

# CIRCUIT COURT FOR BALTIMORE CITY FEASIBILITY STUDY



**Final Report**

28 April 2011

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28 April 2011

Mr. Gary McGuigan  
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Dear Mr. McGuigan:

AECOM is pleased to submit our final report for the Baltimore City Circuit Courthouse Feasibility Study. This report provides a comprehensive overview on the current and future conditions and needs of the Circuit Court system. The report provides a path to translate the Circuit Court long-term plans into a recommended action that can capture the vision within obtainable resources.

The confluence of high costs, serious deficiencies and facility inadequacies of the Baltimore City Circuit Court system has been a cause of concern and attention for a number of years. In 2003 a report titled: "Circuit Court for Baltimore City Courts Needs Assessment" was prepared by RCG •Ricci. That report concluded that the operational and functional conditions at the Clarence M. Mitchell, Jr. and Courthouse East cited numerous serious deficiencies in both buildings. The courts have continued to operate under similar conditions since the publication of that report.

This analysis was prepared for the Maryland Stadium Authority, City of Baltimore and Baltimore City Circuit Court for their consideration for renovating the two courthouses and constructing a new criminal courthouse. The findings in this report are both analytical and objective. The general approach to this project was to blend thorough methodology, practical problem-solving, and effective consensus-building into a single planning and concept design process. Operating issues relating to the delivery of public services and specifically to the location of departments were clarified and resolved. Understanding the spatial impact of current practices, and anticipating the future impact of potential changes was an important component of this planning study. Economic analysis extended beyond determining the capital outlay required for the implementation of this project, but also considering historic tax credits and operational savings that could be achieved through a renovated and new courthouse.

This report was prepared by AECOM, a global architectural/engineering/planning firm with a strong market focus in the field of justice facilities. AECOM has been involved with the planning and/or design of six court facilities in the State of Maryland.

We have enjoyed working on this engagement and our on-going relationship with the Maryland Stadium Authority, the City of Baltimore and their Circuit Court. If you have any questions regarding this report, please contact Ken Jandura at 703.682.6054.

Sincerely,



Kenneth J. Jandura, AIA  
Justice Principal

# Table of Contents

Abbreviations .....1  
Acknowledgements .....3  
1 Executive Summary .....01-1  
2 Project Highlights .....02-1  
3 Demographics .....03-1  
4 Space Projections .....04-1  
5 Facility Conditions Report .....05-1  
6 Site Selection .....06-1  
7 Reuse .....07-1  
8 New Building Concepts .....08-1  
9 Cost Estimates .....09-1  
10 Economic Analysis .....10-1

# Appendix

A Agency Descriptions.....A-1  
B Space Need Projections.....B-1  
C Criminal Case Improvement Study .....C-1  
D Environmental Study.....D-1  
E Project and Construction Cost Estimate .....E-1

# Abbreviations

<b>AHU</b>	Air Handling Unit
<b>AOC</b>	(Maryland) Administrative Office of the Courts
<b>BCCJC</b>	Baltimore City Juvenile Justice Center
<b>BDC</b>	Baltimore Development Corporation
<b>BGSF</b>	Building Gross Square Footage
<b>CoC</b>	Clerk of the Court (Circuit Court)
<b>DGS</b>	(Maryland) Department of General Services
<b>DGSF</b>	Departmental Gross Square Feet
<b>DPSCS</b>	(Maryland) Department of Public Safety and Correctional Services
<b>EERE</b>	Office of Energy Efficiency and Renewable Energy
<b>EMCS</b>	Energy Management Control System
<b>HVAC</b>	Heating, Ventilation and Air Conditioning
<b>JPE</b>	Judicial Position Equivalents
<b>MAC</b>	Moves, Adds and Changes
<b>MHT</b>	Maryland Historical Trust
<b>MSA</b>	Maryland Stadium Authority
<b>NFPA</b>	National Fire Protection Association
<b>NSF</b>	Net Square Feet
<b>O&amp;M</b>	Operations and Maintenance
<b>PS</b>	Performance Score
<b>RFID</b>	Radio Frequency Identification
<b>RoW</b>	Register of Wills
<b>SAO</b>	(Maryland) State's Attorney Office
<b>VAV</b>	Variable Air Volume
<b>WF</b>	Weight Factor

# Acknowledgements

The AECOM Planning Team wishes to gratefully acknowledge the involvement and assistance provided by the members of the Executive Committee, various officials and staff as listed below. Their advice and assistance throughout the study helped to assure that the effort was both accurate and responsive to local needs and conditions.

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# 01

## Executive Summary

### Introduction



Aerial of Court Complex

In the early 21<sup>st</sup> century, the Circuit Court for Baltimore City struggles with dire existing building conditions, including spaces that are unsafe, dysfunctional, and lacking in necessary features that would allow for the respectful and dignified dispensing of justice. A special opportunity lays ahead for government to redress the myriad of problems with the current facilities by creating a newly configured judicial center that can serve the citizens of Baltimore City as well as those of the State of Maryland. The center would include the renovation of two existing buildings, the Clarence M. Mitchell, Jr. Courthouse and Courthouse East, and the construction of a new criminal courts facility. Such a project would enhance the efficient and effective operation of the judicial system and provide a safe and secure environment for the system's workforce and the public. Further, it would result in operational savings of more than \$6.1 million per year for the City. The savings would be achieved through reduced energy consumption, improved record processing, consolidated jury assembly, and centralized holding areas for adult prisoners. This report, which has been generated by AECOM working in conjunction with an Executive Committee appointed by the Circuit Court and the Maryland Stadium Authority, outlines the genesis and development of these ideas and subsequent proposals. It comprehensively looks at many aspects of planning such an endeavor, with documentation and extensive study providing the foundation for the resulting recommendations that the City move ahead in acting to create a place of dignity for carrying out equal justice under law.

### Purpose

AECOM developed the Baltimore City Circuit Courthouse Feasibility Study to provide a strategic and systematic response to changes and growth in the Baltimore City judicial system. This growth has resulted from population shifts and from changes in the pace and complexity of litigation. The consequences of growth are seen in terms of both increasing volumes of cases and people moving through the judicial facilities and in changing operational practices. The existing facilities have become overcrowded, and two – the Clarence M. Mitchell, Jr. and Courthouse East (which is also home to the old Baltimore U.S. Post Office) -- are operationally obsolete and in need of significant architectural and engineering system improvements. The split in 2003 of the Juvenile Division from the Family and other Divisions of the Circuit Court has created an inefficient and confusing system where multiple agencies that need to work closely with one another for the betterment of the family are hampered significantly by their separate physical circumstances. The benefits expected from improved facilities include improvements in efficiencies and effectiveness of the operations of the judicial system, improvements in security, enhancement of functional working environments, and development of a 50-year, sustainable, cost-effective, and inspiring solution to serve the citizens of Baltimore well into the new century.

**Projected Needs**

The initial Circuit Court for Baltimore City Courthouse Needs Assessment study of 2003 highlighted serious deficiencies in the facilities housing the Circuit Court system. In the succeeding years, the addition of staff and judicial positions, together with minimal improvements to the physical plant, have resulted in a continued decline in effective operations of the court system. An objective and independent forecast analysis projected the following increases for judicial positions, court staff, and the corollary areas required to house the growth projected in various agencies (Table 1-1).

	2009***	2030	% Increase
Judicial positions*	53	63	18.9%
Staff	1,369	1,526	11.5%
Area (DGSF)**	548,935	842,707	53.5%

\* Judicial positions include judges, masters, and retired judges

\*\* Departmental Gross Square Area

\*\*\* Existing Area

Notes:

Table 1-1: Growth Projections in agencies of the Circuit Court for Baltimore City

The 53.5% increase in the projected area to house future court operations is a result of decades of compaction, deferral of required code and accessibility upgrades, and functional obsolescence present in the existing facilities, including, but not limited to the following:

- Inadequate security and provisions for physical separation for judges, staff, jurors, public, victims, witnesses, and in-custody defendants, who today use the same circulation system
- Undersized offices and workstations, particularly for attorneys and staff involved in direct, day-to-day interactions with family members, victims, witnesses and the general public
- Insufficient overall holding capacity in the court facilities, and in particular, lack of holding areas adjacent to / with direct access to courtrooms. Restricted and cramped queuing and search areas at both primary and secondary public entrances and security screening stations
- Non ADA-compliant spaces, including jury deliberation rooms
- Lack of attorney/client conference rooms for clients to discuss confidential matters with counsel and inadequate separation of court- and non-court-related functions



Defendant delivery to Mitchell Courthouse

**Mitchell and Courthouse East Buildings Re-Use**



Planning Concept of Capital Improvements

The Mitchell and Courthouse East buildings are two buildings that are valuable historic resources for the Circuit Court and the City, with the former representing a distinctive symbol of Beaux-Arts classicism for Baltimore citizens. The buildings, however, lack the functional amenities found in modern courthouses, including, most importantly for safety, security, and ease of use, the ability to separate the public, judges and in-custody defendants in different spaces. The solution for the reuse of these two facilities is to house court operations that would require little in-custody defendant presence in either building. AECOM, with the endorsement of the Executive Committee, recommends an option to accommodate the Family and Juvenile Divisions in the Mitchell Courthouse and place the Civil Division and Orphans' Court in Courthouse East. To handle the circulation of detained respondents in the Mitchell Courthouse, three secure elevators are proposed for the western side of the building. This design strategy would allow the Sheriff's Office staff to escort in-custody respondents through spaces that are not open to the public. Offices for judges and masters (the latter a circuit court position to assist and advise judges) would be located on two floors largely restricted to court personnel. Finally, the proposal maximizes the reuse of most courtrooms in both buildings. The benefit of this design scheme is that it co-locates the Family and Juvenile Divisions into one facility, providing better access and service for families whose cases are to be heard in both courts.

### New Courthouse Site Selection



Site Plan of preferred site



Revitalize north of Baltimore

The eight sites studied in 2003 were narrowed down to two sites based upon their proximity to the Mitchell and Courthouse East buildings. These blocks, the North Site and the South Site, so named because of their relationship to Courthouse East, provide the opportunity to incorporate all three buildings into a well-functioning judicial complex. Using a weighted scoring matrix that considered several issues, including site size and shape, project costs, and urban design opportunities, the North Site proves to be more suitable for the new courthouse. The North Site is very close to public transit and parking, allowing easy access to the proposed facility. Most important, a benefit of the North Site is that it provides the flexibility for different configurations in floor plans, depending on the ultimate size of the site once land is acquired and the site is assembled. Even if the city does not acquire the existing buildings on the south edge of the North Site, there would still be enough land to opt for one of the scenarios outlined in this report. The South Site, by contrast, is limited to only one design option and building on this location would require higher project costs due to its small site area.

### New Building Concept



Conceptual Criminal Court Images

With the housing of Juvenile and Family Divisions in the Mitchell Courthouse and the Civil Division and Orphans' Court in Courthouse East, the Criminal Division could be placed in the new court facility. The benefit of this scenario is that it allows in the new building a design that accommodates modern court attributes, particularly three circulation zones that separate the public, judges and in-custody defendants, in the most proactive manner of securing a facility. Since the new building would be connected to Courthouse East with enclosed pedestrian bridges, all judges would be located in the new courthouse, allowing for collegial interaction and flexibility in judicial assignments to courtrooms in either the Courthouse East building or the new criminal court facility. The basement level of the new building would also hold a centralized parking area for judges as well as an in-custody holding area.

### Cost and Economic Impact

The estimated project cost to renovate the two existing court facilities and construct the new criminal courthouse ranges from \$570 to \$602 million. The renovation and construction will provide more efficient facility operations with potential savings of more than \$6.1 million per year. Further, the development of rental office space in Courthouse East would likely attract law firms. This rental strategy has the potential to generate annual revenues of approximately \$1.67 million. Moreover, the main benefit is difficult to put a price tag on: providing safe and secure facilities for the judicial staff and the citizens of Baltimore and also providing an enduring and inspiring symbol of American democracy.

### Next Steps

Translating this vision into action is the work of numerous entities, from the judiciary, city and state officials, to public interests. Public funding for capital projects has come under serious scrutiny during this challenging economic time, but the greater difficulties of operating under duress in facilities that have long outgrown their needs should not compromise the goal of providing an effective, safe, and well-functioning judicial system to the citizens of Baltimore and the State of Maryland.

# 02

## Project Highlights

### A. Purpose and Background

In recent years, the complex and growing needs of the Circuit Court for Baltimore City have become better understood and documented. The Court has committed to exploring how a new judicial center may address the many serious problems of outmoded court buildings and the changes that are expected to occur in the 21<sup>st</sup> century. On March 4, 2009, the Maryland Stadium Authority (MSA) issued an RFP for a feasibility study on this topic. Its focus was two-fold: it called for the examination of the idea to renovate two existing courthouses, the Clarence M. Mitchell, Jr. Courthouse and Courthouse East, and it also called for the examination of constructing a new courthouse for the Circuit Court. Two months later, AECOM was selected to provide professional services for this project. AECOM's project team was charged to review and make use of previous studies and analyses; validate and update projections of caseload, judicial positions, and space requirements; and extend the time frame of their analyses to 2030 and beyond.

### Executive Committee

To help spearhead the decision-making process, an Executive Committee was created with representatives from the Circuit Court, the Maryland Stadium Authority, and city government. This group, the members of which are identified in the acknowledgement of this report, has provided significant ongoing guidance in reviewing information to address issues that have impacted the direction of the project. AECOM has met with the Executive Committee on a monthly basis to produce this report, which represents a vision for a newly-configured justice facility that can serve the public with efficacy, safety, and dignity.

### Scope of the Study

The feasibility study included the following phases and tasks:

#### Phase I

**Programmatic Review:** To develop a spatial program for the potential renovation of the Clarence M. Mitchell, Jr. Courthouse and Courthouse East, and the construction of the proposed new courthouse.

#### Phase II

**Existing Building Analysis:** To review and update previously completed analyses about the existing buildings and advise the Executive Committee of how well they conform to program requirements.

**Site Analysis:** To review multiple sites in Baltimore City and advise the Executive Committee about how each site conforms to program requirements.

**Environmental Analysis:** To provide an environmental analysis of the selected site(s) and existing structures and provide a report outlining findings and recommendations.

#### Phase III

**Conceptual Design:** To develop conceptual design ideas for potential layouts of the two renovations and also for the new courthouse building, including site design, and present them in both narrative form and graphic renderings.

**Cost Estimate:** To prepare a cost estimate based on the program, site/building analysis, and the conceptual design.

#### Phase IV

**Economic Analysis:** To develop an economic analysis for potential renovation of the Courthouse East into office space for city and state agencies, with a focus on exploring a potential financing strategy that could use state and federal historic tax credits.

### Objectives of the Study

The goal of this feasibility study was to answer several critical questions:

- What are the current conditions and capacity of the two existing court facilities?
- Considering the data from revised projections, what functional, operational, staffing, and space needs should be expected by 2030 and beyond?
- What are the options for facilities to best meet the requirements of the court system and city government, including a combination of renovated and new facilities?
- What new facilities are needed? What sites should be considered? Of those studied, which sites are most appropriate and feasible for a new Circuit Court courthouse?
- What are the urban and transportation ramifications of alternate strategies and how will they affect the City of Baltimore?
- What other issues need to be considered in creating the future vision of and direction for the circuit court and its related facilities, particularly with regard to the District Court Domestic Violence Center?

Additionally, this study provides a foundation for decisions regarding several important questions:

- Which changes in operational alignments (consolidation, co-location, inter-agency cooperation, communication) and/or technology should be adopted to improve services, increase effectiveness and efficiency, and provide high value to the citizens of the City of Baltimore?
- What is the strategic vision that best responds to the needs of the city and ultimately to the public in terms of improved service delivery at the lowest cost?
- Which facility and operational options maximize opportunities for increased development in the government core of downtown Baltimore?
- Which site and facility plans best support innovative and forward-thinking concepts, including:
  - Expansion of co-located use of service centers and desks?
  - Expansion of distributed court service centers?
  - Consolidation or sharing of common functions?

**Planning Approach  
and Team**

AECOM used an integrated, multi-disciplinary team of specialists, with representation from the following areas of specialty:

- **Project Management:** Professional representatives provided guidance and coordination for the overall study.
- **Operational/Space Planning:** Specialists in court operations, security planning and design, court technology planning and design, and building planning and operations (including storage, filing, and mail/supplies distribution), offered expertise. The resulting report documents existing conditions and provides useful insights into the future court system and facility operations with regard to “best practices” and the use of current and future applied technologies to enhance service to the public and to increase operational and staffing efficiency.
- **Site/Architecture/Engineering Systems:** An experienced and interdisciplinary architectural and engineering team reviewed the building assessments from 2003 and conducted specific site and urban design studies for the sites under consideration. Our environmental engineers and scientists, EBA Engineering, developed a programmatic evaluation for existing buildings and two particular sites.
- **High-Performance/Advanced Technology Design:** An important feature of the planning process was the development and incorporation of planning standards for new and renovated facilities based upon recognized “best practices” and research that has been developed nationwide for high-performance team environments that support improved work flows, formal and informal staff work areas, integrated technology, and improved customer service. With the adoption and use of these standards, the AECOM team believes that the circuit court and Baltimore City agencies and staff should benefit from markedly improved functional relationships and work flows, increased natural light, better office security/HVAC zoning, and improved office environments.
- **Cost Estimating:** The AECOM team cost estimator, DMS International, prepared the construction cost estimates for different project options so that the city and the courts would have a benchmark of the scale of the resulting potential capital program. AECOM also evaluated each project scenario, providing both a parameter cost for the entire option, as well as costs for phased renovation and construction.
- **Economic Impact/Development:** The AECOM team included specialists from AECOM Economics, which focused upon the economics of using historic tax credits in the renovation of the two existing court facilities that are significant historic and cultural resources.

**Current Conditions**



Non-ADA Jury Box



Makeshift Courtroom from Office Space



Jury Line at Mitchell Courthouse

**Courthouse Security**



ATLANTA, March 12, 2005  
Washington Post Article

This report explains the dire functional and operational conditions that the staff of the circuit court of Baltimore City endures while working in the two existing facilities. Generally, the public is unaware of the day-to-day problems that make the two courthouses inadequate, dysfunctional and unsafe. These conditions have had an impact on the efficiency and effectiveness of court operations and also the health and safety of the workforce. Maintenance issues, security threats, and environmental factors are just a few of the problems cited by stakeholders throughout the planning process of this feasibility study. On several occasions during the preparation of this report, workers' experienced a high level of anxiety because of bomb threats and letters that threatened their safety, making it difficult to perform their jobs. Such stresses are compounded by increasing caseloads in the judicial system. Yet, the addition of new judgeships is limited because of lack of space to support additional courtrooms and the ancillary functions that would be necessary for these appointments. For the most part, every existing courtroom is used extensively throughout the day, so little flexibility exists in judge assignments for any particular courtroom. Additional problems include the following issues:

- Public elevators in the existing courthouses are unreliable and inefficient. They break down frequently.
- Space layouts in the Mitchell and Courthouse East buildings are inefficient because of limitations of the buildings' early 20<sup>th</sup> century traditional construction, such as load-bearing walls, narrow spacing between columns, and low ceiling heights.
- In each existing courthouse, a common circulation system allows the co-mingling of judges, defendants, and parties involved in cases in the same corridors and elevators of the building.
- When in-custody defendants are moved into the courthouse, the Sheriff's Office staff currently must prevent the public from using elevators normally designated for public use.

All of these issues, and others as outlined in this report, have an negative emotional and physical impact on the judges, court personnel, and the public who use these spaces daily.

March 11, 2005, at the Fulton County Courthouse in Atlanta, Georgia was a turning point for courts across the country regarding courthouse security and safety. On that day, 33-year-old Brian Nichols, who was on trial on rape charges, was able to gain control of a handgun from a deputy sheriff and fatally wounded three people, including the judge who was sitting on the bench. Subsequent high-profile shootings at the Roane County, Tennessee courthouse in the same month that year and at the federal courthouse in Las Vegas in January 2010 highlight the volatility of such cases that can lead to deadly consequences. These violent acts were reprisals to judgments and/or allegations handled by the courts. Violence, however, is not only targeted at judges and court personnel, but also at anyone associated with the judicial system, including the public. The courts, as highly visible symbols of authority and justice, have become logical targets and venues for aggression and violent action.

Effective courthouse security depends on policies and procedures, the use of technology, and the physical environment of a given building. All three must work in concert. If one element does not function well, stress increases on the other two elements. In the two Baltimore City Circuit Court facilities located on Calvert Street, the physical layout of the buildings imposes considerable stress upon security staff to manage and secure the facility effectively. Multiple entrances, blind spots, queuing areas that are constricted in small entries, and the co-mingling of all participants in a single circulation system compound the strain of making these courthouses safe for all who use them. As a result of the dysfunctional nature of

the facility, there is an over reliance on the use of technology to survey interior and exterior spaces. Further, the nature of the layout in each building also has resulted in the need to add more staff to secure the buildings, thus taxing an already strained operating budget.

The focus of this feasibility study is not only to develop a strategy of handling future growth and the existing facility shortfalls, but to do so in a manner where security becomes an integral element in the planning process. Implementing “best practices” for securing a courthouse should be the primary goal. The planning concepts proposed in this report seek to achieve this goal through the functional organization of the building, the development of separate circulation systems, and the operational use of the buildings based on their physical layouts and constraints.

## B. Process

The AECOM planning process featured an interactive and participatory approach to identify innovative and appropriate operational patterns and priorities, optimal deployment of staff and operations, and highest and best use of new and renovated facilities. The company reviewed and tested projections of growth, examined opportunities for operational changes and improvements, and reviewed concepts regarding the highest and best use of space and facilities to accommodate the wide-ranging needs of the courts.

This report provides documentation that reflects recent and current trends, incorporating “best practices” and benchmarking concepts from governmental, institutional, and corporate leaders. The AECOM team has strived to determine shortfalls and to examine options in order to improve the functional presence for the Circuit Court for Baltimore City.

Throughout this report, size and area is presented according to abbreviations that are the industry standard. They are defined as follows:

- **Net Square Feet (NSF):** This term refers to the basic unit of space planning and represents the actual working area of an office or workstation. Most office, workstation, and equipment standards use this unit of measurement.
- **Departmental Gross Square Feet (DGSF):** This term designates the total NSF requirement within a department or unit multiplied by a factor that accounts for the building’s method of construction, thickness of interior partitions or panels, and circulation spaced needed between offices and workstations or equipment. This value represents the full space needed for a functional unit within a larger building envelope.
- **Building Gross Square Feet (BGSF):** This term refers to the total DGSF requirement within a building multiplied by a factor of 1.25 to account for any other common spaces not clearly identified as NSF. Such spaces include, but are not limited to, major public circulation areas between departments, elevators, exit stairs, mechanical and electrical spaces, data/telecommunication and security spaces, and major structural elements.

The initial study from 2003 provided a snapshot view of the circuit court’s future needs based upon existing physical facilities and the evaluation of several sites for a new courthouse. This updated study provides comprehensive evaluations of the judicial system’s trends, local policies and practices, management and operational conditions, and a current assessment of facility conditions. It produces evaluative findings of both short- and long-range recommendations for the organization, management, operation and general physical space needs of the circuit court system. In addition to sheer physical plant needs in the face of the obsolescence of the two existing buildings, the study also finds that the physical split of the family and juvenile justice division from the other components of the circuit courts contributes to operational inefficiency and thus higher annual operating costs than if the components of the courts were located near each other.

## Existing Facilities Survey



Mitchell Courthouse



Courthouse East



Juvenile Justice Center

The City's Circuit Court system is currently housed primarily in two facilities that each date to the early 20<sup>th</sup> century. The Juvenile Division and agencies were relocated several years ago to a new Baltimore City Juvenile Justice Center they but also have outgrown their space in that location.

- Clarence M. Mitchell, Jr. Courthouse:** The building is a historic Renaissance-revival classical design that was built by the Baltimore firm, Wyatt & Nolting in 1900. It was the result of an architectural design competition that had as participants some of the most well-known architects of the period: McKim, Mead & White; Burnham and Atwood; and Carrère and Hastings. It has become antiquated and has long outgrown court operations. Due to its age, layout, and circulation patterns, the building substantially compromises the security of staff, defendants, and the public. Through the years, the light wells have been covered over to provide additional space for accommodating the growth of the court system, but such measures have made the building inefficient. External expansion is neither feasible nor probable. Although it is structurally sound, the building has many shortcomings. Access for persons with disabilities is challenging and accommodation of current ADA regulations is difficult to achieve within the existing framework of the building. Fire suppression systems are lacking and thus not up to the requirements of the city building code. Many building systems also will require replacement in the near future.
- Courthouse East:** Like the Mitchell Courthouse, this building lacks secure separation for staff, public, defendants, and opposing parties, resulting in many unsafe and compromising situations that also show a lack of dignity for defendants. For example, shackled detainees are escorted through public corridors on a routine basis because of the limitations of the circulation system. Public entrances and waiting/queuing areas are too small and no secure vehicular sally port exists for the transfer of in-custody defendants from the correctional complex to the building.
- Baltimore City Juvenile Justice Center (BCJJC):** Built and occupied ca. 2003, the BCJJC has quickly outgrown its functional and spatial needs. Although a modern facility, the BCJJC cannot accommodate in-custody respondents to be escorted in areas other than judicial corridors in order to transfer them to most courtrooms on the top level of its building.

## Personnel and Space Needs

While the updated facility evaluations were being completed, AECOM collected a large amount of data to develop projections and estimates of probable future personnel needs and estimated space needs. AECOM conducted numerous meetings with department heads and service providers to understand the current spatial shortfalls, operational problems, and functional issues. On a regular basis, AECOM conferred with the Executive Committee about the status of these meetings and issues that were revealed. This effort produced projections in five-year increments up to the year 2030, which confirmed that the courts not only have long ago outgrown the space capacity of its justice facilities but also, more importantly, will continue to grow beyond its current capacity in the coming years.

Analysis of historic trends shows that from 1990 to 2010, Baltimore City population has decreased steadily. In the last ten years, it has decreased by 3.1%. However, official city population projections for the future indicate that growth is expected to increase by 6.4% by the year 2030. By that time, the population is expected to reach nearly 677,710 people (Table 2-1). These results were important variables in the AECOM's development and tests of the needs-projections for the Circuit Court's facilities.

Recent census data released after the forecast was completed showed that Baltimore's population declined by 4.6% compared to a projected growth. This planning report is based on developing the long-term needs of the Circuit Court System and given the current economic climate, AECOM's methodology is based on anticipating ebbs and flows that could occur throughout the planning period, and recommend the continued use of the growth projections used in this report.

Baltimore City Population	2008	2010	2015	2020	2025	2030	% Change	% Chg. per Yr
<b>Total</b>	636,919	644,850	658,300	666,550	673,300	677,710	6.4%	0.3%
# Change Rate	---	7,931	13,450	8,250	6,750	4,410	8,158	371
% Change Rate	---	1.2%	2.1%	1.3%	1.0%	0.7%	1.3%	0.1%
<b>Juvenile (5-19)</b>	131,722	129,210	129,070	136,410	140,370	139,260	5.7%	0.3%
# Change Rate	---	-2,512	-140	7,340	3,960	-1,110	1,508	69
% Change Rate	---	-1.9%	-0.1%	5.7%	2.9%	-0.8%	1.2%	1.9%
<b>Elderly (65+)</b>	84,278	84,710	92,510	101,870	111,660	116,360	38.1%	1.7%
# Change Rate	---	432	7,800	9,360	9,790	4,700	6,416	292
% Change Rate	---	0.5%	9.2%	10.1%	9.6%	4.2%	6.7%	0.3%

**Courts and Personnel**

Table 2-1: Population Projections to 2030.

Various computerized projection models were calculated from the data that was collected. These results were evaluated for the future needs of court personnel and court space. As detailed in the full technical report in Chapter 3, the projection models employed many dependent and independent variables and included systems models, linear regression, and linear non-regression models. From the models that were considered, those used in the end of the process best reflected the conditions and possible outcomes in Baltimore City. Their results are summarized below (Table 2-2). These results also became the basis for determining the future spatial needs of all divisions within the Circuit Courts.

Division	1995	2000	2005	2008	2010	2015	2020	2030	Total % Change
Criminal	22,290	25,710	25,790	23,321	23,467	24,305	25,036	26,469	13%
Civil	15,179	20,549	17,952	16,693	16,742	16,852	16,949	17,133	3%
Family	9,609	10,845	11,384	11,567	11,734	12,150	12,567	13,401	16%
Juvenile	12,398	12,273	9,800	9,839	9,806	10,056	10,306	10,805	10%
<b>Total Filings</b>	<b>59,476</b>	<b>69,377</b>	<b>64,926</b>	<b>61,420</b>	<b>61,750</b>	<b>63,363</b>	<b>64,858</b>	<b>67,807</b>	<b>10%</b>
<b>Circuit Filings/1,000 Pop.</b>	<b>85</b>	<b>107</b>	<b>101</b>	<b>96</b>	<b>96</b>	<b>96</b>	<b>97</b>	<b>101</b>	<b>98</b>

Table 2-2: Caseload Projections to 2030.

The number of future judicial positions was projected from this forecast of increased caseloads. The historic and projected growth of judicial officers for the Baltimore City Circuit Court system is summarized below (Table 2-3). This forecast served as the basis for future space needs, particularly for courtrooms and hearing rooms.

Judicial FTE Positions	2008	2010	2015	2020	2030	Total % Change	Annual % Change
Administrative Judge	1	1	1	1	1	0%	0%
Criminal	17	18	18	19	20	17%	1%
Civil	12	13	13	14	14	17%	1%
Family	9	9	10	11	12	41%	2%
Juvenile	14	15	15	15	16	14%	1%
<b>Total Judicial Positions</b>	<b>53</b>	<b>56</b>	<b>57</b>	<b>60</b>	<b>63</b>	<b>20%</b>	<b>1%</b>

Note:

- (1) Totals may not add up due to rounding.
- (2) Totals include judges, masters, and other judicial positions, such as retired senior judges.

Table 2-3: Projections of Judicial Positions to 2030.

Overall, projections were carried out regarding the need for staff increases corresponding to the increase in caseloads and judicial appointments. A complete summary of all staff projections is provided below (Table 2-4). These figures form the basis of the spatial configuration of the project, the details of which are located in the Appendix.

Unit	Total Staff				
	2009	2,010	2015	2020	2030
Circuit Court	227	227	242	263	280
Jury Facilities	29	36	36	38	40
Clerk of The Circuit Court	282	305	271	269	280
Other Courts	7	7	7	7	7
State Court of Appeals	36	36	36	36	36
Register of Wills	39	42	41	43	47
Other Agencies	39	39	39	39	40
Baltimore City Sheriff's Office	215	218	222	224	236
Office of the State's Attorney	360	398	386	390	400
Dept. of Public Safety Corr. Svcs	6	6	6	6	6
Building Support	-	-	-	-	-
Baltimore City Police	23	40	41	44	48
Juvenile Justice Center	53	53	53	53	53
Department of Juvenile Justice	53	53	53	53	53
<b>Total All Agencies</b>	<b>1,369</b>	<b>1,460</b>	<b>1,433</b>	<b>1,465</b>	<b>1,526</b>

Table 2-4: Staff projections to 2030.

### Appropriate, Affordable, Lasting Space

The next step in the analysis was to correlate the court and personnel projections to space needs in order to consider what size and type of space might be necessary by 2030. Shorter-term projections likely will have less deviation from probable outcomes than their longer-term counterparts. It is in the taxpayers' best interests to support and pay for a design that is large enough to sustain future needs that are based on documented projections that are not too far in the future. In building to a reasonably-projected need, government should do so with a site, design, and construction strategy that can be easily expanded. It should avoid the scenario where, after only five to ten years, the building may need to be abandoned or remodeled extensively to accommodate further requirements by the client/organization. Based on the analysis of projections shown above, AECOM computed the estimated future space needs of all the circuit court agencies from 2010 to 2030 (Table 2-5).

Unit	Total Departmental Gross Square Footage				
	2009	2,010	2015	2020	2030
Circuit Court	338,323	342,581	372,279	397,490	412,501
Jury Facilities	24,327	26,879	27,209	30,585	31,549
Clerk of The Circuit Court	71,907	74,771	55,668	56,054	57,868
Other Courts	4,492	4,492	4,492	4,492	4,512
State Court of Appeals	8,852	8,852	8,852	8,852	8,852
Register of Wills	13,727	14,211	13,178	13,883	15,044
Other Agencies	36,485	35,531	35,963	36,394	37,329
Baltimore City Sheriff's Office	36,543	38,264	38,403	38,576	39,351
Office of the State's Attorney	115,816	121,041	110,073	111,574	114,616
Dept. of Public Safety Corr. Svcs	19,822	19,822	19,914	20,122	20,228
Building Support	69,032	69,163	69,251	72,876	73,461
Baltimore City Police	3,628	5,152	5,241	5,524	5,918
Juvenile Justice Center	13,843	14,359	14,357	14,372	14,371
Department of Juvenile Justice	7,039	7,095	7,095	7,109	7,109
<b>Total All Agencies</b>	<b>763,835</b>	<b>782,213</b>	<b>781,976</b>	<b>817,902</b>	<b>842,707</b>

Table 2-5: Space projections up to 2030.

AECOM used a recommended strategy that has been successful elsewhere to design easily expandable additions or new buildings that start out at a size that corrects current deficiencies and that may last for up to ten years of estimated needs before another major expansion is required. To do so, the space-needs projections are used to test existing sites for in-place expansion, identify potential new sites,

and test optional development concepts to accommodate the long-range projected need by 2030. These long-range space-needs projections were used to develop various conceptual schemes presented in this report, including the renovation of the two existing courthouses and the construction of a new courthouse building.

The program also includes the development of a Coordinated Domestic Violence Center, a function that will be operated in conjunction with the State's District Court. The administrative part of this operation will be located on the main level of the new courthouse and run as a 24/7 operation. A commissioner's office will also be part of this entity. Courtrooms and hearing rooms will be located on adjacent floors. The Center staff will include a coordinated caseload management position, whose function will be to work with the House of Ruth and the Women's Law Center.

### Existing Building Reuse



Before ascertaining the estimated size of the new building and determining an appropriate site for it, AECOM test-fitted the functional and spatial reuse of the Mitchell and Courthouse East building to evaluate what agencies may be housed in those buildings if they are renovated. AECOM and the Executive Committee explored many options, including one that explored if the Mitchell Courthouse could accommodate the Juvenile and Family Divisions and Courthouse East could accommodate the Civil Division and Orphans' Courts. In the case of the Mitchell Courthouse, the Executive Committee reviewed three blocking and stacking options showing the juvenile and family divisions inclusion in the building's housing plans. Option 1 showed the juvenile division in the west half of the building and the family courts in the east half, with judicial offices located adjacent to the courtrooms and hearing rooms. Option 2 showed the juvenile and family divisions located on separate floors with the judicial offices collocated on the 3<sup>rd</sup> and 5<sup>th</sup> floors. Option 3 offered a hybrid of the first two options, where juvenile courts would be placed on the west side, family courts on the east side, and judicial offices on the 3<sup>rd</sup> and 5<sup>th</sup> floors. The end result was that the Executive Committee unanimously approved Option 3 for the Mitchell Courthouse.

As for Courthouse East, the housing plan includes a scenario for the civil division, jury assembly, law library, Orphans Court and the Register of Wills. The three former federal courtrooms on the 5<sup>th</sup> floor will be preserved, as well as five courtrooms on the 2<sup>nd</sup> floor. An enlarged, two-story lobby with escalators is proposed off South Calvert Street in order to allow the public easy access to the 2<sup>nd</sup> floor, where an enclosed pedestrian bridge would connect with the new court building. Finally, it is proposed that approximately 40% of the space in Courthouse East will be left vacant for leasing to state agencies. A separate vertical circulation system would be developed to avoid crossover of court and non-court public circulation. The stacking and blocking scheme for the Mitchell and Courthouse East buildings is illustrated in Chapter 7.

Once the estimated total space needs of all Circuit Court agencies were computed and the Mitchell and Courthouse East buildings were analyzed and test-fitted, AECOM identified and analyzed the sites large enough to support the remaining total long-range needs of the circuit court system.

### Assessment of Potential Sites

To narrow the options for selecting a site, AECOM reviewed the original eight sites from the report of 2003 and met with the Baltimore Development Corporation for their assistance in determining which of the sites seemed most appropriate for the project and which were potentially available for acquisition. Each site was studied for its ability to accommodate functional court floors and to set the building away from the street for security protection if the courts desired this feature. Sites near the two existing courthouses provided an opportunity to link the structures to ease

movement of public, staff and records; increase functional efficiency; and offer the potential for a distinguished symbolic judicial center for the City of Baltimore. The eight sites were narrowed down to two based upon this meeting: The South Site at Guilford Avenue and Fayette Street, located just south of Courthouse East (Site 1) and the North Site at Guilford and Lexington Avenues, just north of Courthouse East (Site 2). These sites are noted as sites 1 and 3 (Figure 2-2).



Figure 2-2: Most appropriate sites for the new courthouse.

**New Criminal Courthouse**

If the Mitchell Courthouse can house the Juvenile and Family Division and Courthouse East the Civil Division and Orphans' Court, the new facility would be able to house the function of the Criminal Division. The estimated size of this new facility is 585,932 SF. The benefit of this scenario is that it allows a building design to accommodate modern court attributes, such as three different circulation zones to separate the public, judges and in-custody defendants. This strategy, in other projects, has proven to be the most proactive way of making facility safe and secure. Since this new building would be connected to Courthouse East with an enclosed pedestrian bridge, all judges would be located collegially in the new courthouse, allowing flexibility in assigning judges to courtrooms in either facility. A parking area for the judges would also be located in the new building at the basement level, where an in-custody holding area would also be located. AECOM prepared three building concepts: one for the South Site (Option A) and two for the North Site (Options B and C). Each concept includes a ground level site plan and a typical courts floor layout. AECOM prepared vertical stacking diagrams to illustrate how the various agencies noted in the program could be located in each design version. These site concepts were prepared based on their ability to handle several courtrooms per floor. Option A, on the South Site, presents a proposal for four-courtrooms per floor. Options B and C on the North Site offer plans for 4 and 8 courtrooms per floor, respectively. The following schematic plans depict each of the three concept options (Figures 2-3, 2-4 and 2-5).

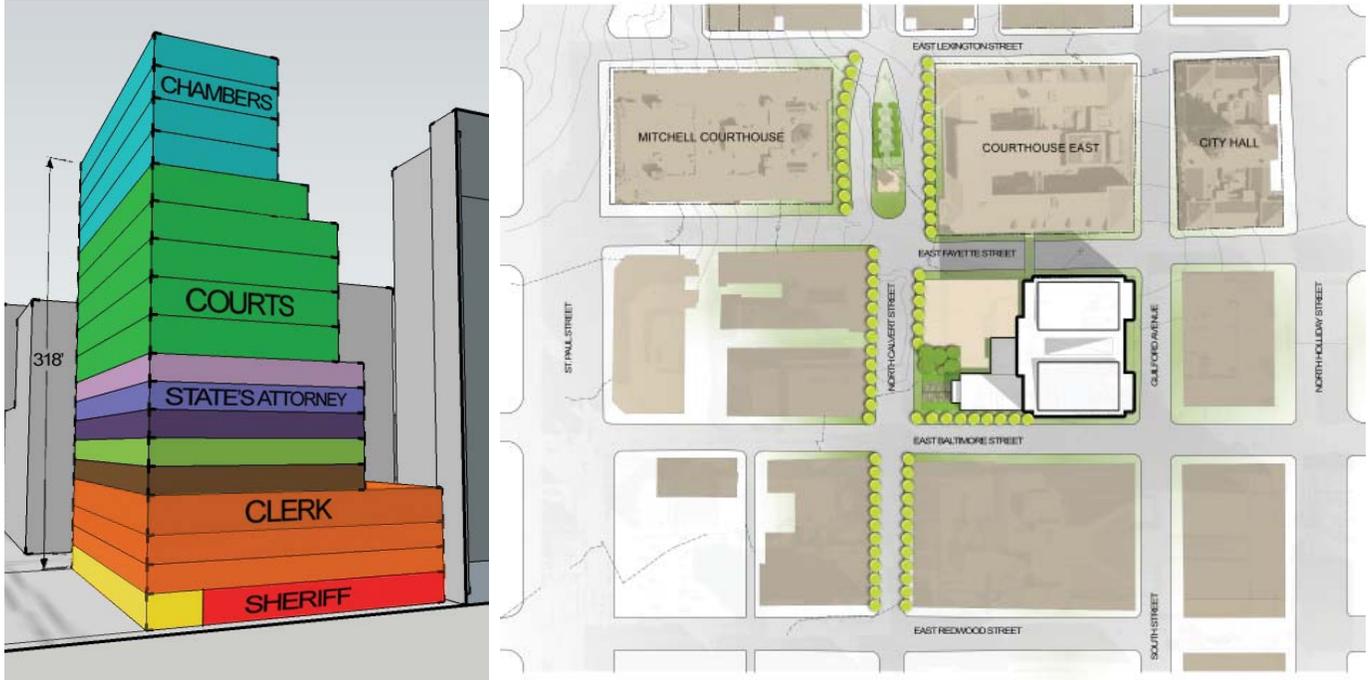


Figure 2-3: Option A: South Site / Proposal for 4 courtrooms per floor



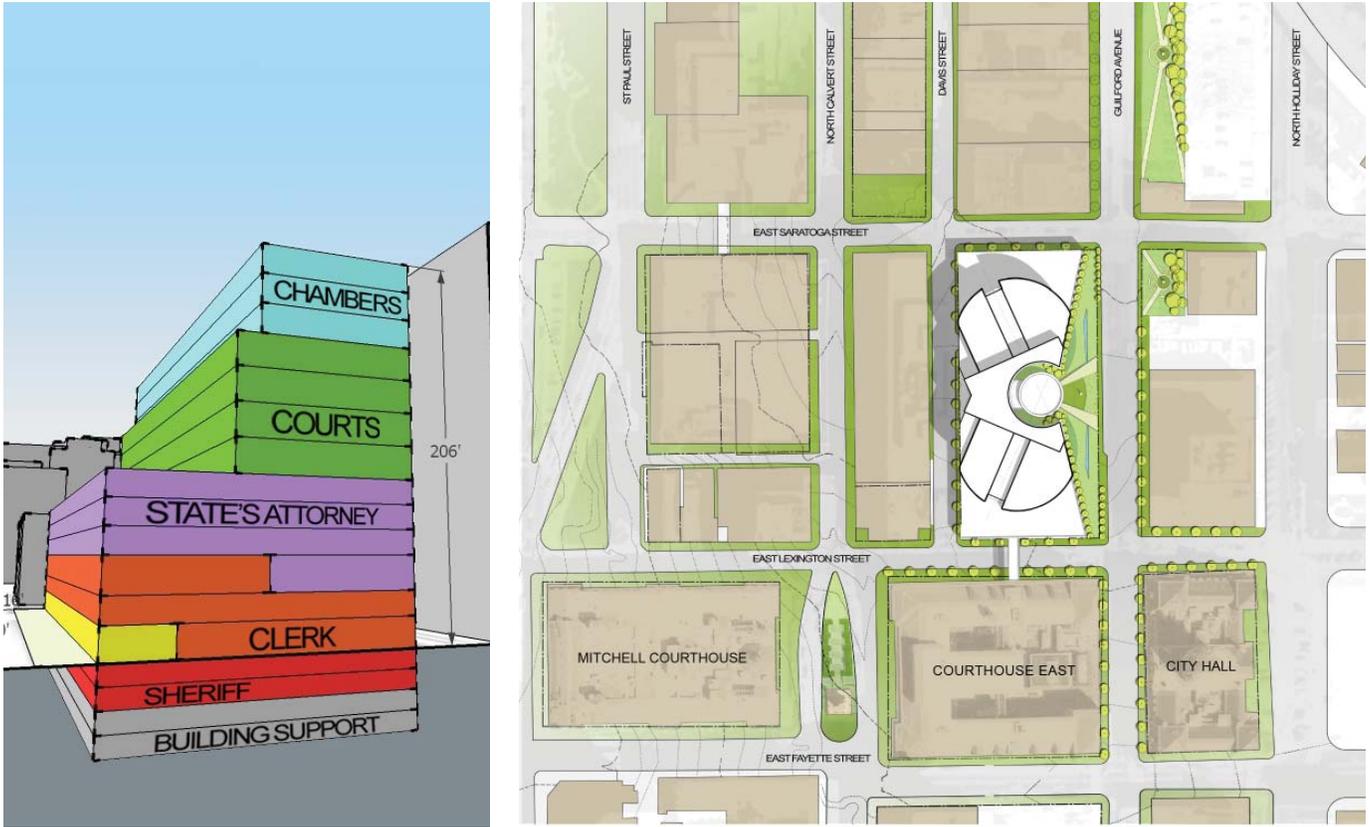
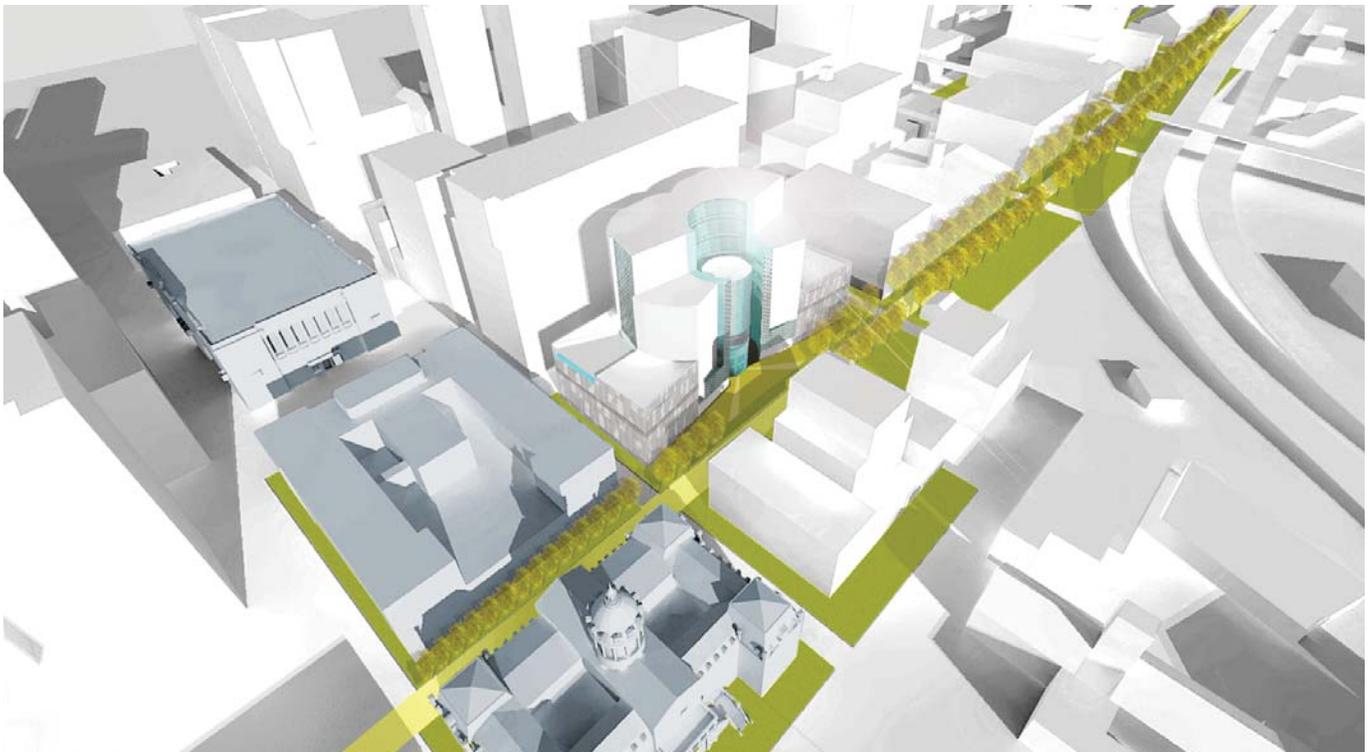


Figure 2-4: Option B: North Site / Proposal for 4-courtrooms per floor



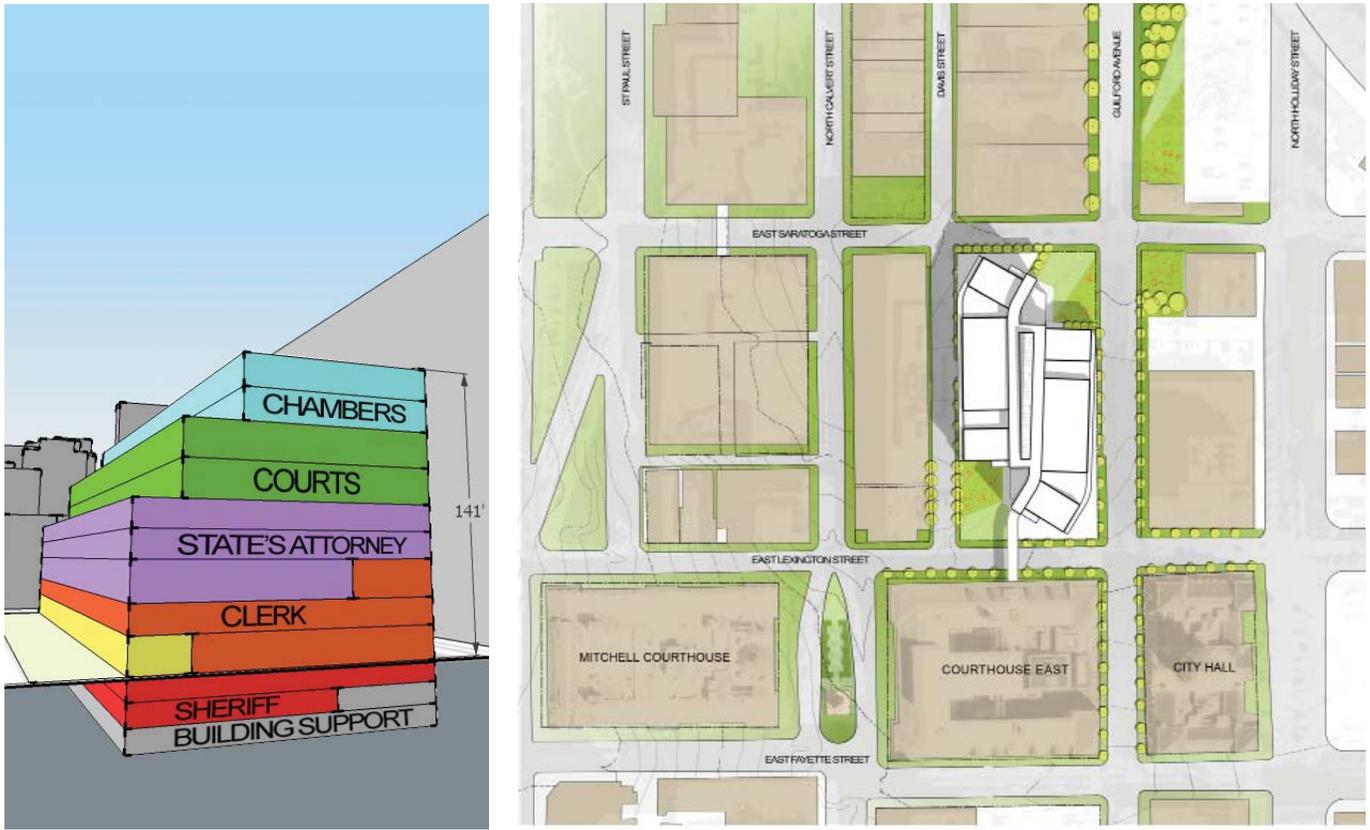


Figure 2-5: Option C: North Site / Proposal for 8 courtrooms per floor



AECOM used a site selection matrix proven to be successful in other projects to assist jurisdictions in choosing sites and design options for justice facilities. The matrix includes 26 technical factors that are applied to rate and compare different locations. It offers design options and generates a numeric score for each scenario. Factors include access, parking, environmental, zoning, site assemblage, bridge connection and project cost.

Options A, B, and C were evaluated in relation to each of these criteria (Table 2-6):

Criteria	Weight Factor	OPTIONS					
		Option A South		Option B North 4 Courts		Option C North 8 Courts	
		Rating	Score	Rating	Score	Rating	Score
<b>Functional</b>							
Adjacencies to Agencies	2	3	6	3	6	3	6
Compatibility with Adjacent Users	1	1	1	3	3	3	3
Building Footprint Flexibility	3	1	3	3	9	3	9
Distance to Parking	1	3	3	3	3	3	3
Distance to Transit	1	3	3	3	3	3	3
Zoning Restrictions	1	1	1	3	3	3	3
Noise	1	2	2	2	2	2	2
Site Configuration	3	1	3	3	9	3	9
Site Assemblage	3	1	3	2	6	2	6
Utility Capacity	2	3	6	3	6	3	6
<b>Flexible</b>							
Expansion Capability	2	1	2	3	6	2	4
<b>Secure</b>							
Standoff Distance	1	1	1	3	3	3	3
Secure Entry Location	2	1	2	3	6	3	6
Sightlines	2	3	6	3	6	3	6
<b>Dignified</b>							
Court Image Potential	2	2	4	3	6	3	6
Visibility to Public	2	2	4	3	6	3	6
Urban Design Opportunities	2	2	4	3	6	3	6
<b>Economics</b>							
Project Cost	3	1	3	2	6	3	9
Construction Logistics	2	1	2	3	6	3	6
Contamination Potential	2	2	4	2	4	2	4
Shared Service Potential	1	3	3	3	3	3	3
Construction Phasing	2	2	4	3	6	3	6
Demolition Feasibility	2	3	6	1	2	1	2
Bridge Connection	2	1	2	3	6	3	6
Energy Impacts	1	3	3	3	3	3	3
Land Acquisition	3	1	3	2	6	2	6
<b>Total</b>			<b>84</b>		<b>131</b>		<b>132</b>

Table 2-6: Evaluation Matrix for Site Selection

The North Site with Options B and C scored the higher ratings, primarily due to the site’s size, project costs, ability to flexibly accommodate court functions, and urban design opportunities. Some remediation may be expected, particularly with existing buildings due to age and previous use. Such efforts are not significantly different than those required for other sites in the area.

**Preliminary Schedule, Cost Estimates, Comparisons and Recommendations**

The evaluation of these three options compares their preliminary schedules and estimated probable construction and project costs. Such costs include fees for site acquisition, demolition, construction, fees, testing, and contingency.

AECOM developed a proposed project schedule that showed three alternatives for implementation of the project. In each case, the new courthouse would be the first project designed and built, because it would then provide swing space for agencies in the existing buildings to be renovated. Scheduling Alternative 1 is based on a traditional design/bid/build process where the new courthouse would be built and the renovation would follow, first at Courthouse East and then at the Mitchell Courthouse. In this alternative, the design process for the two renovation proj-

ects would each start approximately 12 months before the completion of the new courthouse, allowing minimal interruptions in the functioning of the court. The total estimated project time for Schedule Alternative 1 is eight years.

Scheduling Alternative 2 uses a fast-track method where the site and foundation packages for the new facility are released for bidding and construction before the building’s design documents are completed. This approach would save approximately one year in the overall project schedule, although it would pose some degree of risk because of possible disjunctures between the bids and final design documents. Timing of the renovations of the Mitchell and Courthouse East buildings would be similar to that proposed in the first alternative.

Schedule Alternative 3 consolidates the renovation of Mitchell and Courthouse East buildings as a single unit, reducing the project schedule to 5-1/2 years. This reduction in time theoretically would also reduce overall cost. In all proposed schedules, the Mitchell and Courthouse East buildings would be completely vacated in order for renovation to occur. The three scheduling options are noted below (Figure 2-6).

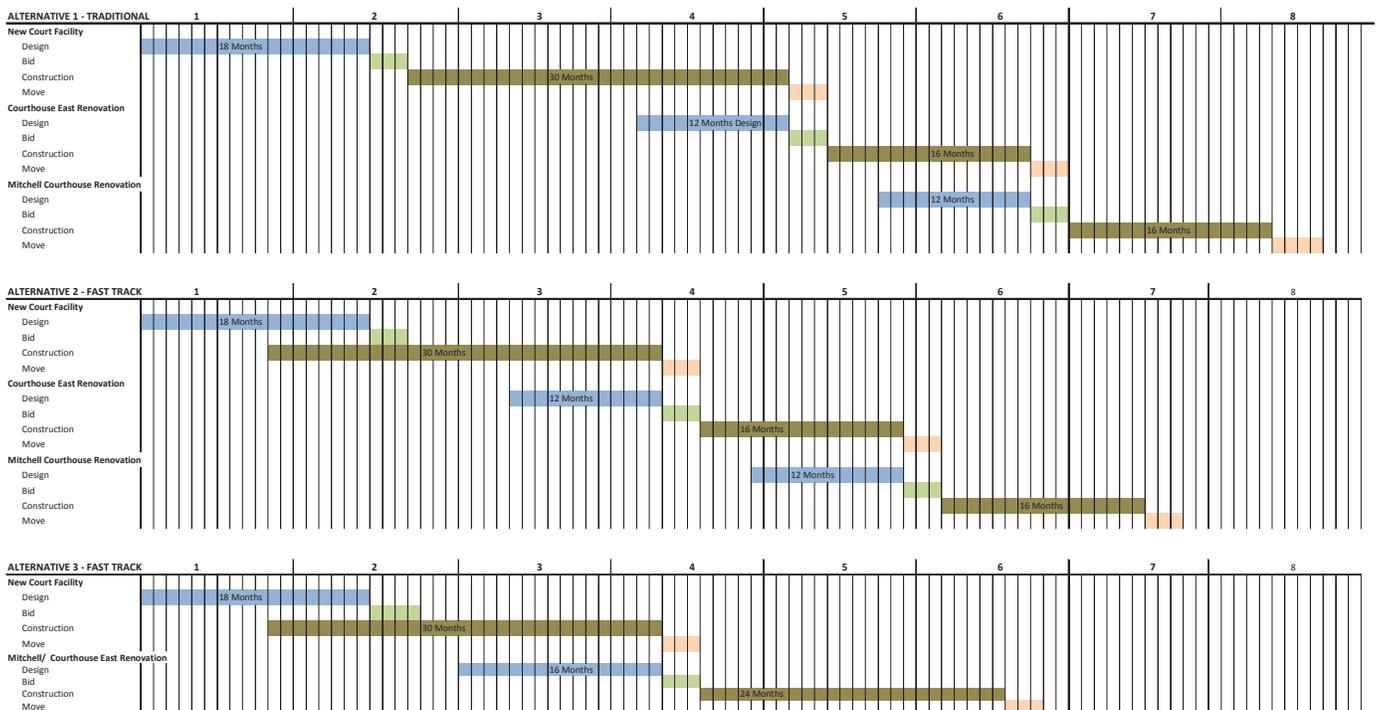


Figure 2-6: Project Schedule Alternatives

AECOM developed these schedules to estimate the escalation rate that can be applied to each alternative. These rates were based on the assumption that the new courthouse design would start in early 2011. The preliminary construction and project costs for each of the three scheduling alternatives is summarized, based on their respective escalation rates (Table 2-7). The less time estimated for the project, the lower the escalation rate.

	Escalation Rate	New Courthouse	Courthouse East	Mitchell
Scheduling Alternative 1 Schedule		11.80%	17.00%	22.25%
Scheduling Alternative 2 Schedule		8.00%	14.50%	19.25%
Scheduling Alternative 3 Schedule		8.00%	15.75%	

Table 2-7: Escalation Rates

Project costs for the three scheduling alternatives may be compared (Tables 2-8 through 2-10).

Scheduling Alternative 1	Total
Option A	\$ 602,026,460
Option B	\$ 601,766,475
Option C	\$ 588,983,542

Table 2-8: Scheduling Alternative 1: Options A – C.

Scheduling Alternative 2	Total
Option A	\$ 585,787,204
Option B	\$ 585,794,627
Option C	\$ 573,440,652

Table 2-9: Scheduling Alternative 2: Options A – C.

Scheduling Alternative 3	Total
Option A	\$ 583,282,787
Option B	\$ 583,290,211
Option C	\$ 570,936,235

Table 2-10: Scheduling Alternative 3: Options A – C.

**Operational Savings**

As part of the economic aspects of the project study, AECOM investigated the potential savings in operational costs that could be used to offset the capital investment in the construction program. This analysis focused on energy savings, limited public entries for security screening, and records management. The potential estimated cost in savings is approximately \$6.1 million, with the categories of savings itemized below (Table 2-11).

Item	Savings
Reductions in Energy Consumption	\$ 412,428
Reduction in anticipated maintenance cost	\$ 3,869,000
Reductions in anticipated janitorial costs	\$ 742,767
Improved electrical/Data-Tele/ A/V Systems	\$ 200,000
Water cost savings	\$ 12,700
Improved Process Study	\$ 500,000
Improved Record Processing	\$ 250,000
Consolidated Jury Call/Jury Assembly	\$ 50,000
Consolidation in adult holding facilities	\$ 100,000
<b>Total</b>	<b>\$ 6,136,895</b>

Table 2-11: Annual Operational Savings