

**Lyndhurst Secondary Technology Package – Addendum #7  
8.29.2017**

**Bid Date: Wednesday, August 30, 2017 @ 1:00PM**

Items issued in this addendum:

- A. Contractor questions and responses
- B. Clarifications

## **A. Contractor questions and responses**

1. Drawing TSD-502, detail 2, shows the Extron Wall-Vault system powering two ceiling speakers. However, all floor plans show the classrooms having four speakers. Please clarify how many speakers each classroom system should have. Please be advised that the amplifier that is part of the Wall-Vault system is an 8-ohm amplifier, not a 70V amplifier and is therefore designed to power a single pair of 8-ohm speakers (which are included with the wall-vault system). Adding two more speakers and attempting to wire them to the amp would throw off the impedance load on the amplifier and might cause damage to it.

**RESPONSE:** Extron (Basis of design) requires 2 speakers, as shown on TSD-502, to accomplish the required sound coverage. If using Extron, only 2 speakers would be required in each space. Other manufactures are listed as equals in the specifications. These manufacturers may require 4 speakers to meet the specifications.

2. There is an issue with installing the AVerMedia TV tuner in the specified enclosure. The dimensions of the tuner are 4.5" (deep) x 7" (long) x 1" (width). Because the Wall-Vault enclosures are essentially split down the middle with the power and cable cutouts down the center and the switcher at the bottom (please see Drawing TSD-502, Detail 3), that only leaves 5" on either side of the power cutout for the tuner. While the tuner itself might fit, there will not be enough room to plug anything into it. Additionally, the tuner vents heat out the sides of the unit, so it actually requires some additional room in order for the heat dissipation to work, otherwise, the unit will overheat and start to fail. So we must either provide a larger custom wall enclosure to accommodate the TV tuner or the TV tuner must be located elsewhere other than the enclosure. Please advise.

**RESPONSE:** AVerMedia stated dimensions of TV tuner specified are 7"x4.5"x1". Extron has confirmed the unit will fit within the vented Wall Vault shown as basis of design. If wall cabinet submitted for Classroom AV system equipment does not provide needed ventilation, the contractor will be required to provide ceiling enclosure for the TV tuner.

3. Drawing TSD-502 shows several decora style inserts side by side on the L faceplate. While the inserts themselves will likely fit in the gang boxes, the decorator-style wall-plates will most likely not. They will take up too much room on the sides and begin to overlap each other. It would require customized wall-plates to make them fit. Please confirm these can be added to the bid.

**RESPONSE:** "L" outlet consist of two double gang boxes. Contractor to provide decora inserts and frames necessary for outlet configuration. Contractor to provide brushed stainless-steel finish for all cover plates.

4. The Products/Materials list specifies Extron HDMI Pro/25 cables, which will be used to connect one of the wall plates to the switcher in the enclosure and the switcher to the projector. This means that at least at the L outlet, the HDMI connector must fit within the gang box, as it is connecting to a wall plate and not make a tight 90 degree bend, as this prohibited under the Installation terms. However, the Extron cable's HDMI connector alone is 2.5" long and then requires a bend radius of another 4". The gang boxes are unlikely to be 6" in depth. Please confirm that optical HDMI cables can be utilized instead.

**RESPONSE:** The Extron HDMI Pro cable is to plug into the Extron WPD 110A decora insert shown on the "L" outlet detail on drawing TSD-502. This insert specified includes a 10" pigtail to allow for a vertical connection of the HDMI cable within the "L" outlet box. An optical HDMI cable would also be acceptable.

5. No document camera is listed in the specs or drawings, but they are referenced as a source that would utilize one of the L plates HDMI inputs. Please confirm that the document cameras are being provided by others and what make and model they will be. If the AV contractor is to supply them, please specify a make and model.

**RESPONSE:** No document camera is required under this solicitation.

6. Room 139 (Media) shows a ceiling mounted Epson Powerlite projector rather than an short-throw interactive projection system.

a. Please confirm that any projection screen is being provided and installed by others.

**RESPONSE:** Confirmed.

b. Please provide the dimensions of the screen

**RESPONSE:** Screen is 123" diagonal viewing area screen (Type A) – see attachments.

c. Please clarify where the screen will be located. What wall will it be on?

**RESPONSE:** See attachment.

d. Please confirm that the rest of the system (inputs, control, voice lift, etc) should be the Extron Wall-Vault system (or equivalent)

**RESPONSE:** Confirmed.

e. The Epson Powerlite is not an interactive projector. The WallVault system includes a USB port on the 'L' wall plate which is supposed to connect to the interactive projector to run the interactive software. What should be done with the USB port for this room if it is not being used for the projector?

**RESPONSE:** Run it to the USB port on the projector.

7. Room 142 (Technology) shows two short throw interactive projectors, but appears to show only one Extron Wall-Vault (or equivalent) system. An HDMI splitter is detailed in a callout, indicating that the HDMI output of the Extron switcher/amp should go to the splitter and then from there to both projectors.

a. The Wall-Vault system does not appear to have sufficient control ports to operate a second projector. CEC control through the HDMI cable is not likely to work on the Epson projector. How should the 2nd projector be controlled?

**RESPONSE:** Hand held remote.

b. There is only 1 USB port on the 'L' wall plate and only 1 'L' wall plate shown. How will the 2nd interactive display connect to a laptop via USB to run interactive software?

**RESPONSE:** Only provided for one projector.

c. Where is the HDMI splitter to be located? We cannot confirm at this time that it will fit in the WallVault enclosure and be able to accommodate the three HDMI connections needed.

**RESPONSE:** In the enclosure, if not possible based on submittals, at the projector.

8. Please confirm that there is no AV system in the Auditorium, Gymnasium or Dining area that is part of this contract.

**RESPONSE:** Confirmed. Secondary package contractor is responsible for providing data connection to AV systems in Auditorium and Dining.

9. Please confirm whether the video distribution system should be analog or digital.

**RESPONSE:** The CATV distribution system should distribute an analog signal.

10. According to the floor plan scale, there are several classrooms in both locations that exceed 200' in RF cable distance from the IDF/MDF closets. For a digital distribution system with five (5) sources, we

MUST spec a video distribution system for up to 1 Gigahertz of bandwidth, accounting for cable loss, noise loads, industry standard practices of overhead, future proofing, etc. Cable runs in excess of 200' would exceed the specs of various manufactures (including Comm Scope Cable, Blonder Tongue, and Toner) to provide a distribution system with that capacity. To that end, we would like to propose a head-end system with drop extensions. Because such a design would require the use of taps outside of the IDF closets in order for the signal to reliably reach the farthest rooms, best practice design standards dictate that a tap be centrally located as close to as many of the rooms as possible such that the distance between the tap and any room drop is less than 150'. The non-IDF taps would serve as head-end extensions, not unlike the IDFs themselves, from the MDF. If there are concerns about taps or splitter being located in hallways or the cable trays, this can be addressed if a room location relatively central between the IDF/MDF closets and the end points, such as a storage closet, could be identified and utilized for a tap and possibly amp to be wall-mounted on a small plywood square and locally powered. This would prevent the tap from actually being in the cable trays or hallway plenum, but still allow it to be installed and used as the design specifies. Please confirm this is acceptable.

**RESPONSE:** The system design shows DTA units converting incoming signals to analog for distribution which should be under the 860MHz bandwidth of the system specified. Distances have been taken into account in the tap value calculations of the design.

11. Please confirm that the video distribution system requires a two way interactive / Return Path insertion and headend control.

**RESPONSE:** Confirmed.

12. The specified Vizio model display may not be available. Can a different make and model be specified if necessary?

**RESPONSE:** Substitutions will be reviewed for compatibility. Reference requirements in Lyndhurst Addendum 4, question 17.

13. Addendum #1 generally specifies Mobile 65" Interactive carts. Due to the wide range of mobile carts of various manufacturers, possible accessories, component connections and patch cord cabling options, etc. additional details and cart specifics are requested. Please clarify the make and model of the desired interactive cart, as well as any accessories, equipment, and connections.

**RESPONSE:** Information previously provided on iRover flat panel cart - See Lyndhurst addendum 4, question 18. Information attached on SMART Board 6075 interactive flat panel that should be included with each cart.

# Commercial Cabling & Sound, Inc.

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Cockeysville, Maryland 21030

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## PROJECT:

Baltimore City Public Schools  
Lyndhurst Elementary  
School #088  
621 Wildwood Parkway  
Baltimore, Maryland 21229

## CONSTRUCTION MANAGER:

Turner Construction Company  
250 W. Pratt Street, Suite 620  
Baltimore, Maryland 21201  
Phone: 410-715-7240

**SUBMITTAL – Condensed** (standard Baltimore City Public Schools equipment)

**SECTION 11 52 13 PROJECTION SCREENS** - Ceiling hung, permanently tensioned, electric operation projection screens (16:10 aspect ratio image size) with 24 volt wall mounted remote three-position control switch with cover and plate. (PART 2 – PRODUCTS)

Draper Premier #101640 *Media Center* - Type A: 123” diagonal viewing area w/#121223 single station low voltage control **(1 unit)**

Draper Premier #101641 *Community Learning* - Type B: 137” diagonal viewing area w/#121223 single station low voltage control **(1 unit)**

Draper Premier #101642 *Dining Room* - Type C: 165” diagonal viewing area w/#121223 single station low voltage control **(1 unit)**

**SECTION 27 41 00 AUDIO VISUAL AND SOUND SYSTEMS (PART 2 – PRODUCTS)**

Cafeteria Sound System

AtlasIED [324-15](#) 300 series wall mounted swing cabinet **(1 unit)**

Nexia [CS](#) Presentation mixer with [VS8](#) volume control **(1 unit)**

Ashly [KLR2000](#) stereo power amplifier **(1 unit)**

Williams Sound [PPA457PRO](#) hearing impaired system **(1 unit)**

Shure [SLX124/85/SM58](#) combo wireless microphone system **(2 units)**

Atlas [ECS-3](#) power conditioner and sequencer **(1 unit)**

Atlas [SD4-14](#) 4RU 14” storage drawer **(1 unit)**

RDL [D-J3](#) female microphone connector **(6 units)**

Shure [SM58S](#) handheld wired microphone with on/off switch **(2 units)**

Shure [MX412/C](#) Gooseneck podium mic **(2 units)**

Shure C25B 25’ microphone extension cable **(4 units)** (no illustration)

AtlasIED [MS12CE](#) microphone floor stand **(4 units)**



## Specifications

# SMART Board® 6075 interactive flat panel

Model SPNL-6075

## Overview

The SMART Board® 6075 interactive flat panel combines SMART's proprietary DViT® (Digital Vision Touch) technology with a premium touch experience and the power of SMART Notebook® collaborative learning software on a 75" LED display. For simple and powerful digital whiteboarding, this interactive flat panel is also iQ enabled.

The 4K ultra-high-definition display provides optimal image clarity and wide viewing angles. With the new Pen ID™ feature, you can assign different appearances to the pens and write or draw over any application in digital ink.

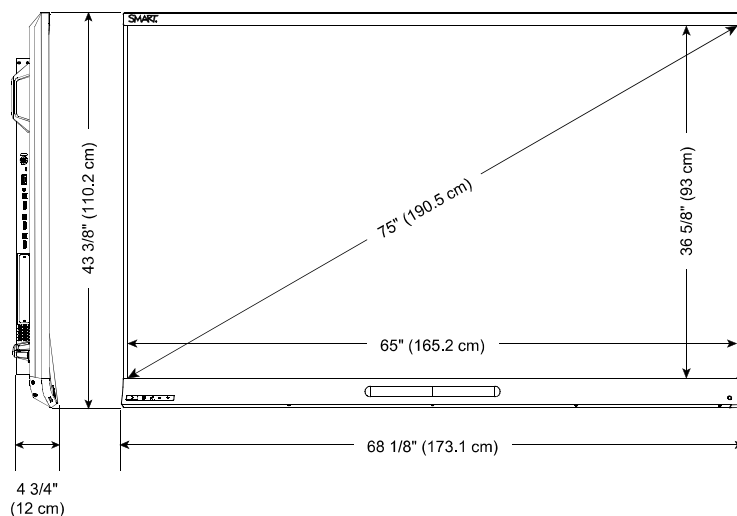
Object Awareness allows you to perform mouse functions with your finger, write in digital ink with the pen, and erase with your palm or eraser—all without switching tools or modes. You can use a variety of gestures in applications, and two users can write or draw at the same time.

See [education.smarttech.com](http://education.smarttech.com) for more information about this product.



## Dimensions and weights<sup>1</sup>

### Dimensions



### Weight

185 lb. (84 kg)

### Shipping dimensions (including pallet)

75 3/8" × 54 3/8" × 14"  
(191.6 cm × 138 cm × 35.5 cm)

### Shipping weight

238 lb. (108 kg)



As an ENERGY STAR® certified signage display, the SMART Board 6075 interactive flat panel meets strict energy efficiency guidelines set by the U.S. Environmental Protection Agency and Department of Energy.

<sup>1</sup>All dimensions ± 1/8" (0.3 cm). All weights ± 2 lb. (0.9 kg).

## Hardware

**Interaction**

Touch technology	DViT technology
Multitouch capabilities	8 touches on Windows® and Mac computers <sup>2</sup>
Gesture support	Windows 7, Windows 8.1 and Windows 10 operating systems OS X 10.9, 10.10 and 10.11 operating system software
Object awareness	Behavior adjusts automatically to whatever tool or object is being used, whether it's a pen, finger, eraser or palm.
Pen ID	Two people can write independently and simultaneously, using different colored ink.

**Display**

Type	LED
Aspect ratio	16:9
Optimal resolution	3840 × 2160 at 30 Hz (HDMI®) or 60 Hz (DisplayPort)
Horizontal frequency	122–140 kHz (typically 135 kHz)
Vertical frequency	47–63 Hz (typically 60 Hz)
Contrast ratio (typical)	5000:1
Brightness (maximum)	360 cd/m <sup>2</sup>
Pixel pitch	0.429 mm × 0.429 mm
Gamut	72% of NTSC
Viewing angle	178°
Response time (typical)	8 ms



**Presence detection** Presence detection sensor on the bottom frame

**Audio** 10 W integrated side-firing speakers (×2)

**Noise level** <35 dBA

**Included cables and accessories** 8' (2.4 m) country-specific power cable  
16' 5" (5 m) USB cable<sup>3</sup>  
Pen (×2)

**Mounting holes** For a standard VESA® 600 mm × 400 mm mounting plate  
13 3/4" (34.9 cm) from the bottom of the interactive flat panel

**Mounting bracket depth** Minimum depth of 1 5/8" (4.2 cm) for all components on the back of the interactive flat panel to clear the wall

<sup>2</sup>Requires SMART Product Drivers to be installed, and some applications might not support 8 touches

<sup>3</sup>HDMI cable not included (See *Cable requirements* for HDMI cable requirements.)



## Connectors

<b>Side</b>	Side connector panel: USB 2.0 Type-B (×3) HDMI 1.4 in (×2) DisplayPort in Stereo 3.5 mm out RS-232 in	Accessory slot: OPS interface supporting HDMI, DisplayPort and USB
<b>Bottom</b>	USB 2.0 Type-A	
<b>Back</b>	AC power inlet	

## Installation requirements

<b>Interactive flat panel</b>	See the <i>SMART Board 6000 series interactive flat panels administrator's guide</i> ( <a href="http://smarttech.com/kb/170641">smarttech.com/kb/170641</a> )
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### Room computers and guest laptops

General requirements	See <a href="http://smarttech.com/SMARTNotebookReleaseNotes">smarttech.com/SMARTNotebookReleaseNotes</a>
4K UHD	Graphics card that can support 3840 × 2160 resolution at 30 Hz and that has 1 GB DDR 5 memory See <a href="http://kb.smarttech.com/?q=15546">kb.smarttech.com/?q=15546</a>

### Mini-computers

General requirements	See <a href="http://smarttech.com/SMARTNotebookReleaseNotes">smarttech.com/SMARTNotebookReleaseNotes</a>
Dimensions	Smaller than 10" × 10" × 2" (25.4 cm × 25.4 cm × 5.1 cm)
Weight	Less than 10 lb. (4.5 kg)
Mounting	VESA 75 mm × 75 mm or 100 mm × 100 mm mounting pattern

## Cable requirements

<b>HDMI</b>	HDMI 1.4 compliant or better Maximum length: 23' (7 m) Notes: Use only certified HDMI cables that have been tested to support the performance standard you require. The performance of cables longer than 23' (7 m) is highly dependent on the quality of the cable.
<b>DisplayPort</b>	DisplayPort 1.2 compliant or better Maximum length: 23' (7 m)
<b>USB</b>	Maximum length: 16' (5 m)
<b>Important</b>	Using cables that exceed these maximum lengths may produce unexpected results, degraded picture quality or USB connectivity. Refer to the <i>SMART installation standards</i> ( <a href="http://smarttech.com/kb/171035">smarttech.com/kb/171035</a> ) for a comprehensive guide on cables and extensions for SMART hardware products.

## Storage and operating requirements

<b>Power requirements</b>	100V to 240V AC, 50 Hz to 60 Hz
<b>Power consumption at 77°F (25°C)</b>	
Standby mode	<2 W
Normal operating (out-of-box)	<131 W
Maximum operating (with accessories)	315 W
<b>Operating temperature</b>	41–95°F (5–35°C)
<b>Storage temperature</b>	-4–140°F (-20–60°C)
<b>Humidity</b>	5–80% relative humidity, non-condensing

## Certification and compliance

<b>Regulatory certification</b>	UL (U.S./Canada), FCC, IC, EMC, LV, VCCI, PSE, KC Mark
<b>Environmental compliance</b>	
European Union	REACH, RoHS, WEEE and Packaging
U.S.	Packaging and Conflict Minerals

## Purchasing information

<b>Order number</b>	
SPNL-6075	SMART Board 6075 interactive flat panel, including a SMART Notebook software license key
<b>Optional accessories</b>	
WM-SBID-501	Fixed wall mount for SMART interactive flat panels
UGK-KAPPIQ-AM30-EDU	iQ appliance for SMART Board 6000 and 7000 series interactive displays
Other	See <a href="http://smarttech.com/accessories">smarttech.com/accessories</a>
<b>Warranty</b>	Three-year limited equipment warranty
<b>Extended warranty</b>	
EWY1-SPNL-6075	One-year warranty extension
EWY2-SPNL-6075	Two-year warranty extension

smarttech.com/support  
smarttech.com/contactsupport

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## **B. Clarifications**

1. CLARIFICATION: "Q" outlets include four Cat 6 Data cables.
2. CLARIFICATION: Projector mounts for interactive wall mounted projectors are to be Epson ELPMB46 as called out on drawing TSD-502 of bid documents. Classroom AV system equipment is to be housed in wall mounted cabinet in accordance with bid documents
3. CLARIFICATION: Contractor to provide complete classroom AV systems, including sound enhancement systems in accordance with drawing TSD-502 and Specification Section 27 41 00 of bid documents.
4. CLARIFICATION: Contractor to provide and install complete classroom AV systems, including wall cabinets, in accordance with drawing TSD-502 and Specification Section 27 41 00 of bid documents.
5. CLARIFICATION: "PRI" outlets are located at LED TV displays and will not require a TV tuner.