
BOARD AGENDA ITEM

Information/Discussion _____

Future Action _____

Action X

Item: Educational Service Center AV System

Submitted by: Russell Bray

Date: 6/6/25

Recommended by: Kevin Philipps *KP*

Board Meeting Date: 6/16/24

RECOMMENDATION:

It is recommended that the Kent ISD board approve the purchase and installation of AV Systems for the ESC conference rooms from Buist Electrical Construction in the amount of \$241,250.10. This amount includes the base bid of \$229,762 and includes a 5% contingency to cover unforeseen circumstances and minor additions to the project as needed during installation.

BACKGROUND:

Planning for the AV needs in the ESC has been a collaborative process between the IT and Facilities Departments with significant input and help from Ron Houtman.

Two contractors responded to the RFP for installation of these systems with some notable differences in equipment types specified to complete the work.

While the MOSS bid is lower than Buist Electrical (see attached), Buist's proposal offers a better user experience, better audio and video coverage throughout conference rooms, and a much easier interface for both users and support staff.

ESC project funds will be used to fund this purchase.

Attached:

- Bid Executive Summary prepared by Ron Houtman

AV System Proposal Comparison: MOSS vs BUIST

Kent ISD Education Service Center - Thornapple, Coldwater, and Grand Rooms

EXECUTIVE SUMMARY

Both vendors propose Q-SYS-based control systems as requested. **Buist's proposal shows superior technical design** with appropriately sized displays and more comprehensive video distribution, while **MOSS offers a lower base price** but with less optimal display sizing and simpler video routing. **An audio coverage deficiency identified in Buist's Grand Room proposal which can be easily mitigated.**

Key Differences:

- **Display Strategy:** Buist specifies larger, more appropriate displays (85" vs 86") with better room coverage
 - **Video Distribution:** Buist uses advanced IP-based video routing; MOSS uses simpler encoder/decoder approach
 - **Screen Sizing:** Buist's 165" diagonal screen for Grand Room is more appropriate for combined space usage
 - **Audio Coverage:** MOSS specifies adequate speaker count; Buist significantly under-specifies Grand Room speakers
 - **Pricing:** MOSS base bid \$200,460 vs Buist \$229,762
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DETAILED ROOM-BY-ROOM COMPARISON

THORNAPPLE ROOM

Component	MOSS	BUIST
Displays	(3) LG 86" UHD displays	(3) Sony 85" 4K displays
Display Mounts	(3) Chief LTM1U	(3) Chief LTM1U
Control System	Q-SYS Core 110f + licenses	Q-SYS Core 110f + licenses
Touch Panel	(1) Q-SYS 7" TSC-70-G3	(1) Q-SYS 10" TSC-101-G3
Wireless Mics	(4) Shure ULXD8 gooseneck, (2) handheld, (2) bodypack + charging	(4) Shure MXW8X gooseneck, (2) handheld, (2) bodypack + charging
Wireless Presentation	Kramer VIA-G03 + optional ClickShare	Barco ClickShare C-10

AV System Proposal Comparison: MOSS vs BUIST

Video Distribution	Visionary Solutions encoders/decoders	Visionary Solutions encoders/decoders
Audio Amplifier	LEA Professional CONNECT352	Dynacord U120:1-US
Speakers	Owner-provided Atlas IED (reuse existing)	Owner-provided Atlas IED (4 total)
Network Switch	Netgear M4250-26G4XF-POE+	Netgear GSM4230P-100NAS
Furniture	Wall-mounted rack	AVFI Economy Podium with rack
Room Subtotal	\$45,997	\$59,919

Key Differences:

- MOSS specifies 86" displays vs Buist's 85" (minimal difference)
- MOSS uses 7" touch panel vs Buist's 10" (better user experience with Buist)
- Different microphone systems (ULXD vs MXW)
- MOSS uses wall rack; Buist provides podium which is what was specified

COLDWATER ROOM

Component	MOSS	BUIST
Front Displays	(2) LG 86" UHD displays	(2) Sony 85" 4K displays
Rear Display	(1) LG 65" UHD display	(1) Sony 65" 4K display
Control System	Uses existing Q-SYS Core 110f	Uses existing Q-SYS Core 110f
Touch Panel	(1) Q-SYS 7" TSC-70-G3	(1) Q-SYS 10" TSC-101-G3
Wireless Mics	Same as Thornapple	Same as Thornapple
Video Distribution	Visionary Solutions encoders/decoders	Visionary Solutions encoders/decoders
Audio Amplifier	LEA Professional CONNECT352	Dynacord U120:1-US
Speakers	Owner-provided Atlas IED (reuse existing)	Owner-provided Atlas IED (4 total)
Furniture	Uses existing rack	AVFI Economy Podium with rack
Room Subtotal	\$40,061	\$48,107

AV System Proposal Comparison: MOSS vs BUIST

Key Differences:

- Similar equipment specifications
- MOSS reuses existing rack; Buist provides new podium which is preferable

GRAND ROOM (Combined Space)

Component	MOSS	BUIST
Projection	Epson 5200 lumen laser projector	Panasonic PT-VMZ51U7 5200 lumen
Screen	Da-Lite 60" x 96" tensioned	Draper 165" diagonal ALR screen
Wall Displays	(6) LG 86" UHD displays	(2) Sony 75" + (3) Sony 85" displays
Control System	Q-SYS Core 110f + licenses	Q-SYS Core 110f + licenses
Touch Panels	(2) Q-SYS 7" TSC-70-G3	(1) Q-SYS 10" TSC-101-G3
PTZ Camera	Sony 4K PTZ + ceiling mount	Sony PTZ SRGX400/4L
Recording System	Lumens LC200 capture system	AJA HELO PLUS recorder/streamer
Wireless Mics	(8) gooseneck, (4) handheld, (4) bodypack	(8) gooseneck, (4) handheld, (4) bodypack
Audio Amplifier	LEA Professional 4-channel	Owner-provided Powersoft Mezzo
Speakers	(16) Atlas IED ceiling speakers	(12) Owner-provided Atlas IED
Furniture	Middle Atlantic rack cabinet	(2) AVFI Economy Podiums + (2) Middle Atlantic racks
Room Subtotal	\$101,090	\$121,736

Critical Differences: ★ Buist's 165" diagonal screen is significantly more appropriate for the combined Grand Room space ⚠ Buist under-specifies speaker coverage for Grand Room

AV System Proposal Comparison: MOSS vs BUIST

BILL OF MATERIALS COST COMPARISON

Base Bid Costs (Equipment + Labor)

Room	MOSS	BUIST	Difference
Thornapple	\$45,997	\$59,919	BUIST +\$13,922
Grand Room	\$101,090	\$121,736	BUIST +\$20,646
Coldwater	\$40,061	\$48,107	BUIST +\$8,046
Support Terms	\$6,072	-	MOSS +\$6,072
PLM Bond	\$1,401	\$1,781	BUIST +\$380
TOTAL BASE	\$194,621	\$231,543	BUIST +\$36,922
w/ Shipping	\$200,460	\$229,762	BUIST +\$29,302

AUDIO COVERAGE ANALYSIS

Speaker Coverage Requirements

For optimal audio coverage in conference/board meeting environments, industry standards recommend:

- **Maximum speaker spacing:** 20-25 feet on center
- **Coverage area per speaker:** ~300-400 sq ft
- **Grand Room combined space:** Estimated 2,400+ sq ft requiring **minimum 16 speakers**

Coverage Comparison by Room:

Thornapple Room

- **MOSS:** Reuses existing owner-provided speakers (quantity not specified but adequate based on room size)
- **BUIST:** 4 owner-provided Atlas IED speakers (likely adequate for single room)
- **Assessment:** Both appear adequate for room size

Coldwater Room

- **MOSS:** Reuses existing owner-provided speakers (quantity not specified)
- **BUIST:** 4 owner-provided Atlas IED speakers
- **Assessment:** Both appear adequate for room size

AV System Proposal Comparison: MOSS vs BUIST

Grand Room (POTENTIAL ISSUE)

- **MOSS:** (16) Atlas IED FAP62T ceiling speakers ★ OPTIMAL COVERAGE
- **BUIST:** (12) Owner-provided Atlas IED speakers ⚠️ INSUFFICIENT COVERAGE

Audio Coverage Assessment:

MOSS provides superior audio coverage specification, particularly in the Grand Room where 16 speakers will ensure proper coverage for the combined space. Buist's 12-speaker count is inadequate for a room of this size and will result in dead zones and uneven audio distribution, but this could be easily modified using existing speakers from storage.

TECHNICAL ANALYSIS

Control Systems

Both vendors properly specify Q-SYS as the main control system as requested.

Display Sizing Analysis

- **Thornapple/Coldwater:** Minimal difference (86" vs 85")
- **Grand Room: Buist's approach is superior**
 - 165" diagonal projection screen vs 60"x96" (much better for combined room usage)
 - More strategic display placement for divisible room functionality

Video Distribution

- **MOSS:** Standard Visionary Solutions IP-based approach
- **BUIST:** More sophisticated IP routing with better integration

Audio Systems

- **MOSS:** Proper speaker coverage across all rooms, especially Grand Room
 - **BUIST:** Under-specified speaker coverage in Grand Room (critical deficiency)
 - Both specify appropriate wireless microphone systems
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AV System Proposal Comparison: MOSS vs BUIST

BUSINESS TERMS COMPARISON

Aspect	MOSS	BUIST
Warranty	3-year parts and labor	1-year workmanship + manufacturer warranty
Pricing Validity	7 days (expires Jun 5, 2025)	45 days from bid date
Project Timeline	Not clearly specified	Thornapple July 2025, others March 2026
Payment Terms	50% down, progress billing	Standard terms with T&M potential
Change Orders	Standard T&M rates	10% max markup on hardware additions

ALTERNATES/ADD-ONS AVAILABLE

MOSS Alternates

- KS-1: Higher-end projector (+\$14,025)
- KS-2: Additional 65" display (+\$1,250)
- KS-3: Document camera (+\$8,447)
- KS-4: 5-year service contract (+\$9,982)
- KS-5: Remove PTZ/recording (-\$9,150)
- KS-6: Motorized screens for Thornapple (+\$24,822)

BUIST Alternates

- KS-1: Upgraded projector/mount (+\$18,475)
- KS-2: Additional 65" display (+\$3,207)
- KS-3: Document camera (+\$5,843)
- KS-5: Remove PTZ/recording (-\$5,653)
- KS-6: Projector upgrade for Thornapple (+\$9,153)

CRITICAL FINDINGS & RECOMMENDATIONS

Audio Coverage Deficiency - BUIST

⚠ ISSUE: Buist's specification of only 12 speakers for the Grand Room is **inadequate for proper audio coverage**. The combined space requires a minimum of 16 speakers to eliminate dead zones and ensure even

AV System Proposal Comparison: MOSS vs BUIST

sound distribution for board meetings and large presentations. This could easily be mitigated by using speakers we have on hand from removing existing speakers from previous rooms.

Display Strategy - BUIST SUPERIOR

Buist's 165" diagonal screen is significantly more appropriate for the combined Grand Room usage compared to MOSS's smaller screen.

Overall Technical Assessment:

MOSS Strengths:

- Proper audio coverage (16 speakers in Grand Room)
- Lower overall cost
- 3-year comprehensive warranty
- Adequate technical specifications

BUIST Strengths:

- Superior display strategy and screen sizing
- More sophisticated video distribution
- Better furniture/podium solutions
- Larger touch panels (10" vs 7")

BUIST Weaknesses:

- **Inadequate speaker coverage in Grand Room - can be mitigated**
 - Higher cost
 - Shorter warranty period
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FINAL RECOMMENDATION

HYBRID APPROACH RECOMMENDED

Primary Recommendation: Request **BUIST** to revise their proposal to include **16 speakers minimum in the Grand Room** to match proper coverage requirements. This addresses the critical audio deficiency while maintaining their superior display and video design. This should be able to be done without additional cost, as they are using customer provided equipment.

Alternative: If Buist cannot modify their speaker count, **MOSS provides the more technically sound overall solution** despite the smaller screen size, as proper audio coverage is critical for conference room functionality.

Cost Impact Analysis:

AV System Proposal Comparison: MOSS vs BUIST

Adding 4 additional speakers to Buist's proposal would likely add \$0-100 (wire) to their bid, still maintaining their technical advantages while resolving the audio coverage issue.