Team.

9-11. Firm Name, Address, and Role in This Contract. Provide the contractual relationship, name, full mailing address, and a brief description of the role of each firm that will be involved in performance of this contract. List the prime contractor or joint venture partners first. If a firm has branch offices, indicate each individual branch office that will have a key role on the team. The named subcontractors and outside associates or consultants must be used, and any change must be approved by the contracting officer. (See FAR Part 52 Clause "Subcontractors and Outside Associates and Consultants (Architect-Engineer Services)"). Attach an additional sheet in the same format as Section C if needed.

Section D. Organizational Chart of Proposed Team.

As an attachment after Section C, present an organizational chart of the proposed team showing the names and roles of all key personnel listed in Section E and the firm they are associated with as listed in Section C.

Section E. Resumes of Key Personnel Proposed for this Contract.

Complete this section for each key person who will participate in this contract. Group by firm, with personnel of the prime contractor or joint venture partner firms first. The following blocks must be completed for each resume:

12. Name. Self-explanatory.

13. Role in this contract. Self-explanatory.

14. Years Experience. Total years of relevant experience (block 14a), and years of relevant experience with current firm, but not necessarily the same branch office (block 14b).

15. Firm Name and Location. Name, city and state of the firm where the person currently works, which must correspond with one of the firms (or branch office of a firm, if appropriate) listed in Section C.

16. Education. Provide information on the highest relevant academic degree(s) received. Indicate the area(s) of specialization for each degree.

17. Current Professional Registration. Provide information on current relevant professional registration(s) in a State or possession of the United States, Puerto Rico, or the District of Columbia according to FAR Part 36.

18. Other Professional Qualifications. Provide information on any other professional qualifications relating to this contract, such as education, professional registration, publications, organizational memberships, certifications, training, awards, and foreign language capabilities.

19. Relevant Projects. Provide information on up to five projects in which the person had a significant role that demonstrates the person's capability relevant to her/his proposed role in this contract. These projects do not necessarily have to be any of the projects presented in Section F for the project team if the person was not involved in any of those projects or the person worked on other projects that were more relevant than the team projects in Section F. Use the check box provided to indicate if the project was performed with any office of the current firm. If any of the professional services or construction projects are not complete, leave Year Completed blank and indicate the status in Brief Description and Specific Role (block (3)).

Section F. Example Projects Which Best Illustrate Proposed Team's Qualifications for this Contract.

Select projects where multiple team members worked together, if possible, that demonstrate the team's capability to perform work similar to that required for this contract. Complete one Section F for each project. Present ten projects, unless otherwise specified by the agency. Complete the following blocks for each project:

20. Example Project Key Number. Start with "1" for the first project and number consecutively.

21. Title and Location. Title and location of project or contract. For an indefinite delivery contract, the location is the geographic scope of the contract.

22. Year Completed. Enter the year completed of the professional services (such as planning, engineering study, design, or surveying), and/or the year completed of construction, if applicable. If any of the professional services or the construction projects are not complete, leave Year Completed blank and indicate the status in Brief Description of Project and Relevance to this Contract (block 24).

23a. Project Owner. Project owner or user, such as a government agency or installation, an institution, a corporation or private individual.

23b. Point of Contact Name. Provide name of a person associated with the project owner or the organization which contracted for the professional services, who is very familiar with the project and the firm's (or firms') performance.

23c. Point of Contact Telephone Number. Self-explanatory.

24. Brief Description of Project and Relevance to this Contract. Indicate scope, size, cost, principal elements and special features of the project. Discuss the relevance of the example project to this contract. Enter any other information requested by the agency for each example project.

25. Firms from Section C Involved with this Project. Indicate which firms (or branch offices, if appropriate) on the project team were involved in the example project, and their roles. List in the same order as Section C.

Section G. Key Personnel Participation in Example Projects.

This matrix is intended to graphically depict which key personnel identified in Section E worked on the example projects listed in Section F. Complete the following blocks (see example below).

26. and 27. Names of Key Personnel and Role in this Contract. List the names of the key personnel and their proposed roles in this contract in the same order as they appear in Section E.

28. Example Projects Listed in Section F. In the column under each project key number (see block 29) and for each key person, place an "X" under the project key number for participation in the same or similar role.

29. Example Projects Key. List the key numbers and titles of the example projects in the same order as they appear in Section F.

Section H. Additional Information.

30. Use this section to provide additional information specifically requested by the agency or to address selection criteria that are not covered by the information provided in Sections A-G.

Section I. Authorized Representative.

31. and 32. Signature of Authorized Representative and Date. An authorized representative of a joint venture or the prime contractor must sign and date the completed form. Signing attests that the information provided is current and factual, and that all firms on the proposed team agree to work on the project. Joint ventures selected for negotiations must make available a statement of participation by a principal of each member of the joint venture.

33. Name and Title. Self-explanatory.

SAMPLE ENTRIES FOR SECTION G *(MATRIX)*

26. NAMES OF KEY PERSONNEL *(From Section E, Block 12)*	27. ROLE IN THIS CONTRACT *(From Section E, Block 13)*	28. EXAMPLE PROJECTS LISTED IN SECTION F *(Fill in "Example Projects Key" section below first, before completing table. Place "X" under project key number for participation in same or similar role.)*									
		1	2	3	4	5	6	7	8	9	10
Jane A. Smith	Chief Architect	X		X							
Joseph B. Williams	Chief Mechanical Engineer	X	X	X	X						
Tara C. Donovan	Chief Electricial Engineer	X	X		X						

29. EXAMPLE PROJECTS KEY

NUMBER	TITLE OF EXAMPLE PROJECT *(From Section F)*	NUMBER	TITLE OF EXAMPLE PROJECT *(From Section F)*
1	Federal Courthouse, Denver, CO	6	XYZ Corporation Headquarters, Boston, MA
2	Justin J. Wilson Federal Building, Baton Rouge, LA	7	Founder's Museum, Newport, RI

Part II - General Qualifications

See the "**General Instructions**" on page 1 for firms with branch offices. Prepare Part II for the specific branch office seeking work if the firm has branch offices.

1. Solicitation Number. If Part II is submitted for a specific contract, insert the agency's solicitation number and/or project number, if applicable, exactly as shown in the public announcement or agency request.

2a-2e. Firm (or Branch Office) Name and Address. Self-explanatory.

3. Year Established. Enter the year the firm (or branch office, if appropriate) was established under the current name.

4. Unique Entity Identifier. Insert the unique entity identifier issued by the entity designated at SAM. See FAR part 4.6.

5. Ownership.

a. Type. Enter the type of ownership or legal structure of the firm (sole proprietor, partnership, corporation, joint venture, etc.).

b. Small Business Status. Refer to the North American Industry Classification System (NAICS) code in the public announcement, and indicate if the firm is a small business according to the current size standard for that NAICS code (for example, Engineering Services (part of NAICS 541330), Architectural Services (NAICS 541310), Surveying and Mapping Services (NAICS 541370)). The small business categories and the internet website for the NAICS codes appear in FAR part 19. Contact the requesting agency for any questions. Contact your local U.S. Small Business Administration office for any questions regarding Business Status.

6a-6c. Point of Contact. Provide this information for a representative of the firm that the agency can contact for additional information. The representative must be empowered to speak on contractual and policy matters.

7. Name of Firm. Enter the name of the firm if Part II is prepared for a branch office.

8a-8c. Former Firm Names. Indicate any other previous names for the firm (or branch office) during the last six years. Insert the year that this corporate name change was effective and the associated unique entity identifier. This information is used to review past performance on Federal contracts.

9. Employees by Discipline. Use the relevant disciplines and associated function codes shown at the end of these instructions and list in the same numerical order. After the listed disciplines, write in any additional disciplines and leave the function code blank. List no more than 20 disciplines. Group remaining employees under "Other Employees" in column b. Each person can be counted only once according to his/her primary function. If Part II is prepared for a firm (including all branch offices), enter the number of employees by disciplines in column c(1). If Part II is prepared for a branch office, enter the number of employees by discipline in column c(2) and for the firm in column c(1).

10. Profile of Firm's Experience and Annual Average Revenue for Last 5 Years. Complete this block for the firm or branch office for which this Part II is prepared. Enter the experience categories which most accurately reflect the firm's technical capabilities and project experience. Use the relevant experience categories and associated profile codes shown at the end of these instructions, and list in the same numerical order. After the listed experience categories, write in any unlisted relevant project experience categories and leave the profile codes blank. For each type of experience, enter the appropriate revenue index number to reflect the professional services revenues received annually (averaged over the last 5 years) by the firm or branch office for performing that type of work. A particular project may be identified with one experience category or it may be broken into components, as best reflects the capabilities and types of work performed by the firm. However, do not double count the revenues received on a particular project.

11. Annual Average Professional Services Revenues of Firm for Last 3 Years. Complete this block for the firm or branch office for which this Part II is prepared. Enter the appropriate revenue index numbers to reflect the professional services revenues received annually (averaged over the last 3 years) by the firm or branch office. Indicate Federal work (performed directly for the Federal Government, either as the prime contractor or subcontractor), non-Federal work (all other domestic and foreign work, including Federally-assisted projects), and the total. If the firm has been in existence for less than 3 years, see the definition for "Annual Receipts" under FAR 19.101.

12. Authorized Representative. An authorized representative of the firm or branch office must sign and date the completed form. Signing attests that the information provided is current and factual. Provide the name and title of the authorized representative who signed the form.

List of Disciplines *(Function Codes)*

Code	Description	Code	Description
01	Acoustical Engineer	32	Hydraulic Engineer
02	Administrative	33	Hydrographic Surveyor
03	Aerial Photographer	34	Hydrologist
04	Aeronautical Engineer	35	Industrial Engineer
05	Archeologist	36	Industrial Hygienist
06	Architect	37	Interior Designer
07	Biologist	38	Land Surveyor
08	CADD Technician	39	Landscape Architect
09	Cartographer	40	Materials Engineer
10	Chemical Engineer	41	Materials Handling Engineer
11	Chemist	42	Mechanical Engineer
12	Civil Engineer	43	Mining Engineer
13	Communications Engineer	44	Oceanographer
14	Computer Programmer	45	Photo Interpreter
15	Construction Inspector	46	Photogrammetrist
16	Construction Manager	47	Planner: Urban/Regional
17	Corrosion Engineer	48	Project Manager
18	Cost Engineer/Estimator	49	Remote Sensing Specialist
19	Ecologist	50	Risk Assessor
20	Economist	51	Safety/Occupational Health Engineer
21	Electrical Engineer	52	Sanitary Engineer
22	Electronics Engineer	53	Scheduler
23	Environmental Engineer	54	Security Specialist
24	Environmental Scientist	55	Soils Engineer
25	Fire Protection Engineer	56	Specifications Writer
26	Forensic Engineer	57	Structural Engineer
27	Foundation/Geotechnical Engineer	58	Technician/Analyst
28	Geodetic Surveyor	59	Toxicologist
29	Geographic Information System Specialist	60	Transportation Engineer
30	Geologist	61	Value Engineer
31	Health Facility Planner	62	Water Resources Engineer

List of Experience Categories *(Profile Codes)*

Code	Description
A01	Acoustics, Noise Abatement
A02	Aerial Photography; Airborne Data and Imagery Collection and Analysis
A03	Agricultural Development; Grain Storage; Farm Mechanization
A04	Air Pollution Control
A05	Airports; Navaids; Airport Lighting; Aircraft Fueling
A06	Airports; Terminals and Hangars; Freight Handling
A07	Arctic Facilities
A08	Animal Facilities
A09	Anti-Terrorism/Force Protection
A10	Asbestos Abatement
A11	Auditoriums & Theaters
A12	Automation; Controls; Instrumentation
B01	Barracks; Dormitories
B02	Bridges
C01	Cartography
C02	Cemeteries *(Planning & Relocation)*
C03	Charting: Nautical and Aeronautical
C04	Chemical Processing & Storage
C05	Child Care/Development Facilities
C06	Churches; Chapels
C07	Coastal Engineering
C08	Codes; Standards; Ordinances
C09	Cold Storage; Refrigeration and Fast Freeze
C10	Commercial Building *(low rise)* ; Shopping Centers
C11	Community Facilities
C12	Communications Systems; TV; Microwave
C13	Computer Facilities; Computer Service
C14	Conservation and Resource Management
C15	Construction Management
C16	Construction Surveying
C17	Corrosion Control; Cathodic Protection; Electrolysis
C18	Cost Estimating; Cost Engineering and Analysis; Parametric Costing; Forecasting
C19	Cryogenic Facilities
D01	Dams *(Concrete; Arch)*
D02	Dams *(Earth; Rock);* Dikes; Levees
D03	Desalinization *(Process & Facilities)*
D04	Design-Build - Preparation of Requests for Proposals
D05	Digital Elevation and Terrain Model Development
D06	Digital Orthophotography
D07	Dining Halls; Clubs; Restaurants
D08	Dredging Studies and Design

Code	Description
E01	Ecological & Archeological Investigations
E02	Educational Facilities; Classrooms
E03	Electrical Studies and Design
E04	Electronics
E05	Elevators; Escalators; People-Movers
E06	Embassies and Chanceries
E07	Energy Conservation; New Energy Sources
E08	Engineering Economics
E09	Environmental Impact Studies, Assessments or Statements
E10	Environmental and Natural Resource Mapping
E11	Environmental Planning
E12	Environmental Remediation
E13	Environmental Testing and Analysis
F01	Fallout Shelters; Blast-Resistant Design
F02	Field Houses; Gyms; Stadiums
F03	Fire Protection
F04	Fisheries; Fish ladders
F05	Forensic Engineering
F06	Forestry & Forest products
G01	Garages; Vehicle Maintenance Facilities; Parking Decks
G02	Gas Systems (Propane; Natural, Etc.)
G03	Geodetic Surveying: Ground and Air-borne
G04	Geographic Information System Services: Development, Analysis, and Data Collection
G05	Geospatial Data Conversion: Scanning, Digitizing, Compilation, Attributing, Scribing, Drafting
G06	Graphic Design
H01	Harbors; Jetties; Piers, Ship Terminal Facilities
H02	Hazardous Materials Handling and Storage
H03	Hazardous, Toxic, Radioactive Waste Remediation
H04	Heating; Ventilating; Air Conditioning
H05	Health Systems Planning
H06	Highrise; Air-Rights-Type Buildings
H07	Highways; Streets; Airfield Paving; Parking Lots
H08	Historical Preservation
H09	Hospital & Medical Facilities
H10	Hotels; Motels
H11	Housing *(Residential, Multi-Family; Apartments; Condominiums)*
H12	Hydraulics & Pneumatics
H13	Hydrographic Surveying

List of Experience Categories *(Profile Codes continued)*

Code	Description
I01	Industrial Buildings; Manufacturing Plants
I02	Industrial Processes; Quality Control
I03	Industrial Waste Treatment
I04	Intelligent Transportation Systems
I05	Interior Design; Space Planning
I06	Irrigation; Drainage
J01	Judicial and Courtroom Facilities
L01	Laboratories; Medical Research Facilities
L02	Land Surveying
L03	Landscape Architecture
L04	Libraries; Museums; Galleries
L05	Lighting (Interior; Display; Theater, Etc.)
L06	Lighting (Exteriors; Streets; Memorials; Athletic Fields, Etc.)
M01	Mapping Location/Addressing Systems
M02	Materials Handling Systems; Conveyors; Sorters
M03	Metallurgy
M04	Microclimatology; Tropical Engineering
M05	Military Design Standards
M06	Mining & Mineralogy
M07	Missile Facilities (Silos; Fuels; Transport)
M08	Modular Systems Design; Pre-Fabricated Structures or Components
N01	Naval Architecture; Off-Shore Platforms
N02	Navigation Structures; Locks
N03	Nuclear Facilities; Nuclear Shielding
O01	Office Buildings; Industrial Parks
O02	Oceanographic Engineering
O03	Ordnance; Munitions; Special Weapons
P01	Petroleum Exploration; Refining
P02	Petroleum and Fuel (Storage and Distribution)
P03	Photogrammetry
P04	Pipelines (Cross-Country - Liquid & Gas)
P05	Planning (Community, Regional, Areawide and State)
P06	Planning (Site, Installation, and Project)
P07	Plumbing & Piping Design
P08	Prisons & Correctional Facilities

Code	Description
P09	Product, Machine Equipment Design
P10	Pneumatic Structures, Air-Support Buildings
P11	Postal Facilities
P12	Power Generation, Transmission, Distribution
P13	Public Safety Facilities
R01	Radar; Sonar; Radio & Radar Telescopes
R02	Radio Frequency Systems & Shieldings
R03	Railroad; Rapid Transit
R04	Recreation Facilities (Parks, Marinas, Etc.)
R05	Refrigeration Plants/Systems
R06	Rehabilitation (Buildings; Structures; Facilities)
R07	Remote Sensing
R08	Research Facilities
R09	Resources Recovery; Recycling
R10	Risk Analysis
R11	Rivers; Canals; Waterways; Flood Control
R12	Roofing
S01	Safety Engineering; Accident Studies; OSHA Studies
S02	Security Systems; Intruder & Smoke Detection
S03	Seismic Designs & Studies
S04	Sewage Collection, Treatment and Disposal
S05	Soils & Geologic Studies; Foundations
S06	Solar Energy Utilization
S07	Solid Wastes; Incineration; Landfill
S08	Special Environments; Clean Rooms, Etc.
S09	Structural Design; Special Structures
S10	Surveying; Platting; Mapping; Flood Plain Studies
S11	Sustainable Design
S12	Swimming Pools
S13	Storm Water Handling & Facilities
T01	Telephone Systems *(Rural; Mobile; Intercom, Etc.)*
T02	Testing & Inspection Services
T03	Traffic & Transportation Engineering
T04	Topographic Surveying and Mapping
T05	Towers *(Self-Supporting & Guyed Systems)*
T06	Tunnels & Subways

Code	Description
U01	Unexploded Ordnance Remediation
U02	Urban Renewals; Community Development
U03	Utilities (Gas and Steam)
V01	Value Analysis; Life-Cycle Costing
W01	Warehouses & Depots
W02	Water Resources; Hydrology; Ground Water
W03	Water Supply; Treatment and Distribution
W04	Wind Tunnels; Research/Testing Facilities Design
Z01	Zoning; Land Use Studies

ARCHITECT-ENGINEER QUALIFICATIONS

PART I - CONTRACT-SPECIFIC QUALIFICATIONS

A. CONTRACT INFORMATION

1. TITLE AND LOCATION *(City and State)*

2. PUBLIC NOTICE DATE	3. SOLICITATION OR PROJECT NUMBER

B. ARCHITECT-ENGINEER POINT OF CONTACT

4. NAME AND TITLE

5. NAME OF FIRM

6. TELEPHONE NUMBER	7. FAX NUMBER	8. E-MAIL ADDRESS

C. PROPOSED TEAM

(Complete this section for the prime contractor and all key subcontractors.)

	(Check) PRIME	J-V PARTNER	SUBCON-TRACTOR	9. FIRM NAME	10. ADDRESS	11. ROLE IN THIS CONTRACT
a.				☐ CHECK IF BRANCH OFFICE		
b.				☐ CHECK IF BRANCH OFFICE		
c.				☐ CHECK IF BRANCH OFFICE		
d.				☐ CHECK IF BRANCH OFFICE		
e.				☐ CHECK IF BRANCH OFFICE		
f.				☐ CHECK IF BRANCH OFFICE		

D. ORGANIZATIONAL CHART OF PROPOSED TEAM ☐ *(Attached)*

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM

15. FIRM NAME AND LOCATION *(City and State)*

16. EDUCATION *(Degree and Specialization)*	17. CURRENT PROFESSIONAL REGISTRATION *(State and Discipline)*

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☐ Check if project performed with current firm

b.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☐ Check if project performed with current firm

c.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☐ Check if project performed with current firm

d.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☐ Check if project performed with current firm

e.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☐ Check if project performed with current firm

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT *(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)*			20. EXAMPLE PROJECT KEY NUMBER
21. TITLE AND LOCATION *(City and State)*	22. YEAR COMPLETED		
	PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*	

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

a.	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
b.	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
c.	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
d.	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
e.	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
f.	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE

G. KEY PERSONNEL PARTICIPATION IN EXAMPLE PROJECTS

26. NAMES OF KEY PERSONNEL *(From Section E, Block 12)*	27. ROLE IN THIS CONTRACT *(From Section E, Block 13)*	28. EXAMPLE PROJECTS LISTED IN SECTION F *(Fill in "Example Projects Key" section below before completing table. Place "X" under project key number for participation in same or similar role.)*									
		1	2	3	4	5	6	7	8	9	10

29. **EXAMPLE PROJECTS KEY**

NUMBER	TITLE OF EXAMPLE PROJECT *(From Section F)*	NUMBER	TITLE OF EXAMPLE PROJECT *(From Section F)*
1		6	
2		7	
3		8	
4		9	
5		10	

H. ADDITIONAL INFORMATION

30. PROVIDE ANY ADDITIONAL INFORMATION REQUESTED BY THE AGENCY. ATTACH ADDITIONAL SHEETS AS NEEDED.

I. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

31. SIGNATURE	32. DATE

33. NAME AND TITLE

ARCHITECT-ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER *(If any)*

PART II - GENERAL QUALIFICATIONS

(If a firm has branch offices, complete for each specific branch office seeking work.)

2a. FIRM (*or Branch Office*) NAME		3. YEAR ESTABLISHED	4. UNIQUE ENTITY IDENTIFIER
2b. STREET		5. OWNERSHIP	
		a. TYPE	
2c. CITY	2d. STATE / 2e. ZIP CODE	b. SMALL BUSINESS STATUS	
6a. POINT OF CONTACT NAME AND TITLE		7. NAME OF FIRM *(If Block 2a is a Branch Office)*	
6b. TELEPHONE NUMBER	6c. EMAIL ADDRESS		

8a. FORMER FIRM NAME(S) *(If any)*	8b. YEAR ESTABLISHED	8c. UNIQUE ENTITY IDENTIFIER

9. EMPLOYEES BY DISCIPLINE				10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS		
a. Function Code	b. Discipline	c. Number of Employees (1) FIRM	c. Number of Employees (2) BRANCH	a. Profile Code	b. Experience	c. Revenue Index Number *(see below)*
	Other Employees					
	Total					

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS *(Insert revenue index number shown at right)*	
a. Federal Work	
b. Non-Federal Work	
c. Total Work	

PROFESSIONAL SERVICES REVENUE INDEX NUMBER

1. Less than $100,000
2. $100,000 to less than $250,000
3. $250,000 to less than $500,000
4. $500,000 to less than $1 million
5. $1 million to less than $2 million
6. $2 million to less than $5 million
7. $5 million to less than $10 million
8. $10 million to less than $25 million
9. $25 million to less than $50 million
10. $50 million or greater

12. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

a. SIGNATURE	b. DATE
c. NAME AND TITLE	

Attachment F

Staffing Plan

Request for Proposals
Code Consulting Services
Razing and Replacement of the Department of Legislative Services Building

Staffing Plan

Offeror Name: _____

** List name, position and number of hours, as indicated. Include all key personnel listed in Attachment E. Add rows as needed.*

				Design Development Phase	50% Construction Documents Phase	75% Construction Documents Phase	100% Construction Documents Phase	Construction Administration Phase	Other (Describe)	Subtotal Hours
Name	**Position**	**Firm**	**Location**							
										0.00
										0.00
										0.00
										0.00
										0.00
										0.00
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										0.00
										0.00
										0.00
										0.00
										0.00
										0.00
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										0.00
										0.00
										0.00
										0.00
										0.00
										0.00
										0.00
										0.00
										0.00
TOTAL HOURS				**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Attachment G

Sample Contract

(to be issued via addendum)

Attachment H

Sample Request for Financial Proposal

REQUEST FOR PROPOSAL
CODE CONSULTING SERVICES
RAZING AND REPLACEMENT OF THE DEPARTMENT OF LEGISLATIVE SERVICES BUILDING

SUMMARY

Offeror: _____

DESCRIPTION OF ITEM & AMOUNT (in written words)	**AMOUNT (in numbers)**	
1.0 Third-Party Plan Review Fee (Scope of Work Item 3.2.a)		
100% Design Development Review	$ -	
50% Construction Documents Review	$ -	
100% Construction Documents Review	$ -	
Plan Review Reimburseable Allowance	$ -	
Sub-total:	$ -	
Owner Contingency (equal to 10% of sub-total)	$ -	
Section Grand Total:		$ -
2.0 Third-Party Inspection Fees (Scope of Work Item 3.2.b)	$ -	
Owner Contingency (equal to 10% of sub-total)	$ -	
Section Grand Total:		$ -
3.0 Reimbursable Travel Expenses Allowance	$ -	
Section Grand Total:		$ -
Financial proposals to be evaluated on summation of Sections 1, 2, and 3.		$ -

Submitted By:

_____
(Company)

_____
(Typed Name & Title)

_____
(Signature)

_____
(Date)

Offeror: _____

***HOURLY RATES -** Inclusive of burden and Overhead and Profit. (Travel expenses identified under Section 4 of Proposal Form are not included within the hourly rate.) Rates are not subject to increase throughout duration of contract.

Razing and Replacement of the Department of Legislative Services Building - Estimated Third-Party Plan Review Hours

	Schematic Design	100% Design Development	50% Construction Documents	75% Construction Documents	100% Construction Documents	Labor Rate	Total Estimated Plan Review Costs
Professional-In-Charge						$ -	$ -
Architectural Review						$ -	$ -
Structural Review						$ -	$ -
Civil Review						$ -	$ -
Mechanical /HVAC Review						$ -	$ -
Plumbing Review						$ -	$ -
Electrical Review						$ -	$ -
Elevator Review						$ -	$ -
Other						$ -	$ -
Total Estimated Plan Review Hours	0	0	0	0	0		$ -

Razing and Replacement of the Department of Legislative Services Building - Estimated Third-Party Inspection Hours

	Construction Inspections	Labor Rate	Total Estimated Inspection Costs
Architectural Inspection		$ -	$ -
Civil Inspection		$ -	$ -
Mechanical /HVAC Inspection		$ -	$ -
Plumbing Inspection		$ -	$ -
Electrical Inspection		$ -	$ -
Elevator Inspection		$ -	$ -
Firestopping Inspection		$ -	$ -
Other		$ -	$ -
Total Estimated Inspection Hours	0		$ -

REQUEST FOR PROPOSAL
CODE CONSULTING SERVICES
RAZING AND REPLACEMENT OF THE DEPARTMENT OF LEGISLATIVE SERVICES BUILDING
HOURLY RATES

Offeror: _____

POSITION	FIRM	HOURLY RATE (Inclusive of burden and Overhead and Profit. (Travel expenses identified under Section 4 of Proposal Form are not included within the hourly rate.)
		$ -
		$ -
		$ -
		$ -
		$ -
		$ -
		$ -
		$ -
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		$ -
		$ -

Attachment I

Contract Affidavit

Contract Affidavit

A. AUTHORITY

I hereby affirm that I, _____ (name of affiant) am the _____ (title) and duly authorized representative of _____ (name of business entity) and that I possess the legal authority to make this affidavit on behalf of the business for which I am acting.

B. CERTIFICATION OF REGISTRATION OR QUALIFICATION WITH THE STATE DEPARTMENT OF ASSESSMENTS AND TAXATION

I FURTHER AFFIRM THAT:

The business named above is a (check applicable box):

(1) Corporation - ☐ domestic or ☐ foreign;

(2) Limited Liability Company - ☐ domestic or ☐ foreign;

(3) Partnership - ☐ domestic or ☐ foreign;

(4) Statutory Trust - ☐ domestic or ☐ foreign;

(5) ☐ Sole Proprietorship.

and is registered or qualified as required under Maryland Law. I further affirm that the above business is in good standing both in Maryland and (IF APPLICABLE) in the jurisdiction where it is presently organized, and has filed all of its annual reports, together with filing fees, with the Maryland State Department of Assessments and Taxation. The name and address of its resident agent (IF APPLICABLE) filed with the State Department of Assessments and Taxation is:

Name and Department ID Number: _____

Address: _____

and that if it does business under a trade name, it has filed a certificate with the State Department of Assessments and Taxation that correctly identifies that true name and address of the principal or owner as:

Name and Department ID Number: _____

Address: _____

C. FINANCIAL DISCLOSURE AFFIRMATION

I FURTHER AFFIRM THAT:

I am aware of, and the above business will comply with, the provisions of State Finance and Procurement Article, §13-221, Annotated Code of Maryland, which require that every business that enters into contracts, leases, or other agreements with the State of Maryland or its agencies during a calendar year under which the business is to receive in the aggregate $100,000 or more shall, within 30 days of the time when the aggregate value of the contracts, leases, or other agreements reaches $100,000, file with the Secretary of State of Maryland certain specified information to include disclosure of beneficial ownership of the business.

D. POLITICAL CONTRIBUTION DISCLOSURE AFFIRMATION

I FURTHER AFFIRM THAT:

I am aware of, and the above business will comply with, Election Law Article, Title 14, Annotated Code of Maryland, which requires that every person that enters into a procurement contract with the State, a county, or a municipal corporation, or other political subdivision of the State, during a calendar year in which the person receives a contract with a governmental entity in the amount of

$200,000 or more, shall file with the State Board of Elections statements disclosing: (a) any contributions made during the reporting period to a candidate for elective office in any primary or general election; and (b) the name of each candidate to whom one or more contributions in a cumulative amount of $500 or more were made during the reporting period. The statement shall be filed with the State Board of Elections: (a) before execution of a contract by the State, a county, a municipal corporation, or other political subdivision of the State, and shall cover the 24 months prior to when a contract was awarded; and (b) if the contribution is made after the execution of a contract, then twice a year, throughout the contract term, on or before: (i) May 31, to cover the six (6) month period ending April 30; and (ii) November 30, to cover the six (6) month period ending October 31.

E. DRUG AND ALCOHOL FREE WORKPLACE

(Applicable to all contracts unless the contract is for a law enforcement agency and the agency head or the agency head's designee has determined that application of COMAR 21.11.08 and this certification would be inappropriate in connection with the law enforcement agency's undercover operations.)

I CERTIFY THAT:

(1) Terms defined in COMAR 21.11.08 shall have the same meanings when used in this certification.

(2) By submission of its Proposal, the business, if other than an individual, certifies and agrees that, with respect to its employees to be employed under a contract resulting from this solicitation, the business shall:

(a) Maintain a workplace free of drug and alcohol abuse during the term of the contract;

(b) Publish a statement notifying its employees that the unlawful manufacture, distribution, dispensing, possession, or use of drugs, and the abuse of drugs or alcohol is prohibited in the business' workplace and specifying the actions that will be taken against employees for violation of these prohibitions;

(c) Prohibit its employees from working under the influence of drugs or alcohol;

(d) Not hire or assign to work on the contract anyone who the business knows, or in the exercise of due diligence should know, currently abuses drugs or alcohol and is not actively engaged in a bona fide drug or alcohol abuse assistance or rehabilitation program;

(e) Promptly inform the appropriate law enforcement agency of every drug-related crime that occurs in its workplace if the business has observed the violation or otherwise has reliable information that a violation has occurred;

(f) Establish drug and alcohol abuse awareness programs to inform its employees about:

(i) The dangers of drug and alcohol abuse in the workplace;

(ii) The business's policy of maintaining a drug and alcohol free workplace;

(iii) Any available drug and alcohol counseling, rehabilitation, and employee assistance programs; and

(iv) The penalties that may be imposed upon employees who abuse drugs and alcohol in the workplace;

(g) Provide all employees engaged in the performance of the contract with a copy of the statement required by §E(2)(b), above;

(h) Notify its employees in the statement required by §E(2)(b), above, that as a condition of continued employment on the contract, the employee shall:

(i) Abide by the terms of the statement; and

(ii) Notify the employer of any criminal drug or alcohol abuse conviction for an offense occurring in the workplace not later than 5 days after a conviction;

(i) Notify the procurement officer within 10 days after receiving notice under §E(2)(h)(ii), above, or otherwise receiving actual notice of a conviction;

(j) Within 30 days after receiving notice under §E(2)(h)(ii), above, or otherwise receiving actual notice of a conviction, impose either of the following sanctions or remedial measures on any employee who is convicted of a drug or alcohol abuse offense occurring in the workplace:

(i) Take appropriate personnel action against an employee, up to and including termination; or

(ii) Require an employee to satisfactorily participate in a bona fide drug or alcohol abuse assistance or rehabilitation program; and

(k) Make a good faith effort to maintain a drug and alcohol free workplace through implementation of §E(2)(a)—(j), above.

(3) If the business is an individual, the individual shall certify and agree as set forth in §E(4), below, that the individual shall not engage in the unlawful manufacture, distribution, dispensing, possession, or use of drugs or the abuse of drugs or alcohol in the performance of the contract.

(4) I acknowledge and agree that:

(a) The award of the contract is conditional upon compliance with COMAR 21.11.08 and this certification;

(b) The violation of the provisions of COMAR 21.11.08 or this certification shall be cause to suspend payments under, or terminate the contract for default under COMAR 21.07.01.11 or 21.07.03.15, as applicable; and

(c) The violation of the provisions of COMAR 21.11.08 or this certification in connection with the contract may, in the exercise of the discretion of the Board of Public Works, result in suspension and debarment of the business under COMAR 21.08.03.

F. CERTAIN AFFIRMATIONS VALID

I FURTHER AFFIRM THAT:

To the best of my knowledge, information, and belief, each of the affirmations, certifications, or acknowledgements contained in that certain Proposal Affidavit dated _____ , 202___ , and executed by me for the purpose of obtaining the contract to which this Exhibit is attached remains true and correct in all respects as if made as of the date of this Contract Affidavit and as if fully set forth herein.

I DO SOLEMNLY DECLARE AND AFFIRM UNDER THE PENALTIES OF PERJURY THAT THE CONTENTS OF THIS AFFIDAVIT ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE, INFORMATION, AND BELIEF.

Date: _____

By: _____ (print name of Authorized Representative and Affiant)

_____ (signature of Authorized Representative and Affiant)

Attachment J

Capacity Summary Sheet

CAPACITY SUMMARY SHEET FOR KEY MANAGEMENT AND PERSONNEL

Name of Firm:
RFP Title: Code Consulting Services - Razing and Replacement of the Department of Legislative Services Building

In this table, your firm must include information for all key management and other personnel (**including subconsultants**) who were listed as part of the project team in the Work Plan. Please add rows as necessary.

Name/Position Description (must be consistent with Financial Proposal)	Current and Projected Assignments	Value of Contract	Role on Current and Projected Assignments	NTP Date	Approx. Completion Date	Project on Schedule (Y/N)	Committed hours for the next 24 months	Identify issues which may affect individual's ability to perform the services described in this RFP. Indicate if a current project is high-priority/rush. If project is behind schedule, provide brief explanation.
					Total		0	
					Total		0	

Attachment K

Corporate Profile

Consultant Corporate Profile

Firm Contact Information

Firm Name: _____

Federal ID Number: _____

Point of Contact:_____ Phone Number: _____

Regional Office Address: _____

_____

Firm Background Information

Year Firm Founded: _____

Is the firm MDOT MBE Certified? Yes/No

If certified, provide the certification number and minority status.

_____

Primary Business / Service Provided: _____

Number of Years Performing Services: _____

Number Full Time Employees (Corporate / Regional Office):_____/_____

Provide a brief narrative outlining the firm's history.

_____

_____

_____

_____

_____

_____

_____

Provide a brief narrative outlining what services the firm intends to self-perform.

_____

_____

_____

_____

_____

_____

CONFIDENTIAL

Provide a brief narrative outlining what services the firm intends to subcontract to others.

_____
_____
_____
_____
_____
_____

Provide a brief narrative outlining the firm's familiarity with standards, laws and conditions as they apply to the work to be performed under this project.

_____
_____
_____
_____
_____
_____

Provide a brief narrative clarifying the firm's capacity to perform services as outlined in the RFP.

_____
_____
_____
_____
_____
_____

Provide sales volume and project completion data for the most recently completed three-year period. Note that information provided is to be for the regional / local office that would be responsible for completing work under this solicitation.

Volume	Annual Sales	Completed Projects	Largest Project
2017	_____	_____	_____
2018	_____	_____	_____
2019	_____	_____	_____
2020	_____	_____	_____

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Firm References

Provide three (3) references. Note that references are to be from different projects; that is, only one reference per project is allowed.

Project Name:_____

Name: _____
Title: _____
Company Name: _____
Phone Number and email: _____
Project Relationship: _____

Project Name:_____

Name: _____
Title: _____
Company Name: _____
Phone Number and email: _____
Project Relationship: _____

Project Name:_____

Name: _____
Title: _____
Company Name: _____
Phone Number and email: _____
Project Relationship: _____

CONFIDENTIAL

Disclosure of Contract Issues; Litigation; Criminal Investigations

In the last five years, list and discuss any alleged prior or ongoing contract failures (potential judgment/settlement in excess of $100,000), contract breaches (potential judgment/settlement in excess of $100,000), other significant civil litigation, and all criminal litigation or investigations, which involved your firm.

_____
_____
_____
_____

Failure to Complete

In the last five (5) years, disclose any projects that your firm was involved with that were not completed.

_____
_____
_____
_____

Insurance

Include current certificates of insurance showing the limits of liability maintained by your firm in each of the following categories: workers' compensation, employer's liability, commercial general liability, automobile liability, umbrella or excess liability, and property insurance.

_____
_____
_____
_____

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Prepared By:

Name:_____

Title: _____

Signature:_____

Date: _____

CONFIDENTIAL