ADDENDUM NO. 1 **DATE: July 06, 2026**

PROJECT: HARMONY SCIENCE ACADEMY BRIDGELAND PHASE II MIDDLE-HIGH SCHOOL

ARCHITECT: LDDBLUELINE, INC.
333 Cypress Run Ste. 350
Houston, TX 77094
Phone: 281.497.1040

ARCHITECT'S PROJECT NUMBER: 06-22-014

OWNER: HARMONY PUBLIC SCHOOLS
1255 Enclave Parkway
Houston, TX 77077

THIS ADDENDUM IS ISSUED TO ALERT ALL PARTIES OF CHANGES AND/OR SUPPLEMENTARY CLARIFICATION INFORMATION TO THE CONTRACT DOCUMENTS AS OUTLINED BELOW. THE FOLLOWING ITEMS TAKE PRECEDENCE OVER REFERENCED PORTIONS OF THE CONTRACT DOCUMENTS AND IN EXECUTING A CONTRACT, SHALL BECOME A PART THEREOF. WHERE ANY ITEM CALLED FOR IN THE DOCUMENTS IS SUPPLEMENTED HEREBY, THE ORIGINAL REQUIREMENTS SHALL REMAIN IN EFFECT. ALL SUPPLEMENTED CONDITIONS SHALL BE CONSIDERED AS ADDED TO THERETO. WHERE ANY ORIGINAL ITEM IS AMENDED, VOIDED OR SUPERSEDED HEREBY, THE PROVISIONS OF SUCH ITEMS NOT SO SPECIFICALLY AMENDED, VOIDED OR SUPERSEDED SHALL REMAIN IN EFFECT.

Summary:

The following addendum includes specifications and drawing updates in addition to responses to bidders questions.

BIDDER NOTICE

1. Update to Architectural, Structural, and Electrical drawings in coordination with Mechanical drawings related to RTUs 8 and 18. See drawing revisions included in this addendum.

Bidders' Questions & Responses:

The following are responses to questions received from potential bidders for the above-referenced project.

1. *What are the wage rates for this project? Texas Gulf Coast or Davis Bacon? We have done both before for Harmony.*

Response: Please see Specification Section 00 21 00 and Exhibit C

2. *A Geotechnical Report by Raba Kistner is referenced throughout the contract documents but has not been provided. Please provide the missing report.*

Response: Included in Addendum #1

3. *Civil drawings reference the sports field work as being done "(BY OTHERS) (REF PLANS PREPARED BY TEXAS SPORTS & CIVIL ENGINEERING)". We find the*

CS series drawings prepared by Texas Sports & Civil within this document set, so we expect the "BY OTHERS" is a reference to the design responsibility only, and bidding contractors need to include all work related to the athletic field per the CS series drawings. Please confirm.

Response: Correct. "(BY OTHERS) (REF PLANS PREPARED BY TEXAS SPORTS & CIVIL ENGINEERING)" on the C series sheets is referencing the plans by Texas Sports & Civil Engineering and design responsibility. The scope of work shown on the C series and the CS series are included in the Contractor's scope of work.

4. *Will I-Pro MonitorCast Access Control and Bosch Pro Instrusion Detection System be acceptable substitutions?*

   Response: See Specification Section 01 25 00 for Substitution Procedures and formally submit the request to the architect.

5. *What jurisdiction is permitting?*

   Response: Harris County

6. *What is the status of the permit?*

   Response: Fire Code review is ready for approval pending approval of Civil plans. Civil review only pending recent comments on the TIA.

7. *Who is responsible for utility meter / tap fees?*

   Response: The Owner is responsible for utility meter and or tap fees. The Contractor is responsible for utilities used during construction.

8. *Are water and power readily available, if not, what is the anticipated date it will be?*

   Response: Power and water are not readily available. The Contractor should be aware of existing site conditions and include all costs related to utilities, including power and water, needed for the construction of the project.

9. *Sika Sarnafil PVC roofing system 80mil, in lieu of TPO 80mil. Where do we send substitution requests?*

   Response: See Specification Section 01 25 00 for Substitution Procedures and formally submit the request to the architect.

10. *For lockers, substitution request for LockersMFG to be added for approval.*

    Response: See Specification Section 01 25 00 for Substitution Procedures and formally submit the request to the architect.

11. SECTION 28 13 00 - ACCESS CONTROL SYSTEM ols Substitution Accepted? if yes Will owner accept i-Pro MonitorCast Access Control Reasons •Seamlessly integrates with Specified i-Pro Video surveillance •No annual subscriptions or licensing needed, (unlike Verkada) •Still have remote access without cloud overheads and associated costs (unlike Verkada) •Strong brand with decades of proven record •Japanese technology and quality

Response: See Specification Section 01 25 00 for Substitution Procedures and formally submit the request to the architect.

12. *SECTION 28 16 00 - INTRUSION DETECTION SYSTEM oIs Substitution Accepted? if yes Will owner accept Bosch Pro Intrusion Detection System Reasons •Seamlessly integrates with Specified i-Pro Video surveillance •No annual subscriptions or licensing needed, (unlike Verkada) •Still have remote access without cloud overheads and associated costs (unlike Verkada) •Strong brand with decades of proven record •German technology and quality.*

Response: See Specification Section 01 25 00 for Substitution Procedures and formally submit the request to the architect.

13. *Will the geotech report be issued?*

Response: See response to Question 2 above.

14. *L1.2 and CS1-12 are missing from the Plans. Please advise.*

Response: L1.2 was mislabeled but not missing from the plans. CS1.12 was mislabeled but not missing from the plans. The Drawing Index on Cover G-001 has been revised.

15. *Please verify beam sizes on Line 10 Between E.9-B.9 Dwg S2.10B.*

Response: Beams on Grid Line 10 between E.9 and B.9 are indicated on Sheets S2.20B and S2.21B

16. *Is badging required?*
Response: A badge is not required to enter the site. The Contractor is required to isolate the construction site from the Phase I project to prevent any student access or interaction between the Contractor's employees and students.

17. *Please note C1.3 Signage and Striping Plan, A-005 SITE DETAILS, A-820 SIGNAGE DETAILS, and A-821 SIGNAGE DETAILS aren't listed on the G-001 COVER sheet.*

Response: The Drawing Index on Cover Sheet G-001 has been corrected.

18. *Please note, the page number for the sports field DRAINAGE PLAN (CS 2.01) doesn't match what is listed on the G-001 COVER sheet.?*

Response: The Drawing Index on Cover Sheet G-001 has been corrected.

19. *Upon review of the foundation plans, it appears the foundation system consists of spread footings rather than drilled piers. We were unable to identify any drilled pier foundations within the contract documents. Please confirm that Specification Section 024660 – Drilled Piers is not applicable to this project and may be disregarded for bidding and construction purposes.*

Response: Correct. There are no drilled piers planned for the project at this time.

20. *Can the bid date be moved from July 28th to July 30th? We have a scheduling conflict on the 28th. Please consider. Thank you.*

Response: No, the bid date cannot be moved.

21. *Substitution Request to approve Canopy Solutions for the canopy scope.*

Response: See Specification Section 01 25 00 for Substitution Procedures and formally submit the request to the architect.

22. *Please note, the page number for the sports field DRAINAGE PLAN (CS 2.01) doesn't match what is listed on the G-001 COVER sheet.?*

Response: The Drawing Index on Cover Sheet G-001 has been corrected.

23. *On Sheet A-601, the door schedule indicates that Door Types S2B and S3B are not fire-rated. However, these doors are located adjacent to the staircase as shown on Sheet A-101A. Please advise if the storefronts are required to be fire-rated and, if so, please advise the required fire-rated rating.*

Response: Doors S2B and S3B are not required to be fire-rated.

24. *We do not find a specification for fire alarm systems for this project and expect such system will be required. Please advise.*

Response: Fire alarm is a deferred submittal.

25. *Please refer to Drawing TS-101-A. Corridor A135 shows camera **C-IC-03** on the floor plan; however, this camera is not listed in the camera schedule on the same sheet. Please confirm whether this omission was intentional or if Camera C-IC-03 should be included in the project scope.*

Response: Camera schedule revised.

26. *Section 27 4001, Paragraph 2.2.B.2 (Type 1 Classroom) references an audio amplifier located within the in-ceiling storage box; however, no amplifier manufacturer or model is identified within the Type 1 Classroom equipment schedule. Please confirm the intended amplifier or if this at the discretion of the bidder.*

Response: In section 2.2.1.a.2 Audio specified speaker is an amplified speaker. Up to (3) non-amplifier speakers can be tied to this amplified speaker. Although the non-amplified speaker is not called out in the specs the part number (2x2VGIC6NA) can be found on the cut sheet for the amplified speaker. Provide (1) amplified speaker and as many non-amplified speakers as needed to match the quantities for each classroom.

27. *Drawing TA-300 shows a Flow Diagram for Gym AV, but no specification is listed in Section 27 40 01 for the GYM. Will a specification be provided?*

Response: The Cafeteria spec section will also be for the Gymnasium. The only change for the gym will be revising the speaker type for an open ceiling. Refer to updated specs.

28. *Unidentified Camera at Biomedical Lab C112** Please refer to sheet TS-101C. A camera symbol is shown at the bottom-left corner of Biomedical Lab C112; however, no camera ID or device code is provided, and no corresponding camera is listed on the camera schedule. Please confirm whether this camera is required. If so, provide the camera ID, type, and applicable schedule information.*

Response: Camera tag added. Camera schedule revised.

29. *AP Schedule / Plan Discrepancy: Room B108A** Please refer to sheets TT-101B and TT-301. Room B108A is listed on the AP schedule on TT-301; however, no corresponding AP symbol or location is shown on the TT-101B floor plan. Please confirm whether an AP is required in Room B108A and provide the intended device location*.

Response: AP is required and sheet has been updated.

30. *Missing AP Schedule Information: Rooms A122 and A130** Please refer to sheets TT-101A and TT-301. AP symbols are shown at Rooms A122 and A130 on the floor plan; however, corresponding AP entries are not identified on the AP schedule. Please confirm.*

Response: Schedule has been revised to show Aps in these rooms.

31. *Undefined Keynote 5 at Room B106 Please refer to sheet TA-101B. A keynote bubble labeled "5" is shown in Room B106; however, no corresponding description for Keynote 5 is included in the keynote section on the same sheet. Please provide the intended scope and any applicable installation requirements for this keynote.*
Response: Empty keynote has been removed, and subsequent keynotes have been renumbered.

32. *Telecom Equipment Rack Responsibility Please refer to the telecommunications room rack keynote on sheet TT-301 and the Technology Responsibility Matrix. The rack keynote identifies the equipment racks and ladder rack as "By Owner." However, the Responsibility Matrix identifies the related telecommunications room equipment as CFCI. Please clarify the responsible party for furnishing and installing the following items at the MDF and IDF rooms: * 4-post equipment racks * Vertical wire managers * Ladder rack and related accessories * Fire-rated plywood backboard Please confirm whether these items are Owner-furnished / Contractor-installed, Contractor-furnished / Contractor-installed, or by another trade.*

Response: All equipment should be provided by the contractor. Fire-rated plywood should be provided by the general contractor. Notes referencing equipment 'by owner' have been removed.

33. *Spec 27 10 00 requires a 25-Year Manufacturer's Performance Certification warranty and a CommScope Uniprise Certified Installer, with CommScope connectivity (jacks, panels, faceplates, fiber, yellow WAP cable CS44P-IO) specified throughout. However, it specifies Belden 10GXW13 for the blue (Network Access) and white (IP Security) horizontal cable. A 25-year certified-channel warranty requires all components — cable, connectivity, and patch cords — to be the same manufacturer's certified system. A mixed Belden-cable / CommScope-*

connectivity channel cannot be certified for the required 25-year warranty by either manufacturer. Please confirm: (1) substitute CommScope Cat 6A cable for the blue and white horizontal runs so the channel is all-CommScope and qualifies for the required warranty; or (2) clarify the intended warranty scope for a mixed-manufacturer channel.

Response: The whole channel should be Commscope. Spec has been updated with Commscope part numbers. Refer to updated spec.

34. *CLASS ROOMS: - The projector specified has been discontinued for a while. What model number do they want to use? (Epson Powerlite 994F)?*

Response: Yes, Epson Powerlite 994F is the replacement model. Refer to updated specs**.**

35. *The specs call for an HDMI wall plate with 3.5mm audio connection. But, the drawing (TA-300) only shows HDMI. Is audio needed? If so, can they create a new one line wiring diagram for class room signal flow diagram?*

Response: It's only needed as a connection point in the ceiling at the projector allow a clean install through the ceiling tiles.

36. *Does the HDMI wall plate with 3.5mm audio (C2G 39871) go by the teacher work station? And the HDMI onl wall plate (C2G 39710) go at the projector location? If so, can they update the drawing?*

Response: HDMI with 3.5 will go on the ceiling at the projector location, HDMI only at the teacher desk location. Ensure HDMI and 3.5mm patch cables are provided from the projector to the ceiling plate. Refer to revised signal flow.

37. *Can the consultant create a new class room signal flow diagram that shows the connectivity of the RDL audio items that are being requested in the specs? (They are not shown on the drawing).*

Response: The specifications identify approved parts and pieces if they are needed. If they are not needed in this instance then they do not need to be provided. All required quantities have been removed from the AV specs. It is up to the contractor to determine which parts are needed and in what quantities.

38. *In section A.2 it mentions an 'in-ceiling storage box'. However, in section 2.2 (Equipment) - the projector mounting system does not include this box. Please confirm the intent, and the model number, if an in-ceiling storage box is needed.*

Response: An in-ceiling storage box is not needed. Specs have been updated.

39. *The gym is not listed in the spec at all, but is shown on the RCP and wiring diagram. Can you please confirm that the gym is part of the base bid package?*

Response: Gym is part of the base package. Specs have been revised to show the Cafeteria and Gymnasium under the same section. Refer to updated specs.

40. *The signal flow diagram (TA-300) shows both a wireless mic antenna and an assisted listening mic antenna. But, there are not shown on the RCP TA-101B. If*

these are needed, can they send an updated TA-101B drawing showing the location?

Response: These antennas are already shown on TA-101B wall mounted adjacent to the proscenium opening of the stage. See notes 4 and 5 (updated keynote numbers due to contractor question #9).

41. *In the gym, the projector specified has been discontinued for a while. What model number do they want to use? (Epson Powerlite L530U)?*

Response: Yes, Epson Powerlite L530U. Refer to updated specs.

42. *Can the consultant revise the signal flow drawing (TA-300) showing the connectivity of the RDL devises listed in the specs?*

Response: The specifications identify approved parts and pieces if they are needed. If they are not needed in this instance then they do not need to be provided. All required quantities have been removed from the AV specs. It is up to the contractor to determine which parts are needed and in what quantities.

43. *Can the consultant revise the signal flow drawing (TA-300) showing the connectivity of all of the Global Cache items listed in the specs?*

Response: The specifications identify approved parts and pieces if they are needed. If they are not needed in this instance then they do not need to be provided. All required quantities have been removed from the AV specs. It is up to the contractor to determine which parts are needed and in what quantities.

44. *Please advise if the Owner will be providing (and installing if applicable) any of the equipment listed under Specification 27 21 00.2.2B-E. It is typically more economical for Owners to provide most of this equipment, particularly the Cisco equipment considering they do not typically sell to contractors and prefer going direct to Owner.*

Response: The owner wants all active equipment provided and installed by the contractor.

45. *Do you know the model and style of ameristar or fortress fencing they are wanting. they do not make the style on the drawings and there is nothing specified in the specs.*

Response: The fence is required to match the existing fence and conform to the Bridgeland Commercial Planning and Design Standards. According to our records the existing fence is by Betafence and the automated gate is by Ameristar.

46. *Can work already completed in Phase 1 be identified on the A-001 site plan? Keeping the drawing as-is creates confusion on what constitutes Phase 1 vs. Phase II.*

Response: The hatched area indicates work that is already completed from Phase 1. The drawing has been revised to increase clarity of scope.

47. *There is no Ameristar fortress v2 panel, It says products by Ameristar. Ameristar does not make a panel to match the panel on the drawings. Please clarify.*

Response: See response to question #45 above.

48. *Reference A-001. The site plan indicates a 6'-0" tall metal fence surrounding the project site. Given that the project is being constructed in multiple phases, please clarify whether the entire perimeter fence shown is to be included as part of this phase of construction. If the entire fence is not to be included in this phase, please provide the limits and extents of the fencing scope that should be carried in this bid package.*

Response: There is an existing metal fence around the project property. The fence needs to be modified at the new site entrance from Creekland Village Drive with the new gate and adjustments to the existing fence as necessary. The existing fence should be maintained as much as feasible and any new work is to match the existing.

49. *For the iron fence scope of work, will you just need what is shown on 2/A-003 or around the entire perimeter?*

Response: See response to #48 above.

50. *Reference specification section 10 1100, sheet A-421 and A-802. Specification section 10 1100 and A-421 state the markerboards are Owner-Furnished, Contractor Installed. However, A-802, the furniture schedule (items 25 & 26) calls for them to be Owner-Furnished, Owner Installed. Please advise who is responsible for furnishing and installing the markerboards.*

Response: The markerboards are Owner Furnished, Contractor Installed. A-802 has been revised.

51. *The Details on Sheet CS 5.01 do not line up with the chain-link fence specification 32 3113.30 in line posts size and spacing, fabric mesh size, corner post size, and if braces are needed. Could you clarify which one will need to be followed?*

Response: Please follow the Specification Section 32 3113.30 for chain link fence.

Specifications:

REVISE the following specification sections

- 27 10 00 STRUCTURED CABLING SYSTEM
- 27 40 01 AUDIO VISUAL SYSTEMS

Drawings:

1. Drawing G-001 –Cover:
    a. **REVISE** Drawing Index

2. Drawing S2.10B Framing Plan – Low Roof Level Area B
    a. **REVISE** RTU weight.

3. Drawing S2.10C Framing Plan – Low Roof Level Area C
    a. **REVISE** RTU weight, Removed RTU

4. Drawing A-001 –Site Plan:
    a. **REVISE** Hatch area indicating existing Phase I for reference.

5. Drawing A-130 –Roof Plan:
    a. **REVISE** An RTU was removed to coordinate with the Mechanical Drawings and changes made to the associated roof items.

6. Drawing A-801 – Level 1 Furniture Plan Overall
    a. **REVISE** Furniture Schedule Mark 25 and 26 to state Owner Provided and Contractor Installed

7. Drawing A-802 – Level 2 Furniture Plan Overall
    a. **REVISE** Furniture Schedule Mark 25 and 26 to state Owner Provided and Contractor Installed

8. Drawing EP-101B Electrical 1st Floor Power Plan - Area B
    a. **REVISE** Power to RTUs.

9. Drawing EP-101C Electrical 1st Floor Power Plan - Area C
    a. **REVISE** Power to RTUs.

10. Drawing EP-201R Electrical Roof Power Plan
    a. **REVISE** Removed power to RTU

11. Drawing E-401 Electrical One-Line Diagram
    a. **REVISE** One-line diagram.

12. Drawing EP-403 Electrical Panel Schedules
    a. **REVISE** Panel Schedules

13. Drawing TA-101-B – AUDIO VISUAL PLAN LEVEL 1 – AREA ‘B’
    a. **DELETE** empty Keynote 5. All subsequent keynotes are renumbered as a result.
    b. Refer to attached full size sheet.

14. Drawing TA-300 – AUDIO VISUAL DETAILS
    a. **REVISE** Typical Classroom Signal Flow Diagram.
    b. **REVISE** Cafeteria Signal Flow Diagram.
    c. Refer to attached full size sheet.

15. Drawing TT-101-B – TELECOM LEVEL 1 – AREA ‘B’
    a. **ADD** Wireless Access Point in Office B108A.
    b. Refer to attached full size sheet.

16. Drawing TT-301 – TELECOM DETAILS
    a. **REVISE** Wireless Network Schedule.
    b. **REVISE** keynotes to remove reference to equipment ‘by owner’. Everything regarding the telecom rooms is to be provided by contractor.

c. **ADD** rack diagrams with suggested layout. Contractor shall confirm rack layout with owner and direct any questions to owner prior to installation.
d. Refer to attached full size sheet.

17. Drawing TS-101-A – SECURITY LEVEL 1 RCP – AREA ‘A’
    a. **REVISE** Camera Schedule.
    b. Refer to attached full size sheet.

18. Drawing TS-101-C – SECURITY LEVEL 1 RCP – AREA ‘C’
    a. **REVISE** Camera Schedule.
    b. **REVISE** camera tag on sheet.
    c. Refer to attached full size sheet.

END OF ADDENDUM NO. 1

Pre Bid Meeting
Sign-In Sheet

Project Name: **#HPS2026 HSA Bridgeland Phase II – Ground Up Project**

Date: **7/1/2026** Time: **2:00 PM**

	Name	Organization	Type (GC, Architect,Sub)	Email
1.	Mehmed Milanovic	HPS	Owner	mmilanovic@harmonytx.org
2.	Jack Ellisor	Ellisor Constructors	GC	jack@ellisorinc.com
3.	Korbin Mullinax	Stewart Builders LLC	GC	Bids@stewartbuilders.com
4.	Jorge Mendez	Transnet Communications	Sub	jmendez@transnet-co.com
5.	Marshall McMurrey	CMOST	GC	mmcmurrey@cmosetx.com
6.	Dave Ritz	SEDALCO	GC	bids@sedalco.com
7.	Joshua Haworth	ICI Construction Inc	GC	bids@iciconstructioninc.com
8.	Laura Reddehase	SEDALCO	GC	bids@sedalco.com
9.	Devon Fuqua	SEDALCO	GC	bids@sedalco.com
10.	Welby Lehman	LDDBlueline	Architect	welby.lehman@lddblueline.com
11.	Lindsay Lara	SEDALCO	GC	bids@sedalco.com
12.	Marcos Mendoza	C.A. Walker Construction	GC	bids@cawalker.net
13.	Miguel Flores	Transnet Communications	Sub	mflores@transnet-co.com
14.	Jonathan Lundell	Landry's Landscape	Sub	jlundell@landryslandscape.com
15.	Nestor Gonzalez	C.A. Walker Consturction	GC	bids@cawalker.net

16.	**Robert Snoddy**	**mission restaurant supply**	**sub 114000**	**roberts@missionrs.com**
17.	**Alexis Delgado**	**DivisionOne Construction**	**GC**	**bid@d1construction.com**
18.	**Lee Sumlin**	**LDDB**	**Arch. PM**	**leesumlin@lddblueline.com**
19.	**Jay Caldwell**	**HPS construction field manager**	**owner**	**pcaldwell@harmonytx.org**
20.	**Brandon Watson**	**DivisionOne Construction**	**GC**	**bid@d1construction.com**
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SECTION 00 0200

INVITATION TO BID

Project: Harmony Science Academy – Bridgeland – Phase II

Location: 12800 Creekland Village Dr, Cypress, TX 77433

ISSUED BY (Owner):

Harmony Public Schools (HPS)
1255 Enclave Parkway
Houston, Texas 77077

SUBMIT INQUIRIES TO:

Name: Mehmed Milanovic
Title: Director of Construction
Email: mmilanovic@harmonytx.org

Project Overview: Harmony Public Schools ("HPS") is seeking **competitive sealed proposals** from qualified offerors to provide construction services for a construction project at "**Harmony Science Academy – Bridgeland** ". The project scope of work includes a ground up construction of a one story 81,000 square foot middle/high school facility including parking lot, playfield, and landscaping. Construction scope consists of but is not limited to concrete, drywall, glazing, finishes, roofing, electrical, mechanical, plumbing, landscaping, low voltage and other related work as specified in the project documents. (#HPS2026_HSA Bridgeland Phase II GU)

Estimated Budget: The estimated budget for this project is **$29 million**

Award/Contract Approval: This procurement, any award under this procurement, and the resulting contract, if any, is subject to approval by HPS's governing board. Subsequent to Board approval, the only person authorized to commit HPS contractually is the Superintendent or his designee. This solicitation is an invitation for sealed proposals and neither this solicitation nor the response or the bid from any prospective bidder shall create a contractual relationship that would bind HPS until such time as both HPS and the selected proposer/contractor sign a legally binding contract, which includes, without limitation, the terms required by HPS.

Pre-Bid Meeting: Pre-Bid meeting agenda will include review of topics that may affect proper preparation and submittal of proposals and is scheduled for 2:00 p.m. CST on Wednesday, July 1, 2026 via Microsoft Teams. Attendance at the pre-bid meeting is not mandatory, but all proposers are highly encouraged to attend. If you are planning on attending
please email mmilanovic@harmonytx.org,

Join:
https://teams.microsoft.com/meet/296059200196059?p=aOciJ5u364eqGDc4C4

MeetingID:296059200196059
Passcode:jM9xN6im

Proposal Deadline; Opening Time/Location: Sealed proposals in original form for the construction work to be performed as required and/or contemplated under this request for competitive sealed proposals and as described herein and in the construction documents **will be received by 2:00 PM CST July 28th, 2026 through Harmony's ebid system** at

https://harmonytx.ionwave.net/Login.aspxand will be opened at 2:00 PM CST July 28th 2026 via Microsoft TEAMS meeting Join Microsoft Teams Meeting at:

Microsoft Teams meeting
Join:https://teams.microsoft.com/meet/274958167832934?p=nMruaGF8RXGwaJykaU
Meeting ID:274 958 167 832 934
Passcode:7x2e258e

Please send an email to confirm attendance to mmilanovic@harmonytx.org.

Sealed proposals may also be submitted physically by mail. If selecting to mail in proposals, please have them delivered to the Harmony Public Schools Central Office 1255 Enclave Parkway Houston, Texas 77077– Attention Mehmed Milanovic. Sealed proposals that are delivered after 2:00 PM CST July 28, 2026, will not be accepted. Please send one (1) binder of your proposal in dividers along with all required documentation outlined in the Invitation to Bid and write "Do Not Open" on the envelope.

Proposers may submit questions through the HPS ebid system at https://harmonytx.ionwave.net/Login.aspx. Question cutoff date and time is Friday, July 10th , 2026 at 5:00 pm CST. Proposers are required to complete all sections provided in the ebid system. Proposals that have been opened may not be changed for the purpose of correcting an error in the price. Other than price, a proposer may have the right to change any other error or mistake in the bid as may be permitted by applicable law and subject to the approval of HPS, unless such change would be in contravention of statutory or common law requirements or unless such change would give an unfair advantage to the proposer making such change.

Contract Term: HPS intends to sign a contract for Construction by 9/1/2026. Actual work to be performed and the schedule for performance under this solicitation will be upon the terms, conditions, and timelines agreed upon by the HPS Superintendent and the selected contractor. **Time is of the essence for this project. All items listed in the construction documents shall be completed no later than March 1st, 2028. Deadline will not be moved due to rainy days.**

Liquidated Damages: Time is of the essence regarding the performance of all Work. If the Contractor fails to achieve Substantial Completion on or before **March 1st, 2028**, Contractor shall pay to the Owner, as liquidated damages, $2000 per day for each calendar day that Substantial Completion is delayed thereafter.

Reservations and Waivers: This procurement solicitation shall be in accordance with Harmony Public Schools's procurement policies and general terms, including the following:

1. This Request for Competitive Sealed Proposals does not obligate HPS to award a contract or pay any costs incurred by the proposer in the preparation and submittal of a proposal. HPS assumes no financial responsibility for any costs incurred by proposers in developing and submitting a proposal, participating in pre-bid meetings, or any other costs incurred by proposers in connection with this procurement solicitation.

2. **HPS, IN ITS SOLE DISCRETION, RESERVES THE RIGHT TO ACCEPT ANY PROPOSAL AND/OR REJECT ANY AND ALL PROPOSALS OR A PART OF A PROPOSAL, WITHOUT REASON OR CAUSE, SUBMITTED IN RESPONSE TO THIS SOLICITATION.**

3. **HPS RESERVES THE RIGHT TO REJECT ANY NON-RESPONSIVE OR CONDITIONAL PROPOSAL.**

4. **HPS RESERVES THE RIGHT TO WAIVE ANY FORMALITIES, IRREGULARITIES, AND/OR TECHNICALITIES IN THIS SOLICITATION, THE CONSTRUCTION AND/OR PROCUREMENT DOCUMENTS, AND/OR ANY PROPOSALS RECEIVED OR SUBMITTED.**

5. **BY SUBMITTING A PROPOSAL, PROPOSER AGREES TO WAIVE ANY CLAIM IT HAS OR MAY HAVE AGAINST HARMONY PUBLIC SCHOOLS, AND/OR ANY OF EITHER ENTITY'S BOARD MEMBERS, ADMINISTRATORS, EMPLOYEES, AND/OR AGENTS ARISING OUT OF OR IN CONNECTION WITH (1) THE ADMINISTRATION, EVALUATION, OR RECOMMENDATION OF ANY PROPOSAL; (2) ANY REQUIREMENTS UNDER THE SOLICITATION, PROCUREMENT PACKAGE, OR RELATED DOCUMENTS; (3) THE REJECTION OF ANY PROPOSAL OR ANY PART OF ANY PROPOSAL; AND/OR (4) THE AWARD OF A CONTRACT, IF ANY.**

6. HPS reserves the right to withdraw/cancel this solicitation at any time for any reason, remove any scope component for any reason and to issue such clarifications, modifications and/or amendments as deemed appropriate by HPS, in its sole discretion.

7. A response to this procurement solicitation is an offer to contract with HPS based upon the terms, conditions, scope of work, and specifications contained in this procurement solicitation and the construction documents. A contract is not formed unless and until a proposal is accepted and awarded by HPS after approval by the HPS Board of Directors.

8. Proposals may be withdrawn only by delivery of a written request to Harmony Public Schools prior to the specified deadline time/date stated in this request for proposal. The authorized signatory must sign such request.

9. Proposals received will become a part of Harmony Public School's official files without further obligation to the respondents.

10. Respondents shall not, under penalty of law, offer any gratuities, favors, or anything of monetary value to any officer or employee of Harmony Public Schools, or to any consultant, employee, or member of HPS for the purpose of or having the effect of influencing favorable disposition toward their own proposal or any other proposal submitted hereunder.

11. No employee, officer or member of HPS shall participate in the selection, development of a response to this procurement solicitation, award or administration of a contract resulting from this procurement solicitation if a conflict of interest, real or apparent, would be involved.

12. Proposers shall not engage in any activity that will restrict or eliminate competition. This does not preclude joint ventures or subcontracts.

13. HPS is subject to the Texas Public Information Act. Proposals submitted to HPS as a result of this procurement solicitation may be subject to release as public information after contracts are executed or the procurement is terminated. If a contractor believes that its proposal, or parts of its proposal, may be exempted from disclosure under Texas law, the contractor must specify page-by-page and line-by-line the parts of the proposal which it believes are exempt. In addition, the contractor must specify which exception(s) to the Texas Public Information Act are applicable and provide detailed reasons to substantiate the exception(s). Vague or general claims to confidentiality will not be accepted. HPS assumes no obligation or responsibility relating to the disclosure or nondisclosure of information submitted by proposers.

14. HPS is an equal opportunity/educational institution, which does not discriminate on the basis of race, color, religion, national origin, gender, age or disability.

END OF SECTION 00 0200

SECTION 00 2100

INSTRUCTIONS TO PROPOSERS

1. **Review of Proposal Documents**

A provided scope of work shall be used in preparing a proposal. Each prospective proposer should carefully review the scope of work and take such steps as may be reasonably necessary to ascertain the resulting contract performance requirements. Failure to do so will not relieve proposers from the responsibility of estimating properly the difficulty/level of effort or cost of successfully performing any resulting contract. After the proposals have been opened, HPS shall have the right to review the proposals and examine the credentials and qualifications of each proposer to determine whether any or all of the proposals are responsive and to make a determination as to whether any one or more proposers are qualified, responsible contractors.

2. **Explanation to Proposers; Questions**

Any explanation desired by a prospective proposer regarding the meaning or interpretation of the construction documents must be requested in writing and with sufficient time allowed (a minimum of seven (7) calendar days before the date set to receive proposals) for a response to reach prospective proposers before the submission of their proposals. Any HPS response will be in the form of a response to the request for information.

Proposers may submit questions through the HPS ebid system, the questions cutoff date and time is Friday, July 10th, 2026 5:00 pm. Proposers are required to complete all sections provided in the ebid system.

Scope of Work is available for download through the HPS ebid system.

ONLY PROSPECTIVE PROPOSERS WHO ARE GENERAL CONTRACTORS SHALL SUBMIT QUESTIONS/REQUESTS FOR INFORMATION. Questions/requests for information submitted by subcontractors will **not** be considered.

For all general contractor firms preparing to submit a qualified proposal for the work enumerated in the scope of work to Harmony Public Schools, please register with HPS ebids system at www.harmonytx.org/bid . Unregistered proposers will not be able to submit proposals. Prospective proposers are responsible for completing all sections required by HPS ebid system, obtaining any updates or amendments to the request for proposals to ensure they have the most current and complete bidding documents.

3. **General Requirements**

a. Harmony Public Schools is seeking proposals from qualified, responsible contractors to provide construction services.
b. The contractor must have the administrative and fiscal capability as well as experience to provide and manage the services requested.
c. The contractor must comply with all applicable federal, state, and local laws, ordinances, rules, regulations and orders of all authorities having jurisdiction over the contract.
d. The contractor and his staff must be adequately insured and bonded.

e. The contractor must employ qualified personnel with adequate training and experience and in adequate numbers.

4. **Proposer Eligibility for Contract Award**

In order for a proposer to be eligible to be awarded a contract, the proposal must be responsive to the solicitation and HPS must be able to determine that the proposer is responsible to perform the resulting contract satisfactorily.

Responsive proposals are those that comply with all material aspects of the solicitation, conform to the solicitation/construction documents, and meet the requirements set forth in this solicitation. Proposals that do not comply with the terms and conditions of the solicitation will be rejected as non-responsive.

Each proposer shall complete, and submit with the proposal, the applicable forms contained in the solicitation. When a special license or permit is required by Federal, State or Local law or ordinance or required by a company or otherwise to perform the work, the proposer must be properly licensed prior to submitting a proposal to HPS and must furnish evidence of such licensing or credentials with the proposal.

Responsible proposers, at a minimum, must meet all of the following requirements:

- Be an experienced contractor who has served as a prime contractor on similar construction projects for schools/governmental entities and be knowledgeable about requirements for construction of and building elements for schools including, without limitation, applicable building code requirements;
- Provide a warranty and support for any equipment installed as part of the renovation/construction services;
- Possess or is able to obtain adequate financial resources as required to perform under any contract resulting from this procurement solicitation;
- Have a responsible safety record, as detailed in this procurement solicitation;
    - Proposers must submit with their sealed proposal the following evidence of proposer's safety record: proposer's OSHA (Occupational Safety and Health Administration) inspection logs for the last three years, a loss analysis from the proposer's insurance carrier, and a loss history covering all lines of insurance coverage carried by the proposer.
- **Be able to obtain payment and performance bonds of the types and in the amounts described in this procurement solicitation;**
    - **Proposers must provide a letter of statement from a bonding company that the proposer general contractor is eligible to obtain both payment and performance bonds of the types described in this procurement solicitation. Proposers must include such letters in their proposals.**
    - **Payment and performance bonds shall be provided after the proposal/contract award in order to proceed with contract execution.**
    - **Proposers shall include the related bond cost within their schedule of values.**
- **Comply with all prevailing wage rate requirements;**
    - **The contractor who is awarded a contract resulting from this procurement solicitation must pay not less than the prevailing wage rates determined by HPS to a worker employed by it in the execution of a contract and must keep a record of such, as detailed in this procurement solicitation.**

- **Be able to obtain all required permits.**
  - **All permit costs, inspection costs and associated fees, including but not necessarily limited to, building permits, sprinkler permits, canopy permits, fence permits, etc. will be paid by the selected proposer.**
  - **Proposers shall include the related permitting and inspection costs within their schedule of values.**
- Submit all required proposal forms. If there is any missing proposal form pages, proposers may be disqualified.
- Be able to comply with the required performance schedule, taking into consideration all existing business commitments;
- Have necessary management and technical capability to perform any resulting contract;
- Be qualified as an established firm regularly engaged in the type of business to provide the items/work required by this solicitation;
- Be registered to do business in the State of Texas;
- Be in good standing with the State of Texas;
- Be otherwise qualified and eligible to receive a contract award under applicable laws and regulations.

A proposer may be requested to submit written evidence verifying that he/she meets the minimum requirements described herein and as necessary to be determined a responsible proposer. Proposals deviating or taking exceptions to the solicitation requirements will not be considered.

A person is not eligible to be considered for award of this solicitation or any resulting contract or to be a subcontractor of the proposer or prime contractor if the person assisted in the development of this solicitation or any part of this solicitation or if the person participated in a project related to this solicitation when such participation would give the person special knowledge that would give that person or a prime contractor an unfair advantage over other proposers.

5. **Preparation for Proposal; Proposal Submittal**

a. A proposal shall be complete, must include information provided on the attached forms, and may include any other forms or documents to support the proposal submitted by the contractor and shall be manually signed by an authorized official of the company submitting the proposal. The person signing the proposal shall initial any changes or erasures appearing on the bid forms.

b. A proposal shall be submitted so as to be received no later than the exact date/time through the HPS ebid system

c. Proposers must submit original scan copies (Blue Ink) to HPS ebid system.

6. **Selection Criteria**

In accordance with Sections 2269.153, 2269.155, and 2269.055 of the Texas Government Code, Harmony Public Schools will evaluate proposals on the basis of the following selection criteria:

	Criteria Weight Table	
	Criteria	Criteria Weight
1	Price	50
2	Experience & Reputation	17
3	Quality	13
4	Financial Wherewithal & Company Size	6
5	Proposed Personnel	9
6	Safety Record	5
	TOTAL	100

7. **Terms and Conditions**

This procurement solicitation shall be in accordance with applicable law, including Subchapter D of Chapter 2269 of the Texas Government Code (Competitive Sealed Proposal Method of Procurement) and Harmony Public Schools' public works procurement policy, and the following terms and conditions of this procurement solicitation:

1. Contract Award. Award of a contract, if any, will be made to the proposer who submits the proposal that offers the best value for HPS, based on (a) the selection criteria in this request for competitive sealed proposals and the weighted value for those criteria listed in this procurement solicitation; and (b) HPS' ranking evaluation. Tex. Gov't Code § 2269.155(a). HPS must first attempt to negotiate a contract with the selected proposer. HPS and its architect and/or engineer may discussed with the selected proposer options for a scope or time modification and any price change associated with the modification. Tex. Gov't Code § 2269.155(b). If HPS is unable to negotiate a satisfactory contract with the selected proposer, HPS must, formally and in writing, end negotiations with that proposer and proceed to the next proposer in the order of the selection ranking until a contract is reached or all proposals are rejected. Tex. Gov't Code § 2269.155(c).

2. Taxes. HPS is exempt from taxation, and no proposal shall include any costs for taxes to be assessed against HPS.

3. Appropriated Funds. The purchase of services and/or products that arises from this solicitation is contingent upon the availability of appropriated funds. In addition to other termination rights contained in the resulting contract, if any, HPS shall have the right to terminate the resulting contract at the end of the current or each succeeding HPS fiscal year if funds are not appropriated by HPS's governing board for the next fiscal year that would permit continuation of the resulting contract. If funds are withdrawn or do not become available, HPS reserves the right to terminate the contract by giving the contractor a thirty (30) day written notice of its intention to terminate without penalty or any further obligations on the part of HPS or the contractor. Upon termination of the contract, HPS shall not be responsible for any payment of any service

or product received that occurs after the end of the current contract period or the effective date of termination, whichever is the earlier to occur.

4. Insurance. Contractor must obtain and keep in effect during the term of the contract, insurance coverage in the below listed types and minimum amounts. As evidence of insurance coverage, **Contractor must furnish to Harmony Public Schools certificate(s) of insurance with its proposal**.

Type of Coverage	Amount of Coverage
Liability insurance	As detailed in Exhibit A
Workers Compensation & Employers Liability Insurance	As detailed in Exhibit B

Contractor must perform the duties and responsibilities pertaining to required workers' compensation coverages, as detailed in Exhibit B.

Contractor shall provide HPS with a certificate of coverage for each person providing services on the project, prior to that person's beginning work on the project. This provision includes all persons or entities performing all or part of the services the contractor has undertaken to perform on the project, regardless of whether that person contracts directly with the contractor and regardless of whether that person has employees. This includes, but is not limited to, independent contractors, subcontractors, leasing companies, motor carriers, owner-operators, employees of any such entity, or employees of any entity furnishing persons to perform services on the contract. Services include, but are not limited to, providing, hauling, or delivering equipment or materials, or providing labor, transportation, or other services related to a project. Services do not include activities unrelated to the project, such as food/beverage vendors, office supply deliveries, and delivery of portable toilets.

Contractor shall provide HPS with a new certificate of coverage showing extension of coverage:

(1) Before the end of the coverage period, if the contractor's current certificate shows that the coverage period ends during the duration of the project; and
(2) No later than seven days after the expiration of the coverage for each other person providing services on the project whose current certificate shows that the coverage period ends during the duration of the project.

5. Payment Bond. The successful contractor, before beginning the work under any contract resulting from this procurement solicitation, is required to execute a payment bond satisfying the requirements of Subchapter I, Chapter 53, Texas Property Code, including:
    1. be in a penal sum at least equal to the total of the original contract amount;
    2. be in favor of HPS;
    3. have the written approval of HPS endorsed on it;
    4. be executed by:

(A) the original contractor as principal; and
(B) a corporate surety authorized and admitted to do business in Texas and licensed by Texas to execute bonds as surety, subject to Section 1, Chapter 87, Acts of the 56th Legislature, Regular Session, 1959 (Article 7.19-1, Vernon's Texas Insurance Code);

5. be conditioned on prompt payment for all labor, subcontracts, materials, specially fabricated materials, and normal and usual extras not exceeding 15 percent of the contract price; and
6. clearly and prominently display on the bond or on an attachment to the bond:
   (A) the name, mailing address, physical address, and telephone number, including the area code, of the surety company to which any notice of claim should be sent; or
   (B) the toll-free telephone number maintained by the Texas Department of Insurance under Subchapter B, Chapter 521, Insurance Code, and a statement that the address of the surety company to which any notice of claim should be sent may be obtained from the Texas Department of Insurance by calling the toll-free telephone number. *See* Tex. Prop. Code § 53.202.

Recording Requirement. The successful contractor is required to file the bond and the contract between the contractor and HPS with the county clerk of the county in which is located all or part of HPS's property on which the construction or repair is being performed or is to be performed. A memorandum of the contract or a copy of the contract may be substituted for the original. Tex. Prop. Code § 53.203(a). The plans, specifications, and general conditions of the contract are not required to be filed. Tex. Prop. Code § 53.203(b).

Proposers must provide, with their proposals, a letter of statement from a bonding company that the proposer general contractor is eligible to obtain both payment and performance bonds of the types described in this procurement solicitation.

6. Performance Bond. The successful contractor, before beginning the work under any contract resulting from this procurement solicitation, is required to execute a performance bond satisfying the requirements of Chapter 2253, Texas Government Code.
   1. be in the amount of the contract;
   2. be conditioned on the faithful performance of the work in accordance with the plans, specifications, and contract documents;
   3. be executed by a corporate surety in accordance with Texas Insurance Code 7.19-1;
   4. be payable to and its form be approved by HPS;
   5. clearly and prominently display on the bond or on an attachment to the bond:

   (A) the name, mailing address, physical address, and telephone number, including the area code, of the surety company to which any notice of claim should be sent; or
   (B) the toll-free telephone number maintained by the Texas Department of Insurance under Subchapter B, Chapter 521, Insurance Code, and a statement that the address of the surety company to which any notice of claim should be

sent may be obtained from the Texas Department of Insurance by calling the toll-free telephone number

The performance bond is solely for the protection of HPS.

Proposers must provide, with their proposals, a letter of statement from a bonding company that the proposer general contractor is eligible to obtain both payment and performance bonds of the types described in this procurement solicitation.

7. Prevailing Wage Rates. A worker, laborer, or mechanic employed on a public work by or on behalf of HPS shall be paid: (1) not less than the general prevailing rate of per diem wages for work of a similar character in the locality in which the work is performed; and (2) not less than the general prevailing rate of per diem wages for legal holiday and overtime work.

   The HPS Board has determined the general prevailing rate of per diem wages in the locality in which the public work is to be performed for each craft or type of worker needed to execute the contract and the prevailing rate for legal holiday and overtime work. Attached hereto as Exhibit C are the prevailing wage rates adopted by the HPS Board.

   The contractor who is awarded a public works contract by HPS or a subcontractor of the contractor shall pay not less than the prevailing wage rates determined by HPS to a worker employed by it in the execution of the public works contract. A contractor or subcontractor who violates the requirement to pay prevailing wage rates shall pay to HPS, $60 for each worker employed for each calendar day or part of the day that the worker is paid less than the wage rates stipulated in the public works contract; HPS shall specify this penalty in the public works contract.

   Obligation to keep Prevailing Wage Rates Records. A contractor and subcontractor employed on a HPS public works contract shall keep a record showing:
   (1) the name and occupation of each worker employed by the contractor or subcontractor in the construction of the public work; and
   (2) the actual per diem wages paid to each worker.

   The record shall be open at all reasonable hours to inspection by HPS' officers and agents. Tex. Gov't Code § 2258.024.

8. Permitting; Inspections. Contractor and all subcontractors shall maintain all required licenses, certifications, permits, and any other documentation necessary to perform the contract resulting from this procurement solicitation. Contractor must comply with all state and local building code requirements.

9. Safety Record of Proposer. HPS will consider the safety record of the proposer in determining to whom to award a contract resulting from this procurement solicitation. The safety record shall be defined as a proposer's OSHA (Occupational Safety and Health Administration) inspection logs for the last three years, a loss analysis from the proposer's insurance carrier, and a loss history covering all lines of insurance coverage carried by the proposer.

Proposers shall submit with their proposals:

a. Proposer's OSHA (Occupational Safety and Health Administration) inspection logs for the last three years,
b. a loss analysis from the proposer's insurance carrier, and
c. a loss history covering all lines of insurance coverage carried by the proposer.

10. Accessibility. Alterations of HPS facilities that affect or could affect their usability shall, to the maximum extent feasible, be altered in such manner that the altered portion is readily accessible to and usable by individuals with disabilities. 28 C.F.R. 35.151, 34 C.F.R. 104.23.

11. Payments; Retainage. HPS' payment of the contract sum to a contractor on a HPS public works contract shall be made no later than 30 days after final completion of the work, upon presentation of a written detailed invoice by contractor in an amount not to exceed the amount of the proposal, bid, or quote, unless subsequently amended upon written agreement of contractor and HPS. Final payment shall be conditioned upon contractor's completion of all punch-list work, contractor's submission of all required close-out documents, and HPS' receipt of final lien releases from contractor, its subcontractors and suppliers, conditioned only upon receipt of final payment in the form required by Texas Property Code Chapter 53.

At HPS' sole election, HPS may make monthly progress payments to contractor, within 30 days of HPS' receipt of a detailed written application for payment/invoice from contractor. Payment applications shall be accompanied by a schedule of values showing progress of the work.

On all public works contracts valued at $100,000 or more, HPS shall withhold retainage in the amount of 5% (five percent) from each monthly progress payment. If the total contract price estimate at the time of execution of the public works contract is $400,000 or more, HPS shall:

(1) deposit in an interest-bearing account the retainage of a public works contract that provides for retainage of more than five percent of the periodic contract payment; and
(2) pay the interest earned on the retainage to the prime contractor on completion of the contract.

See Tex. Gov't Code § 2252.032-.033.

Final payment to the contractor, including release of retainage, shall be made no later than 30 days after final completion of the work, upon presentation of a written detailed invoice by contractor. If progress payments are made, final payment is subject to the terms of this Section.

12. Conflict of Interest. HPS is required to comply with Texas Local Government Code Chapter 176, Disclosure of Certain Relationships with Local Government Officers. House Bill 23 significantly changed Chapter 176 as well as the required disclosures and the corresponding forms. As of September 1, 2015, any company who does

business with HPS or who seeks to do business with HPS must fill out the new Conflict of Interest Questionnaire (CIQ) whether or not a conflict of interest exists. A conflict of interest exists in the following situations:

a. If the vendor has an employment or other business relationship with a local government officer of HPS or a family member of the officer, as described by section 176.003(a)(2)(A) of the Texas Local Government Code; or
b. If the vendor has given a local government officer of HPS, or a family member of the officer, one or more gifts with the aggregate value of $100, excluding any gift accepted by the officer or a family member of the officer if the gift is: (i) a political contribution as defined by Title 15 of the Election Code; or (ii) a gift of food accepted as a guest; or
c. If the vendor has a family relationship with a local government officer of HPS.

"Vendor" means a person who enters or seeks to enter into a contract with a local governmental entity. The term includes an agent of a vendor. The term includes an officer or employee of a state agency when that individual is acting in a private capacity to enter into a contract. The term does not include a state agency except for Texas Correctional Industries. *Texas Local Government Code 176.001(7).*

"Business relationship" means a connection between two or more parties based on commercial activity of one of the parties. The term does not include a connection based on: (A) a transaction that is subject to rate or fee regulation by a federal, state, or local governmental entity or an agency of a federal, state, or local governmental entity; (B) a transaction conducted at a price and subject to terms available to the public; or (C) a purchase or lease of goods or services from a person that is chartered by a state or federal agency and that is subject to regular examination by, and reporting to, that agency. *Texas Local Government Code 176.001(3).*

"Family relationship" means a relationship between a person and another person within the third degree by consanguinity or the second degree by affinity, as those terms are defined by Subchapter B, Chapter 573, Government Code. *Texas Local Government Code 176.001(2-a).*

"Local government officer" means: (A) a member of the governing body of a local governmental entity; (B) a director, superintendent, administrator, president, or other person designated as the executive officer of a local governmental entity; or (C) an agent of a local governmental entity who exercises discretion in the planning, recommending, selecting, or contracting of a vendor. *Texas Local Government Code 176.001(4).*

Members of HPS' Board of Directors and Superintendent include:

Mr. Fatih Ay
Dr. Oner Celepcikay
Mrs. Helen Sherwood
Dr. Hakduran Koc
Dr. Mehmet Argin
Dr. Osman Kanlioglu

Ms. Laura Gonzalez
Ms. Kimberly D. House

- ***Current local government officers include, but are not limited to:***

Mr. Umit Alpaslan
Dr. Nihat Bayhan
Dr. Edward Caglar

If no conflict of interest exists, you must fill out Box 1 and type N/A on Box 3 of the CIQ form, sign and date it.

In the event of changed circumstances, an updated CIQ must be filed within seven (7) business days after the vendor becomes aware a conflict of interest exists.

EDGAR Conflict of Interest Requirements

In accordance with federal EDGAR requirements, 2 CFR § 200.318I(1), no employee, officer, or agent may participate in the selection, award, or administration of a contract supported by a federal award if he or she has a real or apparent conflict of interest. Such a conflict of interest would arise when the employee, officer, or agent, any member of his or her immediate family, his or her partner, or an organization which employs or is about to employ any of the parties indicated herein, has a financial or other interest in or a tangible personal benefit from a firm considered for a contract.

The officers, employees, and agents of HPS may neither solicit nor accept gratuities, favors, or anything of monetary value from contractors or parties to subcontracts.

Violations of this standard by an employee will be reported to the Superintendent's Office and addressed through HPS' personnel policies. Violations of this standard by an officer or the Superintendent shall be addressed to the Board President and addressed through HPS Board policies

E. **Proposal Format**

All proposals **must** include the following:

1. Title Page

2. Table of Contents

3. Business Identification

4. Compliance with Specifications

5. **Evidence to be used for evaluation/selection criteria (Refer to #6, above)**

6. All required documentation and attachments (see #9, below)

Documentation must be complete.

F. **Required Documentation and Attachments**

The documentation and attachments listed below are required to be included with the proposal. All forms must be completed and signed.

1. Proof of Insurance – certificates of insurance of the types and amounts described in this procurement solicitation, including in Exhibits A and B

2. Proof of licensing/credentials

3. Letter of statement from a bonding company that the proposer is eligible to obtain both payment and performance bonds of the types described in this procurement solicitation

4. Proof of Proposer's Safety Record – Proposers must submit:
   a. Proposer's OSHA (Occupational Safety and Health Administration) inspection logs for the last three years,
   b. a loss analysis from the proposer's insurance carrier, and
   c. a loss history covering all lines of insurance coverage carried by the proposer.

5. Attachment A – Certification of Proposer

6. Attachment B – Proposer Questionnaire and Qualification Statement

7. Attachment C – Price Form

8. Attachment D – Vendor Certification Forms

9. Attachment E – Asbestos-Free Materials and Inspection

10. Attachment F – Acknowledgement of Final Completion Documents

END OF SECTION 00 2100

Exhibit A – Liability Insurance Requirements

The insurance coverage and limits listed below are the minimum requirements that the Contractor is required to carry during performance of the contract for the construction project for **Harmony Science Academy – Pearland**

1. **Commercial General Liability for Bodily Injury / Property Damage Limits:**

Occurrence / Personal Injury / Advertising / Products / Completed Operations	$1,000,000 CSL
Annual Aggregate	$2,000,000 CSL
Products Aggregate	$2,000,000 CSL
Fire, Lightning or Explosion	$1,000,000 CSL
Medical Expense	$5,000 per Person

2. **Automobile Liability:**

Bodily Injury / Property Damage	$1,000,000

3. **Workers Compensation:**

Part A - Statutory
Part B - $1,000,000 Each Accident
$1,000,000 Policy Limits
$1,000,000 Each Employee

4. **Umbrella Liability Insurance**

i. Coverage. Such insurance shall be excess over and be no less broad than all coverages described above and shall include a drop-down provision for exhaustion of underlying limits.

ii. Form. This policy shall have the same inception and expiration dates as the commercial general liability insurance required above.

iii. Amount of Insurance. Coverage shall be provided with a limit of not less than $5,000,000.

iv. Continuing Umbrella Liability Insurance. The Contractor shall maintain such insurance in identical coverage, form and amount, including required endorsements, for at least two (2) years following Date of Substantial Completion of the Work to be performed under this Agreement. The Contractor shall provide written representation to the Owner stating Work completion date.

5. **Builder's Risk Insurance**
   Contractor shall purchase property insurance written on a builder's risk "all-risks" completed value or equivalent policy form and sufficient to cover the total value of the entire Project on a replacement cost basis. Such property insurance coverage shall be no less than the amount of the initial Contract Sum, plus the value of subsequent Modifications and labor performed and materials or equipment supplied by others. The property insurance shall be maintained until expiration of the period for correction of the Work. This insurance shall include the interests of the Owner, Contractor, Subcontractors, and Sub-subcontractors in the Project as insureds. This insurance shall include the interests of mortgagees as loss payees.

The following endorsements and other stated information are required on the Policies of Insurance:

- 90-Day Notice of Cancellation
- Harmony Public Schools to be added as an Additional Insured on all policies except the Workers Compensation Policy
- Waiver of Subrogation on all policies

Within ten (10) business days of execution of a contract, the contractor shall submit certificate(s) of insurance and the applicable endorsements to

Luis De Hoyos, Construction Project Manager
Harmony Public Schools
9321 W Sam Houston Pkwy S, Houston, Texas 77099

which must conform to the above requirements. The contractor also must provide a copy of the insurance policies, if requested by HPS.
The failure to meet these requirements or to submit the certificate(s) of insurance and endorsements and the policy(ies) upon request shall be a material default under the resulting contract, if any.

NOTE: CSL denotes "Combined Single Limit"

Exhibit B –
HPS' Required Workers' Compensation Insurance Coverages

HPS shall use the following language for bid specifications and contracts for building or construction, without any additional words or changes, except those required to accommodate the specific document in which they are contained or to impose stricter standards of documentation.

A copy of a certificate of insurance, a certificate of authority to self-insure issued by the Texas Department of Insurance (TDI), or a coverage agreement (DWC-81, DWC-82, DWC-83, or DWC-84), showing statutory workers' compensation insurance coverage for the person's or entity's employees providing services on a project is required for the duration of the project.

Duration of the project includes the time from the beginning of the work on the project until the contractor's/person's work on the project has been completed and accepted by the governmental entity.

Persons providing services on the project ("subcontractor" in Texas Labor Code 406.096) include all persons or entities performing all or part of the services the contractor has undertaken to perform on the project, regardless of whether that person contracted directly with the contractor and regardless of whether that person has employees. This includes, without limitation, independent contractors, subcontractors, leasing companies, motor carriers, owner-operators, employees of any such entity, or employees of any entity that furnishes persons to provide services on the project.

Services include, without limitation, providing, hauling, or delivering equipment or materials, or providing labor, transportation, or other service related to a project. Services do not include activities unrelated to the project, such as food/beverage vendors, office supply deliveries, and delivery of portable toilets.

The contractor shall provide coverage, based on proper reporting of classification codes and payroll amounts and filing of any coverage agreements, which meets the statutory requirements of Texas Labor Code 401.011(44) for all employees of the contractor providing services on the project for the duration of the project.

The contractor must provide a certificate of coverage to the governmental entity prior to being awarded the contract.

If the coverage period shown on the contractor's current certificate of coverage ends during the duration of the project, the contractor must, prior to the end of the coverage period, file a new certificate of coverage with the governmental entity showing that coverage has been extended.

The contractor shall obtain from each person providing services on a project, and provide to the governmental entity:

1. A certificate of coverage, prior to that person beginning work on the project, so the governmental entity will have on file certificates of coverage showing coverage for all persons providing services on the project; and
2. No later than seven days after receipt by the contractor, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the project.

The contractor shall retain all required certificates of coverage for the duration of the project and for one year thereafter.

The contractor shall notify the governmental entity in writing by certified mail or personal delivery, within ten days after the contractor knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the project.

The contractor shall post on each project site a notice, in the text, form, and manner prescribed by the TDI, informing all persons providing services on the project that they are required to be covered, and stating how a person may verify coverage and report lack of coverage.

The contractor shall contractually require each person with whom it contracts to provide services on a project, to:

3. Provide coverage, based on proper reporting of classification codes and payroll amounts and filing of any coverage agreements, which meets the statutory requirements of Texas Labor Code 401.011(44) for all of its employees providing services on the project for the duration of the project;
4. Provide to the contractor, prior to that person beginning work on the project, a certificate of coverage showing that coverage is being provided for all employees of the person providing services on the project for the duration of the project;

5. Provide the contractor, prior to the end of the coverage period, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the project.

6. Obtain from each other person with whom it contracts, and provide to the contractor:

   a. A certificate of coverage, prior to the other person beginning work on the project; and

   b. A new certificate of coverage showing extension of coverage, prior to the end of the coverage period, if the coverage period shown on the current certificate of coverage ends during the duration of the project;

7. Retain all required certificates of coverage on file for the duration of the project and for one year thereafter;

9. Notify the governmental entity in writing by certified mail or personal delivery, within ten days after the person knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the project; and

9. Contractually require each person with whom it contracts to perform as required by items 1–6, with the certificates of coverage to be provided to the person for whom they are providing services.

By signing this contract or providing or causing to be provided a certificate of coverage, the contractor is representing to the governmental entity that all employees of the contractor who will provide services on the project will be covered by workers' compensation coverage for the duration of the project, that the coverage will be based on proper reporting of classification codes and payroll amounts, and that all coverage agreements will be filed with the appropriate insurance carrier or, in the case of a self-insured, with the TDI's Division of Self-Insurance Regulation. Providing false or misleading information may subject the contractor to administrative penalties, criminal penalties, civil penalties, or other civil actions.

The contractor's failure to comply with any of these provisions is a breach of contract by the contractor that entitles the governmental entity to declare the contract void if the contractor does not remedy the breach within ten days after receipt of notice of breach from the governmental entity.

The coverage requirement recited above does not apply to sole proprietors, partners, and corporate officers who are excluded from coverage in an insurance policy or certificate of authority to self-insure that is delivered, issued for delivery, or renewed on or after January 1, 1996.

Exhibit C – Prevailing Wage Rates

Contractor responsible to pay within prevailing wage rates:

1.All Campuses/Facilities outside of Houston Area: Use Davis Bacon Act Rates through US Department of Labor: Use Link/Directions Below:

> https://beta.sam.gov/search?index=wd

> Scroll down and Select "Davis-Bacon Act (DBA)"

> Choose State, County & Construction Type (Building)

Use https://www.mapdevelopers.com/what-county-am-i-in.php to find exact County

SECTION 00 0300

PROPOSAL FORM

PROJECT TITLE: **Harmony Science Academy – Bridgeland – Phase II**

Name of Proposer/Contractor: _____
Address: _____

Telephone: _____
Fax: _____

E-mail: _____

Receipt of Proposal Amendments Number(s): _____

Substantial completion for the entire project shall be **March 1st, 2028**

1	**Total Proposal Amount**	**$**

The undersigned hereby proposes to furnish all labor, materials, supervision and any other services necessary to complete the above referenced project for the proposal amount(s) listed on the Scope of Work: Schedule of Services, Equipment and Prices, Attachment No. 3.

The undersigned certifies that the amount(s) contained in Attachment No. 2 have been carefully checked and are submitted as correct and final.

Signed By: _____

Name: _____
(Type or Print)

Title: _____
(Type or Print)

ATTEST: _____
(Secretary, if Proposer is a Corporation)

SEAL:
(If Corporation)

ATTACHMENT A

CERTIFICATION OF PROPOSER

The undersigned Proposer has carefully examined all instructions, requirements, specifications, terms and conditions of this procurement solicitation and the construction documents and certifies:

1. It is a reputable company regularly engaged in providing construction services necessary to meet the requirements, specifications, terms and conditions of the procurement solicitation.
2. It has the necessary experience, knowledge, abilities, skills, and resources to satisfactorily perform the requirements, specifications, terms and conditions of this procurement solicitation. Further, if awarded, the Proposer agrees to perform the requirements, specifications, terms and conditions of this procurement solicitation and to obtain final completion for the entire project on or before **March 1st, 2028**
3. Proposer proposes to furnish all labor, materials, supervision and any other services necessary to complete the project for the proposal amount(s) listed on Attachment C. The undersigned certifies that the amount(s) contained in Attachment C have been carefully checked and are submitted as correct and final.
4. All statements, information, and representations prepared and submitted in response to this procurement solicitation are current, complete, true, and accurate. Proposer acknowledges that HPS will rely on such statements, information, and representations in selecting the successful proposer. Proposer shall be bound by all statements, representations, warranties, and guarantees made in its proposal.
5. It is not currently barred or suspended from doing business with the Federal government, any of the members represented, or any of their respective agencies.
6. That all of the requirements of this procurement solicitation and the construction documents have been read and understood, including any amendments/addenda. In addition, compliance with all requirements, terms and conditions will be assumed by HPS if not otherwise noted in the proposal.
7. The individual signing below has authority to submit this proposal on behalf of Proposer.

PROJECT TITLE:	**HSA Bridgeland Phase II**		
PROPOSER NAME:			
AUTHORIZED SIGNATURE:			
PRINT NAME:			
TITLE:			
DATE:			
ADDRESS:			
CITY, STATE, ZIP CODE:			
PHONE:		**FAX:**	
EMAIL ADDRESS:			
WEBSITE URL:			

ATTACHMENT B

BUSINESS QUESTIONNAIRE & QUALIFICATION STATEMENT

FIRM NAME: _____

CONTACT PERSON'S NAME AND PHONE NUMBER:

_____

Do you or any officer, partner, owner, sales representative, and/or spouse work for Harmony Public Schools? ☐ Yes ☐ No

If yes, please specify: _____

Please indicate how you became aware of this procurement.
Source: _____

I. ORGANIZATION

1. Type of Organization

_____ Individual
_____ Partnership
_____ Sole Proprietorship
_____ Corporation, Incorporated in _____

2. Federal Employer Identification Number: _____

3. Number of persons currently employed: _____

4. How many years has your organization been in business as a contractor? _____

5. How many years has your organization been in business under its present business name? _____

List any other or former names your organization has operated under:
_____

6. If your organization is a corporation, answer the following:

Date of incorporation: _____

State of incorporation: _____

President's name: _____

Vice-president's name: _____

7. If your organization is a partnership, answer the following:

Date of organization: _____

Type of partnership (if applicable): _____

Names(s) of general partner(s): _____

8. If your organization is individually owned, answer the following:

   Date of organization: _____

   Name of owner: _____

9. If the form of your organization is other than those listed above, describe it and name the principals/owners:

   _____

II. LICENSING

1. List the jurisdiction(s) and trade categories in which your organization is legally qualified to do business, and indicate registration or license numbers, if applicable.

   _____

   _____

2. List the jurisdiction(s) in which your organization's partnership or trade name is filed.

   _____

III. EXPERIENCE

1. List the categories of work that your organization normally performs with its own forces.

   _____

   _____

2. Claims and Suits: (If the answer to any of the questions below is yes, please attach details.)

   Has your organization ever failed to complete any work awarded to it?
   ☐ Yes ☐ No

   Are there any judgments, claims, arbitration proceedings or suits pending or outstanding against your organization or its officers? ☐ Yes ☐ No

   Has your organization filed any lawsuits or requested arbitration with regard to construction contracts within the last five years? ☐ Yes ☐ No

3. On a separate sheet, list major construction projects your organization has in progress, giving the name of the project, owner, architect, contract amount, percent complete, and scheduled completion date.

IV. REFERENCES

List a minimum of three references (local or otherwise) which have been or are now your customer and at least one in which you have performed comparable work in quantity and scope to that specified in this solicitation.

Name of Entity *Contact Person* *Telephone #* *Address* *Amount of Contract*

1. _____

2. _____

3. _____

V. FINANCING

Name of Proposer's Financial Institution: _____

Contact Person: _____

Title: _____

1. Attach a financial statement, preferably audited, including your organization's latest balance sheet and income statement showing the following items:

    a. Current Assets (e.g., cash, joint venture accounts, accounts receivable, notes receivable, accrued income, deposits, materials inventory and prepaid expenses)
    b. Net Fixed Assets
    c. Other Assets
    d. Current Liabilities (e.g., accounts payable, notes payable, accrued expenses, provisions for income taxes, advances, accrued salaries and accrued payroll taxes)
    e. Other Liabilities (e.g., capital, capital stock, authorized and outstanding shares par values, earned surplus and retained earnings)

2. Name and address of firm/individual preparing attached financial statement, and date thereof:

    _____

3. Is the attached financial statement for the identical organization (proposer) named on page one? ☐ Yes ☐ No

    If no, explain the relationship and financial responsibility of the organization whose financial statement is provided (e.g., parent-subsidiary):

    _____

4. Will the organization whose financial statement is attached act as a guarantor of the contract for construction? ☐ Yes☐ No

ATTACHMENT C
PRICE FORM: SCHEDULE OF SERVICES, EQUIPMENT AND PRICES

The contractor shall furnish all resources and services necessary and required to perform the construction services for this project detailed in the procurement solicitation and construction documents, in accordance with the specifications and the general terms and conditions of the proposed contract for the proposed price(s) listed below.

All equipment shall be new.

Appendix A is representative of the scopes dictated under the construction/procurement documents. Use the appropriate schedule of values. Note: Use only those line items appropriate to the scope of work.

SCHEDULE OF VALUES (APPENDIX A)

Contractor: _____

Contact:_____ **Proposal Date:**_____

Please refer to scope of work for detailed information. (Please mark N/A if it is not necessary for the project scope of work. If something is in another line item, please note that. Do not leave blanks.)

	Job Name	Job Description	Total Price
1	General Requirements	Project Supervision and management; weekly and final cleanup	
2	Reports, Tests and Inspections	All necessary material testing and reporting (concrete, steel, inspections, etc.)	
3	County approvals, Certificate of Occupancy	Preparing, submitting and follow-up with Fire Marshall and MUD requirements.	
4	Mobilization	Trailer, Dumpster, Toilet, Trailer Furniture, Equipment, Temporary utilities, etc.	
5	Site Work	Earthwork, water service piping, storm sewerage, sanitary sewerage, excavation, grading, landscape etc.	
6	Play Field	Material and Installation	
7	Driveway, Parking Area, Sidewalk	Concrete and asphalt pavement and sidewalks, striping, painting curbs and ramps, traffic signs, repairs, and cleaning.	

8	Concrete for Building	Material and Installation	
9	Exterior Finishes	Sheathing, stucco, EIFS, brick, CMU etc.	
10	Waterproofing	Material & Labor	
11	Metals	Material and Installation of new steel, flashing, metal stud framing.	
12	Drywall and Ceiling	Material & Labor	
13	Toilet/Changing Room Partitions and toilet accessories	Material and Installation of toilet/changing room partitions and toilet accessories	
14	Kitchen Equipment	Material & Labor	
15	Thermal & Moisture Protect.	Wall insulation, sealants	
16	Doors, Frames & Windows	Material & Labor	
17	Finishes	Interior finishes: Paint, tile, ceiling tile, carpet.	
18	Mechanical	RTU's, curbs, wiring, testing, air-balancing, generator, etc.	
19	Electrical	Electrical power, panels, breakers, lighting, sensors, switching. Relocating Light Poles.	
20	Structured Cabling	Material and Labor	
21	Audio Visual Systems	Material & Labor	
22	Distributed Communication (PA) System	Material and Labor	
23	Intrusion Detection System	Material & Labor	
24	Access Control System	Material & Labor	
25	Video Surveillance System	Material & Labor	
26	Underground Fiber Optic	Material & Labor	
27	Plumbing	Water, waste, vent, fixtures, etc.	
28	Fire Prevention	Fire sprinkler, fire alarm, and related permits & approvals.	
29	Painting	Material and labor per specs.	
30	Fences	Material and installation of the fence, gates, concrete footing etc.	
31	Roofing	Material and Installations	

32	Exterior Awning	Material and Installation	
33	Performance/Payment Bond	Bonds	
34	All permit costs, inspection costs and associated fees.	Including but, not limited to, building permit, sprinkler permit, canopy permits, fence permits, etc.	
35	Owner Contingency	$750,000 Contingency	$750,000.00
36	Data Network and Wireless	Materials and Labor	
37	Voice Network System	Materials and Labor	
38	Gym Equipment	Material and Installation	
39	Marquee with Electronic Message Display	Delegated Design, Material and Installation	
40	Construction Camera	Material/Labor/Service – Per Specifications	
41	Other	Any other costs related to the project	
	TOTAL BASE BID AMOUNT		

ATTACHMENT D

HARMONY PUBLIC SCHOOLS'S
PROPOSER/VENDOR CERTIFICATION FORMS

CERTIFICATION OF RESIDENCY

The State of Texas has a law concerning non-resident vendors. This law can be found in Texas Education Code under Chapter 2252, Subchapter A. This law makes it necessary for HPS to determine the residency of its Vendors. In part, this law reads as follows:

Section: 2252.001: "Non-resident bidder" refers to a person who is not a resident. "Resident bidder" refers to a person whose principal place of business is in this state, including a vendor whose ultimate parent company or majority owner has its principal place of business in this state.

Section: 2252.002: "A governmental entity may not award a governmental contract to a non-resident bidder unless the nonresident underbids the lowest bid submitted by a resident bidder by an amount that is not less than the amount by which a resident bidder would be required to underbid the nonresident bidder to obtain a comparable contract in the state in which the nonresident's principal place of business is located."

Company submitting bid is a resident bidder: ☐ Yes ☐ No

City and State of vendor's principal place of business: _____

CERTIFICATION OF COMPLIANCE WITH TEXAS FAMILY CODE PROVISION

As per Section 231.006, Texas Family Code, as amended by Section 82 of H.B. 433, 74th Legislature, R.S. (Acts 1995, 74th Leg., R.S., ch. 751), all proposers must complete and submit with the proposal the following affidavit:

I, the undersigned vendor, do hereby acknowledge that a child support obligor who is more than 30 days delinquent in paying child support and a business entity in which such a person is the sole proprietor, partner, shareholder, or owner with an ownership interest of at least 25% is not eligible to receive payments from state funds under a contract to provide property, materials, or services.

I further acknowledge that a child support obligor or business entity ineligible to receive payments described above shall continue to be ineligible until: (1) all arrearage have been paid; (2) the obligor is in compliance with a written repayment agreement or court order as to any existing delinquency; or (3) the court of continuing jurisdiction over the child support order has granted the obligor an exemption.

In accordance with 231.006, the names and social security numbers of the individual identified in the contract, bid or application or the sole proprietor and each partner, shareholder, or owner with a minimum 25% ownership interest in the business entity identified therein are provided below:

_____ _____
Name Social Security Number

_____ _____
Name Social Security Number

_____ _____
Name Social Security Number

Pursuant to Section 231.006, the vendor hereby certifies that the individual or business entity named in this contract, bid, or application, is not ineligible to receive the specified grant, loan, or payment and acknowledges that this contract may be terminated and payment may be withheld if this certification is inaccurate.

_____ Initials of Authorized Representative of Vendor

REQUIRED CONTRACT PROVISIONS FOR NON-FEDERAL ENTITY CONTRACTS UNDER FEDERAL AWARDS – APPENDIX II TO 2 CFR PART 200

The following provisions are required and apply when federal funds are expended by HPS for any contract resulting from this procurement process.

(A) Contracts for more than the simplified acquisition threshold currently set at $150,000, which is the inflation adjusted amount determined by the Civilian Agency Acquisition Council and the Defense Acquisition Regulations Council (Councils) as authorized by 41 U.S.C. 1908, must address administrative, contractual, or legal remedies in instances where contractors violate or breach contract terms, and provide for such sanctions and penalties as appropriate.

Pursuant to Federal Rule (A) above, when federal funds are expended by HPS, HPS reserves all rights and privileges under the applicable laws and regulations with respect to this procurement in the event of breach of contract by either party.

Does vendor agree? YES _____ Initials of Authorized Representative of vendor

(B) Termination for cause and for convenience by the grantee or subgrantee including the manner by which it will be effected and the basis for settlement. (All contracts in excess of $10,000)

Pursuant to Federal Rule (B) above, when federal funds are expended by HPS, HPS reserves the right to immediately terminate any agreement in excess of $10,000 resulting from this procurement process

in the event of a breach or default of the agreement by Vendor, in the event vendor fails to: (1) meet schedules, deadlines, and/or delivery dates within the time specified in the procurement solicitation, contract, and/or a purchase order; (2) make any payments owed; or (3) otherwise perform in accordance with the contract and/or the procurement solicitation. HPS also reserve the right to terminate the contract immediately, with written notice to vendor, for convenience, if HPS believes, in its sole discretion that it is in the best interest of HPS to do so. The vendor will be compensated for work performed and accepted and goods accepted by HPS as of the termination date if the contract is terminated for convenience of HPS. Any award under this procurement process is not exclusive and HPS reserves the right to purchase goods and services from other vendors when it is in the best interest of HPS.

Does vendor agree? YES _____ Initials of Authorized Representative of vendor

(C) Equal Employment Opportunity. Except as otherwise provided under 41 CFR Part 60, all contracts that meet the definition of "federally assisted construction contract" in 41 CFR Part 60-1.3 must include the equal opportunity clause provided under 41 CFR 60-1.4(b), in accordance with Executive Order 11246, "Equal Employment Opportunity" (30 FR 12319, 12935, 3 CFR Part, 1964-1965 Comp., p. 339), as amended by Executive Order 11375, "Amending Executive Order 11246 Relating to Equal Employment Opportunity," and implementing regulations at 41 CFR part 60, "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor."

Pursuant to Federal Rule (C) above, when federal funds are expended by HPS on any federally assisted construction contract, the equal opportunity clause is incorporated by reference herein.

Does vendor agree to abide by the above?
YES _____ Initials of Authorized Representative of vendor

(D) Davis-Bacon Act, as amended (40 U.S.C. 3141-3148). When required by Federal program legislation, all prime construction contracts in excess of $2,000 awarded by non-Federal entities must include a provision for compliance with the Davis-Bacon Act (40 U.S.C. 3141-3144, and 3146-3148) as supplemented by Department of Labor regulations (29 CFR Part 5, "Labor Standards Provisions Applicable to Contracts Covering Federally Financed and Assisted Construction"). In accordance with the statute, contractors must be required to pay wages to laborers and mechanics at a rate not less than the prevailing wages specified in a wage determination made by the Secretary of Labor. In addition, contractors must be required to pay wages not less than once a week. The non-Federal entity must place a copy of the current prevailing wage determination issued by the Department of Labor in each solicitation. The decision to award a contract or subcontract must be conditioned upon the acceptance of the wage determination. The non-Federal entity must report all suspected or reported violations to the Federal awarding agency. The contracts must also include a provision for compliance with the Copeland "Anti-Kickback" Act (40 U.S.C. 3145), as supplemented by Department of Labor regulations (29 CFR Part 3, "Contractors and Subcontractors on Public Building or Public Work Financed in Whole or in Part by Loans or Grants from the United States"). The Act provides that each contractor or subrecipient must be prohibited from inducing, by any means, any person employed in the construction, completion, or repair of public work, to give up any part of the compensation to which he or she is otherwise entitled. The non-Federal entity must report all suspected or reported violations to the Federal awarding agency.

Pursuant to Federal Rule (D) above, when federal funds are expended by HPS, during the term of an award for all contracts and subgrants for construction or repair, the vendor will be in compliance with all applicable Davis-Bacon Act provisions.

Does vendor agree? YES _____ Initials of Authorized Representative of vendor

(E) Contract Work Hours and Safety Standards Act (40 U.S.C. 3701-3708). Where applicable, all contracts awarded by the non-Federal entity in excess of $100,000 that involve the employment of mechanics or laborers must include a provision for compliance with 40 U.S.C. 3702 and 3704, as supplemented by Department of Labor regulations (29 CFR Part 5). Under 40 U.S.C. 3702 of the Act, each contractor must be required to compute the wages of every mechanic and laborer on the basis of a standard work week of 40 hours. Work in excess of the standard work week is permissible provided that the worker is compensated at a rate of not less than one and a half times the basic rate of pay for all hours worked in excess of 40 hours in the work week. The requirements of 40 U.S.C. 3704 are applicable to construction work and provide that no laborer or mechanic must be required to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous. These requirements do not apply to the purchases of supplies or materials or articles ordinarily available on the open market, or contracts for transportation or transmission of intelligence.

Pursuant to Federal Rule (E) above, when federal funds are expended by HPS, the vendor certifies that during the term of an award for all contracts by HPS resulting from this procurement process, the vendor will be in compliance with all applicable provisions of the Contract Work Hours and Safety Standards Act.

Does vendor agree? YES _____ Initials of Authorized Representative of vendor

(F) Rights to Inventions Made Under a Contract or Agreement. If the Federal award meets the definition of "funding agreement" under 37 CFR §401.2 (a) and the recipient or subrecipient wishes to enter into a contract with a small business firm or nonprofit organization regarding the substitution of parties, assignment or performance of experimental, developmental, or research work under that "funding agreement," the recipient or subrecipient must comply with the requirements of 37 CFR Part 401, "Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements," and any implementing regulations issued by the awarding agency.

Pursuant to Federal Rule (F) above, when federal funds are expended by HPS, the vendor certifies that during the term of an award for all contracts by HPS resulting from this procurement process, the vendor agrees to comply with all applicable requirements as referenced in Federal Rule (F) above.

Does vendor agree? YES _____ Initials of Authorized Representative of vendor

(G) Clean Air Act (42 U.S.C. 7401-7671q.) and the Federal Water Pollution Control Act (33 U.S.C. 1251-1387), as amended—Contracts and subgrants of amounts in excess of $150,000 must contain a provision that requires the non-Federal award to agree to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act as amended (33 U.S.C. 1251- 1387). Violations must be reported to the Federal awarding agency and the Regional Office of the Environmental Protection Agency (EPA).

Pursuant to Federal Rule (G) above, when federal funds are expended by HPS, the vendor certifies that during the term of an award for all contracts by HPS resulting from this procurement process, the vendor agrees to comply with all applicable requirements as referenced in Federal Rule (G) above.

Does vendor agree? YES _____ Initials of Authorized Representative of vendor

(H) Debarment and Suspension (Executive Orders 12549 and 12689)—A contract award (see 2 CFR 180.220) must not be made to parties listed on the government wide exclusions in the System for Award Management (SAM), in accordance with the OMB guidelines at 2 CFR 180 that implement Executive Orders 12549 (3 CFR part 1986 Comp., p. 189) and 12689 (3 CFR part 1989 Comp., p. 235), "Debarment and Suspension." SAM Exclusions contains the names of parties debarred, suspended, or otherwise excluded by agencies, as well as parties declared ineligible under statutory or regulatory authority other than Executive Order 12549.

Pursuant to Federal Rule (H) above, when federal funds are expended by HPS, the vendor certifies that during the term of an award for all contracts by HPS resulting from this procurement process, the vendor certifies that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation by any federal department or agency.

Does vendor agree? YES _____ Initials of Authorized Representative of vendor

(I) Byrd Anti-Lobbying Amendment (31 U.S.C. 1352)—Contractors that apply or bid for an award exceeding $100,000 must file the required certification. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by 31 U.S.C. 1352. Each tier must also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the non-Federal award.

Pursuant to Federal Rule (I) above, when federal funds are expended by HPS, the vendor certifies that during the term and after the awarded term of an award for all contracts by HPS resulting from this procurement process, the vendor certifies that it is in compliance with all applicable provisions of the Byrd Anti-Lobbying Amendment (31 U.S.C. 1352). The undersigned further certifies that:

(1) No Federal appropriated funds have been paid or will be paid for on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of congress, or an employee of a Member of Congress in connection with the awarding of a Federal contract, the making of a Federal grant, the making of a Federal loan, the entering into a cooperative agreement, and the extension, continuation, renewal, amendment, or modification of a Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of congress, or an employee of a Member of Congress in connection with this Federal grant or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying", in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all covered sub-awards exceeding $100,000 in Federal funds at all appropriate tiers and that all subrecipients shall certify and disclose accordingly.

Does vendor agree? YES _____ Initials of Authorized Representative of vendor

RECORD RETENTION REQUIREMENTS FOR CONTRACTS PAID FOR WITH FEDERAL FUNDS – 2 CFR § 200.333

When federal funds are expended by HPS for any contract resulting from this procurement process, the vendor certifies that it will comply with the record retention requirements detailed in 2 CFR § 200.333. The vendor further certifies that vendor will retain all records as required by 2 CFR § 200.333 for a period of three years after grantees or subgrantees submit final expenditure reports or quarterly or annual financial reports, as applicable, and all other pending matters are closed.

Does vendor agree? YES _____ Initials of Authorized Representative of vendor

CERTIFICATION OF COMPLIANCE WITH EPA REGULATIONS APPLICABLE TO GRANTS, SUBGRANTS, COOPERATIVE AGREEMENTS, AND CONTRACTS IN EXCESS OF $100,000 OF FEDERAL FUNDS

When federal funds are expended by HPS for any contract resulting from this procurement process in excess of $100,000, the vendor certifies that the vendor is in compliance with all applicable standards, orders, regulations, and/or requirements issued pursuant to the Clean Air Act of 1970, as amended (42 U.S.C. 1857(h)), Section 508 of the Clean Water Act, as amended (33 U.S.C. 1368), Executive Order 117389 and Environmental Protection Agency Regulation, 40 CFR Part 15.

Does vendor agree? YES _____ Initials of Authorized Representative of vendor

CERTIFICATION OF COMPLIANCE WITH THE ENERGY POLICY AND CONSERVATION ACT

When federal funds are expended by HPS for any contract resulting from this procurement process, the vendor certifies that the vendor will be in compliance with mandatory standards and policies relating to energy efficiency which are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act (Pub. L. 94-163, 89 Stat. 871).

Does vendor agree? YES _____ Initials of Authorized Representative of vendor

CERTIFICATION OF COMPLIANCE WITH BUY AMERICA PROVISIONS

Vendor certifies that vendor is in compliance with all applicable provisions of the Buy America Act. Purchases made in accordance with the Buy America Act must still follow the applicable procurement rules calling for free and open competition.

Does vendor agree? YES _____ Initials of Authorized Representative of vendor

CERTIFICATION OF NON-COLLUSION STATEMENT

Vendor certifies under penalty of perjury that its response to this procurement solicitation is in all respects bona fide, fair, and made without collusion or fraud with any person, joint venture, partnership, corporation or other business or legal entity.

Does vendor agree? YES _____ Initials of Authorized Representative of vendor

Vendor agrees to comply with all federal, state, and local laws, rules, regulations and ordinances, as applicable. It is further acknowledged that vendor certifies compliance with all provisions, laws, acts, regulations, etc. as specifically noted above.

Vendor's Name/Company Name: _____
Address, City, State, and Zip Code: _____
Phone Number: _____ Fax Number: _____
Printed Name and Title of Authorized Representative: _____
Email Address: _____
Signature of Authorized Representative: _____
Date: _____

HARMONY PUBLIC SCHOOLS'S

ANTITRUST CERTIFICATION STATEMENT

(Tex. Government Code § 2155.005)

I affirm under penalty of perjury of the laws of the State of Texas that:

1. I am duly authorized to execute this contract on my own behalf or on behalf of the company, corporation, firm, partnership or individual (Company) listed below;
2. In connection with this bid, neither I nor any representatives of the Company have violated any provision of the Texas Antitrust laws codified in Tex. Bus. & Comm. Code Chapter 15;
3. In connection with this bid, neither I nor any representative of the Company have violated any federal antitrust law; and
4. Neither I nor any representatives of the Company have directly or indirectly communicated any of the contents of this bid to a competitor of the Company or any other company, corporation, firm, partnership or individual engaged in the same line of business as the Company.

Contractor's Name/Company Name: _____

Address, City, State, and Zip Code: _____

Bidder Signature: _____

Printed Name: _____

Title:_____ Date Signed: _____

Signature of Company Official Authorizing Bid: _____

Printed Name of Company Official: _____

Official Position:_____ Date Signed: _____

HPS CONFLICT OF INTEREST DISCLOSURE STATEMENT

Harmony Public Schools (HPS) is required to comply with Texas Local Government Code Chapter 176, Disclosure of Certain Relationships with Local Government Officers. House Bill 23 significantly changed Chapter 176 as well as the required disclosures and the corresponding forms. As of September 1, 2015, any vendor who does business with HPS or who seeks to do business with HPS must fill out the new Conflict of Interest Questionnaire (CIQ) whether or not a conflict of interest exists. A conflict of interest exists in the following situations:

1) If the vendor has an employment or other business relationship with a local government officer of HPS or a family member of the officer, as described by section 176.003(a)(2)(A) of the Texas Local Government Code; or
2) If the vendor has given a local government officer of HPS, or a family member of the officer, one or more gifts with the aggregate value of $100, excluding any gift accepted by the officer or a family member of the officer if the gift is: (a) a political contribution as defined by Title 15 of the Election Code; or (b) a gift of food accepted as a guest; or
3) If the vendor has a family relationship with a local government officer of HPS.

"Vendor" means a person who enters or seeks to enter into a contract with a local governmental entity. The term includes an agent of a vendor. The term includes an officer or employee of a state agency when that individual is acting in a private capacity to enter into a contract. The term does not include a state agency except for Texas Correctional Industries. *Texas Local Government Code 176.001(7).*

"Business relationship" means a connection between two or more parties based on commercial activity of one of the parties. The term does not include a connection based on: (A) a transaction that is subject to rate or fee regulation by a federal, state, or local governmental entity or an agency of a federal, state, or local governmental entity; (B) a transaction conducted at a price and subject to terms available to the public; or (C) a purchase or lease of goods or services from a person that is chartered by a state or federal agency and that is subject to regular examination by, and reporting to, that agency. *Texas Local Government Code 176.001(3).*

"Family relationship" means a relationship between a person and another person within the third degree by consanguinity or the second degree by affinity, as those terms are defined by Subchapter B, Chapter 573, Government Code. *Texas Local Government Code 176.001(2-a).*

"Local government officer" means: (A) a member of the governing body of a local governmental entity; (B) a director, superintendent, administrator, president, or other person designated as the executive officer of a local governmental entity; or (C) an agent of a local governmental entity who exercises discretion in the planning, recommending, selecting, or contracting of a vendor. *Texas Local Government Code 176.001(4).*

- ***Members of HPS' Board of Directors and Superintendent include:***

  Mr. Fatih Ay
  Dr. Oner Celepcikay
  Mrs. Helen Sherwood
  Dr. Hakduran Koc
  Dr. Mehmet Argin
  Ms. Laura Gonzalez
  Ms. Kimberly D. House
  Dr. Simon Koch

- ***Current local government officers include, but are not limited to:***

  Mr. Umit Alpaslan
  Dr. Nihat Bayhan
  Dr. Edward Caglar

If no conflict of interest exists, you must fill out Box 1 and type N/A on Box 3 of the CIQ form, sign and date it.

In the event of changed circumstances, an updated CIQ must be filed within seven (7) business days after the vendor becomes aware that a conflict of interest exists.

CONFLICT OF INTEREST QUESTIONNAIRE

FORM CIQ

For vendor doing business with local governmental entity

This questionnaire reflects changes made to the law by H.B. 23, 84th Leg., Regular Session.

This questionnaire is being filed in accordance with Chapter 176, Local Government Code, by a vendor who has a business relationship as defined by Section 176.001(1-a) with a local governmental entity and the vendor meets requirements under Section 176.006(a).

By law this questionnaire must be filed with the records administrator of the local governmental entity not later than the 7th business day after the date the vendor becomes aware of facts that require the statement to be filed. *See* Section 176.006(a-1), Local Government Code.

A vendor commits an offense if the vendor knowingly violates Section 176.006, Local Government Code. An offense under this section is a misdemeanor.

OFFICE USE ONLY

Date Received

1 **Name of vendor who has a business relationship with local governmental entity.**

2 ☐ **Check this box if you are filing an update to a previously filed questionnaire.** (The law requires that you file an updated completed questionnaire with the appropriate filing authority not later than the 7th business day after the date on which you became aware that the originally filed questionnaire was incomplete or inaccurate.)

3 **Name of local government officer about whom the information is being disclosed.**

_____
Name of Officer

4 **Describe each employment or other business relationship with the local government officer, or a family member of the officer, as described by Section 176.003(a)(2)(A). Also describe any family relationship with the local government officer. Complete subparts A and B for each employment or business relationship described. Attach additional pages to this Form CIQ as necessary.**

A. Is the local government officer or a family member of the officer receiving or likely to receive taxable income, other than investment income, from the vendor?

☐ Yes ☐ No

B. Is the vendor receiving or likely to receive taxable income, other than investment income, from or at the direction of the local government officer or a family member of the officer AND the taxable income is not received from the local governmental entity?

☐ Yes ☐ No

5 **Describe each employment or business relationship that the vendor named in Section 1 maintains with a corporation or other business entity with respect to which the local government officer serves as an officer or director, or holds an ownership interest of one percent or more.**

6 ☐ Check this box if the vendor has given the local government officer or a family member of the officer one or more gifts as described in Section 176.003(a)(2)(B), excluding gifts described in Section 176.003(a-1).

7

_____ _____
Signature of vendor doing business with the governmental entity Date

Form provided by Texas Ethics Commission www.ethics.state.tx.us Revised 11/30/2015

CONFLICT OF INTEREST QUESTIONNAIRE
For vendor doing business with local governmental entity

A complete copy of Chapter 176 of the Local Governmetn Code may be found at http://www.statutes.legis.state.tx.us/Docs/LG/htm/LG.176.htm. For easy reference, below are some of the sections cited on this form.

Local Government Code § 176.001(1-a): "Business relationship" means a connection between two or more parties based on commercial activity of one of the parties. The term does not include a connection based on:

(A) a transaction that is subject to rate or fee regulation by a federal, state, or local governmental entity or an agency of a federal, state, or local governmental entity;

(B) a transaction conducted at a price and subject to terms available to the public; or

(C) a purchase or lease of goods or services from a person that is chartered by a state or federal agency and that is subject to regular examination by, and reporting to, that agency.

Local Government Code § 176.003(a)(2)(A) and (B):

(a) A local government officer shall file a conflicts disclosure statement with respect to a vendor if:

***

(2) the vendor:

(A) has an employment or other business relationship with the local government officer or a family member of the officer that results in the officer or family member receiving taxable income, other than investment income, that exceeds $2,500 during the 12-month period preceding the date that the officer becomes aware that

(i) a contract between the local governmental entity and vendor has been executed; or

(ii) the local governmental entity is considering entering into a contract with the vendor;

(B) has given to the local government officer or a family member of the officer one or more gifts that have an aggregate value of more than $100 in the 12-month period preceding the date the officer becomes aware that:

(i) a contract between the local governmental entity and vendor has been executed; or

(ii) the local governmental entity is considering entering into a contract with the vendor.

Local Government Code § 176.006(a) and (a-1)

(a) A vendor shall file a completed conflict of interest questionnaire if the vendor has a business relationship with a local governmental entity and:

(1) has an employment or other business relationship with a local government officer of that local governmental entity, or a family member of the officer, described by Section 176.003(a)(2)(A);

(2) has given a local government officer of that local governmental entity, or a family member of the officer, one or more gifts with the aggregate value specified by Section 176.003(a)(2)(B), excluding any gift described by Section 176.003(a-1); or

(3) has a family relationship with a local government officer of that local governmental entity.

(a-1) The completed conflict of interest questionnaire must be filed with the appropriate records administrator not later than the seventh business day after the later of:

(1) the date that the vendor:

(A) begins discussions or negotiations to enter into a contract with the local governmental entity; or

(B) submits to the local governmental entity an application, response to a request for proposals or bids, correspondence, or another writing related to a potential contract with the local governmental entity; or

(2) the date the vendor becomes aware:

(A) of an employment or other business relationship with a local government officer, or a family member of the officer, described by Subsection (a);

(B) that the vendor has given one or more gifts described by Subsection (a); or

(C) of a family relationship with a local government officer.

HARMONY PUBLIC SCHOOLS'S
FELONY CONVICTION NOTICE FORM

FELONY CONVICTION NOTIFICATION

State of Texas Legislative Senate Bill No. 1 Section 44.034, Notification of Criminal History, Subsection (a), states "a person or business entity that enters into an agreement with a school district must give advance notice to the district if the person or an owner or operator of the business entity has been convicted of a felony. The notice must include a general description of the conduct resulting in the conviction of a felony".

Subsection (b) states "a school district may terminate the agreement with a person or business entity if the district determines that the person or business entity failed to give notice as required by Subsection (a), or misrepresented the conduct resulting in the conviction. The district must compensate the person or business entity for services performed before the termination of the contract".

Subsection (c) states "this section does not apply to a publicly held corporation".

I, the undersigned agent for the firm named below, certify that the information concerning notification of felony convictions has been reviewed by me and the information furnished is true to the best of my knowledge.

Contractor's Name/Company Name: _____

Authorized Official's Name (Printed or Typed): _____

You must select one and sign below:

☐ Firm is a publicly held corporation; therefore, the above reporting requirement does not apply per Section 44.034, Texas Education Code, Subsection (c).

☐ Contractor/Firm **is not** owned nor operated by anyone who has been convicted of a felony.

☐ Contractor/Firm **is** operated or owned by the following individual(s) who has/have been convicted of a felony:

Name of Individual(s): _____

Detail of Conviction(s): _____

(Attach additional pages if necessary.)

Signature of Company Official: _____

Date: _____

SB 9 Contractor Certification: Contractor Employees

(As applicable)

Background: Texas Education Code Chapter 22 requires entities that contract with school districts to obtain criminal history records on covered employees. Covered employees with disqualifying criminal histories are prohibited from serving at a school district. Contractors must certify to HPS that they have complied and must obtain similar certifications from their subcontractors. *See SB 9 Contractor Certification: Subcontractor attachment*. The law requires each contractor to obtain the criminal histories of its covered employees. For more information or to set up an account, a contractor should contact the Texas Department of Public Safety's Crime Records Service at 512.424.2474.

Definitions:

Covered employees: Employees of a contractor who have or will have continuing duties related to the service to be performed at a school district and have or will have direct contact with students. HPS will be the final arbiter of what constitutes *continuing duties* and *direct contact* with students.

Disqualifying criminal history: (1) a conviction or other criminal history information designated by HPS; (2) a felony or misdemeanor offense that would prevent a person from being employed under Texas Education Code § 22.085(a), that is: if at the time of the offense, the victim was under 18 or was enrolled in a public school: (a) a felony offense under Title 5, Texas Penal Code; (b) an offense on conviction for which a defendant is required to register as a sex offender under Chapter 62, Texas Code of Criminal Procedure; or (c) an offense under federal law or the laws of another state that is equivalent to (a) or (b).

On behalf of _____("Contractor"), I, the undersigned authorized signatory for Contractor, certify to Harmony Public Schools ("HPS") that [check one]:

[ ] None of Contractor's employees are *covered employees*, as defined above. If this box is checked, I further certify that Contractor has taken precautions or imposed conditions to ensure that its employees will not become *covered employees*. Contractor will maintain these precautions or conditions throughout the time the contracted services are provided.

Or

[ ] Some or all of Contractor's employees are *covered employees*. If this box is checked, I further certify that:

(1) Contractor has obtained all required criminal history record information regarding its covered employees. None of the covered employees has a disqualifying criminal history.

(2) If Contractor receives information that a covered employee subsequently has a reported criminal history, Contractor will immediately remove the covered employee from contract duties and notify HPS in writing within 3 business days.

(3) Upon request, Contractor will provide HPS with the name and any other requested information of covered employees so that HPS may obtain criminal history record information on the covered employees.

If HPS objects to the assignment of a covered employee on the basis of the covered employee's criminal history record information, Contractor agrees to discontinue using that covered employee to provide services at HPS.

I also certify to HPS on behalf of Contractor that Contractor has obtained certifications from its subcontractors of compliance with Texas Education Code, Chapter 22. Noncompliance or misrepresentation regarding this certification may be grounds for contract termination.

_____	_____	_____
Signature	Title	Date

SB 9 Contractor Certification: Subcontractor

(As applicable)

Background: Texas Education Code Chapter 22 requires entities that contract with school district contractors to obtain criminal history records regarding covered employees. Covered employees with disqualifying criminal histories are prohibited from serving at a school district. Subcontractors must certify to HPS and to the contractor that they have complied. The law requires each subcontractor to obtain the criminal histories of its covered employees. For more information or to set up an account, a contractor should contact the Texas Department of Public Safety's Crime Records Service at 512.424.2474.

Definitions:

Covered employees: Employees of a subcontractor who have or will have continuing duties related to the service to be performed at a school district and have or will have direct contact with students. HPS will be the final arbiter of what constitutes *continuing duties* and *direct contact* with students.

Disqualifying criminal history: (1) a conviction or other criminal history information designated by HPS; (2) a felony or misdemeanor offense that would prevent a person from being employed under Texas Education Code § 22.085(a), that is: if at the time of the offense, the victim was under 18 or was enrolled in a public school: (a) a felony offense under Title 5, Texas Penal Code; (b) an offense on conviction for which a defendant is required to register as a sex offender under Chapter 62, Texas Code of Criminal Procedure; or (c) an offense under federal law or the laws of another state that is equivalent to (a) or (b).

Subcontractor has entered into a contract with _____ ("Contractor"), to provide services in connection with the contract between Harmony Public Schools ("HPS") and Contractor. I, the authorized signatory for Subcontractor, certify to HPS and Contractor that [check one]:

[ ] None of Subcontractor's employees are *covered employees*, as defined above. If this box is checked, I further certify that Subcontractor has taken precautions or imposed conditions to ensure that its employees will not become *covered employees*. Subcontractor will maintain these precautions or conditions throughout the time the contracted services are provided.

Or

[ ] Some or all of Subcontractor's employees are *covered employees*. If this box is checked, I further certify that:

(1) Subcontractor has obtained all required criminal history record information regarding its covered employees. None of the covered employees has a disqualifying criminal history.

(2) If Subcontractor receives information that a covered employee subsequently has a reported criminal history, Subcontractor will immediately remove the covered employee from contract duties and notify HPS in writing within 3 business days.

(3) Upon request, Subcontractor will provide HPS with the name and any other requested information of covered employees so that HPS may obtain criminal history record information on the covered employees.

If HPS objects to the assignment of a covered employee on the basis of the covered employee's criminal history record information, Subcontractor agrees to discontinue using that covered employee to provide services at HPS. I also certify to HPS and Contractor on behalf of Subcontractor that Subcontractor has obtained certifications from its subcontractors of compliance with Texas Education Code, Chapter 22. Noncompliance or misrepresentation regarding this certification may be grounds for contract termination.

_____	_____	_____
Signature	Title	Date

PRE-EMPLOYMENT OR PRE-SERVICE AFFIDAVIT FOR EDUCATIONAL ENTITIES

Pursuant to Texas Education Code (TEC) §22A.055, a person applying for employment with or who will act as a service provider for an educational entity (school district, district of innovation, open-enrollment charter school, other charter entity, regional education service center, or shared services arrangement) must submit, using a form adopted by the agency, a pre-employment or pre-service affidavit.

Section 1 - Penalties for Failure to Disclose Required Information

A person commits an offense, a Class B misdemeanor, if the person fails to disclose information required to be disclosed under TEC §22A.055. Additionally, a determination that an employee or person providing services failed to disclose information required to be disclosed by a person under TEC §22A.055 is grounds for termination of employment or service.

Section 2 – Disclosure of Work History and Consent for Release of Records

Have you previously been employed by or acted as a service provider, or are you currently employed by or currently acting as a service provider for a public or private school?	Yes ☐ No ☐
Do you consent for release of your prior employment records? *Pursuant to TEC §22A.055, a person applying for employment with or who will act as a service provider for an educational entity must consent for release of the person's employment records.*	Yes ☐ No ☐

Section 3 – Disclosure of Investigation or Placement on the Do Not Hire Registry

Have you ever been terminated, non-renewed, or discharged from a public or private school?	Yes ☐ No ☐
Have you ever resigned, in lieu of being terminated or discharged, from a public or private school?	Yes ☐ No ☐

Have you ever been investigated by a law enforcement or child protective services agency for, or charged with, adjudicated for, or convicted of, an offense involving the following conduct described by TEC §22A.051(a)(2)(A), (B), (C), or (D) ?: • abused or otherwise committed an unlawful act with a student or minor, including by engaging in conduct that involves physical mistreatment or constitutes a threat of violence to a student or minor and that is not justified under Chapter 9, Penal Code, regardless of whether the conduct resulted in bodily injury; • was involved in or solicited a romantic relationship with or solicited or engaged in sexual contact with a student or minor; • engaged in inappropriate communications with a student or minor, as defined by board rule; • failed to maintain appropriate boundaries with a student or minor, as defined by board rule; *Adjudication and conviction refer to a conviction, plea of guilty or no contest (nolo contendre), probation, suspension, or deferred adjudication.* *Charge refers to a formal criminal charge as documented by a primary charging instrument (a complaint, information, or indictment) under the Texas Code of Criminal Procedure.*	Yes ☐ No ☐

Have you ever been investigated by a licensing authority or had a license, certificate, or permit denied, suspended, revoked, or subject to another sanction in this state or another state for conduct described by TEC §22A.051(a)(2)(A), (B), (C), or (D), which is described above?	Yes ☐ No ☐
Are you now the subject of an inquiry, disciplinary action, review, or investigation, by any public or private school, by a teacher-licensing agency, by any law enforcement agency, or in the court of Texas or any other state in connection with any alleged misconduct?	Yes ☐ No ☐
Have you ever been listed on the Do Not Hire Registry under TEC §22A.151 by the Texas Education Agency.	Yes ☐ No ☐
If you answered YES to any question in this section, disclose all relevant facts known to you pertaining to the matter, including, if applicable to the action, whether the allegation was determined to be true or false.	

Section 3 – Declaration of Applicant

Name (First, Middle, Last)

Date of Birth

Address (House/Unit # and Street Name)

Address (City, State, Zip Code)

County

Signature

Date Signed

ATTACHMENT E

ASBESTOS-FREE MATERIALS AND INSPECTION

If awarded the project, the Contractor shall be responsible for ensuring that no asbestos containing building materials are used in the construction. The Contractor shall take whatever measures it deems necessary to ensure that all employees, suppliers, fabricators, and subcontractors, comply with this requirement.

The Contractor shall be responsible to provide Harmony Public Schools an asbestos inspection report conducted by an EPA certified inspector before the Final Payment to ensure that no asbestos building materials were used.

At Final Completion the Contractor shall provide a certification letter certifying that the work does not contain asbestos containing building materials.

I hereby certify that I have read, understood and agree to the terms mentioned in this document.

Signature:_____

Printed Name & Title: _____

Company Name: _____

Date: _____

ATTACHMENT F

ACKNOWLEDGEMENT OF FINAL COMPLETION DOCUMENTS

If awarded this project, the General Contractor shall provide the following items at the project's final completion stage. The retainage shall not be released until all of the items have been fulfilled.

1. Completion of all discrepancies (punch list items) noted at the time of Substantial Completion
2. Submission of "as-built" plans and specifications, shop drawings, and other record documents
3. Completion of all Owner training
4. Submission of all contractually-required attic stock and spare parts
5. Submission of all final Operation & Maintenance documents and other closeout deliverables
6. Submission of consent of Builder's surety
7. Submission and approval of all remaining change order proposals, claims, and applications for payment
8. Payment of all costs incurred for equipment, material, labor and services against the Project
9. Submission of Sub Contractor Insurance Log
10. Submission of Asbestos inspection report and Asbestos Free Materials certification letter.
11. No liens have been attached against the project
12. No suits are pending by reason of Work on the Project Under the Contract for Construction
13. All workers' compensation claims are covered by Workers' Compensation Insurance as required by law
14. All insurance required of the Builder beyond final payment, if any, is in effect and will not be cancelled or allowed to be expired without notice to the owner
15. All public liability claims are adequately covered by insurance and that the builder shall save, protect, defend, indemnify, and hold the Owner harmless from and against any and all claims which arise as direct or indirect result of any transaction, event occurrence, or omission related to performance of the work completed under said Contract for Construction
16. All Work and Material Warranties Provided.
17. Unconditional Final Payment Release and Waiver Document Provided
18. All final inspection permits for plumbing, electricity, HVAC, fire and etc.
19. All Bills Paid Document Provided.
20. Certificate of Occupancy Provided.

I hereby certify that I have acknowledged and agree to provide the items listed in this document during the final completion stage if I were to be awarded with this project.

Signature: _____

Printed Name & Title: _____

Company Name: _____

Date: _____

SECTION 27 10 00 - STRUCTURED CABLING SYSTEM

PART 1 GENERAL

1.1 DESCRIPTION

A. This section identifies the requirements, technical design, and specifications for the structured cabling system at Harmony Public Schools Pearland Elementary. The structured cabling system as specified is an Industry-Standard Category 6A structured cabling system for Network Access and Category 6A for Wireless, and includes backbone cabling, horizontal cabling and equipment room hardware as specified.

B. The Contractor shall provide a minimum Manufacturer's 25-Year Performance Certification for the installed structured cabling system.

C. Contractor shall include materials, equipment, and labor necessary to provide a complete and functional structured cabling system regardless of any items not listed or described in this specification or associated drawings.

1.2 REQUIREMENTS

A. Contractor Experience Requirements

B. Submittal Requirements

C. Acceptable Manufacturers

D. Codes, Standards and Regulations

E. General Requirements

F. System Requirements

G. Testing Requirements

H. Project Closeout Documentation

I. Attachments

1.3 RELATED REQUIREMENTS

A. The Drawings, Specifications, General Conditions, Supplementary General Conditions, and other requirements of Division 1 apply to the work specified in Division 27, and shall be complied with in every respect. The Contractor shall examine all of the items which make up the Contract Documents, and shall coordinate them with the work on the project.

B. Contractor Experience Requirements
   1. The Contractor shall be a CommScope Uniprise Certified Installer or Equivalent prior to submitting a bid for the work.
   2. The Contractor shall possess all relevant Manufacturer Certifications (i.e. structured cable systems, testing equipment, etc,) for both the company and individual technicians prior to submitting a bid for the work.
   3. The Contractor's Project Manager shall be a Registered Communications Distribution Designer (RCDD) and available for all onsite coordination meetings.
   4. The Contractor shall have been in business for a minimum of five (5) years.
   5. The Contractor shall have a local office with local technicians and an adequate workforce to complete this project within a 300-mile radius of the project site.
   6. The Contractor shall have completed a minimum of five (5) projects similar in size and scope to the Owner's installation, where the systems have been in continuous satisfactory operation for at least one (1) year.

C. Subcontractors shall be identified at the time of bid and comply with the requirements and intentions of these specifications, associated drawings, and related contract documents.

1.4 SUBMITTAL REQUIREMENTS

A. Pre-Installation Submittal
   1. Contractor shall not order, purchase, or install any equipment until pre-installation submittals have been accepted in writing by the Architect/Design Consultant.
   2. All submittals shall be submitted in the same sequence as they are listed in the specifications (i.e. product data in the sequence items are listed in the product data section, manufacturer product certifications for company, manufacturer product certifications for installers, etc.). Submittals not in the proper sequence will not be approved.
   3. Manufacturer product data sheets for each proposed system component.
      a. For product data sheets containing more than one (1) part number or product, the Contractor shall clearly identify the specific part number or product being submitted. Product data sheets without the part number clearly identified will not be approved.

b. If the contractor is providing an equivalent, the contractor shall provide cut sheets to support and extract equivalent of the CommScope product.

4. Manufacturer Product Certifications for Company.
5. Manufacturer Product Certifications for Installers.
6. Manufacturer Certifications for testing equipment technicians.
7. Manufacturer Certifications for testing equipment calibration.
8. RCDD Certificate for Contractor's Project Manager.
9. Manufacturer Warranty letter.
10. Documentation indicating that Contractor has been in business for (5) years.
11. Address of Contractor's local office within a 300-mile radius of the project site.
12. Quantity of full time local technicians within a 300-mile radius of the project site.
13. List of five (5) contractor-installed projects of a similar size and scope that have been in operation for at least (1) year. The Contractor shall provide the following information for each project: Project Name, Project Location, Project Start Date, Project Completion Date, Project Start Cost, Project Completion Cost, Brief Description of Project, Client Point of Contact Name and Phone Number.
14. List of completed and ongoing projects with the Owner. The Contractor shall provide the following information for each project: Project Name, Project Location, Project Start Date, Project Completion Date, Project Start Cost, Project Completion Cost, and Brief Description of Project.
15. List of subcontractors performing any work on the project. List shall clearly identify the subcontractor's legal name and address, the scope of work to be performed by the subcontractors and the overall percentage of the project being provided by the subcontractor. If there are no subcontractors performing any work on the project, submit a statement on company letterhead clearly indicating no subcontractors will be performing any work on this project.

PART 2 PRODUCTS

2.1 GENERAL REQUIREMENTS

A. The following sections specifically list the acceptable equipment types and items for this project.

B. Architect/Engineer will have final determination of acceptability of all proposed equipment and must approve submitted equipment prior to purchase or installation.

C. Proposed equivalent items must be approved in writing by the Architect/Design Consultant prior to purchase or installation. Proposed equivalent items must meet or exceed these specifications and the specifications of the specified item.

D. In the event a manufacturer's specified product or part number has changed or is no longer available, Contractor shall substitute the appropriate equivalent manufacturer's part number.

E. In the event of a discrepancy between the specifications and the drawings, the greater quantity and/or better quality will be furnished.

F. For listed products with no part number specified, Contractor shall provide a product that meets the performance requirements of these specifications, industry standard practices, and intended application.

G. All wiring, equipment, and installation materials shall be new and of the highest quality.

H. Labels on all cabling, materials, and equipment must indicate a nationally recognized testing laboratory.

I. Original Equipment Manufacturer (OEM) documentation must be provided to the Architect/Design Consultant which certifies performance characteristics and compliance with ANSI/TIA 568-D standards.

2.2 ACCEPTABLE MANUFACTURERS

A. Fiber Optic Backbone Cable
   1. Indoor/Outdoor
      a. OM4 50/125 µm 10G/550 Multi-mode Plenum Rated 12 Strand "Armored" (indoor)
         1) CommScope Part Number – P-012-OZ-5K-FSUBK
      b. 50/125 um / 10G/550 OM4 Multimode OSP Rated 6 Strand "Armored" (Outdoor)
         1) CommScope Part Number – D-006-LA-5K-F06NS
      c. 50/125 um / 10G/550 OM4 Multimode OSP Rated 12 Strand "Armored" (Outdoor)
         1) CommScope Part Number – D-012-LA-5K-F12NS
   2. Carlon Orange Corrugated Inner-Duct
      a. Plenum Indoor (Orange)
         1) Carlon 1-inch with pull String 500 feet spool – Part Number – CG4X1C- 500

B. Category 6A UTP Plenum and Category 6A FTP Plenum
   1. Network Access Cat 6A (Blue Sheath)
      a. ~~Beldon Part Number - 10GXW13 Blue~~ Commscope CS44PSD BLU (Addendum #1)
   2. Wireless Access Points Cat 6A (Yellow Sheath FTP Cable)
      a. CommScope Part Number – CS44P-IO (Indoor/Outdoor) Yellow

b. Foiled with Unshielded twisted pairs. Often referred to as FTP, this type of cable features an overall foil shield wrapped around unshielded twisted pairs and a drain wire. When the drain wire is correctly connected, unwanted noise is redirected to ground, offering extra protection against EMI/RFI.

3. IP Security Cat 6 (White Sheath)
   a. ~~Beldon Part Number - 10GXW13 White~~ Commscope CS44PSD WHT (Addendum #1)

C. Fiber Optic Cable Termination
1. Fiber Enclosures
   a. CommScope Rack Mounted 1RU Fiber Optic Enclosure – part Number EPX-1U-PNL-ENC
2. 50 Micron Multimode Fiber Adapter Plate
   a. CommScope Multimode LC, 12 fibers, Ceramic Sleeve blue – Part Number – PNL-BK-012-MFA-LC02-AQ-NS
3. Fiber Blank Plate
   a. Blank Adapter Plate – Part Number PNL-BK-BLANK
4. 50 Micron Multimode LC Connectors
   a. CommScope LC 50 Micron Multimode Connector, Aqua – Part Number – 760117911
5. Loose Tube Fiber Fan-Out Kit
   a. CommScope Fiber Optic Fan-Out Kit, 12-fiber – Part Number – 760018838

D. Copper Cable Termination
1. Category Horizontal Rack Mounted Angled Patch Panels (unloaded)
   a. CommScope Unloaded 48-Port Flat Patch Panel – Part Number CPP-UDDM-M-2U-48
   b. CommScope Unloaded 24-Port Flat Patch Panel – Part Number CPP-UDDM-M-1U-24
   c. Contractor shall populate all 48-port patch panel open ports with the system appropriate jack color. No open patch panel ports shall be left without a jack. The unused ports are for the owner's future use.
2. Category 6A Modular Jacks
   a. Network Access
      1) Field End (Blue)
         (a) CommScope Category 6A Connector – Part Number UNJ10G-BL
   b. Wireless Access Points Category 6A
      1) Field End (Yellow)
         (a) CommScope Category 6A Connector – Part Number UNJ10G-YL

c. IP Security
1) Field End (White)
(a) CommScope Category 6A Connector – Part Number UNJ10G-WH

3. Telecommunications Faceplates with Designation Window
a. 2-Port Single Gang Flush (Fog White) (Confirm with Owner before Purchase)
1) CommScope M Series Plastic Wallplate with ID Window – Part Number M12L-262
b. 4-Port Single Gang Flush (Fog White) (Confirm with Owner before Purchase)
1) CommScope M Series Plastic Wallplate with ID Window – Part Number M14L-262
4. 2-Port Surface Mount Box (Fog White)
a. CommScope Surface Mount Box – Part Number SMB-2P-262
5. 4-Port Surface Mount Box (White)
a. CommScope Surface Mount Box – Part Number M104SMB-A-262
6. Blank Insert (Fog White) (Package of 10)
a. CommScope Blank Insert 10PK – Part Number M20AP-262

E. Equipment Racks, Cabinets, Cable Management, and Accessories
1. Four Post Rack – Floor Open Frame (Black)
a. Panduit – Part Number CMR4P84
2. Two Post Rack - Floor Open Frame (Black) (All IDF Rooms)
a. Panduit - Part Number CMR 19x84
3. Equipment Cabinet (Black)
a. Horizontal Metered Power Strip
1) Chatsworth – Part # 13239-757
b. Double Sided Vertical Cable Manager, 8- inch Wide
1) Panduit – Part # PRV8 (Manager)
2) Panduit – part Number PRD8 (Door)
c. Double Sided Horizontal Manager
1) Panduit – Part Number - NM1 (1 RU)
2) Panduit – Part Number - NM2 (2 RU)
d. Light for Wall Mount Cabinet
1) Chatsworth – Part # 12803-701

F. Cable Runway (Ladder Type)
1. Universal Cable Runway
a. 12-inch Ortronics - Part Number URT10—12B
b. 18-inch Ortronics - Part Number URT10-18B
c. Chatsworth Equivalent

2. Cable Runway Radius Drop, Cross Member
    a. 12-inch Ortronics - Part Number TRP11-CM
    b. 18-inch Ortronics - Part Number TRP17-CM
    c. Chatsworth Equivalent
3. Cable Runway Radius Drop, Stringer
    a. Ortronics - Part Number TRP5-CM
    b. Chatsworth Equivalent
4. Cable Runway Butt-Splice Kit
    a. Ortronics - Part Number P820127HB
    b. Chatsworth Equivalent
5. Cable Runway Junction-Splice Kit
    a. Ortronics - Part Number P820147HB
    b. Chatsworth Equivalent
6. Cable Runway Butt-Swivel Splice Kit
    a. Ortronics - Part Number P820127HA
    b. Chatsworth Equivalent
7. Rack-to-Runway Mounting Kit
    a. 9 to 12-inch runway Ortronics - Part Number JP0612B
    b. 15 to 18-inch runway Ortronics - Part Number JP1218B
    c. Chatsworth Equivalent
8. Cable Runway Elevation Kit for Racks
    a. Ortronics - Part Number REK-4-6
    b. Chatswort Equivalent
9. Triangular Support Bracket, Aluminum
    a. 6 to 12-inch runway Ortronics - Part Number P139340HB
    b. 12 to 18-inch runway Ortronics - Part Number P139540HB
    c. Chatsworth Equivalent
10. Wall Angle Support Kit, Cable Runway
    a. 12-inch runway Ortronics - Part Number P128240HB
    b. 18-inch runway Ortronics - Part Number P128440HB
    c. Chatsworth Equivalent
11. 90 Degree Runway-Splice Kit
    a. Ortronics - Part Number P820327H
    b. Chatsworth Equivalent
12. 45 Degree Runway-Splice Kit
    a. Ortronics - Part Number P820287H
    b. Chatsworth Equivalent
13. Foot Kit, Cable Runway

a. Ortronics - Part Number P820827HB
b. Chatsworth Equivalent

14. Vertical Wall Brackets (pair)
    a. Ortronics - Part Number P98207BHB
    b. Chatsworth Equivalent
15. Threaded Ceiling Kit, Cable Runway
    a. Ortronics - Part Number RCBK-6 (5/8”)
    b. Chatsworth Equivalent
16. Threaded Rod Cover
    a. Ortronics - Part Number OR-2-E2-TRPC
    b. Chatsworth Equivalent
17. Protective End Caps for Cable Runway
    a. Ortronics - Part Number 2-E1-25C-A
    b. Chatsworth equivalent
18. End Closing Kit, Cable Runway
    a. Ortronics - Part Number RECBK-12B
    b. Chatsworth Equivalent

G. Pathway Cable Support
1. Panduit J-Mod Cable Support System
2. Erico – CADDY CAT LINKS J-Hook Series
3. Erico – Caddy Adjustable Cable Support Series
4. Panduit Plenum Rated Hook & Loop (Black)
5. Erico – Caddy Grid Support – Part Number – ATA41 or ATS41

H. Grounding and Bonding
1. Grounding Bus Bar, 12”
    a. Ortronics - Part Number OR-GB2X12TGB
    b. Leviton Equivalent
2. Cable Runway Ground Strap Kit
    a. Ortronics - Part Number OR-GJ8KIT
    b. Leviton Equivalent
3. One Mounting Hole Ground Terminal Block
    a. Ortronics - Part Number OR-60400010
    b. Leviton equivalent
4. Horizontal Rack Ground Bar for Wall Mount Cabinet
    a. Ortronics - Part Number OR-GBH19KIT
    b. Leviton Equivalent
5. #6 AWG Solid Green Insulation Ground Wire

a. Superior Essex - Part Number 12-018-04
6. #3/0 Stranded Green Insulation Ground Wire
7. Cable Sheath Bonding Clamp

I. Labeling
1. Permanent Labels for Fiber Optic Cables
a. Brady
b. Panduit Self Laminating Labels
2. Permanent Labels for Innerduct
a. Panduit Dome-Top Ty Marker
3. Permanent Labels for Copper Cables
a. Panduit Self-Laminating Labels
4. Permanent Labels for Backbone Fiber Optic Cables
a. Panduit Dome-Top Ty Marker
5. Permanent Labels for Patch Panels
a. Panduit Component Label
6. Permanent Labels for Faceplates
a. Panduit Component Label

J. Fire Stop
1. STI Spec Seal Part Number
2. 3M Products Part Number CP25

K. Plywood
1. 8’ H x 4’ W x ¾” Sheets of BC grade fire-rated plywood

L. Fire Retardant Paint (White)

M. Fiber Patch Cables
1. CommScope Fiber Optic patch Cords
a. 1- Meter
b. Contractor shall confirm quantity and lengths with the owner prior to purchase.

N. Copper Patch Cables
1. Cat 6A, min 23 AWG, 1ft / color as directed.
2. Contractor shall provide colors as specified for the respective system.
3. Contractor shall provide a written RFI if there are any misunderstanding prior to purchase and installation or the contractor shall be responsible for replacement.
a. Equipment Room Side:
1) Network Access Cat 6A (Blue Sheath) 1ft part number - CO199K2-0ZF001

2) Wireless Access Points Cat 6A (yellow Sheath) 1ft part number – CO199K2-09F001
3) IP Security Cat 6A (White Sheath) 1 ft part number - CO199K2-08F001
4) Contractor shall confirm colors, quantity and lengths with the owner prior to purchase.
   (a) User End: Standard Patch cords can be used for the user end
5) Contractor shall provide and install CommScope 9-ft 23 awg patch cables in the specified system color as shown above on the user end. For the wall to the PC - UC1AAA2-01F009
6) Contractor shall provide and install CommScope 5-ft 23 awg patch cords in the specified system color as shown above on the user end. For the PC to the Phone - UC1AAA2-01F005
7) Contractor shall provide and install standard Ortronics 14-ft patch cords in the specified system color as shown above on the user end. For the WAPS, Cameras etc… - Yellow - UC1AAA2-09F014, White - UC1AAA2-08F014, Blue - UC1AAA2-0ZF014

b. Contractor shall confirm colors, quantity and lengths with the owner prior to purchase.

O. Media Convertors
1. Rocket Link/Control Ruggedized Media Convertor Part Number – ES7206-XT.

P. (1) media convertor reserved for the Marquee Board, Score Board and Scores Table side.
1. (1) media convertor reserved for the MDF/IDF room side from each location.
2. (1) spare media convertor turned into the owner IT dept.
3. Contractor shall coordinate the location of the media convertor with the owner in the MDF/IDF room prior to installation.
4. Contractor shall provide patching of the media convertors at the Marquee Board, Score Board, Scores Table, and MDF/IDF side.
5. Contractor shall confirm power is available at all locations and plug the media convertor in to confirm its function.
6. Contractor shall provide and install SFP fiber Modules for each Media Convertor Part Number - 10G Multimode LC Optical Transceiver (SFP) – Part Number SFP-10G-LR-S.
7. Contractor shall provide (2) spare SFP to the owner.

PART 3 EXECUTION

3.1 CODES, STANDARDS, REGULATIONS

A. American National Standards Institute (ANSI)

B. American Society for Testing and Materials (ASTM)
   1. ASTM B 1 (2001; R 2007) Standard Specification for Hard-Drawn Copper Wire
   2. ASTM B 8 (2004) Standard Specification for Concentric-Lay-Stranded Copper Conductors, Hard, Medium-Hard, or Soft
   3. ASTM D 1557 (2007) Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft3) (2700 kN-m/m3)
   4. ASTM D 709 (2001; R 2007) Laminated Thermosetting Materials

C. Alliance for Telecommunications Industry Solutions (ATIS)

D. Building Industry Consulting Service International (BICSI)
   1. Telecommunications Distribution Methods Manual 13th Edition
   2. Outside Plant Design Reference Manual 5th Edition
   3. ANSI/BICSI, Data Center Design and Implementation Best Practices
   4. NECA/BICSI 568 – Standard for Installing Commercial Building Telecommunications Cabling
   5. NECA/BICSI 607, Standard for Telecommunications Bonding and Grounding Planning and Installation Methods for Commercial Buildings

E. Electronics Industry Alliance (EIA)

F. Federal Communications Commission (FCC)
   1. FCC Part 15, Radiated Emissions Limits,
   2. FCC Part 68, Connection of Terminal Equipment to the Telephone Network,
   3. FCC Part 76, Cable Television Service,

G. Insulated Cable Engineers Association (ICEA)
   1. ICEA S-87-640 Fiber Optic Outside Plant Communications Cable
   2. S-98-688 Broadband Twisted Pair, Telecommunications Cable Aircore, Polyolefin Insulated Copper Conductors
   3. ICEA S-99-689 Broadband Twisted Pair Telecommunications Cable Filled, Polyolefin Insulated Copper Conductors

H. International Electrotechnical Commission (IEC)

I. Institute of Electrical and Electronics Engineers, Inc. (IEEE)
   1. IEEE Standard 81, IEEE Guide for Measuring Earth Resistance, Ground Impedance, and Earth Surface Potential of a Ground System
   2. IEEE Standard 1100, Recommended for practice for Powering and Grounding Sensitive
   3. Electronic Equipment in Industrial and Commercial Power Systems (IEEE Emerald Book)

4. IEEE C2 National Electrical Safety Code
5. IEEE Std 100 The Authoritative Dictionary of IEEE Standards Terms

J. International Organization for Standardization (ISO)
1. International Organization of Standardization/International Electrotechnical Commission (ISO/IEC)
2. ISO/IEC 11801, Information Technology-Generic Cabling for Customer Premises,
3. ISO/IEC 14763-1, Information Technology-Implementation and Operation of Customer Premises Cabling-Administration,
4. ISO/IEC 11801, Information Technology-Generic Cabling for Customer Premises,
5. ISO/IEC 14763-1, Information Technology-Implementation and Operation of Customer Premises Cabling-Administration,

K. National Cable Television Association (NCTA)

L. National Electrical Manufacturers Association (NEMA)
1. NEMA C62.61 Gas Tube Surge Arresters on Wire Line Telephone Circuits

M. National Fire Protection Association (NFPA)
1. NFPA-70, National Electrical Code
2. NFPA-75, Protection of Electronic Computer Data Processing Equipment.
3. NFPA-101, Life Safety Code
4. NFPA-297, Guide on Principles and Practices for Telecommunications Systems
5. NFPA-780, Standard for the Installation of Lightning Protection Systems.

N. National Institute Standards and Technology (NIST)

O. Occupational Safety and Health Administration (OSHA)

P. Telecommunications Industry Association (TIA)
1. ANSI/TIA-568-D, Generic Telecommunications Cabling for Customer Premises.
2. ANSI/TIA-568-D, Commercial Building Telecommunications Cabling Standard.
3. ANSI/TIA-568-D, Balanced Twisted-Pair Telecommunications Cabling and Components Standard.
4. ANSI/TIA-568-D, Optical Fiber Cabling Components Standard.
5. ANSI/TIA–569-E, Commercial Building Standard for Telecommunications Pathways and Spaces
6. ANSI/TIA-606-D, Administration Standard for the Telecommunications Infrastructure of Commercial Buildings.

7. ANSI/TIA-607-D, Generic Telecommunications and Bonding and Earthing for customer premises.
8. ANSI/TIA-758-E, Customer-Owned Outside Plant Telecommunications Infrastructure Standard.

Q. U.S. Department of Agriculture (USDA)
1. RUS 1755 Telecommunications Standards and Specifications for Materials, Equipment and Construction
2. RUS Bull 1751F-643 Underground Plant Design
3. RUS Bull 1751F-815 Electrical Protection of Outside Plant
4. RUS Bull 1753F-201 Acceptance Tests of Telecommunications Plant (PC-4)
5. RUS Bull 1753F-401 Splicing Copper and Fiber Optic Cables (PC-2)
6. RUS Bull 345-65 Shield Bonding Connectors (PE-65)
7. RUS Bull 345-72 Filled Splice Closures (PE-74)
8. RUS Bull 345-83 Gas Tube Surge Arrestors (PE-80)

R. Underwriters Laboratories, Inc. (UL)
1. UL 510 Polyvinyl Chloride, Polyethylene, and Rubber Insulating Tape
2. UL 910 (NFPA 262) Applicable Flame Test

3.2 GENERAL REQUIREMENTS

A. Contractor shall comply with the requirements of local Authority Having Jurisdiction (AHJ), State of Texas, the National Fire Protection Association (NFPA), and the National Electrical Code (NEC). If the Contractor identifies any item in the plans or specifications that will not strictly comply with the aforementioned laws, ordinances, and rules, the matter shall be referred to the Architect/Engineer for direction before proceeding with that part of the work.

B. The Contractor shall be responsible for coordination with other trades to ensure any conflicts or potential conflicts are resolved prior to any work beginning on the project.

C. The Contractor shall install the materials in accordance with these specifications and the manufacturer's installation guidelines.

D. No deviations from the plans or specifications shall be made without full consent in writing of the Architect/Engineer. The Contractor shall have written approval from the Architect/Design Consultant for any additional work beyond the Contract Documents prior to beginning such work. If the Contractor does not obtain written approval from the

Architect/Design Consultant prior to proceeding with the work, the contractor shall not be reimbursed for the work.

E. The Contractor shall obtain written permission from the Architect/Design Consultant before proceeding with any work that would necessitate cutting into or through any part of the building structure such as, but not limited to girders, beams, floors, walls, roofs, or ceilings.

F. Contractor shall notify the Architect/Design Consultant a minimum of (2) weeks prior to beginning work and will participate in a pre-construction meeting with the Architect/Design Consultant to perform a walkthrough, review the scope of work, schedule, and escalation procedures.

G. The Contractor shall maintain a work area free of debris, trash, empty cable reels, scrap cable, etc., and dispose of such items on a daily basis and return the site to the original state of cleanliness. The Contractor shall not use Owner's facilities for the disposal of excess or scrap materials.

H. Equipment and materials installed by the Contractor shall be free of defects and damage.

I. Contractor shall be responsible for the repair of any damage caused by the contractor during the installation.

J. Contractor shall test all cables prior to installation. By failing to perform this testing operation, the Contractor shall accept the cable as compliant and assume all liability for the replacement of the cable at no cost to the Owner should it be found defective at a later date.

K. Contractor shall maintain a set of working specifications, design drawings, and record drawings to be kept on site at all times and shall update the record drawings with any changes on a weekly basis. Record drawings shall be made available for inspection at the request of the Architect/Design Consultant.

L. Equipment and materials shall be consistent throughout the installation. Where multiple units of the same type of equipment and materials are required, these units shall be a standard product with the same manufacturer and model number.

M. Equipment and materials shall be delivered and stored in accordance with the manufacturer's guidelines at the Contractor's expense.

N. Contractor shall make all stored equipment and materials available for inspection at the request of the Architect/Design Consultant.

O. All equipment and material used in the installation shall be approved by the manufacturer for the environment in which it is being installed.

P. Cables shall be properly supported in accordance with industry standards at all times. Improperly supported cables shall be corrected by the Contractor at no cost to the Owner.

Q. Contractor shall be responsible to properly protect information outlets from damage by other trades during construction.

R. Cables shall be routed at 90-degree angles to the building structure. At no time shall a diagonal pull be installed.

S. The Contractor shall not install cables in conduits or sleeves without nylon bushings. Cables installed through conduits or sleeves without nylon bushings shall be removed and replaced at no cost to the Owner.

T. Contractor shall coordinate with the GC and owner to conduct a biweekly technology and security mtg.

U. HPS Point of Contact: Andrew Guler, aguler@harmonytx.org

V. Contractor shall return all calls or emails from Harmony Public Schools within a 24 hour period.

W. Contractor shall not purchase any material until the submittal packages has been approved by the Technology Consultant and reviewed by Harmony Public Schools.

3.3 SYSTEM REQUIREMENTS

A. Quantities listed are for reference only, contractor is responsible for furnishing materials as required to provide a complete and functioning system. Where quantities are not noted, they may be obtained from the drawings. In the event of a discrepancy between the specifications and the drawings, the greater quantity shall be furnished.

B. Intra-Building Cable Plant
   1. Fiber Optic Cable
      a. 50 Micron Multimode
         1) Contractor shall furnish and install plenum rated indoor/outdoor rated fiber optic cables in contractor-furnished and installed plenum rated innerduct.
            (a) Each fiber optic cable shall be provided with a dedicated innerduct.

2) Contractor shall install a 10-foot service loop at the ends of each cable to be coiled, mounted, and stored on the wall above the ladder rack.
3) Cables shall be routed utilizing the pathways as indicated in the technology drawings.
4) The contractor shall furnish and install:
   (a) 12 strand plenum rated fiber optic cable from MDF A127 to each IDF Cabinet as indicated on the technology drawings.

2. Fiber Optic Termination
   a. Contractor shall terminate all installed fiber optic strands with connectors and place into fiber optic enclosures as indicated in the technology drawings.
   b. Contractor shall furnish fiber optic enclosures and coupler panels for all fiber optic strands and blank panels for all unused slots.
   c. The Contractor shall furnish and install:

C. Horizontal Cable
1. No horizontal cable shall be longer than two hundred ninety-five (295) feet. If any station cable will be longer than two hundred ninety-five (295) feet, Contractor shall stop installation of the cable and immediately notify Architect/Design Consultant in writing. If Contractor fails to notify the Architect/Design Consultant in writing, Contractor shall replace cable at no cost to the Owner.
2. The Contractor shall furnish and install horizontal cables within each Technology Region from the respective ER or TR to each outlet location as indicated in the technology drawings.
3. The Contractor shall install a 10-foot service loop to be coiled, mounted, and stored above the ladder rack in each respective Equipment Room or Telecommunications Room.
4. The Contractor shall provide a 2-foot service loop coiled and supported directly above the workstation outlet.

D. Horizontal Cable Termination
1. Contractor shall terminate cables as defined by the ANSI/TIA 568-D Commercial Building Wiring Standard with the EIA-568B sequence.
2. Workstations
   a. Contractor shall furnish and install modular jacks to terminate UTP horizontal cables.
   b. Contractor shall furnish and install faceplates, systems furniture faceplates, or surface-mount boxes to house modular jacks as indicated in the technology drawings.

1) Any unused faceplate positions shall have the appropriate number and color of blanks installed.

3. Equipment Rooms / Telecommunications Rooms
   a. Horizontal Cable for Data
      1) Contractor shall furnish and install patch panels and horizontal cable managers to terminate horizontal data cables as indicated in the technology drawings.
      2) The Contractor shall provide and install:
         (a) 48-port rack mounted patch panel(s) in MDF as indicated on the technology drawings.
         (b) 48-port rack mounted patch panel(s) in each IDF Cabinet as indicated on the technology drawings.
         (c) The first 24 ports on the first 48 port patch panel in each MDF/IDF room, shall be reserved wireless access point cable termination.

E. Patch Cables
   1. Fiber
      a. Equipment Rooms / Telecommunications Room
         1) The Contractor shall furnish and install all
            (a) 100% of the patch cables shall be (1) meters in length and stored in the MDF room.
   2. Copper
      a. Cat6A, min 23 AWG, 1ft / color as directed.
      b. Contractor shall provide colors as specified for the respective system.
      c. Contractor shall provide a written RFI if there are any misunderstanding prior to purchase and installation or the contractor shall be responsible for replacement.
      d. Equipment Room Side:
         1) Network Access Cat 6A (Blue Sheath) 1ft part number - Ortronics MC6A01-06.
         2) Wireless Access Points Cat 6A (yellow Sheath) 1ft part number – Ortronics MC6A
         3) IP Security Cat 6A (White Sheath) 1 ft part number - 15152
         4) Contractor shall confirm colors, quantity and lengths with the owner prior to purchase.
            (a) User End: Standard Patch cords can be used for the user end
         5) Contractor shall provide and install 9-ft CommScope slim rum 30 awg patch cables in the specified system color as shown above on the user end. For the wall to the PC.

6) Contractor shall provide and install CommScope 5- ft slim run 30 awg patch cords in the specified system color as shown above on the user end. For the PC to the Phone.
7) Contractor shall provide and install CommScope 14-ft slim run 30 awg patch cords in the specified system color as shown above on the user end. For the WAPS, Cameras etc…
8) Contractor shall coordinate all colors, lengths and quantities with the owner prior to purchasing the patch cords. If the contractor does not coordinate with the owner the contractor shall eb responsible for the exchanges or changing of the patch cords at the contractors expense.

F. Cable Support
1. All cables shall be installed and supported in conduit systems, cable trays, cores, sleeves, etc. as indicated in the technology drawings.
2. When cables leave the main pathway systems as indicated on the technology drawings, they shall be installed and supported in Contractor furnished and installed j-hooks or adjustable cable supports.
3. No cable pathway shall exceed 40% fill ratio.
4. The contractor shall furnish a separate j-hook or adjustable cable support pathway for each cable type (data, voice, video, and security).
5. J-hooks and adjustable cable supports shall be installed no more than five-feet (5’) apart on center, using only manufacturer-approved installation methods and hardware.
6. J-hooks and adjustable cable supports shall be installed no higher than 3-feet above the accessible ceiling to allow for ease of access for future moves, adds and changes
7. If utilizing ceiling grid wire, that is contractor installed, both ends shall be supported and independent from the grid wire to provide support for the actual grid and ceiling tile. Grid wire shall be painted blue and attached to ceiling grid with a Caddy Component Support.
8. J-hooks shall be furnished with closure clips.
9. Maximum sag between supports shall not exceed twelve-inches (12”).
10. Contractor shall establish j-hook and adjustable cable supports pathways and shall coordinate pathways with all other disciplines. Under no-circumstances shall these pathways be used to support other low-voltage applications not included in this specification.
11. Cable Dressing
    a. No nylon cable ties shall be used at any time during the installation of the cable.
    b. Above Ceiling

1) Contractor shall furnish and install plenum-rated hook & loop straps in plenum-rated airspaces.
   (a) The Contractor shall install no more than (1) hook & loop strap between each j-hook or saddle strap or at service loop locations.

c. Equipment Rooms / Telecommunications Rooms
   1) The Contractor shall bundle all visible cables with Contractor furnished and installed hook & loop straps.
      (a) Hook & loop straps shall be installed twenty-four (24) inches apart on center.

G. Equipment Rooms / Telecommunications Room Build-Out

1. Plywood
   a. The Contractor shall furnish and install 8’ H x 4’ W x ¾” D sheets of BC grade fire-rated plywood as indicated in the technology drawings.
   b. The Contractor shall mount all plywood vertically starting at 24” AFF.
   c. The Contractor shall cover the plywood with two (2) coats of Contractor furnished white fire retardant paint leaving exposed (1) fire rating stamp per sheet.
2. Cable Runway (Ladder Type)
   a. Contractor shall furnish and install cable runway using manufacturer-approved hardware and installation methods as indicated in the technology drawings.
   b. Contractor shall furnish and install vertical sections of cable runway using manufacturer-approved hardware and installation methods to provide transition and support where cables enter or exit the room using a vertical pathway.
   c. Contractor shall furnish and install radius drops cross member and stringers above each rack using manufacturer-approved hardware and installation methods where cables exit the horizontal section of the ladder rack.
   d. Contractor shall ground and bond each cable runway section to the next utilizing ground straps and ensure metal-to-metal contact.
3. Equipment Racks and Cabinets
   a. Contractor shall furnish and install equipment racks with vertical management using manufacturer approved hardware and installation methods as indicated in the technology drawings.
   b. Contractor shall secure relay racks to the concrete floor utilizing expandable concrete anchors.
   c. Contractor shall secure the equipment racks to the cable runway using cable runway elevation kits and manufacturer approved hardware and installation methods.
   d. Contractor shall bolt all equipment racks and vertical cable managers together.

e. Contractor shall individually ground and bond each equipment rack and ensure metal-to-metal contact.
f. Contractor shall furnish and install:
    1) 4-post equipment rack(s) in MDF and IDF rooms as indicated on the technology drawings.

H. Grounding and Bonding
1. Comply with Section 27 05 26 - GROUNDING AND BONDING FOR COMMUNICATION SYSTEMS.

I. System Labeling
1. Contractor shall verify room numbers and confirm the final room numbering scheme prior to generating any labels.
2. Horizontal Cables shall be labeled within (12) inches from the termination point inside the Equipment Room/Telecommunications Rooms.
3. Horizontal Cables shall be labeled within (6) inches from the termination point at the workstation end.
4. Backbone Fiber and Copper Cables shall be labeled within (12) inches of the visible end of the jacket.
5. Fiber Innerduct shall be labeled within (12) inches of the point of entry of the fiber optic enclosure.
6. Bonding conductors shall be labeled within (12) inches from their termination point.
7. Cables shall be labeled identically at both ends.
8. “M’ Stands for MDF and “I” stands for IDF. There might have more than one IDF, if there is, contractor shall label them as I1, I2, or I3.
9. The labeling starts with the location of patch panel, in the buildings there is a main MDF and one or more IDFs. It shows the location of patch panel.
10. Each patch panel is assigned a letter (skip O, which is too easy to confuse with a 0)
11. Each port on the patch panel naturally has a number.
12. After labeling is finalized, contractor will show each labeling marked on a floor plan drawing.
13. Equipment Racks
    a. Equipment racks in each Equipment/Telecommunication Room shall be labeled in sequential numeric order.
        1) Labels shall be centered on the top front of the equipment rack.
14. Cabinets
    a. Cabinets in each Equipment/Telecommunication Room shall be labeled in sequential numeric order.
        1) Labels shall be centered on the top front of the Cabinet.

15. Fiber Optic Enclosures
    a. Fiber optic enclosures shall be labeled alpha-numeric starting with the 1st fiber optic enclosure in the top of the 1st equipment rack.
    b. A label for each terminated strand shall be securely placed inside each fiber optic enclosure.
16. Backbone Cable
    a. Fiber Optic Cable
        1) Fiber optic backbone cable labels shall contain the cable origin room number, the cable destination room number, fiber type and fiber strand numbers, (i.e. M-I1-MM/1-12).
        2) Fiber optic couplers panels in fiber enclosures shall be labeled at each end by strand denoting building code, Equipment Room and/or Telecommunications Room, enclosure number, and strand number to and from respectively (i.e. M-I1-MM/1-12).
    b. High Pair Count Copper Cable
        1) For high pair count copper backbone cables, the label scheme shall contain, cable origin room number, the cable destination room number, and cable pairs (i.e. M-I1/001-025).
17. Horizontal Cable
    a. Inside Equipment Rooms
        1) Horizontal cables shall be labeled at each end with the destination end and origin room number, patch panel number, and port number. (i.e. M-B28).
        2) Patch panels in each closet shall be labeled sequentially starting with the first Patch Panel in the top of the first relay rack (A, B, C, D, E, etc.).
        3) 110-type blocks shall contain the destination room number, pair numbers, and binder pair number under each pair termination. (example)
            (a) 110-type block labels shall be printed on product-specific label strips and placed into label holders.
18. Workstation Faceplates
    a. Cables and wall plates shall be labeled denoting origin, Equipment Room/Telecommunications Room Number, Patch Panel, 110-type termination block, and Port Number. (i.e. M-B28).
19. TMGB/PBB and TGB/SBB
    a. TMGB/PBB and TGB/SBB shall be labeled with a unique identifier (i.e. TMGB/PBB-M-C106, TGB/SBB-I1A135).
20. Bonding Conductors
    a. The following conductors shall be labeled at each end with the destination end and origin room number (i.e. M-C106 – I1A135).

1) Bonding Conductor for Telecommunications
2) Telecommunications Bonding Backbone
3) Grounding Equalizer

21. Wireless Access Point Cable Labeling
    a. Contractor shall place a cable label on all wireless access point devices. The label shall be in accordance with the same label example used for the data cable.
    b. Contractor shall coordinate with the div 27 21 00 installer so when the wireless access point devices are installed, the label shall be installed onto the devices.
    c. The Wireless Access point Device Labeling Scheme can be found in the Division 27 21 00 Specification.
22. Camera Labeling
    a. Contractor shall place a cable label on all Camera devices. The label shall be in accordance with the same label example used for the data cable.
    b. Contractor shall coordinate with the div 28 installer so when the camera devices are installed, the label shall be installed onto the devices.
    c. The Camera Device Labeling Scheme can be found in the Division 28 23 00 Specification

3.4 TESTING REQUIREMENTS

A. Fiber Optic Cable
1. Installed strands shall be tested and certified in accordance with industry standards.
2. Only Manufacturer Certified Technicians shall perform testing.
3. The Contractor shall test and certify all fiber optic cable strands with approved field tester(s) that are within their calibration period. The Contractor shall be liable for all re-testing required in the event tests are performed with non-approved test equipment or tester(s) that are not within their calibration period.
4. The Contractor shall provide calibration results from the manufacturer showing the current calibration of the testers.
5. The Contractor shall notify the Architect/Design Consultant a minimum of five (5) days in advance to observe cable testing.
6. Random testing shall be conducted with the owner. (no exceptions). If testing is not performed with the owner, the contractor shall perform test a 2nd time.
7. The Architect/Design Consultant may randomly select 5% of the installed strands for test verification purposes. The Contractor shall re-test these strands in the presence of the Architect/Design Consultant and the results shall be compared to the previously Contractor submitted test results. In the event that any of the verification tests differ in results from the previously submitted test results, all testing shall be declared a failure and the Contractor shall re-test 100% of the installed strands at no cost to the Owner.

B. Copper Backbone Cable
   1. Installed pairs shall be tested and certified in accordance with industry standards.
   2. Only Manufacturer Certified Technicians shall perform testing.
   3. The Contractor shall test and certify all copper pairs with approved field tester(s) that are within their calibration period. The Contractor shall be liable for all re-testing required in the event tests are performed with non-approved test equipment or tester(s) that are not within their calibration period.
   4. The Contractor shall provide calibration results from the manufacturer showing the current calibration of the testers.
   5. The Contractor shall notify the Architect/Engineer a minimum of five (5) days in advance to observe cable testing.
   6. Random testing shall be conducted with the owner. (no exceptions). If testing is not performed with the owner, the contractor shall perform test a 2nd time.
   7. The Architect/Design Consultant may randomly select 5% of the installed pairs for test verification purposes. The Contractor shall re-test these pairs in the presence of the Architect/Design Consultant and the results shall be compared to the previously Contractor submitted test results. In the event that any of the verification tests differ in results from the previously submitted test results, all testing shall be declared a failure and the Contractor shall re-test 100% of the installed pairs at no cost to the Owner.

C. Category 6 and Cat 6A UTP Cable
   1. Cable links shall be tested in accordance with industry standards.
   2. Only Manufacturer Certified Technicians shall perform testing.
   3. The Contractor shall test and certify the structured cable system with approved field tester(s) that are within their calibration period. The Contractor shall be liable for all re-testing required in the event tests are performed with non-approved test equipment or tester(s) that are not within their calibration period.
   4. No Fail or *Pass results will be accepted.
   5. The Contractor shall notify the Architect/Design Consultant a minimum of five (5) days in advance to observe field testing.
   6. Random testing shall be conducted with the owner. (no exceptions). If testing is not performed with the owner, the contractor shall perform test a 2nd time at the contractor expense.
   7. The Architect/Design Consultant may randomly select 5% of the installed links for test verification purposes. The Contractor shall re-test these links in the presence of the Architect/Engineer and the results shall be compared to the previously Contractor submitted test results. In the event that any of the verification tests differ in results from the previously-submitted test results, all testing shall be declared a failure and the Contractor shall re-test 100% of the installed links at no cost to the Owner.

D. Grounding and Bonding
   1. Main Building Ground
      a. Coordinate with electrical contractor and provide a copy of their test results for the main building ground. The results shall be below 25 Ohms.
   2. Two-Point Ground/Continuity Testing
      a. Prior to the two-point ground testing, a visual inspection shall be performed to verify that the bonding and grounding system is installed according to the drawings and specifications and in compliance with the TIA-607-D Standard.
      b. All testing shall be conducted prior to any active equipment is installed.
      c. The Contractor shall use an earth ground resistance tester that is configured for a continuity test. This is also known as a two-point tester or a “dead earth” test.
      d. Prior to the two-point continuity test conduct a voltage test to ensure there is no stray voltage in the system.
      e. The testing shall include but is not limited to the following points.
         1) Building electrical grounding electrode and the TMGB.
         2) TMGB/PBB/TGB/SBB to electrical ground in ER/TR.
         3) TMGB/PBB/TGB/SBB to the building steel (if present).
         4) TMGB/PBB to each TGB/SBB.
         5) Building steel (if present) to the electrical ground.
      f. Per the TIA-607-D, the maximum value for resistance between any point in the telecommunications bonding and grounding system and the building’s electrical grounding electrode system is 100 milliohms. In the case of long TBB and Grounding Equalizer conductor runs, the resistance of the conductor must be factored into the total resistance. For example 1 km of a No. 3/0 conductor has a resistance of 0.2028 ohms. (0.06180 ohms per 1000 ft.)
      g. The Contractor shall notify the Architect/Design Consultant a minimum of five (5) days in advance to observe field testing.

3.5 PROJECT CLOSEOUT DOCUMENTATION

A. As-Built Drawings
   1. Drawings shall be provided to the Architect/Engineer at the time of substantial completion. Final payment will not be recommended until drawings are received and approved by the Architect/Engineer.
   2. One (1) electronic set of drawings depicting the condition of the structured cabling system as installed.
   3. As-Built drawings shall be produced in AutoCAD 2018 or higher and provided in hardcopy and electronically in .dwg and PDF format.

4. Hardcopy drawings shall be provided in the original size as issued by the Architect/Design Consultant.
5. Drawings shall retain the formatting and title block of the original drawings as issued by the Architect/Design Consultant.
6. Drawings shall be provided utilizing the original scale and shall include the exact dimensions and locations of all equipment room/telecommunication room layouts, wall elevations, equipment rack elevations, ladder racks, cable tray, sleeves, backbone and horizontal cable pathways, workstation locations, and labeling scheme for all data locations.
7. Contractor shall provide to the owner (1) e-copy of an excel spreadsheet in room number order with all data locations labels listed.

B. Test Documentation
1. Test documentation shall be provided to the Architect/Engineer at the time of substantial completion. Final payment will not be recommended until these test results are received and approved by the Architect/Design Consultant.
2. One (1) electronic sets of test documentation for the structured cabling system as installed.
3. Test results shall be provided in electronic format (i.e., manufacturer's proprietary testing software along with applicable reader software) and PDF electronic format.
4. Test documentation shall be include the following sequence as applicable:
   a. Tester(s) Calibration Certificate(s)
   b. Inter-Building Backbone Fiber Optic Cable
   c. Inter-Building Backbone Copper Cable
   d. Intra-Building Backbone Fiber Optic Cable
   e. Intra-Building Backbone Count Copper
   f. Horizontal Category 3 Cable
   g. Horizontal Category 5e Cable
   h. Horizontal Category 6 Cable
   i. Horizontal Category 6A Cable
   j. Main Building Ground
   k. Two-Point Ground/Continuity Test

C. Manufacturer's Performance Certification
1. Certificate shall be provided to the Architect/Design Consultant at the time of final system acceptance. Final payment will not be recommended until the certificate of certification is received and approved by the Architect/Design Consultant.
   a. The manufacturer of the solution shall furnish a performance certification for a period of no less than twenty (20) years starting at final system acceptance.

b. One original and two copies of the Manufacturer's Certificate shall be provided.

D. Manufacturer's Product Warranty
1. Certificate of product warranty shall be provided to the Architect/Design Consultant at the time of final system acceptance. Final payment will not be recommended until this certificate of product warranty is received and approved by the Architect/Design Consultant.
   a. The manufacturer of the solution shall furnish an extended warranty for a period of no less than twenty (20) years starting at final system acceptance.
   b. One original and two copies of the Manufacturer's product warranty shall be provided.
   c. Contractor shall confirm if the manufacture warranty will be mailed directly to the owner and arrive VIA the contractor.

E. Contactor's Statement of Warranty
1. Statement of warranty shall be provided to the Architect/Design Consultant at the time of substantial completion. Final payment will not be recommended until statement of warranty is received and approved by the Architect/Design Consultant.
   a. Contractor shall furnish a minimum of a one (1) year warranty on all materials, labor and workmanship starting at final system acceptance.
   b. One original and two copies of Contractor's warranty terms and conditions to include contact information (i.e. Contractor By Name, Point of Contact, address, phone number and email address) and start and end date for warranty call outs.
   c. A by Name POC is required for the owner to call for Contingencies during the contractors one year warranty period.

END OF SECTION 27 10 00

SECTION 27 40 01 - AUDIO VISUAL SYSTEMS

PART 1 - GENERAL

1.1 DESCRIPTION

A. This section identifies the requirements, technical design, and specifications for the audio visual systems at Harmony Public Schools Pearland Elementary. The audio visual systems as specified are industry standard and may include (but not be limited to) the following: audio visual switching and distribution equipment, projector(s), projection screen(s), audio systems, microphone systems, speaker systems, assistive listening systems, and audio visual hardware as specified.

B. Contractor shall include materials, equipment, and labor necessary to provide a complete and functional audio visual system regardless of any items not listed or described in this specification or the associated drawings.

1.2 WARRANTY

A. The Contractor shall include a one (1) year labor, materials and workmanship warranty on the work performed in the execution of this project to include any alterations or changes to the scope of this project through system completion and system acceptance. The warranty period shall not start until the final project completion is in writing.

1.3 GENERAL REQUIREMENTS

A. The Drawings, Specifications, General Conditions, Supplementary General Conditions, and other requirements of Division 1 apply to the work specified in Division 27, and shall be complied with in every respect. The Contractor shall examine all of the items which make up the Contract Documents, and shall coordinate them with the work on the project.

B. Contractor Experience Requirements
   1. The Contractor shall possess all relevant manufacturer certifications (i.e. AV equipment, AV equipment mounting hardware, control system programming, AV transport, switching installation and commissioning, etc.) for both the company and individual technicians when submitting a proposal for work.
   2. The Contractor shall have been in business for a minimum of five (5) years.
   3. The Contractor shall have a local office with local technicians and an adequate workforce to complete this project within a 300-mile radius of the project site.

4. The Contractor shall have completed a minimum of three (3) projects similar in size and scope to the Owner's installation, where the systems have been in continuous satisfactory operation for at least one (1) year.

C. Subcontractors shall be identified at the time of bid and comply with the requirements and intentions of these specifications, associated drawings and related contract documents.

1.4 SUBMITTAL REQUIREMENTS

A. Proposal Submittal
1. Submit the Contractors standard proposal format with the following included in the proposal or as an attachment:
   a. Itemized list of all equipment and materials. This list shall contain: quantity, manufacturer, part number and description to provide a complete and functional audio visual system. Acceptance of the proposal does not accept the equipment list "as-is" and any Contractor oversights during the proposal process are to be included at no additional cost.
   b. Manufacturer Product Certifications (Project Specific) for Company, Installers and Programmers including Subcontractors. (Crestron, Extron, Biamp, etc.)
   c. Key staff profiles with documentation of industry certifications. Preference is given for personnel with Infocomm CTS, CTS-I and CTS-D certifications.
   d. List of three (3) contractor-installed projects of a similar size and scope in operation for at least one (1) year. The Contractor shall provide the following information for each project: project name, project location, project completion date (Month/Year), brief description of project, and client point of contact name/information.
   e. Provide a Warranty Statement that contains specific details on the Contractors' Warranty being proposed for this scope of work.
   f. The proposal shall include an itemized breakdown of the cost of equipment, materials, labor, the standard workmanship warranty, and any shipping and taxes (if applicable). Line item pricing of equipment is not required. Do not include optional warranties or alternates in the total where applicable. Any optional warranties or alternates should be itemized separately and proposed as "in-addition-to."
2. Manufacturer product specification sheets for pre-submittal substitution requests.
   a. Manufacturer product data sheets are only required when submitting a substitution request. All substitutions or alterations to the project scope must be approved in writing prior to proposal submittal.

b. For product data sheets containing more than one (1) part number or product, the Contractor shall clearly identify the specific part number or product being submitted.
c. Submit specification sheets only. Do not submit a user or operator's manual in lieu of a specification sheet. If a specification sheet is not available from the manufacturer, submit a catalog page or the specification appendix (only) from the operation manual. The last resort acceptable submittal is a pdf of the specification section of the product from the manufacturer's website.

B. Pre-Installation Submittal
1. Contractor shall not order, purchase or install any equipment until pre-installation submittals have been accepted in writing by the Owner/Consultant.
2. Include the Proposal Submittal from the previous section in the event the Proposal Submittal was not previously provided.
3. Manufacturer product specification sheets for post award substitution requests. The requirements are the same as described in proposal substitution requests above.
4. Product Configuration Sheets.
   a. Contractor shall provide a product configuration report in PDF format completed by a certified designer/engineer for the configurable device when a manufacturer provides a tool for the applicable product. For example, but not all inclusive, a Crestron DM Switcher Configuration Report.
   b. Provide projector lens calculations to include projection installation distance from screen.
5. Shop drawings of the proposed system installation.
   a. Shop drawings shall be provided clearly depicting any proposed modification to the project drawings. Any modifications shall be highlighted on the shop drawings.
   b. Shop drawings shall include system line diagrams, floor plans (include projector installed distance from screen with dimensioned distance), rack elevations, and/or detail drawings as required. Shop drawings shall be submitted electronically in pdf format for a 30"x42" paper size. Shop drawings shall not contain copies of, snippets of or depictions of Combs Consulting Group's drawings.
   c. Contractor shall maintain a set of shop drawings on site at all times and shall update the shop drawings on a weekly basis. Consultant drawings and specifications shall be made available during the installation of the project for reference only. Both sets of drawings are the responsibility of the Contractor to provide and maintain. Drawings shall be made available for inspection at the request of the Owner/Consultant.

6. Itemized list of all equipment and materials including any substitutions that were approved and any proposal discrepancies. This list shall contain: quantity, manufacturer, part number and description to provide a complete and functional audio visual system.
7. When custom built HDBASET and/or Digital Audio Network cables are in the project the contractor shall provide termination samples. The termination samples are to be complete cables with terminations on both ends. Provide one sample of each cable/signal type per technician. Label each sample with the name of the technician. The sample is to be created by the field technician(s) that will be performing the work.

C. Project Closeout Submittal
1. The Contractor shall provide comprehensive drawings accurately depicting the "as-built" condition of the audio visual systems as it was installed to the Owner/Consultant at the time of substantial completion. Final payment will not be made until these as-built documents are received and approved by the Owner/Consultant.
   a. As-built drawings must be provided in digital format on a CD-ROM, other memory device(s) and/or delivered electronically.
2. Documentation shall include but not be limited to:
   a. Equipment O & M manuals
   b. Installed equipment list (manufacturer model numbers, serial numbers, installed locations, etc.)
   c. Configuration information in Microsoft Excel format (IP addresses, Passwords and Usernames etc.)
   d. Warranty support information
   e. Documentation shall be bound, sectioned and tabbed in the following order (when applicable):
      1) Equipment O&M Manuals (Bound Separately)
      2) Installed Equipment List
      3) Configuration Information
      4) Warranty Support Information
3. All custom programming files (control systems, audio DSP's etc.) shall be delivered to the Owner. The Programmer shall transfer all source code/files related to the system. All programming shall be delivered in both compiled and un-compiled form. Upon system acceptance, ownership of the programmed system files shall be transferred to the Owner for their future use or modification. No claim shall be made by the programmer for continued licensing or other ongoing fees for continued usage of the system(s).

1.5 SYSTEM DESCRIPTIONS

A. TYPE 1 SYSTEM – Classrooms.
   1. The “Type 1” system shall consist of a ceiling-mounted projector. The projector shall project onto a manual projection screen provided by the contractor. A HDMI extension system shall facilitate connectivity between a wall plate located at the teacher’s desk and the projector.
   2. The projector’s audio output shall send audio to an audio amplifier that shall power two ceiling mounted loudspeakers for playback of audio content. The amplifier shall be configured to mute program audio during pages and bells on the public address system. ~~An in-ceiling storage box shall house the HDMI receiver, audio amplifier and other terminal equipment.~~ (Addendum)

B. CAFETERIA/GYM:
   1. Video.
      a. The system will have a video front projection system. The video projector will be ceiling mounted and be provided video signals from two independent HDMI input locations. The video will be projected on a ceiling mounted motorized projection screen. The video projector and screen performance will be bright enough to use when the Cafeteria is fully illuminated. The video projector will be a low maintenance projector without lamp replacement maintenance.
   2. Audio.
      a. The system will have a sound reinforcement system. There will be flush in-ceiling mounted speakers. The sound reinforcement system will provide the audio support for the video system. There will be two independent ‘Aux’ audio inputs adjacent the HDMI inputs. The audio system will be functional without the video projection system being utilized.
      b. The sound reinforcement system will also support voice reinforcement and will have assistive listening for compliance purposes. There will be a single handheld wireless microphone system. There will be one microphone stage wired input available. A hard-wired handheld microphone will be available. Also, mic stands for both wired and wireless handheld microphones will be provided.
      c. The audio system will support page ducking. When a building page is active the sound system output will temporarily be reduced during the page. During an emergency event the sound system will be disabled by a shunt relay.
   3. Control and Local Network.
      a. A local network will be provided for control and communication purposes. The local network will also power different audio visual specific PoE devices. The network can be configured as an ‘Ad-Hoc’ network or integrated into the building network as required.

b. A button control panel with integrated control system will be provided. The button control panel will be wall mounted and have a locking cover device. The control system will facilitate power sequences, source selections, volume/mute controls and provide automated functions required to minimize operator intervention such as page ducking and projection screen deployment.

4. AV Equipment Rack.
   a. A wall mounted equipment rack will be installed to house audio visual specific equipment and devices. The equipment rack will have a locking door.

PART 2 - PRODUCTS

2.1 GENERAL REQUIREMENTS

A. The following sections specifically list the acceptable equipment types and items for this project.

B. Owner/Consultant will have final determination of acceptability of all proposed equipment and must approve submitted equipment prior to purchase or installation.

C. Proposed equivalent items must be approved in writing by the Owner/Consultant prior to submitting a bid. Proposed equivalent items must meet or exceed these specifications and the specifications of the specified item.

D. In the event a manufacturer's specified product or part number has changed or is no longer available, Contractor shall substitute the appropriate equivalent manufacturer's part number.

E. In the event of a discrepancy between the specifications and the drawings, the greater quantity and/or better quality will be furnished.

F. For listed products with no part number specified, Contractor shall provide a product that meets the performance requirements of these specifications, industry standard practices and intended application.

G. All wiring, equipment and installation materials shall be new and of the highest quality.

H. Labels on all wiring, materials and equipment must indicate a nationally recognized testing laboratory.

I. All new equipment shall be received, stored, and staged at the Contractor's facility until delivered and installed. Contractor shall store all materials and equipment in accordance

with manufacturers' instructions in a weather-tight, secure enclosure. All equipment shall be protected from dust, debris and environmental contamination. Contractor shall be responsible for safety and security of all Contractor furnished equipment and OFE until project close-out.

2.2 EQUIPMENT

1. TYPE 1 SYSTEM CLASSROOM (MEETING ROOM):
    a. Provide the following per Type 1 Classroom:
        1) Video:
            (a) Interactive Projector with ceiling Mount Type 'P1' – Epson Power Lite ~~992F~~ 994F (Addendum) 1080P Classroom Projector with Built-in Wireless Ceiling mount.
            (b) Recessed - advantage manual CSR screen 72.5 x 116 viewing and 137 diagonal, 16:10 ratio projection screen.
            (c) Projection Screen wall brackets -Da-Lite #6 White Wall Bracket, 6in for manual screen, up to 75 lbs. (only is required for the scenario)
            (d) Projector mounting hardware – 12 inch Pipe- PWH-12W Pipe
            (e) Projector ceiling mount Hardware - PBC-FCTAW-QL includes the PBC-UMW universal projector mount for projectors up to 40 lb. (18 kg) and false ceiling adapter (PP-FCTAW-QL). The PBC-UMW offers flexible projector positioning with four patented dual-joint
            (f) HDMI bundle consists of (1) C2G 50634 HDMI Wall Plate (2) C2G 39710 35FT Standard HDMI In-Wall Cable
        2) Audio:
            (a) Amplified In-Ceiling Speaker Set Type 'S1' – OWI Model# 2X2VG-HDTR6 (QTY PER PLAN) (with transformer)
                (1) Each set contains one amplified speaker with transformer and one non-amplified speaker.
            (b) Amplified Wall Mount Speaker Set Type 'S3' – OWI Model# AMP-CAT602-2W. (QTY PER PLAN)
                (1) Each set contains one amplified speaker and one non-amplified speaker.
            (c) Unbalanced Input Transformer – RDL Model# TX-J2. ~~(QTY 1)~~ (Addendum)
            (d) Passive Combiner 10K – RDL Model# STD-10K. ~~(QTY 1)~~ (Addendum)
            (e) Audio Connector Plate – HDMI Input Faceplate shall be ruggedized/ stainless Steel Model# C2G-39871 ~~(QTY 1)~~ (Addendum)
            (f) The audio visual HDMI faceplate must be a standalone faceplate, not shared with data connector.

3) Premade Cabling:
   (a) 50-FT Black Plenum CAT6 Cable – Middle Atlantic Model# 15301. ~~(QTY 1)~~ (Addendum)
   (b) 15-FT HDMI Cable – Middle Atlantic Model# 29860. ~~(QTY 1)~~ (Addendum)
   (c) 3-FT HDMI Cable – Middle Atlantic Model# 29675. ~~(QTY 1)~~ (Addendum)
4) Provide to Owner:
   (a) 15-FT HDMI Cable – Middle Atlantic Model# 50612. ~~(QTY 1)~~ (Addendum)

B. CAFETERIA AND GYMNASIUM (Addendum):
1. Provide and install video projection system, projection screen, mounts and supporting hardware. Provide and install all video, audio and signal distribution equipment. Provide, program and install all audio DSP, microphone, assistive listening and speaker equipment. Provide, program and install all control equipment.
2. All Crestron programming to be programmed and commissioned by a Crestron Certified Programmer. If there is not a certified programmer on staff a third-party programmer will be utilized that specializes in Control/DSP programming as their primary business.
3. Provide the following:
   a. Video Systems:
      1) Video Projector Type ‘P2’ – Epson Model# Powerlite ~~5535U~~ L530U. ~~(QTY 1) (Addendum)~~
      2) Ceiling Video Projector Mount – Premier Mounts Model# PBC-FCTAW-QL. ~~(QTY 1)~~ (Addendum)
      3) -IN NPT Pipe, Length as required – Custom. ~~(QTY 1)~~ (Addendum)
      4) Projection Screen Enclosure Type ‘SCR1’ – Dalite Model# 24717BL. ~~(QTY 1)~~ (Addendum)
         (a) Projection Screen and Roller Assembly – Dalite Model# 24717FL. ~~(QTY 1)~~ (Addendum)
      5) HDBASET Wall Plate Transmitter ‘MM2’ – Hall Research Model# UHBX-S-WP. ~~(QTY 1~~) (Addendum)
      6) PoH Power Inserter – Hall Research Model# 511-POH-17W. ~~(QTY 1)~~ (Addendum)
      7) HDMI Optical Cable, 75FT – Hall Research Model# CHD-DE23. ~~(QTY 1)~~ (Addendum)
         (a) Power Inserter – Hall Research Model# GC-HDPI-USB. ~~(QTY 1)~~ (Addendum)
      8) HDMI Decora Plate ‘MM2’ – Crestron Model# MP-WP152-W. ~~(QTY 1)~~ (Addendum)
      9) HDMI Cable, 10FT – Middle Atlantic Model# 50628. ~~(QTY 2)~~ (Addendum)

10) Contractor shall also provide a wireless connectivity for the “cafeteria” projector. Hard wire will remain the same but HPS wants a wireless option as well.

b. Audio Systems:
   1) In-Ceiling Loudspeaker, White, Type ‘S2’ –OWI, ICM8. ~~(QTY 9)~~ (Addendum)
   2) Pendant Speakers for open ceilings, White - OWI M6760 (Addendum)
   3) Audio Amplifier – Ashly Audio Model# KLR-3200.~~ (QTY 1)~~ (Addendum)
   4) Digital Audio Mixer – Audio Technica Model# ATDM-0604.~~ (QTY 1)~~ (Addendum)
   5) Audio Connector Plate ‘MM2’ – RDL Model# D-CIJ3. ~~(QTY 2)~~ (Addendum)
   6) Paging Controlled Relay – RDL Model# TX-PCR1. ~~(QTY 1)~~ (Addendum)
      (a) Power Supply – RDL Model# PS-24AS. ~~(QTY 1)~~ (Addendum)
   7) Unbalanced Transformer – RDL Model# TX-J2. ~~(QTY 1)~~ (Addendum)

c. Microphone Systems:
   1) Wireless Microphone System with Handheld Microphone system – Audio Technica Model# ATW-2120b (Band “i” 487.125 to 506.500 MHz) ~~(QTY 1)~~ (Addendum). (Addendum) The Audio Technica Wireless Microphone Kit includes the following components:
      (a) Receiver for 2000 Series Wireless Systems – Audio Technia Model# ATW-R2100B
      (b) Cardioid dynamic Handheld Microphone/Transmitter for 2000 Series Wireless Systems – Audio Technica Model#: ATW-T220A
      (c) Antenna for 2000 Series Wireless Receivers that operated in the I-Band (487.126 to 506.5 MHz)
   2) UHF Half Wave Antenna Type ‘AT1’ – Audio Technica Model# ATW-A3D. ~~(QTY 2)~~ (Addendum)
   3) Microphone Stand – Atlas Model# MS-10CE. ~~(QTY 1)~~ (Addendum)
   4) Handheld Wired Microphone – Audio Technica Model# PRO41. ~~(QTY 1)~~ (Addendum)

d. Assistive Listening System:
   1) Assistive Listening System – Listen Technologies Model# LS-54-072. ~~(QTY 1)~~ (Addendum)
      (a) Includes antenna Type ‘AT2’

e. Control/Network Systems:
   1) Presentation Controller Type ‘CP1’ – Crestron Model# MPC3-302-W. ~~(QTY 1)~~ (Addendum)
      (a) Engravable Buttons – Crestron Model# MPB3/MPC3-BTN10-W ENGRAVED. (QTY 1) (Addendum)

(b) Locking Cover w/Window – FSR Model# WB-PS3G. ~~(QTY 1)~~ (Addendum)
(c) Desktop Mounting Box – FSR Model# DSKB-3G-WHT

2) PoE Network Switch – Cisco Model# SF300-24PP. ~~(QTY 1)~~ (Addendum) only if required
3) Custom Mounting Plate – Panelcrafters Model# Custom. ~~(QTY 1)~~ (Addendum)
(a) Single gang cutout for projection screen maintenance switch.
4) IP to Serial Interface – Global Cache Model# FLEX-IP-P. ~~(QTY 2)~~ (Addendum)
(a) Flex Link Sensor Cable – Global Cache Model# FLC-RS. ~~(QTY 1)~~ (Addendum)
(b) DB9 Serial Cable – Global Cache Model# FL-232. ~~(QTY 1)~~ (Addendum)
(c) Flex Link Relay Cable – Global Cache Model# FLC-RS. ~~(QTY 1)~~ (Addendum)

f. Equipment Rack:
1) Wall Mount Rack, 12RU Type 'EQ1' – Omnimount Model# RE12W. ~~(QTY 1)~~ (Addendum)
2) Blank Panel, 1RU – Middle Atlantic Model# FEB1. ~~(QTY 3)~~ (Addendum)
3) Brush Panel, 2RU – Middle Atlantic Model# BR1. ~~(QTY 1)~~ (Addendum)
4) Rackmount Power – Middle Atlantic Model# PDC-915R-2. ~~(QTY 1)~~ (Addendum)
5) Power Strip – Middle Atlantic Model# PD-815SC-NS. ~~(QTY 1)~~ (Addendum)

g. Cabling:
1) HDMI Plenum Cable, 15-FT – Middle Atlantic Model# 42528. ~~(QTY 1)~~ (Addendum)
2) CAT6 Plenum Cable, 15-FT – Middle Atlantic Model# 15297. ~~(QTY 1)~~ (Addendum)
3) 3.5mm Y-Cable – Middle Atlantic Model# 40613. ~~(QTY 2)~~ (Addendum)
4) All other cabling as required.

h. Cables – Turn over to Owner.
1) HDMI Cable, 12-FT – Middle Atlantic Model# 50629. ~~(QTY 2)~~ (Addendum)

2.3 CABLE/CONNECTOR REQUIREMENTS

A. All indoor cabling shall be plenum rated. All outdoor cabling shall be outdoor rated and direct-burial rated when in contact with grade or within conduit in contact with grade. Coordinate all cable colors with Owner/Consultant prior to ordering or installation. Provide connectors and termination as specified by manufacturer for each application.
1. Provide all cabling with Black jacketing unless otherwise noted.

2. Acceptable manufacturers include Extron, Crestron, Belden, West Penn Wire, Gepco and Liberty. Liberty is specified to establish a cabling baseline. Cross reference equal or greater cabling and connectors when making substitutions with the acceptable manufacturers. Submit substitution requests as described in the submittal requirements section when using a manufacturer not identified as acceptable.

B. Pathway Wire Support
   1. Panduit J-Mod Cable Support System
   2. Erico Caddy Cat Links J-Hook Series
   3. Panduit Plenum Rated Hook & Loop (Black)

C. Fire Stop
   1. STI Spec Seal Part Number
   2. 3M Products Part Number

D. HD-SDI | Analog Video | Genlock Cabling | CATV(RF):
   1. <50’:
      a. Liberty Cable Part# 20-CMP-VID-COAX-BLK.
      b. Terminate with Liberty Part# CM-RG59M-BNC or Liberty Part# 112975 for BNC style Connectors.
      c. Terminate with Liberty Part# CM-RG59M-F for ‘F’ style connectors.
   2. 50’-200’:
      a. Liberty Cable Part# 18-CMP-VID-COAX-BLK.
      b. Terminate with Liberty Part# CM-RG6M-BNC for BNC style connectors.
      c. Terminate with Liberty Part# CM-RG6L-F for ‘F’ style connectors.

E. HDBASET Cabling:
   1. Liberty Cable Part# 24-4P-P-L7SH-BLU.
      a. Shielded Plenum CAT7 Cable, Blue.
      b. Terminate with Liberty Part# 1401405012-I.
         1) Use Conductive Copper Foil Tape 3M 3313 series 1-inch to bond the drain connection and the connector. Dress uncovered copper foil tape and cable with heat shrink.
         2) Use Igarashi IPS PH-165 or similar type non-marring plastic jaw pliers for connector compression.
      c. Space constricted back box or bend radius restricted installations.
         1) Terminate with Liberty #A68IPZA-STP keystone insert and install into a keystone plenum rated surface mount box Hubbel #ISB1BKP or similar. Mount in an accessible ceiling space or accessible concealed space and run a

plenum rated patch cable from the jack to the device. The plenum rated patch cable is to be same rating/quality or better than the field terminated cabling.

F. Digital Audio Network Cabling:
   1. Liberty Cable Part# 24-4P-P-L6ASH-BLK
      a. Foil Shielded CAT6a Cable, Black.
      b. Terminate with Liberty Part# 1401405012-I.
         1) Use Conductive Copper Foil Tape 3M 3313 series 1-inch to bond the drain connection and the connector. Dress uncovered copper foil tape and cable with heat shrink.
         2) Use Igarashi IPS PH-165 or similar type non-marring plastic jaw pliers for connector compression.
      c. Space constricted back box or bend radius restricted installations.
         1) Terminate with Liberty #A68IPZA-STP keystone insert and install into a keystone plenum rated surface mount box Hubbel #ISB1BKP or similar. Mount in an accessible ceiling space or accessible concealed space and run a plenum rated patch cable from the jack to the device. The plenum rated patch cable is to be same rating/quality or better than the field terminated cabling.

G. Network | USB/KVM Extension Cabling
   1. Liberty Cable Part# 24-4P-P-L6-EN-BLK.
      a. Unshielded CAT6 cable, Black.
      b. Terminate with Liberty Part# 11108080034 RJ45 Connector.

H. HDMI | Displayport | DVI | USB Passive Cabling
   1. Provide cable/signal transport of sufficient length to reach from source device to destination device. No digital cable shall exceed a length of 15 feet unless otherwise specified. Provide a high retention cable when available.
      a. HDMI - Liberty Cable Part# HD-600 Series.

I. Serial Control Cabling
   1. Single data pair only.
      a. Liberty Part# 22-1P-CMP-EZ-BLK.
   2. Two data pair RS232(RTS/CTS or RS485).
      a. Liberty Part# 24-2P-P485.
   3. Terminate all data cabling with a reliable termination system, include hoods and retention mechanisms when available.

J. Relay | Control Cabling:
   1. Liberty 18 Gauge, 2-Conductor Plenum-Rated Cabling – Part Number 18-2C-P-BLK.

K. Cresnet Cabling:
   1. <500’:
      a. Liberty Part# LLINX-U-P.
   2. > 500’
      a. Consult with Manufacturer/Consultant prior to ordering / installation.

L. Analog Audio | Microphone | Intercom | IFB Cabling
      a. Liberty Part# 22-1P-CMP-EZ-BLK.
      b. Terminate cabling with Neutrik XX series for XLR connectors. For ¼” TRS/TS, 1/8” and RCA connectors use Rean manufactured connectors.

M. High Impedance Speaker Level Cabling (25v/70v):
   1. < 300’:
      a. Liberty 16 Gauge, 2-Conductor Plenum-Rated Cabling – Part Number 16-2C-P-BLK.
   2. 300’ to 500’
      a. Liberty 14 Gauge, 2-Conductor Plenum-Rated Cabling – Part Number 14-2C-P
         1) Provide Cable with Black Jacket – Coordinate Cable Color with Architect.
   3. > 500’
      a. Consult with Manufacturer/Consultant prior to ordering / installation.
   4. Terminate when available with Neutrik “Speakon” type connectors.

N. Low Impedance Speaker Level Cabling:
   1. < 50’:
      a. Liberty 14 Gauge, 2-Conductor Plenum-Rated Cabling – Part Number 14-2C-P-BLK.
   2. 50’ to 100’
      a. Liberty 12 Gauge, 2-Conductor Plenum-Rated Cabling – Part Number 12-2C-P-BLK.
   3. > 100’
      a. Consult with Manufacturer/Consultant prior to ordering / installation.
   4. Terminate when available with Neutrik ‘Speakon’ type connectors.

PART 3 - EXECUTION

3.1 CODES, STANDARDS AND REGULATIONS

A. American National Standards Institute (ANSI)

B. American Society for Testing and Materials (ASTM)

1. ASTM B 1 Standard Specification for Hard-Drawn Copper Wire
2. ASTM B 8 Standard Specification for Concentric-Lay-Stranded Copper Conductors, Hard, Medium-Hard, or Soft
3. ASTM D 1557 Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft3) (2700 kN-m/m3)
4. ASTM D 709 Laminated Thermosetting Materials

C. Alliance for Telecommunications Industry Solutions (ATIS)

D. Building Industry Consulting Service International (BICSI)
1. Telecommunications Distribution Methods Manual 13th Edition
2. NECA/BICSI 568-D – Standard for Installing Commercial Building Telecommunications Cabling
3. NECA/BICSI 607-D, Standard for Telecommunications Bonding and Grounding Planning and Installation Methods for Commercial Buildings

E. Federal Communications Commission (FCC)
1. FCC Part 15, Radiated Emissions Limits,
2. FCC Part 68, Connection of Terminal Equipment to the Telephone Network,
3. FCC Part 76, Cable Television Service,

F. Insulated Cable Engineers Association (ICEA)
1. ICEA S-87-640 Fiber Optic Outside Plant Communications Cable
2. S-98-688 Broadband Twisted Pair, Telecommunications Cable Aircore, Polyolefin Insulated Copper Conductors
3. ICEA S-99-689 Broadband Twisted Pair Telecommunications Cable Filled, Polyolefin Insulated Copper Conductors

G. International Electrotechnical Commission (IEC)

H. Institute of Electrical and Electronics Engineers, Inc. (IEEE)
1. IEEE Standard 81, IEEE Guide for Measuring Earth Resistance, Ground Impedance, and Earth Surface Potential of a Ground System
2. IEEE Standard 1100, Recommended for practice for Powering and Grounding Sensitive
3. Electronic Equipment in Industrial and Commercial Power Systems (IEEE Emerald Book)
4. IEEE C2 National Electrical Safety Code
5. IEEE Std 100 The Authoritative Dictionary of IEEE Standards Terms

I. International Organization for Standardization (ISO)

1. International Organization of Standardization/International Electrotechnical Commission (ISO/IEC)
2. ISO/IEC 11801, Information Technology-Generic Cabling for Customer Premises,
3. ISO/IEC 14763-1, Information Technology-Implementation and Operation of Customer Premises Cabling-Administration,
4. ISO/IEC 11801, Information Technology-Generic Cabling for Customer Premises,
5. ISO/IEC 14763-1, Information Technology-Implementation and Operation of Customer Premises Cabling-Administration,

J. National Cable Television Association (NCTA)

K. National Electrical Manufacturers Association (NEMA)
1. NEMA C62.61 Gas Tube Surge Arresters on Wire Line Telephone Circuits

L. National Fire Protection Association (NFPA)
1. NFPA-70, National Electrical Code
2. NFPA-101, Life Safety Code
3. NFPA-297, Guide on Principles and Practices for Telecommunications Systems
4. NFPA-780, Standard for the Installation of Lightning Protection Systems.

M. National Institute Standards and Technology (NIST)

N. Occupational Safety and Health Administration (OSHA)

O. Telecommunications Industry Association (TIA)
1. ANSI/TIA-568-D, Generic Telecommunications Cabling for Customer Premises,
2. ANSI/TIA-568-D, Commercial Building Telecommunications Cabling Standard,
3. ANSI/TIA -568-D, Balanced Twisted-Pair Telecommunications Cabling and Components Standard,
4. ANSI/TIA-568-D, Optical Fiber Cabling Components Standard,
5. ANSI/TIA–569-E, Commercial Building Standard for Telecommunications Pathways and Spaces,
6. ANSI/TIA-606-D, Administration Standard for the Telecommunications Infrastructure of Commercial Buildings,
7. ANSI/TIA-607-D, Commercial Building Grounding and Bonding Requirements for Telecommunications,
8. ANSI/TIA-758, Customer-Owned Outside Plant Telecommunications Infrastructure Standard,

P. Underwriters Laboratories, Inc. (UL)

1. UL 510 Polyvinyl Chloride, Polyethylene, and Rubber Insulating Tape
2. UL 910 (NFPA 262) Applicable Flame Test

Q. In the event of any conflicts between documents referenced herein and the contents of this specification, the Contractor shall notify the Architect/Design Consultant in writing of any such occurrences before purchasing or installing any equipment or materials. The Architect/Design Consultant will notify the Contractor of any actions required to resolve these conflicts. Such actions may include but are not limited to: design changes, equipment, materials and/or installation changes. In any event Contractor shall not supersede specifications and standards from the latest NFPA and NEC publications. In the event of any conflicts between Standards and Codes the more stringent shall take precedence.

R. Contractor shall coordinate with the GC and owner to conduct a biweekly technology and security mtg.

S. HPS Point of Contact: Andrew Guler, aguler@harmonytx.org

T. Contractor shall return all calls or emails from Harmony Public Schools within a 24 hour period.

U. Contractor shall not purchase any material until the submittal packages has been approved by the Technology Consultant and reviewed by Harmony Public Schools.

3.2 GENERAL REQUIREMENTS

A. Contractor shall comply with the requirements of local Authority Having Jurisdiction (AHJ), Project State, the National Fire Protection Association (NFPA), and the National Electrical Code (NEC). If the Contractor identifies any item in the plans or specifications that will not strictly comply with the aforementioned laws, ordinances, and rules, the matter shall be referred to the Architect/Engineer for direction before proceeding with that part of the work.

B. The Contractor shall be responsible for coordination with other trades to ensure any conflicts or potential conflicts are resolved prior to any work beginning on the project.

C. The Contractor shall install the materials in accordance with these specifications and the manufacturer’s installation guidelines.

D. No deviations from the plans or specifications shall be made without full consent in writing of the Architect/Design Consultant. The Contractor shall have written approval from the

Architect/Engineer for any additional work beyond the Contract Documents prior to beginning such work. If the Contractor does not obtain written approval from the Architect/Design Consultant prior to proceeding with the work, the contractor shall not be reimbursed for the work.

E. The Contractor shall obtain written permission from the Architect/Design Consultant before proceeding with any work that would necessitate cutting into or through any part of the building structure such as, but not limited to girders, beams, floors, walls, roofs, or ceilings.

F. Contractor shall notify the Architect/Design Consultant a minimum of (2) weeks prior to beginning work and will participate in a pre-construction meeting with the Architect/Design Consultant to perform a walkthrough, review the scope of work, schedule, and escalation procedures.

G. The Contractor shall maintain a work area free of debris, trash, empty cable reels, scrap cable, etc., and dispose of such items on a daily basis and return the site to the original state of cleanliness. The Contractor shall not use Owner's facilities for the disposal of excess or scrap materials.

H. Equipment and materials installed by the Contractor shall be free of defects and damage.

I. Contractor shall be responsible for the repair of any damage caused by the contractor during the installation.

J. Contractor shall test all cables prior to installation. By failing to perform this testing operation, the Contractor shall accept the cable as compliant and assume all liability for the replacement of the cable at no cost to the Owner should it be found defective at a later date.

K. Contractor shall maintain a set of working specifications, design drawings, and record drawings to be kept on site at all times and shall update the record drawings with any changes on a weekly basis. Record drawings shall be made available for inspection at the request of the Architect/Engineer.

L. Equipment and materials shall be consistent throughout the installation. Where multiple units of the same type of equipment and materials are required, these units shall be a standard product with the same manufacturer and model number.

M. Equipment and materials shall be delivered and stored in accordance with the manufacturer's guidelines at the Contractor's expense.

N. Contractor shall make all stored equipment and materials available for inspection at the request of the Architect/Design Consultant.

O. All equipment and material used in the installation shall be approved by the manufacturer for the environment in which it is being installed.

P. Cables shall be properly supported in accordance with industry standards at all times. Improperly supported cables shall be corrected by the Contractor at no cost to the Owner.

Q. Contractor shall be responsible to properly protect information outlets from damage by other trades during construction.

R. Cables shall be routed at 90-degree angles to the building structure. At no time shall a diagonal pull be installed.

S. The Contractor shall not install cables in conduits or sleeves without nylon bushings. Cables installed through conduits or sleeves without nylon bushings shall be removed and replaced at no cost to the Owner.

T. Contractor shall immediately report to the Engineer any design or installation irregularities, particularly architectural elements that interfere with the intended coverage angles of loudspeakers and projector, so that appropriate action may be taken.

U. Contractor shall observe all HDBaseT Alliance cable types, lengths, bundling, termination, and patching requirements and limitations when installing audio/video over twisted-pair cabling.

V. Contractor shall observe signal separation and signal separation best practices at all times.

W. Any cabling found to be damaged shall be replaced at no cost.

X. Signals shall be separated and grouped according to type and voltage level.

Y. Contractor shall provide all required conduit and sleeves unless otherwise specified. Contractor shall provide conduit bushings even when it is the responsibility of other trades prior to cable installation.

Z. Contractor shall provide and utilize rear rack rails, lacing bars, and any other required cable dressing equipment/supplies to ensure proper industry-standard signal separation is achieved.

3.3 CABLE INSTALLATION

A. Cable Support
1. All cables shall be installed and supported in conduit systems, cable trays, cores, sleeves, etc.
2. When cables leave the main pathway systems, they shall be installed and supported in Contractor furnished and installed j-hooks or saddle straps.
3. No cable pathway shall exceed NEC limited low voltage fill ratios.
4. The contractor shall furnish a separate j-hook or saddle strap pathway for each cable type (data, voice, video and security).
5. J-hooks and saddle straps shall be installed no more than five-feet (5') apart on center, using only manufacturer-approved installation methods and hardware.
6. J-hooks shall be furnished with closure clips.
7. Maximum sag between supports shall not exceed twelve-inches (12").
8. Contractor shall establish j-hook and saddle strap pathways and shall coordinate pathways with all other disciplines. Under no-circumstances shall these pathways be used to support other low-voltage applications not included in this specification.
9. Cable Dressing
    a. No nylon cable ties shall be used at any time during the installation of the cable.
    b. Signal separation guidelines and best practices shall be observed for the complete length of all cable runs.
10. Above Ceiling
    a. Contractor shall furnish and install plenum-rated hook & loop straps in plenum-rated airspaces.
        1) The Contractor shall install no more than (1) hook & loop strap between each j-hook or saddle strap or at service loop locations.
11. Equipment Rooms / Telecommunications Rooms
    a. The Contractor shall bundle all visible cables with Contractor furnished and installed hook & loop straps.
        1) Hook & loop straps shall be installed twenty-four (24) inches apart on center.
    b. Plywood
        1) The Contractor shall furnish and install 8' H x 4' W x ¾" D sheets of BC grade fire-rated plywood as when in the technology drawings.
        2) The Contractor shall mount all plywood vertically starting at 24" AFF.
        3) The Contractor shall cover the plywood with two (2) coats of Contractor furnished white fire retardant paint leaving exposed (1) fire rating stamp per sheet

3.4 IDENTIFICATION

A. Contractor will permanently affix labels to each cable. Labels will be affixed at a distance of 3” from the end of each cable end. If label cannot be easily viewed from this placement, cable may be placed 1” from the cable end. Cable label shall include unique cable number, source system name, source termination point, and destination system name and destination termination point. Cable labels will be identical on each cable end. Contractor to contact Consultant for additional information, if necessary.

B. Contractor will provide equipment labeling for each device front and back according to the system name used in the shop drawings. Contractor may use laminated labels (white print on black labels in front, black print on yellow in back) or equivalent.

C. Contractor will provide engraved plastic laminate labels for all racks. Rack labels to be 1” x 2” with white lettering (Arial font) on black matte finish, plastic.
   1. Contractor will provide all Input/Output (I/O) panels. I/O panels will be produced from black anodized aluminum and engraved with white lettering.

3.5 TESTING REQUIREMENTS

A. Audio Visual System Testing and Configuration
   1. Contractor shall un-pack and pre-test equipment prior to installation into the production environment. All configurations shall be re-verified prior to the units being placed into service.
   2. The owner shall be present for random testing. (mandatory) contractor shall schedule 5 working days in advance.
   3. Contractor shall test and commission each component per the specifications and manufacture’s installation instructions.
   4. Contractor shall test and verify for full operational and network support control functionalities and connections per the specifications and manufacturer’s installation instructions.
   5. All network devices shall be verified for link and auto negotiation to the highest connection rate.
   6. Audio conferencing systems shall be configured to provide excellent audio performance. Verify POTS or VoIP phone system with Owner/Owner/Consultant prior to ordering and installation. Contractor shall place test calls utilizing the audio conferencing system to the system manufacturer for system calibration and testing.
   7. Video conferencing systems shall be configured to provide excellent audio performance. Contractor shall place test calls utilizing the video conferencing system to the system manufacturer for system calibration and testing.

8. Contractor shall test and verify all functionalities as installed per the specifications and manufacturer's installation instructions.
9. All Crestron Digitalmedia demonstration and acceptance tests shall be performed by a Crestron Digitalmedia Certified Engineer (DMC-E).
10. Projector(s) shall be installed square in relation to the screen, and shall be adjusted to fit and fill the screen fully. Projector(s) shall be overscanned slightly into the screen border (if applicable). Projected image shall be square and level. Projector(s) shall be installed so that digital keystone correction is not utilized.
    a. In situations where keystone correction may be required, notify Owner/Consultant and coordinate solution prior to installation.
    b. Projector(s) shall be installed in such a way that the axis of the lens is perpendicular to the plane of the projection surface.
    c. In case of mismatch between projector aspect ratio and screen aspect ratio, projector shall be configured to output at screen aspect ratio.
    d. In case of mismatch between display device and signal aspect ratio, system shall be configured such that the source image best fits and fills the display device.
11. Unless noted otherwise, all projection screens shall be mounted with the lower edge of the viewable image area at 48" A.F.F.
    a. Provide additional black drop as required.
12. Video display system(s) minimum test protocols:
    a. Test each video display system with test signal generating equipment capable of outputting the following resolutions. (Ultra HD and 4K resolutions required only when testing 4K systems)
        1) 4:3 - 640x480, 800x600, 1024x768
        2) 16:9 - 1280x720 (720p), 1366x768, 1600x900, 1920x1080 (1080p), 3840x2160 (Ultra HD), 4096x2160 (DCI 4K).
        3) 16:10 - 1280x800, 1440x900, 1680x1050, 1920x1200
    b. Test signal generator must be capable of outputting the correct signal protocol using the applicable connectivity (RCA/BNC, S-Video, VGA, DVI, HDMI, Displayport, Etc.).
    c. The test signal generator must be capable of outputting a standard set of color bars, grid pattern, grayscale, checkerboard and multi-burst.

3.6 AUDIO VISUAL SYSTEMS TRAINING

A. Contractor shall provide a proposed training schedule to the Owner/Consultant prior to substantial completion.

B. Contractor shall provide a proposed training syllabus for both administrative users and end-users prior to substantial completion.

C. Training shall include all aspects of the Audio/Visual System as specified and installed.

D. Contractor shall include provisions within the total cost proposal for a minimum of one (1) System Administrator training sessions. It is anticipated these trainings will cover advanced functions of the system, trouble-shooting techniques and other subject matter pertinent to the on-going support of the video conference system at the installed facility. System administration training sessions should be planned for approximately 5 persons. Each training session shall be planned for at least 2 hours per session.

E. Contractor shall include provisions within the total cost proposal for a minimum of two (2) End-User training sessions. It is anticipated this training will cover basic function and operation of the system by faculty. This would include event display management, source control and general systems operation for all installed system. User training sessions should be planned for approximately 10 persons each session. Each training session shall be planned for at least 2 hours per session.

END OF SECTION 27 40 01



(SCHEMATIC RENDERING FOR VISUALIZATION PURPOSES ONLY - NOT FOR CONSTRUCTION)

HARMONY PUBLIC SCHOOLS

HARMONY SCIENCE ACADEMY - PHASE II BRIDGELAND NEW MIDDLE/HIGH SCHOOL

12800 CREEKLAND VILLAGE DRIVE
CYPRESS, TX 77433

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A-111A	LEVEL 1 RCP AREA 'A'					
A-111B	LEVEL 1 RCP AREA 'B'					
A-111C	LEVEL 1 RCP AREA 'C'					
A-112	LEVEL 2 RCP					
A-112A	LEVEL 2 RCP AREA 'A'					
A-130	ROOF PLAN	•				
A-201	EXTERIOR ELEVATIONS					
A-202	EXTERIOR ELEVATIONS					
A-203	EXTERIOR MATERIAL PERCENTAGES					
A-301	BUILDING SECTIONS					
A-302	BUILDING SECTIONS					
A-311	WALL SECTIONS					
A-312	WALL SECTIONS					
A-313	WALL SECTIONS					
A-314	WALL SECTIONS					
A-315	WALL SECTIONS					
A-321	SECTION DETAILS					
A-322	SECTION DETAILS					
A-401	ENLARGED PLANS - BATHROOMS					
A-402	ENLARGED PLANS					
A-403	STAGE PLAN AND SECTIONS					
A-411	VERTICAL CIRCULATION					
A-412	VERTICAL CIRCULATION DETAILS					
A-421	INTERIOR ELEVATIONS					
A-422	CORRIDOR A125 INTERIOR ELEVATIONS					
A-423	CORRIDOR B101 INTERIOR ELEVATIONS					
A-424	CORRIDOR C101 INTERIOR ELEVATIONS					
A-425	CORRIDOR A201 INTERIOR ELEVATIONS					
A-426	GYM INTERIOR ELEVATIONS					
A-427	GYM INTERIOR ELEVATIONS 2					
A-428	MILLWORK DETAILS					
A-501	DETAILS					
A-502	FIREWALL DETAILS					
A-511	CEILING DETAILS					
A-521	ROOF DETAILS					
A-601	DOOR SCHEDULE & DETAILS					
A-602	DOOR DETAILS					
A-603	WINDOW ELEVATIONS & NOTES					
A-604	WINDOW DETAILS					
A-801	LEVEL 1 FURNITURE PLAN OVERALL					
A-802	LEVEL 2 FURNITURE PLAN OVERALL					
A-810	FINISH NOTES & SCHEDULES					
A-811A	LEVEL 1 FINISH PLAN - AREA 'A'					
A-811B	LEVEL 1 FINISH PLAN AREA 'B'					
A-811C	LEVEL 1 FINISH PLAN AREA 'C'					
A-812	LEVEL 2 FINISH PLAN AREA 'A'					
A-820	SIGNAGE DETAILS					
A-821	SIGNAGE DETAILS					
A-901	3D VIEWS					
X-101	ENLARGED PLAN - BIOMEDICAL LAB					
X-102	ENLARGED PLAN - BIOLOGY LAB					
X-103	ENLARGED PLAN - CHEMISTRY LAB					
X-104	ENLARGED PLAN - PHYSICS LAB					
X-105	ENLARGED PLAN - MS SCIENCE LAB					
X-106	ENLARGED PLAN - TECHNOLOGY 1					
X-107	ENLARGED PLAN - TECHNOLOGY 2					
X-108	ENLARGED PLAN - MAKER'S LAB					
X-109	ENLARGED PLAN - ENGINEERING LAB					
6. FOOD SERVICE						
FS-1.01	FOODSERVICE EQUIP PLAN					
FS-1.02	FOODSERVICE EQUIP PLAN					
FS-1.03	FOODSERVICE EQUIP PLUMBING CONN PLAN					
FS-1.04	FOODSERVICE EQUIP ELECTRICAL CONN PLAN					
FS-1.05	FOODSERVICE EQUIP ELEVATIONS					
FS-2.01	FOODSERVICE EQUIP COLDSTORAGE ASSEMBLY					
FS-3.01	FOODSERVICE EQUIP REFRIGERATION EQUIPMENT					
FS-4.01	FOODSERVICE EQUIIPMENT EXHAUST HOOD					
FS-4.02	FOODSERVICE EQUIIPMENT EXHAUST HOOD					
FS-4.03	FOODSERVICE EQUIIPMENT EXHAUST HOOD					
FS-4.04	FOODSERVICE EQUIIPMENT EXHAUST HOOD					
FS-4.05	FOODSERVICE EQUIIPMENT EXHAUST HOOD					
FS-4.06	FOODSERVICE EQUIIPMENT EXHAUST HOOD					
7. PLUMBING						
MEP-001	MEP PARTIAL SITE PLAN					
P-001	PLUMBING SCHEDULES & LEGEND					
P-002	PLUMBING FIXTURE SCHEDULES					
P-101A	PLUMBING 1st FLOOR PLAN -AREA A					
P-101B	PLUMBING 1st FLOOR PLAN -AREA B					
P-101C	PLUMBING 1st FLOOR PARTIAL PLANS - AREA C					
P-201A	PLUMBING 2nd FLOOR PLAN -AREA A					
P-201R	PLUMBING ROOF PLAN					
P-301	PLUMBING ENLARGED PLANS					
P-401	PLUMBING WASTE & VENT RISER					
P-402	PLUMBING WASTE & VENT RISER					
P-403	PLUMBING WATER RISER					
P-404	PLUMBING WATER & GAS RISER					
P-405	PLUMBING STORM RISER					
P-501	PLUMBING DETAILS					
P-502	PLUMBING DETAILS					
P-503	PLUMBING DETAILS					
8. MECHANICAL						
M-001	MECHANICAL GENERAL NOTES AND LEGEND					
M-101A	MECHANICAL 1ST FLOOR PLAN - AREA A					
M-101B	MECHANICAL 1ST FLOOR PLAN - AREA B					
M-101C	MECHANICAL 1ST FLOOR PARTIAL PLANS - AREA C					
M-201A	MECHANICAL 2ND FLOOR PLAN - AREA A					
M-201R	MECHANICAL ROOF PLAN					
M-301	MECHANICAL SCHEDULES					
M-302	MECHANICAL SCHEDULES					
M-303	MECHANICAL SCHEDULES					
M-401	MECHANICAL DETAILS					
M-402	MECHANICAL DETAILS					
M-403	MECHANICAL DETAILS					
9. ELECTRICAL						
E-001	ELECTRICAL LIGHT FIXTURE SCHEDULE & LEGEND					
E-002	ELECTRICAL LIGHTING CONTROLS AND DETAILS					
E-003	ELECTRICAL SPORTS FIELD LIGHTING PHOTOMETRICS					
E-004	ELECTRICAL INTERIOR LIGHTING PHOTOMETRICS					
E-005	ELECTRICAL INTERIOR LIGHTING PHOTOMETRICS					
E-006	ELECTRICAL INTERIOR LIGHTING PHOTOMETRICS					
EL-101A	ELECTRICAL 1ST FLOOR LIGHTING PLAN - AREA A					
EL-101B	ELECTRICAL 1ST FLOOR LIGHTING PLAN - AREA B					
EL-101C	ELECTRICAL 1ST FLOOR LIGHTING PLAN - AREA C					
EL-201A	ELECTRICAL 2ND FLOOR LIGHTING PLAN - AREA A					
EP-101A	ELECTRICAL 1st FLOOR POWER PLAN - AREA A					
EP-101B	ELECTRICAL 1st FLOOR POWER PLAN - AREA B					
EP-101C	ELECTRICAL 1st FLOOR PARTIAL PLANS - AREA C					
EP-201A	ELECTRICAL 2nd FLOOR POWER PLAN - AREA A					
EP-201R	ELECTRICAL ROOF POWER PLAN					
E-301	ELECTRICAL ENLARGED POWER PLANS					
E-401	ELECTRICAL ONE-LINE DIAGRAM					
E-402	ELECTRICAL SERVICE DETAILS					
E-403	ELECTRICAL PANEL SCHEDULES					
E-404	ELECTRICAL PANEL SCHEDULES					
E-501	ELECTRICAL DETAILS					
E-502	ELECTRICAL DETAILS					
10. TECHNOLOGY						
T000	TECHNOLOGY COVER					
T001	TECHNOLOGY SYMBOLS					
T002	TECHNOLOGY SITE					
TA-101A	AUDIO VISUAL PLAN LEVEL 1 - AREA A					
TA-101B	AUDIO VISUAL PLAN LEVEL 1 - AREA B	•				
TA-101C	AUDIO VISUAL PLAN LEVEL 1 - AREA C					
TA-201A	AUDIO VISUAL PLAN LEVEL 2 - AREA A					
TA-300	AUDIO VISUAL DETAILS	•				
TC-101A	DISTRIBUTED COMMUNICATIONS LEVEL 1 RCP - AREA A					
TC-101B	DISTRIBUTED COMMUNICATIONS LEVEL 1 RCP - AREA B					
TC-101C	DISTRIBUTED COMMUNICATIONS LEVEL 1 RCP - AREA C					
TC-102A	DISTRIBUTED COMMUNICATIONS LEVEL 2 RCP - AREA A					
TS-101A	SECURITY LEVEL 1 RCP - AREA A	•				
TS-101B	SECURITY LEVEL 1 RCP - AREA B					
TS-101C	SECURITY LEVEL 1 RCP - AREA C	•				
TS-201A	SECURITY LEVEL 2 RCP - AREA A					
TS-500	SECURITY DETAILS					
TT-100	TELECOMMUNICATIONS LEVEL 1 PATHWAY PLAN					
TT-101A	TELECOMMUNICATIONS LEVEL 1 AREA A					
TT-101B	TELECOMMUNICATIONS LEVEL 1 AREA B	•				
TT-101C	TELECOMMUNICATIONS LEVEL 1 AREA C					
TT-102	TELECOMMUNICATIONS LEVEL 2 PATHWAY PLAN					
TT-102A	TELECOMMUNICATIONS LEVEL 2 AREA A					
TT-300	TELECOMMUNICATIONS DETAILS					
TT-301	TELECOMMUNICATIONS DETAILS	•				

ABBREVIATIONS

ACM	ALUMINUM COMPOSITE PANEL	LAV	LAVATORY
ACT	ACOUSTICAL CEILING TILE	LED	LIGHT EMITTING DIODE
ADJ	ADJUSTABLE	LF	LINEAR FEET
ADDL	ADDITIONAL	LVT	LUXURY VINYL TILE
AFF	ABOVE FINISHED FLOOR		
ALUM	ALUMINUM	MAX	MAXIMUM
ALT	ALTERNATE	MBM	METAL BUILDING MANUFACTURER
ANOD	ANODIZED	MECH	MECHANICAL
APPROX	APPROXIMATE	MEZZ	MEZZANINE
ARCH	ARCHITECT(URAL)	MFR	MANUFACTURER
AUTO	AUTOMATIC	MIN	MINIMUM
AV	AUDIO VISUAL	MISC	MISCELLANEOUS
		MO	MASONRY OPENING
BD	BOARD	MTD	MOUNTED
BL	BUILDING LINE	MTG	MOUNTING
BO	BOTTOM OF	MTL	METAL
BOS	BOTTOM OF STEEL		
BTWN	BETWEEN	N/A	NOT APPLICABLE
		NIC	NOT IN CONTRACT
CAB	CABINET	NO	NUMBER
CI	CONTINUOUS INSULATION	NTS	NOT TO SCALE
CJ	CONTROL JOINT		
CL	CENTERLINE	OC	ON CENTER
CLG	CEILING	OD	OUTSIDE DIAMETER / OVERFLOW DRAIN
CLR	CLEAR(ANCE)	OH	OPPOSITE HAND
CMU	CONCRETE MASONRY UNIT(S)	OPP	OPPOSITE
C.O.	CASED OPENING		
COL	COLUMN	PLAM	PLASTIC LAMINATE
CONC	CONCRETE	POLYISO	POLYISOCYANURATE
CONT	CONTINUE / CONTINUOUS	PR	PAIR
CORR	CORRIDOR	PREFAB	PREFABRICATED
CPT	CARPET	PREFIN	PREFINISHED
CT	CERAMIC TILE	PSI	POUNDS PER SQUARE INCH
CTR	CENTER	PT	PRESSURE TREATED / POINT
CW	CURTAIN WALL	PTD	PAINTED
		PVC	POLYVINYL CHLORIDE (PLASTIC)
DEPT	DEPARTMENT		
DIA	DIAMETER		
DIAG	DIAGONAL	QTY	QUANTITY
DIM	DIMENSION	R	RADIUS / RISER / RESISTANCE VALUE
DN	DOWN		
DS	DOWNSPOUT	RCP	REFLECTED CEILING PLAN
		RD	ROOF DRAIN
EA	EACH	RE	REFER(ANCE)
EDF	ELECTRIC DRINKING FOUNTAIN	REF	REFRIGERATOR
EIFS	EXTERIOR INSULATION & FINISH SYSTEM	REINF	REINFORCED
		REQD	REQUIRED
EJ	EXPANSION JOINT	RESIL	RESILIENT
ELEC	ELECTRICAL	RO	ROUGH OPENING
ELEV	ELEVATOR / ELEVATION	ROW	RIGHT OF WAY
EOS	EDGE OF SLAB		
EQ	EQUAL	SC	SOLID CORE
EQUIP	EQUIPMENT	SCHED	SCHEDULED
EWC	ELECTRIC WATER COOLER	SF	SQUARE FEET / STOREFRONT
EXIST	EXISTING	SHT	SHEET
EXT	EXTERIOR	SIM	SIMILAR
		SPEC	SPECIFICATION
FD	FLOOR DRAIN	SQ	SQUARE
FE	FIRE EXTINGUISHER	SS	STAINLESS STEEL / SOLID SURFACE
FEC	FIRE EXTINGUISHER CABINET	STD	STANDARD
FIN FLR	FINISHED FLOOR	STL	STEEL
FOB	FACE OF BRICK	STOR	STORAGE
FR	FIRE RESISTANCE	STRUCT	STRUCTURAL
FRT	FIRE RETARDANT TREATED	SUSP	SUSPENDED
FRP	FIBER REINFORCED PLASTIC		
FT	FOOT / FEET	TEMP	TEMPORARY
FTG	FOOTING	TFF	TOP OF FINISHED FLOOR
FURN	FURNITURE / FURNISH	T&G	TONGUE & GROOVE
		THK	THICK(NESS)
GA	GAUGE	TO	TOP OF
GALV	GALVANIZED	TOB	TOP OF BEAM
GC	GENERAL CONTRACTOR	TOC	TOP OF CONCRETE / TOP OF CURB
GFRC	GLASS FIBER REINFORCED CONCRETE	TPO	THERMOPLASTIC POLYOLEFIN
GFRG	GLASS FIBER REINFORCED GYPSUM	TV	TELEVISION
GWB	GYPSUM WALL BOARD	TYP	TYPICAL
HC	HANDICAP	UC	UNDER COUNTER
HDWD	HARDWOOD	UL	UNDERWRITER'S LABORATORY
HM	HOLLOW METAL	UNO	UNLESS NOTED OTHERWISE
HORIZ	HORIZONTAL		
HT	HEIGHT	VCT	VINYL COMPOSITION TILE
HVAC	HEATING, VENTILATION, & AIR CONDITIONING	VERT	VERTICAL
		VEST	VESTIBULE
		VIF	VERIFY IN FIELD
IBC	INTERNATIONAL BUILDING CODE	W/	WITH
ID	INSIDE DIAMETER	W/O	WITHOUT
INFO	INFORMATION	WC	WATER CLOSET
INSUL	INSULATION	WD	WOOD
INT	INTERIOR	WP	WORKING POINT
		WRB	WATER RESISTIVE BARRIER
JAN	JANITOR / CUSTODIAL	WT	WEIGHT
LAM	LAMINATE	YD	YARD

THE ABOVE LISTING OF ABBREVIATIONS ARE INCLUDED FOR THE CONVENIENCE OF THE CONTRACTOR AND IS NOT INTENDED AS A COMPLETE LISTING OF ALL ABBREVIATIONS USED IN THE CONTRACT DOCUMENTS. OTHER ABBREVIATIONS MAY BE USED AND SHALL HAVE THE SAME MEANING AS IN COMMON OR NORMAL TECHNICAL LANGUAGE.

GENERAL NOTES

PURPOSE OF DOCUMENTS:
- THESE DRAWINGS ARE THE WRITTEN AND GRAPHIC DOCUMENTS PREPARED FOR COMMUNICATING THE PROJECT DESIGN AND ADMINISTERING THE CONSTRUCTION CONTRACT. THEY CONSIST OF THE DRAWINGS, SPECIFICATIONS, CONTRACTING REQUIREMENTS, PROCUREMENT REQUIREMENTS, MODIFICATIONS, AND ADDENDA.
- THESE DRAWINGS ARE DIAGRAMMATIC, INTENDING TO OUTLINE GENERAL DESIGN REQUIREMENTS ONLY, AND ARE NOT INTENDED TO BE COMPLETE IN ALL DETAILS. SPECIFIC IMPLEMENTATION OF THE DRAWINGS SHALL BE THE RESPONSIBILITY OF EACH SUBCONTRACTOR ENGAGED UPON THE WORK. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR OVERALL COORDINATION.
- THESE DRAWINGS AND SPECIFICATIONS ARE AN OUTLINE OF THE MINIMUM MATERIAL REQUIREMENTS AND THEIR APPLICATION. MANUFACTURERS SPECIFICATIONS AND REQUIREMENTS, WHEN IN EXCESS OF MINIMUM SPECIFICATIONS, SHALL CONTROL.
- THESE DRAWINGS ARE THE PROPERTY OF LDDBLUELINE AND SHALL NOT BE REPRODUCED OR COPIED IN WHOLE OR IN PART WITHOUT WRITTEN CONSENT. THEY ARE NOT A COMPOSITE SET AND MAY NOT BE SEPARATED FOR DISTRIBUTION.
- THESE DRAWINGS ARE TO BE USED FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREIN AND SHALL NOT BE USED ON ANY OTHER PROJECT.

PROJECT REQUIREMENTS:
- ALL CONSTRUCTION SHALL BE PERFORMED IN STRICT COMPLIANCE WITH GOVERNING FEDERAL, STATE, AND LOCAL BUILDING CODE REQUIREMENTS, INCLUDING THE 2021 INTERNATIONAL BUILDING CODE W/ HARRIS COUNTY AMENDMENTS.
- ALL CONSTRUCTION SHALL BE EXECUTED IN ACCORDANCE WITH ACCEPTED INDUSTRY STANDARDS, AND SHALL CONFORM TO SPECIFIC REGULATIONS AS MANDATED BY THE OWNER, THE ARCHITECT, AND THE AUTHORITIES HAVING JURISDICTION.

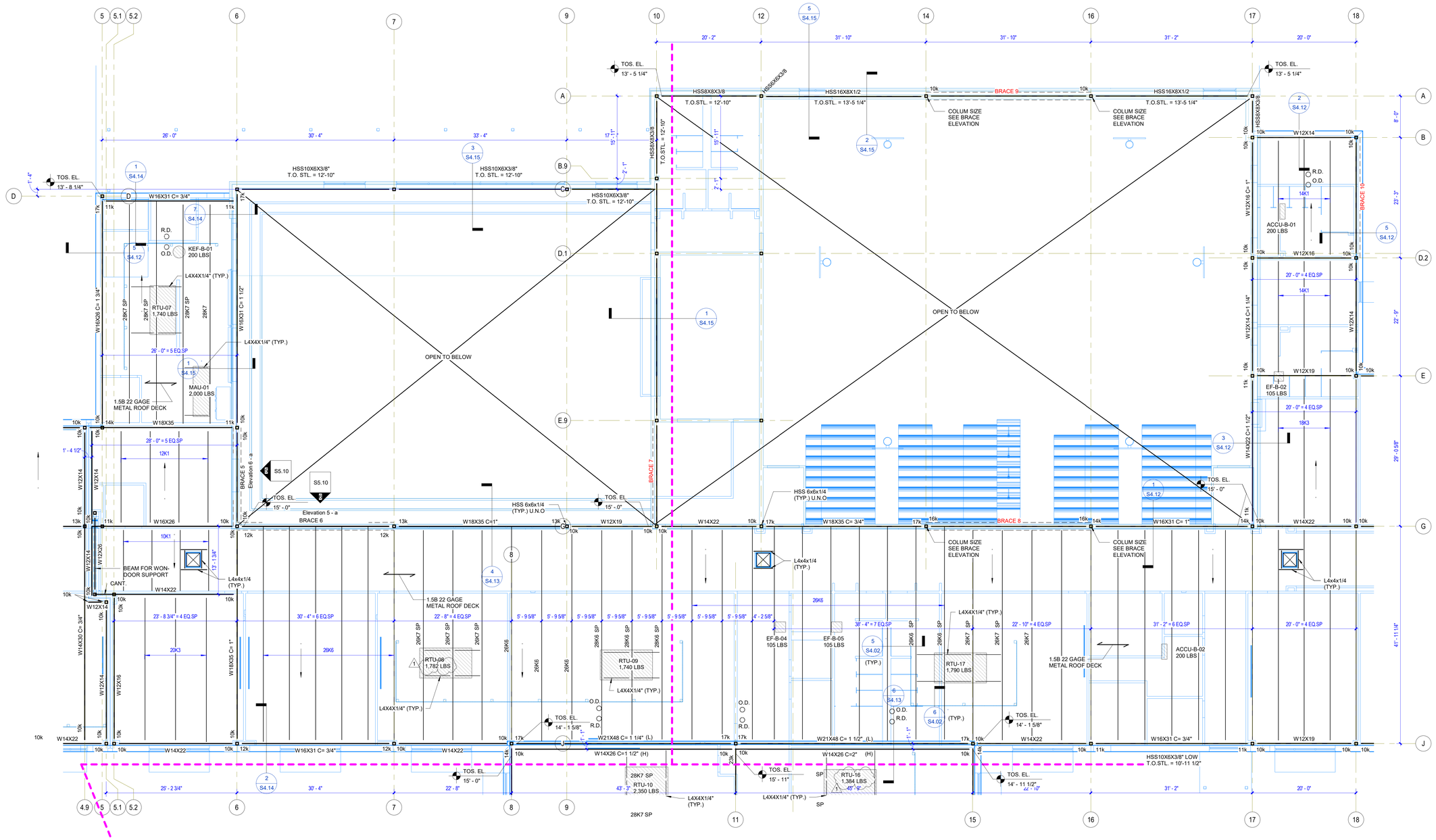
VERIFICATION:
- BEFORE COMMENCING WORK, CONTRACTOR SHALL PERFORM A SURVEY OF EXISTING CONDITIONS TO VERIFY THEIR ACCURACY AND COMPATIBILITY WITH DIMENSIONS AND CONDITIONS SHOWN ON THE CONSTRUCTION DRAWINGS. CONTRACTOR SHALL NOTIFY ARCHITECT IMMEDIATELY, IN WRITING, OF ALL DISCREPANCIES FOUND WHICH MAY AFFECT THE WORK, AND SHALL NOT PROCEED UNTIL ALL DISCREPANCIES ARE RESOLVED TO THE SATISFACTION OF ALL PARTIES. PROCEEDING WITH THE WORK SHALL CONSTITUTE ACCEPTANCE BY THE CONTRACTOR THAT THE CONDITIONS ARE CORRECT, AT WHICH POINT THEY SHALL ASSUME FULL RESPONSIBILITY, INCLUDING THE COSTS OF CORRECTIVE WORK, FOR ANY ERRORS RESULTING FROM THEIR FAILURE TO EXERCISE SUCH VERIFICATION.
- IF WRITTEN (SPECIFICATIONS) AND GRAPHIC DOCUMENTS (DRAWINGS) PROVIDE CONFLICTING INFORMATION, CONTRACTOR SHALL ISSUE A 'REQUEST FOR INFORMATION' (RFI) TO THE ARCHITECT TO CLARIFY THE CONFLICT.
- CONTRACTOR SHALL VERIFY ALL SPECIFICATIONS WITH THE ARCHITECT PRIOR TO COMMENCING THE WORK. ANY REQUESTS FOR SUBSTITUTIONS OF ANY SPECIFIED ITEM ARE TO BE SUBMITTED TO THE ARCHITECT IN WRITING AND WILL BE CONSIDERED ONLY IF THE ALTERNATE PROPOSED IS PROVEN TO BE ADVANTAGEOUS TO THE OWNER WITH RESPECT TO DELIVERY DATE, QUALITY, OR COST.

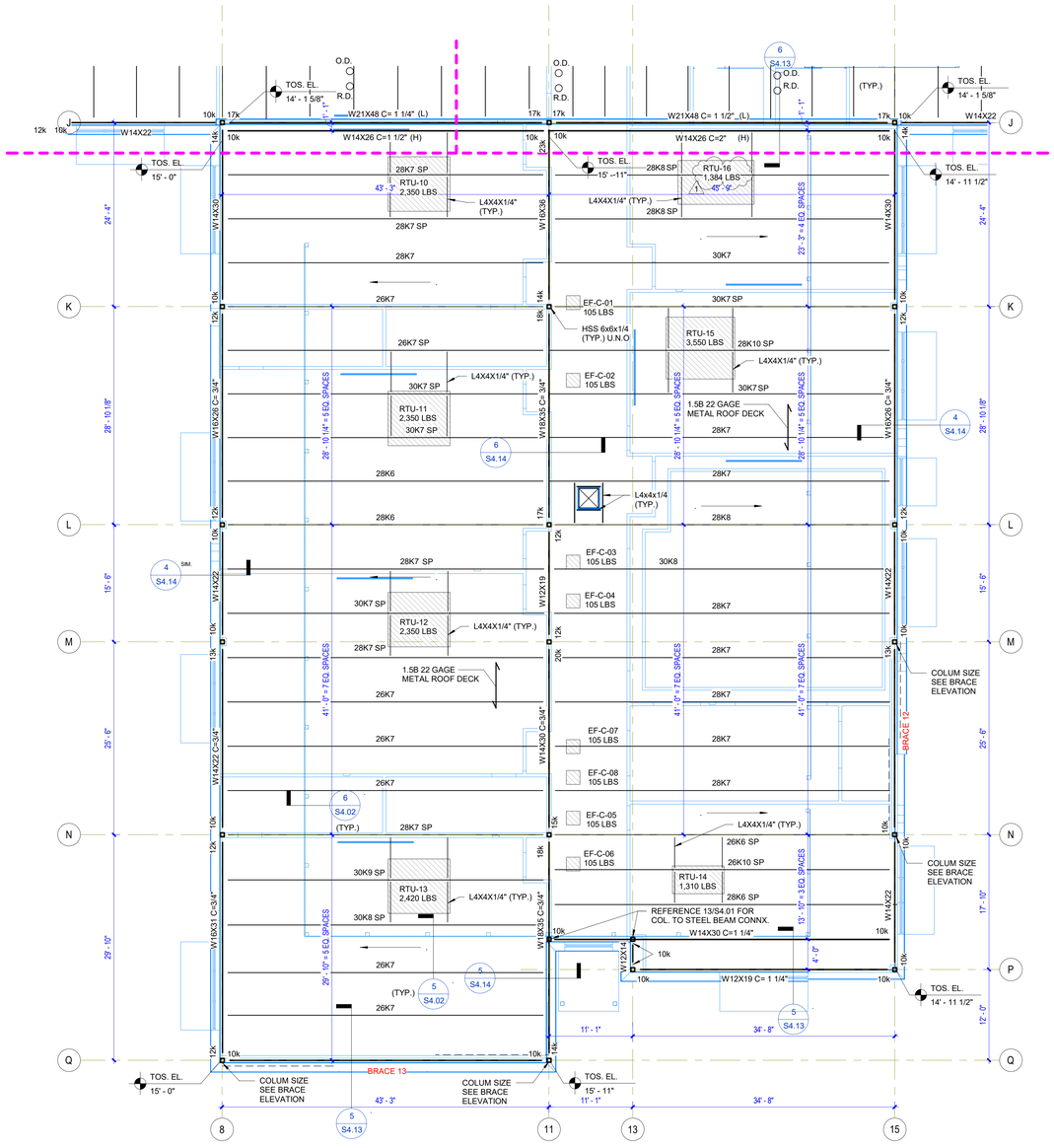
DELEGATED DESIGN:
- AUTOMATIC FIRE SPRINKLER SYSTEM DRAWINGS AND FIRE ALARM DETECTION SYSTEM DRAWINGS ARE TO BE DEFERRED SUBMITTALS, SUBMITTED SEPARATELY BY THE CONTRACTOR TO THE FIRE MARSHAL FOR REVIEW & APPROVAL.

MISC:
- THE ARCHITECT HAS NOT CONDUCTED ANY INVESTIGATION AS TO THE PRESENCE OF ASBESTOS OR OTHER HAZARDOUS SUBSTANCES ON THE PROJECT SITE AND ASSUMES NO RESPONSIBILITY WITH RESPECT TO SAME.
- MECHANICAL REPRODUCTION ERRORS MAY CAUSE DRAWING SCALES TO BECOME INACCURATE.
- DO NOT SCALE DRAWINGS.

CONTRACTOR RESPONSIBILITIES:
- BY ENTERING INTO CONTRACT, EACH CONTRACTOR AFFIRMS THAT THEY HAVE THE SKILL AND EXPERTISE NECESSARY TO EXECUTE THE WORK REQUIRED, AND THAT THEY ARE LICENSED BY THE STATE DEPARTMENT OF COMMERCE IN ACCORDANCE WITH THE LATEST REQUIREMENTS IN THE STATE CODE, AS AMENDED.
- GENERAL CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION, INCLUDING TEMPORARY STRUCTURES AND FACILITIES.
- GENERAL CONTRACTOR SHALL REVIEW ALL DRAWINGS AND DISTRIBUTE THE ENTIRE SET TO EACH SUBCONTRACTOR.

CONTRACTOR RESPONSIBILITIES CONT'D:
- GENERAL CONTRACTOR SHALL SUBMIT A SCHEDULE FOR CONSTRUCTION TO THE OWNER AND ARCHITECT PRIOR TO PROCEEDING WITH ANY WORK. REQUIRED DATES FOR SUBMITTALS SHALL BE INCLUDED WITH THE CONSTRUCTION SCHEDULE. ARCHITECT MAY REQUIRE UP TO 10 BUSINESS DAYS TO PROCESS SUBMITTALS.
- GENERAL CONTRACTOR SHALL ENSURE THE PROCUREMENT OF REQUIRED AND NECESSARY PERMITS AND APPROVALS PRIOR TO THE COMMENCEMENT OF ANY WORK, AS WELL AS A CERTIFICATE OF OCCUPANCY UPON COMPLETION OF PROJECT. GENERAL CONTRACTOR IS RESPONSIBLE FOR ANY FEES ASSOCIATED WITH PROCURING SUCH DOCUMENTS AND SHALL FURNISH COPIES OF PERMITS, INSPECTIONS, AND CERTIFICATES TO THE OWNER.
- GENERAL CONTRACTOR SHALL PROVIDE AND INSTALL ALL COMPONENTS OF THE CONSTRUCTION DOCUMENTS, UNLESS NOTED OTHERWISE. GENERAL CONTRACTOR SHALL INSTALL ANY OWNER-FURNISHED ITEMS, INCLUDING THE NECESSARY BLOCKING, UNLESS NOTED OTHERWISE.
- GENERAL CONTRACTOR SHALL INCLUDE ANY ITEM IN THESE DOCUMENTS IN THE PROJECT WITHOUT ADDITIONAL COST UNLESS A SPECIFIC CLARIFICATION HAS BEEN MADE IN THE OWNER-CONTRACTOR AGREEMENT. IF AN ITEM IS ONLY NOTED IN THE WRITTEN DOCUMENTS AND NOT THE GRAPHIC DOCUMENTS, OR VICE VERSA, THE CONSTRUCTION DOCUMENTS AS A WHOLE STILL INCLUDE THE PROVISION FOR THE ITEM AND THE GENERAL CONTRACTOR SHOULD INCLUDE THE ITEM WITHOUT ADDITIONAL COST.
- GENERAL CONTRACTOR SHALL CONSTRUCT A MOCK-UP PANEL, SEPARATE FROM THE BUILDING, TO SHOW THE FULL SCOPE OF THE EXTERIOR FINISH MATERIALS AND THE WATER PROOFING SYSTEMS BEHIND THE FINISHES AND AT OPENINGS. THE MOCK-UP PANEL SHALL BE COMPLETED FOR REVIEW & APPROVAL PRIOR TO COMMENCING WORK.
- GENERAL CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR JOBSITE SAFETY AND SECURITY, MEETING OSHA REGULATIONS, AND CONSULTING WITH LOCAL FIRE AUTHORITIES TO ASCERTAIN REQUIREMENTS FOR FIRE SUPPRESSION AND SAFETY DURING CONSTRUCTION.
- GENERAL CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR PROTECTING BUILDING MATERIALS AND INSTALLED CONSTRUCTION FROM INCLEMENT WEATHER, THEFT, AND OTHER HAZARDS. GENERAL CONTRACTOR SHALL FOLLOW ALL MANUFACTURER RECOMMENDATIONS FOR STORAGE OF MATERIALS. PARTIALLY COMPLETED WALLS SHALL BE COVERED TO PROTECT FROM WATER INTRUSION. DAMAGE RESULTING FROM WATER INTRUSTION DURING CONSTRUCTION, INCLUDING BUT NOT LIMITED TO MOLD, SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- GENERAL CONTRACTOR SHALL COORDINATE DEMOLITION OF EXISTING STRUCTURES, EMPLOYING ENGINEERING EXPERTISE AND SHORING AS NEEDED.
- GENERAL CONTRACTOR SHALL COORDINATE ALL WORK TO MINIMIZE DISRUPTION OF ANY EXISTING TENANTS OR BUILDING OPERATIONS. GENERAL CONTRACTOR SHALL TAKE ADEQUATE PRECAUTIONS TO PROTECT BUILDING OCCUPANTS, MATERIALS, AND EXISTING CONSTRUCTION FROM DAMAGE DUE TO THEIR OPERATIONS THROUGHOUT ALL PHASES OF CONSTRUCTION. CONTRACTOR SHALL REPLACE OR REPAIR, AT THEIR EXPENSE, ANY DAMAGED WORK TO THE SATISFACTION OF THE OWNER.
- CONTRACTOR SHALL REMOVE ALL TRASH & DEBRIS FROM THE JOBSITE ON A DAILY BASIS AND LEAVE THE WORK IN AN ORDERLY AND BROOM-CLEAN CONDITION.
- CONTRACTOR TO PROVIDE A LOGISTISTICS PLAN AND INCLUDE, TRAFFIC CONTROL AND SAFETY SIGNAGE LOCATIONS AND DELIVERY ROUTES FOR MATERIAL DELIVERIES AND HAUL OFF DEBRIS REMOVA


TOS. EL. 13' - 8 1/4"
TOS. EL. 13' - 5 1/4"
HSS10X6X3/8" T.O. STL. = 12'-10"
HSS8X8X3/8 T.O.STL. = 12'-10"
HSS16X8X1/2 T.O.STL. = 13'-5 1/4"
HSS8X6X3/8
BRACE 9
BRACE 10
BRACE 8
BRACE 7
BRACE 5
BRACE 6
COLUM SIZE SEE BRACE ELEVATION
OPEN TO BELOW
W16X31 C= 3/4"
W16X26
W18X35
W18X35 C=1"
W18X35 C= 3/4"
W16X31 C= 1"
W12X19
W14X22
W16X31 C= 3/4"
W21X48 C= 1 1/2" (L)
W14X26 C=1 1/2" (H)
W14X26 C=2" (H)
HSS10X6X3/8" LOW T.O.STL. = 10'-11 1/2"
R.D.
O.D.
KEF-B-01 200 LBS
RTU-07 1,740 LBS
RTU-08 1,782 LBS
RTU-09 1,740 LBS
RTU-10 2,350 LBS
RTU-16 1,384 LBS
RTU-17 1,790 LBS
MAU-01 2,000 LBS
ACCU-B-01 200 LBS
EF-B-01 105 LBS
EF-B-02 105 LBS
EF-B-04 105 LBS
EF-B-05 105 LBS
1.5B 22 GAGE METAL ROOF DECK
L4X4X1/4" (TYP.)
L4x4x1/4 (TYP.)
HSS 6x6x1/4 (TYP.) U.N.O
BEAM FOR WON-DOOR SUPPORT
CANT.
20' - 2"
31' - 10"
31' - 2"
20' - 0"
26' - 0"
30' - 4"
33' - 4"
28' - 0" = 5 EQ.SP
26' - 0" = 5 EQ.SP
20' - 0" = 4 EQ.SP
23' - 8 3/4" = 4 EQ.SP
30' - 4" = 6 EQ.SP
22' - 8" = 4 EQ.SP
38' - 4" = 7 EQ.SP
22' - 10" = 4 EQ.SP
31' - 2" = 6 EQ.SP
29' - 2 3/4"
22' - 8"
43' - 3"
41' - 11 1/4"
29' - 0 5/8"
23' - 3"
22' - 9"
8' - 0"
1' - 4"
1' - 4 1/2"
2' - 1"
15' - 11"
17' - 1"
13' - 1 3/4"
W10X26 C= 1 3/4"
W10X30 C= 3/4"
W10X31 C= 1 1/2"
W18X35 C= 1"
W12X14 C= 1 1/4"
W14X22 C=1 1/2"
28K7 SP
28K6 SP
20K3
26K6
14K1
18K3
12K1
10K1
TOS. EL. 15' - 0"
TOS. EL. 14' - 1 5/8"
TOS. EL. 14' - 11 1/2"
TOS. EL. 15' - 11"
Elevation 5 - a
Elevation 6 - a
S5.10
S4.14
S4.15
S4.12
S4.13
S4.02
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S5.36
S5.37
S5.38
S5.39
S5.40
S5.41
S5.42
S5.43
S5.44
S5.45
S5.46
S5.47
S5.48
S5.49
S5.50


W14X22
W21X48 C= 1 1/4" (L)
W14X26 C=1 1/2" (H)
W14X26 C=2" (H)
TOS. EL. 14' - 1 5/8"
TOS. EL. 15' - 0"
TOS. EL. 15' -11"
TOS. EL. 14' - 11 1/2"
O.D. R.D.
(TYP.)
28K7 SP
RTU-10 2,350 LBS
RTU-16 1,384 LBS
L4X4X1/4" (TYP.)
28K8 SP
43' - 7"
45' - 9"
3 EQ. SPACES
23' - 3" = 4 EQ. SPACES
24' - 4"
30K7
26K7
30K7 SP
EF-C-01 105 LBS
HSS 6x6x1/4 (TYP.) U.N.O
RTU-15 3,550 LBS
28K10 SP
EF-C-02 105 LBS
RTU-11 2,350 LBS
1.5B 22 GAGE METAL ROOF DECK
28K6
28K8
L4x4x1/4 (TYP.)
EF-C-03 105 LBS
30K8
EF-C-04 105 LBS
RTU-12 2,350 LBS
28K7
26K7
EF-C-07 105 LBS
EF-C-08 105 LBS
EF-C-05 105 LBS
EF-C-06 105 LBS
26K6 SP
26K10 SP
RTU-14 1,310 LBS
28K6 SP
30K9 SP
RTU-13 2,420 LBS
30K8 SP
REFERENCE 13/S4.01 FOR COL. TO STEEL BEAM CONNX.
W14X30 C=1 1/4"
W12X19 C= 1 1/4"
COLUM SIZE SEE BRACE ELEVATION
BRACE 12
BRACE 13
28' - 10 1/8"
28' - 10 1/4" = 5 EQ. SPACES
41' - 0" = 7 EQ. SPACES
29' - 10"
29' - 10" = 6 EQ. SPACES
25' - 6"
15' - 6"
17' - 10"
12' - 0"
4' - 0"
11' - 1"
34' - 8"
43' - 3"
W16X26 C= 3/4"
W16X31 C=3/4"
W14X22 C=3/4"
W14X30 C=3/4"
W16X36
W16X35 C=3/4"
W12X19
W12X14
W14X30
W14X22
W18X35 C=3/4"
W18X50 C=3/4"
W16X28 C= 3/4"
W14X22
W12X14
W14X30
W14X22
W12X14
W12X19
W14X22
W14X30
W14X22
W12X14
W14X22
W14X30
W14X22
W12X14
W14X22
W14X30
W14X22
W12X14

TOTAL SITE AREA = 723,096 SF

PH 1: HARD SURFACE AREA (EXISTING):
DRIVE, CURB & PARKING = 140,490 SF
SIDEWALKS = 14,011 SF
BUILDING FOOTPRINT = 43,248 SF

TOTAL = 197,749 SF (27% OF TOTAL SITE AREA)

PH 2: HARD SURFACE AREA (NEW):
DRIVE, CURB & PARKING = 134,195 SF
SIDEWALKS = 20,014 SF
BUILDING FOOTPRINT = 64,407 SF

TOTAL = 218,616 SF (30.23% OF TOTAL SITE AREA)

PH 1+2: HARD SURFACE AREA:

TOTAL = 416,365 SF (57.5% OF TOTAL SITE AREA)

PARKING CALCULATIONS,
BASED ON CITY OF HOUSTON REQUIREMENT AND HARMONY ENROLLMENT

PH 1: (ELEMENTARY K-5TH GRADE)
TOTAL ENROLLMENT = 650
PARKING REQUIRED = 650 / 12 = 55 SPACES (REQUIRED)
PARKING PROVIDED = 76 SPACES (INCLUDING 4 REQUIRED HC)

PHASE 2 MIDDLE (6-8TH GRADE) & HIGH SCHOOL (9-12TH GRADE):
TOTAL ENROLLMENT MIDDLE SCHOOL = 425
PARKING REQUIRED = 425 / 7 = 61 SPACES (REQUIRED)

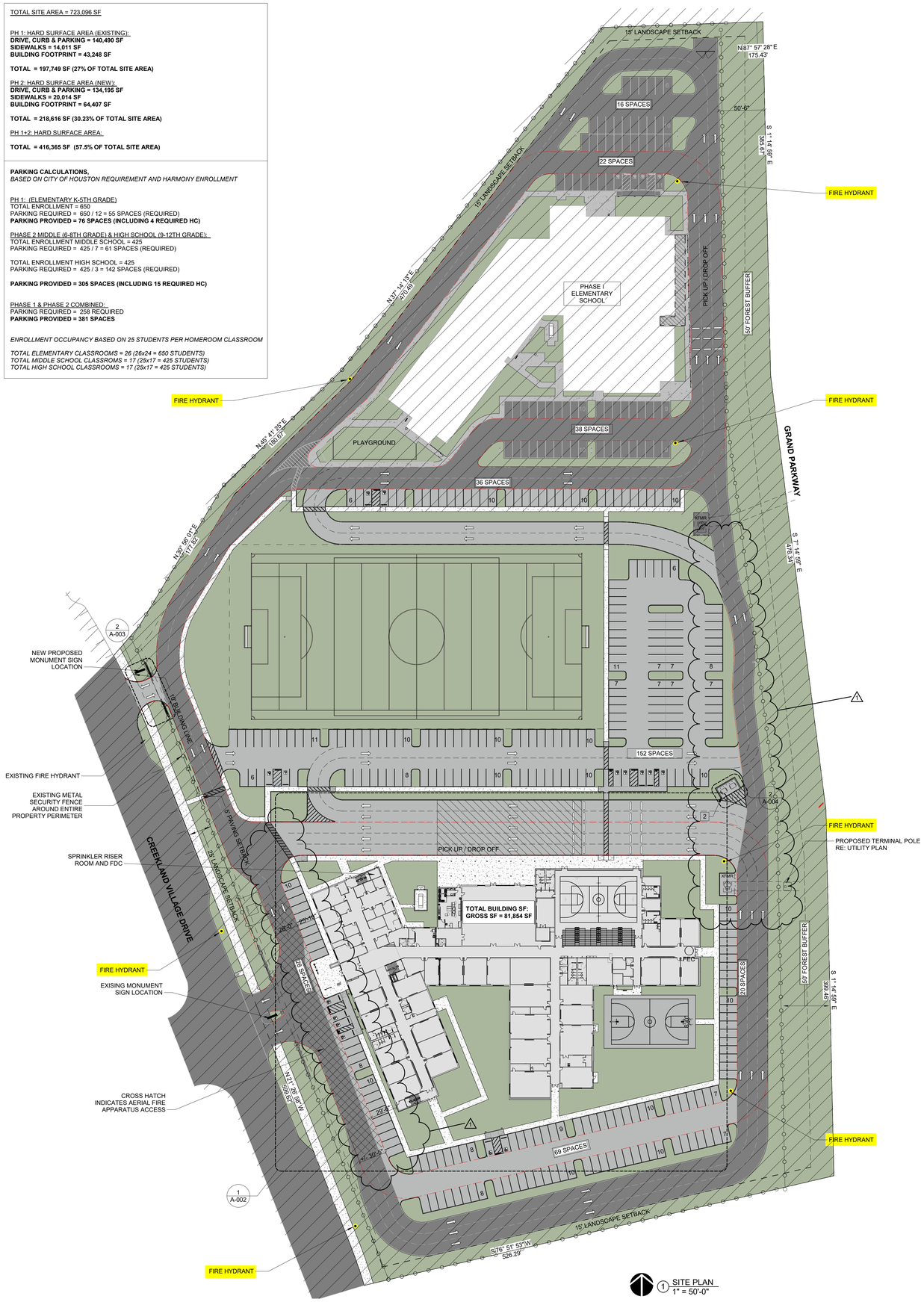
TOTAL ENROLLMENT HIGH SCHOOL = 425
PARKING REQUIRED = 425 / 3 = 142 SPACES (REQUIRED)

PARKING PROVIDED = 305 SPACES (INCLUDING 15 REQUIRED HC)

PHASE 1 & PHASE 2 COMBINED:
PARKING REQUIRED = 258 REQUIRED
PARKING PROVIDED = 381 SPACES

ENROLLMENT OCCUPANCY BASED ON 25 STUDENTS PER HOMEROOM CLASSROOM

TOTAL ELEMENTARY CLASSROOMS = 26 (26x24 = 650 STUDENTS)
TOTAL MIDDLE SCHOOL CLASSROMS = 17 (25x17 = 425 STUDENTS)
TOTAL HIGH SCHOOL CLASSROOMS = 17 (25x17 = 425 STUDENTS)



1 SITE PLAN
1" = 50'-0"

SITE KEY NOTES

1. METAL FENCE BY AMERISTAR OR FORTRESS W/ 3"X3" TUBULAR STEEL POSTS , 1 1/2" X 1 7/16" RIBBED CHANNEL RAIL, & 3/4" SQ PICKETS AT 6' H ABOVE GRADE; PAINTED BLACK PER BRIDGELAND DEVELOPMENT GUIDELINES
2. DUMPSTER ENCLOSURE. MASONRY WALL WITH FACEBRICK TO MATCH BUILDING. SWING GATES WITH GALVANIZED AND POWDER COATED LOUVER BY AMETCO SHADOW 100 OR APPROVED EQUAL. COLOR TO MATCH METAL SITE FURNISHINGS
3. GENERATOR ENCLOSURE: MASONRY WALL WITH FACEBRICK TO MATCH BUILDING. SWING GATES WITH GALVANIZED AND POWDER COATED LOUVER BY AMETCO SHADOW 100 OR APPROVED EQUAL. COLOR TO MATCH METAL SITE FURNISHINGS
4. FLAG POLES - TWO (2) - 25' HIGH (MAXIMUM)
5. 20'-6" LONG x 4' HIGH ALUMINUM GUARDRAIL, GROUND MOUNTED
6. 6" DIA. PVC IRRIGATION SLEEVES, RE: LANDSCAPE DRAWINGS
7. ACCESSIBLE CONCRETE CURB RAMP - MAX. SLOPE 1:12. RE: CIVIL C7.0
8. PAINTED ACCESSIBLE WALKWAY
9. "KNOXVAULT 4400" KNOX BOX - MOUNTED @ 48" A.F.F.
10. NOT USED
11. INSTALL ADDRESS NUMBERS - 12" HIGH WITH MINIMUM STROKE OF 1/2" IN CONTRASTING COLOR.
12. PAINTED ACCESSIBLE SYMBOL, BLUE. FIELD VIERIFY TO MATCH EXISTING
13. PRECAST CONCRETE TIRE STOPS W/ METAL DOWELS
14. NOT USED
15. HANDICAP PARKING SIGN RE: CIVIL
16. BIKE RACK
17. EXTERIOR DRINKING FOUNTAIN, RE: PLUMBING
18. NOT USED
19. DASHED LINE INDICATES CANOPY ABOVE
20. NEW SIDEWALK, RE: CIVIL
21. CONCRETE CURB, RE: CIVIL
22. NEW CONCRETE DRIVE, RE: CIVIL
23. CONCRETE BASKETBALL COURT WITH TWO OUTDOOR BASKETBALL GOALS, 2" LINE STRIPING AS INDICATED. COORDINATE FINAL COLOR WITH ARCHITECT. SEE DETAIL 9/A-005
24. NEW PROPOSED MONUMENT SIGN TO MATCH EXISTING COORDINATE WITH ARCHITECT. SEE DETAIL 10/A-005
25. 6'H MOTORIZED METAL ROLLING GATE - PAINTED BLACK. (TYP @ EACH DRIVEWAY) PROVIDE A FIRE DEPT.-APPROVED MANUAL OVERRIDE SYSTEM. RE: A-005
26. GATE OPERATOR - RE: ELEC. DWG'S
27. "KNOXVAULT 4400" KNOX BOX - MOUNTED @ 48" A.F.F.
28. TACTILE WARNING SURFACE

LEGEND

- EXISTING PHASE 1 (SHOWN FOR REFERENCE ONLY)
- EXISTING CONCRETE PAVING
- NEW CONCRETE PAVING
- NEW CONCRETE SIDEWALK
- GRASS AND PLANTING AREAS, RE: LANDSCAPE PLANS
- 6' H METAL FENCE - SEE NOTE #1
- FIRE LANE - SEE HARRIS COUNTY FIRE CODE AMENDMENT SECTION 503.3

SITE PLAN GENERAL NOTES

1. INFORMATION CONTAINED ON THE ARCHITECTURAL SITE DRAWING(S) HAS BEEN TAKEN FROM SURVEYS AND CIVIL DRAWINGS. THE INTENT OF THE ARCHITECTURAL SITE DRAWING(S) IS TO INDICATE THE OVERALL RELATIONSHIP OF THE BUILDINGS, PAVING & OTHER SITE FEATURES. NO GUARANTEE IS MADE TO THE ACCURACY OF THE ARCHITECTURAL SITE DRAWING(S)
2. DO NOT EXCEED 1:20 (5%) SLOPE ON PAVING & SIDEWALKS. DO NOT EXCEED 1:50 (2%) SLOPE ON LANDINGS AT DOORS & CROSS SLOPE ON SIDEWALKS & RAMPS. IF ELEVATIONS & DIMENSIONS INDICATED ON DRAWING(S) EXCEED THESE SLOPES, CONSULT ARCHITECT AND CIVIL ENGINEER
3. VERIFY ALL INFORMATION SHOWN WITH CIVIL, MEP, AND OTHER DRAWINGS. IF DISCREPANCIES EXIST, CONSULT WITH ARCHITECT AND ENGINEER(S) PRIOR TO CONSTRUCTION
4. ALL APPROVALS SHALL BE OBTAINED FROM AUTHORITIES HAVING JURISDICTION ON THIS PROPERTY PRIOR TO CONSTRUCTION
5. THE ARCHITECTURAL SITE DRAWING(S) SHOWS LOCATION OF SIDEWALKS. SEE CIVIL FOR CONSTRUCTION & PAVING DETAILS, JOINTS, ETC
6. SEE CIVIL DRAWINGS FOR PARKING REQUIREMENTS, & OTHER ITEMS NOT SHOWN ON ARCHITECTURAL THAT MAY BE REQUIRED FOR PERMITTING AND/OR CONSTRUCTION
7. REFER TO CIVIL DRAWINGS AND GEOTECHNICAL REPORT FOR THICKNESS OF CONCRETE PAVING
8. REFER TO LANDSCAPE DRAWINGS FOR LOCATIONS OF PVC SLEEVES UNDER SIDEWALKS FOR IRRIGATION PIPING

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HARMONY PUBLIC SCHOOLS

HARMONY SCIENCE ACADEMY - PHASE II
BRIDGELAND NEW MIDDLE/HIGH SCHOOL

12800 CREEKLAND VILLAGE DRIVE
CYPRESS, TX 77433

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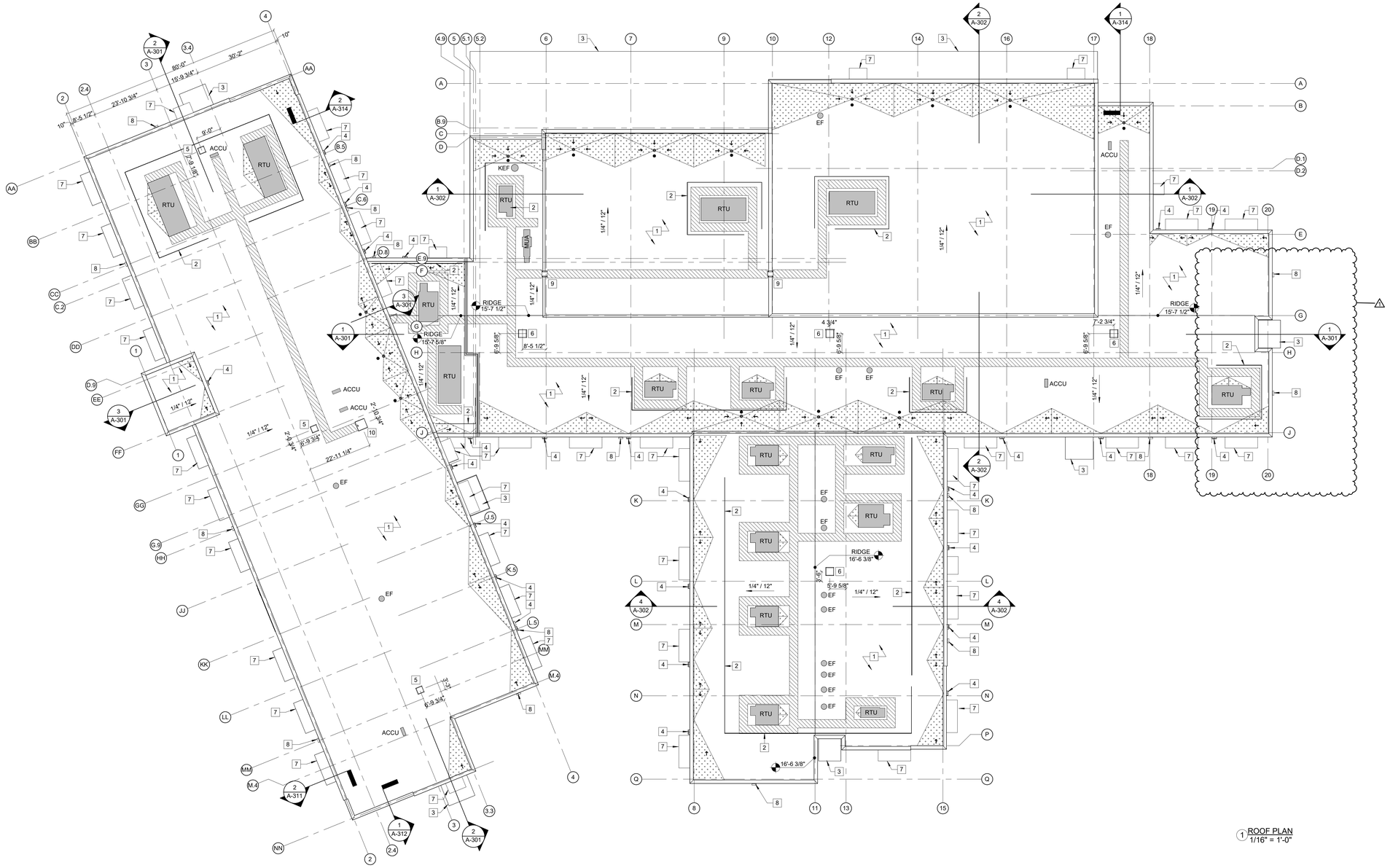
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DRAWN BY: LS QC: TWL

SITE PLAN

A-001

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1 ROOF PLAN
1/16" = 1'-0"

ROOF PLAN KEY NOTES

1 TPO ROOFING SYSTEM, 80 MIL, TYP.

2 ROOF TOP UNIT EQUIPMENT SCREEN (HR-16 PANEL)

3 PRE-FINISHED ALUMINUM CANOPY BY AVADEK

4 PRE-FINISHED METAL SCUPPER & DOWNSPOUT

5 24" x 24" SKYLIGHT SYSTEM

6 30" X 30" SKYLIGHT SYSTEM

7 METAL SUNSHADE

8 EXTERIOR WALL-MTD LIGHT FIXTURE BELOW, RE: ELECTRICAL

9 ROOF ACCESS EXTERIOR WALL-MOUNTED LADDER

10 SPECIFIED ROOF ACCESS HATCH, 36" x 36" BILCO TYPE E-50-TB OR APPROVED EQUAL

LEGEND

X:X ROOF SLOPE ARROW

ROOF DRAIN

OVERFLOW ROOF DRAIN

HATCH INDICATES EXTENTS OF WALKPADS

HATCH INDICATES TAPERED INSULATION CRICKET

ROOF PLAN GENERAL NOTES

- VERIFY LOCATIONS OF ALL ROOF PENETRATIONS WITH STRUCTURAL, MECHANICAL, AND PLUMBING DRAWINGS
- PROVIDE CRICKETS TO DIVERT WATER FROM ANY ROOFTOP EQUIPMENT
- ALL ROOFS SHALL HAVE A MINIMUM SLOPE OF 1/4" PER FOOT; ALL CRICKETS SHALL HAVE A MINIMUM SLOPE OF 1/2" PER FOOT
- PROVIDE PRE-FINISHED METAL GUTTERS & DOWNSPOUTS IN SIZES AND PROFILES INDICATED
- COORDINATE DOWNSPOUT DRAINAGE, PER LOCATIONS INDICATED, WITH CIVIL DRAWINGS
- ALL WOOD BLOCKING TO BE FIRE RETARDANT TREATED

KEY PLAN

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BRIDGELAND NEW MIDDLE/HIGH SCHOOL

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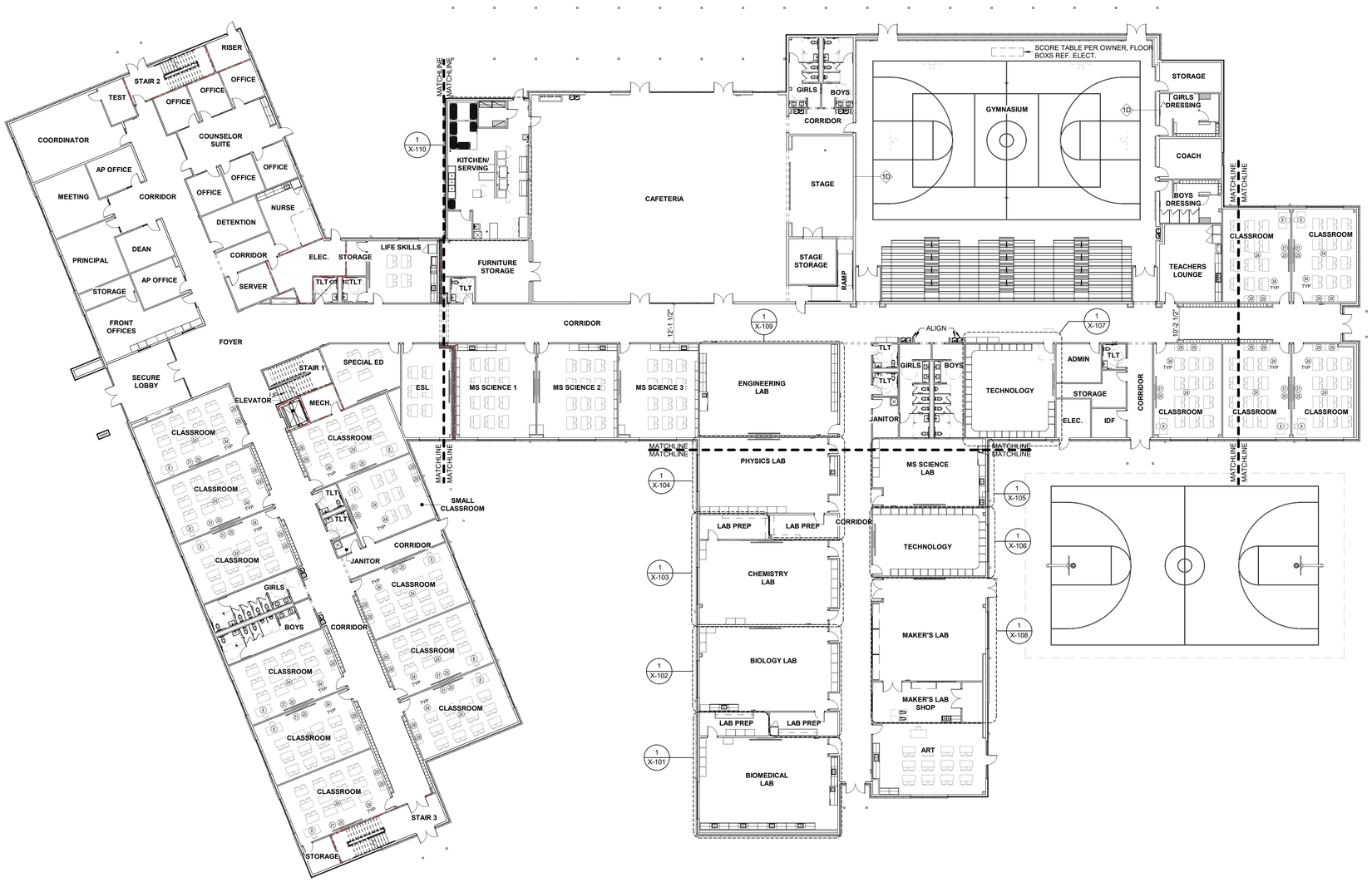
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ROOF PLAN

A-130

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RISER
STAIR 2
TEST
OFFICE
OFFICE
OFFICE
COORDINATOR
COUNSELOR SUITE
AP OFFICE
OFFICE
OFFICE
MEETING
CORRIDOR
NURSE
DETENTION
DEAN
PRINCIPAL
CORRIDOR
ELEC.
STORAGE
LIFE SKILLS
AP OFFICE
STORAGE
SERVER
TLT
CTLT
FRONT OFFICES
FOYER
SECURE LOBBY
STAIR 1
SPECIAL ED
ELEVATOR
MECH.
ESL
MS SCIENCE 1
MS SCIENCE 2
MS SCIENCE 3
ENGINEERING LAB
CLASSROOM
CLASSROOM
CLASSROOM



1 LEVEL 2 FURNITURE PLAN OVERALL
1/16" = 1'-0"

FURNITURE SCHEDULE1

MARK	ITEM	DESCRIPTION
1	MILWORK AND OVERHEAD CABINETS	CONTRACTOR PROVIDED AND INSTALLED, REFER TO INTERIOR ELEVATIONS AND MEP DRAWINGS
2	ADA/ADJUSTABLE LAB TABLE (CHEM-RES TOP 60"X30")	OWNER PROVIDED AND INSTALLED
3	STUDENT LAB DESK (SOLID PHENOLIC RESIN TOP TABLE 30"X72")	OWNER PROVIDED AND INSTALLED
4	ABOVE COUNTERTOP CABINET	OWNER PROVIDED AND INSTALLED
5	GOGGLE STERLIZER	OWNER PROVIDED AND INSTALLED
6	FIRE SAFETY EQUIPMENT	CONTRACTOR PROVIDED AND INSTALLED
7	STORAGE CABINETS	OWNER PROVIDED AND INSTALLED
8	TEACHERS DESK (60"X30")	OWNER PROVIDED AND INSTALLED
9	EYEWASH STATION	CONTRACTOR PROVIDED AND INSTALLED. REFER TO MEP DRAWINGS FOR MEP ROUGH-IN PROVIDED BY CONTRACTOR
10	PULL DOWN OUTLETS	CONTRACTOR PROVIDED AND INSTALLED. REFER TO ELECTRICAL DRAWINGS FOR ELECTRICAL ROUGH-IN PROVIDED BY CONTRACTOR. COORDINATE WITH ARCHITECT PRIOR TO ROUGH-IN FOR EXACT LOCATION.
11	BOLD 3.0 CABINET STORAGE	OWNER PROVIDED AND INSTALLED
12	8FT DESKTOP PC TABLE/WORKSTATION	OWNER PROVIDED AND INSTALLED
13	6FT DESKTOP PC TABLE/WORKSTATION	OWNER PROVIDED AND INSTALLED
14	6FT TEACHER TABLE/WORKTABLE	OWNER PROVIDED AND INSTALLED
15	3D PRINTER STORAGE RACK	OWNER PROVIDED AND INSTALLED
16	BIN RACK STORAGE	OWNER PROVIDED AND INSTALLED
17	TOOL STORAGE/TABLE TOP	OWNER PROVIDED AND INSTALLED
18	TEACHER TABLE STORAGE	OWNER PROVIDED AND INSTALLED
19	DOUBLE SINK AT MAKERS LAB	CONTRACTOR PROVIDED AND INSTALLED. REFER TO PLUMBING DRAWINGS
20	BOSS LASER CUTTER	OWNER PROVIDED AND INSTALLED. CONTRACTOR TO COORDINATE INSTALLATION OF EXHAUST FAN AS REQUIRED
21	GLASS DOOR DISPLAY CABINET	CONTRACTOR PROVIDED AND INSTALLED
22	EXHAUST FAN (LASER CUTTER)	CONTRACTOR PROVIDED AND INSTALLED, REFER TO MEP DRAWINGS
23	BROKEN GLASS BIN	OWNER PROVIDED AND INSTALLED
24	CEILING PROJECTOR	CONTRACTOR PROVIDED AND INSTALLED, REFER TO AUDIO/VISUAL DRAWINGS
25	MARKER BOARD (12FT LONG)	OWNER PROVIDED AND CONTRACTOR INSTALLED, REFER TO INTERIOR ELEVATIONS FOR MOUNTING HEIGHT
26	MARKER BOARD (16FT LONG)	OWNER PROVIDED AND CONTRACTOR INSTALLED, REFER TO INTERIOR ELEVATIONS FOR MOUNTING HEIGHT
27	GYM SCORE BOARD	CONTRACTOR PROVIDED AND INSTALLED, REFER TO SPECS AND ELECTRICAL DRAWINGS.
28	STORAGE CUBBIES	OWNER PROVIDED AND INSTALLED
29	48"X24" CLASSROOM STORAGE	OWNER PROVIDED AND INSTALLED
30	MILLWORK WALL CABINETS	CONTRACTOR PROVIDED AND INSTALLED, REFER TO AUDIO/VISUAL DRAWINGS
31	PROJECTION SCREEN	CONTRACTOR PROVIDED AND INSTALLED, REFER TO AUDIO/VISUAL DRAWINGS
32	WALL-MOUNTED MEDIA PLATE	CONTRACTOR PROVIDED AND INSTALLED, REFER TO AUDIO/VISUAL DRAWINGS
33	EMERGENCY EQUIPMENT STATION	OWNER PROVIDED AND INSTALLED
34	STUDENTS DESK	OWNER PROVIDED AND INSTALLED
35	TV MONITOR (OPTIONAL)	OWNER PROVIDED AND INSTALLED
36	FIRST AID KIT	OWNER PROVIDED AND INSTALLED
37	AQUARIUM / TERRARIUM	OWNER PROVIDED AND INSTALLED
38	ANIMAL STUDY CENTER	OWNER PROVIDED AND INSTALLED
39	SAFETY GOGGLES KIT	OWNER PROVIDED AND INSTALLED

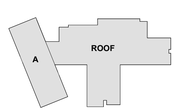
FURNITURE PLAN KEY NOTES

LEGEND

FURNITURE PLAN GENERAL NOTES

- FURNITURE SHOWN IN CLASSROOMS IS FOR REFERENCE ONLY, NOT IN CONTRACT.
- FURNITURE SHOWN IN MAKERS LAB, SCIENCE CLASSROOMS, AND SCIENCE LAB IS FOR REFERENCE. CONTRACTOR TO COORDINATE WHAT IS CONTRACTOR-PROVIDED AND INSTALLED AND WHAT IS OWNER-PROVIDED AND INSTALLED, RE: FURNITURE SCHEDULE FOR ADDITIONAL INFORMATION - SEE X-SERIES SHEETS FOR ADDITIONAL INFORMATION
- CONTRACTOR TO PROVIDE MILLWORK AND PLUMBING MEP ITEMS AS PER FLOOR PLANS AND MEP DRAWINGS
- PROVIDE WOOD BLOCKING AS REQUIRED FOR ALL WALL-MOUNTED EQUIPMENT. COORDINATE WITH OWNER ALL FINAL LOCATIONS AND HEIGHT REQUIREMENTS
- REFER TO INTERIOR ELEVATIONS FOR ADDITIONAL INFORMATION ON LOCATIONS OF MARKER BOARDS, LCD MONITORS, FLAT PANEL DISPLAYS, AND PROJECTION SCREENS. PROVIDE WOOD BLOCKING SUPPORT AS REQUIRED, COORDINATE WITH ARCHITECT. REFER TO ENLARGED PLANS & DETAILS FOR ADDITIONAL INFORMATION AND DIMENSIONS

KEY PLAN



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LEVEL 2
FURNITURE
PLAN OVERALL

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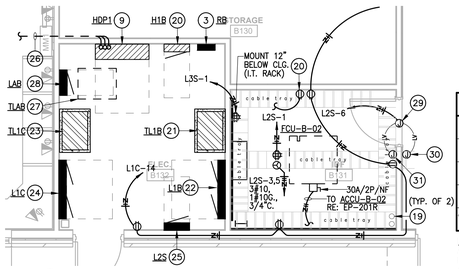
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EMERG. RESPONDER RADIO COVERAGE: ATTENTION PLAN EXAMINER AND GENERAL CONTRACTOR !!!!!!!!!!!!!!!

EMERGENCY RESPONDER RADIO COVERAGE SHALL BE PROVIDED UNDER THIS CONTRACT AND SHALL BE DESIGNED AND DRAWN BY A LICENSED FIRE ALARM CONTRACTOR. THE DRAWING(S) SHALL BE SUBMITTED TO THE CITY OR AUTHORITY HAVING JURISDICTION FOR PERMIT REVIEW AND APPROVAL UPON THE SELECTION OF THE FIRE ALARM SUBCONTRACTOR FOR THIS PROJECT. THE DRAWING(S) SHALL MEET ALL APPLICABLE: CODES, LOCAL CODES, THE NFPA AND AUTHORITY HAVING JURISDICTION.

FIRE ALARM SYSTEM: ATTENTION PLAN EXAMINER AND GENERAL CONTRACTOR !!!!!!!!!!!!!!!

A FIRE ALARM SYSTEM SHALL BE PROVIDED UNDER THIS CONTRACT AND SHALL BE DESIGNED AND DRAWN BY A LICENSED FIRE ALARM CONTRACTOR. THE DRAWING(S) SHALL BE SUBMITTED TO THE CITY OR AUTHORITY HAVING JURISDICTION FOR PERMIT REVIEW AND APPROVAL UPON THE SELECTION OF THE FIRE ALARM SUBCONTRACTOR FOR THIS PROJECT. THE DRAWING(S) SHALL MEET ALL APPLICABLE: CODES, LOCAL CODES, THE NFPA AND AUTHORITY HAVING JURISDICTION.



2 **ELECTRICAL ENLARGED PLAN - ELECT. / IDF**
SCALE: 1/4" = 1'-0"

I.T. INFRASTRUCTURE

HDP	TEACHER'S WORK STATION DATA OUTLET BOXES, REFER TO I.T. DWGS. FOR ADDITIONAL INFORMATION.
△	DATA OUTLET BOX, REFER TO I.T. DWGS. FOR ADDITIONAL INFORMATION.
M	FLOOR DATA OUTLET BOX, REFER TO I.T. DWGS. FOR ADDITIONAL INFORMATION.
C 96"	CLOCK DATA OUTLET BOX, REFER TO I.T. DWGS. FOR ADDITIONAL INFORMATION.
C 132"	CAMERA WEATHERPROOF BOX, REFER TO I.T. DWGS. FOR ADDITIONAL INFORMATION.

NOTE:
A JUNCTION BOX AND CONDUIT INFRASTRUCTURE WILL BE REQUIRED AT LOCATIONS WHERE THE DEVICES IN THIS SCHEDULE ARE SHOWN ON THIS PLAN AND PER THE I.T. DRAWINGS. COORDINATE WITH I.T. DRAWINGS FOR BOX TYPE AND FOR ANY ADDITIONAL REQUIREMENTS.

ELECTRICAL GENERAL NOTES:

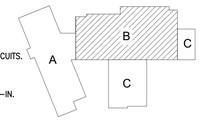
(FOR SHEET EP-101B)

1. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION AND MOUNTING HEIGHTS OF ALL ELECTRICAL DEVICES.
2. NO MORE THAN THREE SINGLE PHASE CIRCUITS AND NO MORE THAN SIX CURRENT CARRYING CONDUCTORS SHALL BE INSTALLED IN A SINGLE RACEWAY. WHEN FOUR, FIVE, OR SIX CURRENT CARRYING CONDUCTORS ARE INSTALLED IN A SINGLE RACEWAY, THEIR CURRENT CARRYING AMPACITIES SHALL BE DERATED AS REQUIRED BY THE NEC FOR NON-DIVERSIFIED LOADS. THE INSTALLED WIRE SIZE SHALL HAVE A NOMINAL AMPACITY RATING OF 125% OF THAT REQUIRED OR SPECIFIED WHEN FOUR OR MORE CURRENT CARRYING CONDUCTORS ARE INSTALLED IN A SINGLE RACEWAY. NEUTRAL CONDUCTORS SHALL BE CONSIDERED A CURRENT CARRYING CONDUCTOR IN ALL NON-LINEAR LOADED CIRCUITS AS REQUIRED BY THE NEC.
3. ALL RECEPTACLE, AND EQUIPMENT BRANCH CIRCUITS CONDUITS SHALL CONTAIN A GROUND WIRE. USING THE CONDUIT SYSTEM AS THE ONLY GROUND PATH IS NOT ACCEPTABLE.
4. ELECTRICIAN OF RECORD, & BONDED PER DIVISION 0-"CONTRACT" SPECIFICATIONS, AND BE FAMILIAR & EXPERIENCED WITH SUCH WORK INDICATED HEREIN, & QUALIFIED BY MOST RECENT OSHA CERTIFICATION TO WORK ON ENERGIZED EQUIPMENT. REFER TO & COMPLY WITH OSHA 29CFR.1910 & 1926 ELECTRICAL SAFETY PORTIONS. CONSTRUCTION METHOD AND MEANS AND THEIR REQUIREMENTS. CONTRACTOR SHALL PROVIDE WORK WITHIN STANDARD OF CARE FOR PROFESSION.
5. MOUNT ALL RECEPTACLES AT +17 1/2" A.F.F. UNLESS OTHERWISE NOTED.
6. ALL ELECTRICAL WORK INCLUDED IN THIS PROJECT SHALL MEET THE REQUIREMENTS OF THE 2023 NATIONAL ELECTRICAL CODE (N.E.C.).
7. ELECTRICAL CONDUITS AND OR CIRCUITS PENETRATING FIRE RATED CEILING AND WALLS TO BE BE SEALED FIRE AND SMOKE TIGHT AT THE PENETRATION AND SHALL BE IN COMPLIANCE WITH N.E.C. 300-21.
8. PROVIDE FIRE RATED SLEEVES IN ALL FLOOR PENETRATIONS.
9. FOR EACH NEW DATA AND TELEPHONE OUTLET, PROVIDE OUTLET BOX IN WALL WITH BLANK COVERPLATE AND RUN 3/4" CONDUIT WITH PULL-STRING FROM BOX TO ACCESSIBLE CEILING CAVITY.
10. ELECTRICAL CONTRACTOR SHALL FIRESTOP HIS OWN PENETRATIONS THROUGH RATED WALLS IN ACCORDANCE WITH SPECIFICATIONS.
11. PER N.E.C. 2020, ARTICLE 406.12: ALL 15 AND 20 AMP, 120V NON-LOCKING TYPE RECEPTACLES ON THIS PROJECT SHALL BE LISTED AS TAMPER-RESISTANT.
12. ALL G.F.C.I. TYPE RECEPTACLES SHARING THE SAME CIRCUIT ON THIS PROJECT SHALL HAVE ITS OWN RE-SET AND TEST BUTTON. FEED-THRU G.F.C.I. IS NOT PERMISSIBLE.
13. WHEN LOCATING ROUGH-IN BOXES FOR ANY SYSTEMS NEXT TO A DOOR, LOCATE THEM 8" FROM JAMB TO CENTER OF BOX.
14. REFER TO SHEET E-001 FOR ELECTRICAL SYMBOL LEGEND.
15. REFER TO INFORMATION TECHNOLOGY DRAWINGS FOR ALL ROUGH-INS REQUIRED FOR TECHNOLOGY, AUDIO-VISUAL, PUBLIC ADDRESS, AND SECURITY.
16. CONTRACTOR SHALL WALK-THRU WITH OWNER REP. PRIOR TO WALL AND CEILING SHEETROCK COVER-UP TO ASSURE ALL ELECTRICAL AND I.T. OUTLETS ARE LOCATED IN THE DESIRED LOCATION(S). FAILURE TO DO SO MAY RESULT IN THE CONTRACTOR RELOCATING THEM AT HIS/HER EXPENSE.
17. CONTRACTOR TO INDICATE POWER CIRCUIT CONTROLLED BY EACH RECEPTACLE BY PROVIDING TYPE WRITTEN VINYL LABELING LOCATED ON EACH RECEPTACLE COVER PLATE.

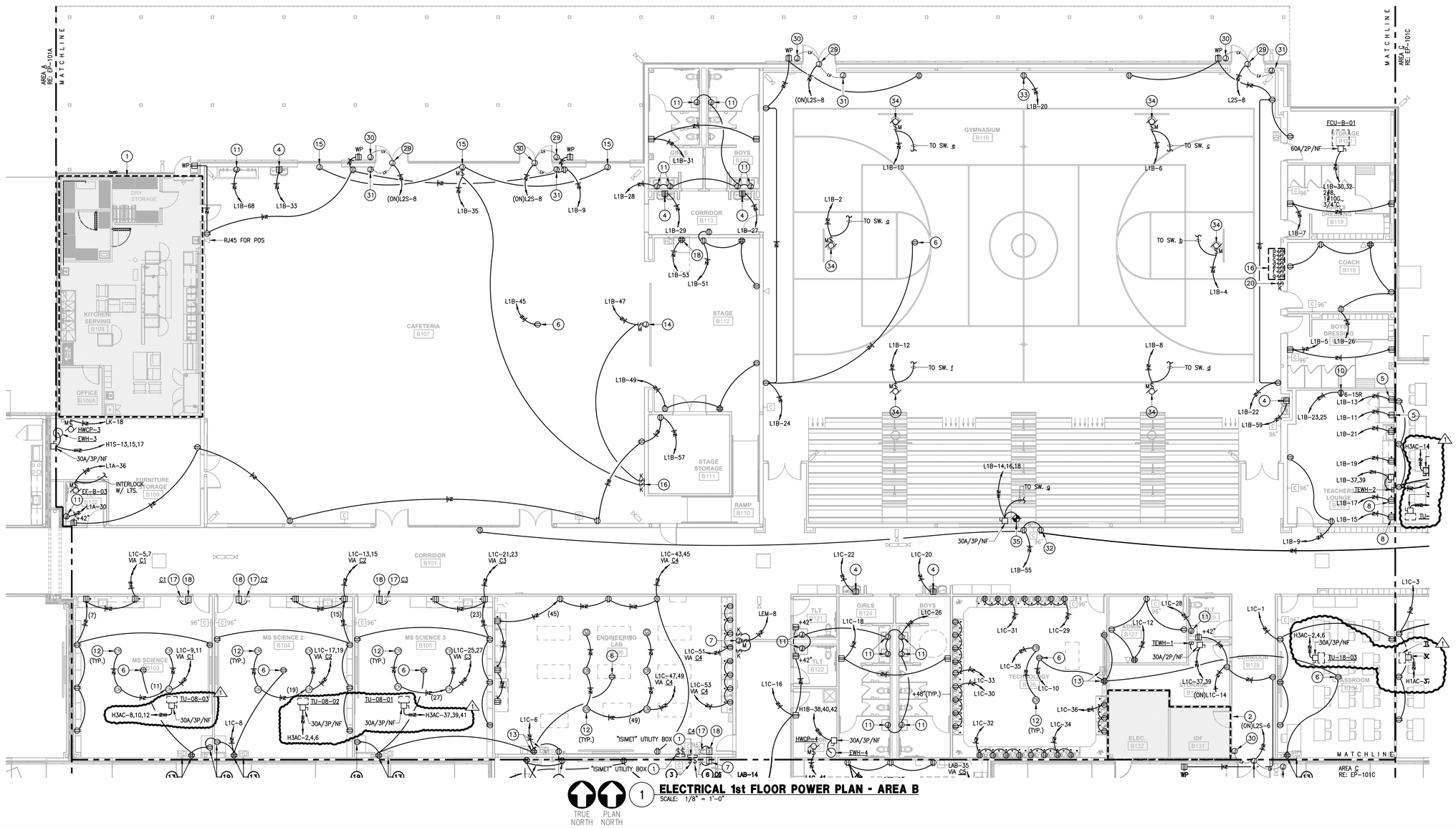
ELECTRICAL KEYED NOTES:

(FOR SHEET EP-101B)

1. REFER TO DETAIL #1 ON SHEET E-301 FOR ELECTRICAL ENLARGED PLAN OF KITCHEN/SERVING B108.
2. REFER TO DETAIL #2 ON THIS SHEET FOR ELECTRICAL ENLARGED PLAN OF ELECTRICAL ROOM B132 AND IDF B131.
3. PROVIDE ACUITY BRANDS "nLIGHT" #APNPINTENC16NLT-16FCR-MVOLT-1VB-HLK-SM-DTC-ARPAPC, RELAY PANEL RB. REFER TO DETAIL #4 ON SHEET E-002 FOR RELAY SYSTEM PANEL SCHEDULE.
4. MOUNT G.F.C.I. DUPLEX RECEPTACLE WITHIN THE CONFINEMENTS OF THE ELECTRIC DRINKING FOUNTAIN CABINET.
5. PROVIDE G.F.C.I. DUPLEX RECEPTACLE AT +36 A.F.F. FOR REFRIGERATOR.
6. PROVIDE DUPLEX RECEPTACLE LOCATED IN ACCESSIBLE CEILING FOR PROJECTOR. VERIFY EXACT LOCATION WITH OWNER/ARCHITECT PRIOR TO ROUGH-IN.
7. PROVIDE J-BOX ABOVE CEILING FOR OVERHEAD COILING GATE. COORDINATE EXACT ELECTRICAL REQUIREMENTS WITH DOOR SUPPLIER. INTERLOCK WITH F/A SYSTEM.
8. PROVIDE G.F.C.I. DUPLEX RECEPTACLE ABOVE COUNTER FOR MICROWAVE.
9. 277/480V., 3ø, 4W DISTRIBUTION PANEL HDP1. REFER TO SHEET E-401 FOR ELECTRICAL ONE-LINE DIAGRAM.
10. PROVIDE 6-15R SPECIAL PURPOSE SIMPLEX MOUNTED AT +24" A.F.F. FOR COPIER. VERIFY EXACT APPLIANCE REQUIREMENTS WITH EQUIPMENT SUPPLIER PRIOR TO ROUGH-IN.
11. PROVIDE J-BOX BELOW LAVATORY FOR POWER TO AUTOMATIC SENSOR(S) TO SOAP AND WATER SUPPLY. COORDINATE EXACT LOCATION WITH PLUMBING CONTRACTOR PRIOR TO ROUGH-IN.
12. J-BOX MOUNTED TO BOTTOM OF STRUCTURAL MEMBER FOR CONNECTION OF CORD REEL ASSEMBLY. CORD REEL TO BE SPRING RETRACTED TYPE FROM HUBBELL: MODEL #HBLC40123TT WITH 40' OF SO CORD TRAVEL DISTANCE. PLUGS ON END OF CORD REEL TO BE HUBBELL MODEL #50355 OR #63CM60. COORDINATE EXACT LOCATION AND PLUG NEMA TYPE WITH OWNER PRIOR TO PURCHASE OF ALL COMPONENTS. RE: DETAIL #1 ON SHEET E-502.
13. PROVIDE QUAD RECEPTACLE AND I.T. ROUGH-IN BOXES FOR TEACHERS WORK STATION. COORDINATE EXACT LOCATION WITH OWNER/ARCHITECT PRIOR TO ROUGH-IN. RE: DETAIL #3 ON SHEET E-002 FOR QUANTITY AND TYPES OF ROUGH-IN BOXES NEEDED.
14. PROVIDE J-BOX FOR MOTORIZED PROJECTION SCREEN. COORDINATE EXACT LOCATION WITH OWNER PRIOR TO ROUGH-IN.
15. J-BOX ABOVE CEILING FOR MOTORIZED WINDOW SHADES. COORDINATE EXACT REQUIREMENTS WITH EQUIPMENT SUPPLIER PRIOR TO ROUGH-IN. ALTHOUGH ONLY ONE MOTOR CONNECTION IS INDICATED ON PLAN FOR THIS SECTION OF WINDOWS, IT IS THE RESPONSIBILITY OF CONTRACTOR TO VERIFY WITH OWNER ON QUANTITY OF MOTORS REQUIRING CONNECTIONS AND PROVIDE ALL NECESSARY ELECTRICAL CONNECTIONS FOR FULLY FUNCTIONING SHADE SYSTEM.
16. CONTROLS FOR MOTORIZED WINDOW SHADES. COORDINATE EXACT REQUIREMENTS WITH EQUIPMENT SUPPLIER.
17. PROVIDE 8-POLE CONTACTOR FOR CONTROLLED RECEPTACLES IN THIS ROOM. LOCATE ABOVE CEILING IN AN ACCESSIBLE LOCATION. CONNECT TO NEAREST 120V GENERAL PURPOSE CIRCUIT. COIL VOLTAGE SHALL BE 24V. DO NOT PROVIDE LINE VOLTAGE FROM CONTACTOR CONTROLLED CIRCUITS.
18. MASTER "EMERGENCY-POWER-OFF" BUTTON IN CLEAR COVER FOR CONTACTOR CONTROLLED RECEPTACLE CIRCUIT(S) IN THIS ROOM. COORDINATE FINAL LOCATION WITH OWNER PRIOR TO ROUGH-IN CIRCUIT(S) IN THIS ROOM. COORDINATE FINAL LOCATION WITH OWNER PRIOR TO ROUGH-IN.
19. MOUNT DUPLEX RECEPTACLE WITHIN THE CONFINEMENTS OF THE GOGGLE STERILIZATION CABINET. COORDINATE EXACT LOCATION WITH OWNER/ARCHITECT PRIOR TO ROUGH-IN.
20. 277/480V., 3ø, 4W PANEL H1B. REFER TO SHEET E-403 FOR PANEL SCHEDULE INFORMATION.
21. 480V. 120/208V., 3ø, 4W TRANSFORMER TL1B (75 KVA). MOUNTED ON 6" CONCRETE PAD. REFER TO BOOK SPECIFICATIONS FOR MORE INFORMATION.
22. 120/208V., 3ø, 4W PANEL L1B (2-SECTION). REFER TO SHEET E-404 FOR PANEL SCHEDULE INFORMATION.
23. 480V. 120/208V., 3ø, 4W TRANSFORMER TL1C (75 KVA). MOUNTED ON 6" CONCRETE PAD. REFER TO BOOK SPECIFICATIONS FOR MORE INFORMATION.
24. 120/208V., 3ø, 4W PANEL L1C (2-SECTION). REFER TO SHEET E-404 FOR PANEL SCHEDULE INFORMATION.
25. 120/208V., 3ø, 4W PANEL L2S. REFER TO SHEET E-404 FOR PANEL SCHEDULE INFORMATION.
26. UNDERGROUND ELECTRICAL FEEDER FROM MAIN SWITCHBOARD MSB. REFER TO DETAIL #1 ON SHEET E-401 ELECTRICAL ONE-LINE DIAGRAM.
27. 480V. 120/208V., 3ø, 4W TRANSFORMER TLAB (45 KVA) SUSPENDED. REFER TO BOOK SPECIFICATIONS FOR MORE INFORMATION.
28. 120/208V., 3ø, 4W PANEL LAB. REFER TO SHEET E-404 FOR PANEL SCHEDULE INFORMATION.
29. J-BOX ABOVE CEILING FOR ELECTRIC DOOR LOCK POWER. VERIFY EXACT REQUIREMENTS WITH MANUFACTURER'S EQUIPMENT PRIOR TO ROUGH-IN.
30. J-BOX MOUNTED AT +48" A.F.F. FOR CARD READER. VERIFY EXACT REQUIREMENTS WITH MANUFACTURER'S EQUIPMENT PRIOR TO ROUGH-IN.
31. J-BOX MOUNTED AT +48" A.F.F. FOR DOOR RELEASE PUSH-BUTTON. VERIFY EXACT REQUIREMENTS WITH MANUFACTURER'S EQUIPMENT PRIOR TO ROUGH-IN.
32. PROVIDE DUPLEX RECEPTACLE AT +96" FOR DOUBLE-FACED DIGITAL CLOCK. COORDINATE EXACT LOCATION WITH OWNER PRIOR TO ROUGH-IN.
33. PROVIDE DUPLEX RECEPTACLE LOCATED 6" ABOVE TOP OF SCOREBOARD. COORDINATE EXACT MOUNTING HEIGHT WITH SCOREBOARD INSTALLER PRIOR TO ROUGH-IN.
34. PROVIDE MOTOR RATED DISCONNECT SWITCH FOR MOTORIZED BASKETBALL GOAL. COORDINATE EXACT ELECTRICAL REQUIREMENTS WITH EQUIPMENT SUPPLIER.
35. MAKE FINAL CONNECTION TO MOTORIZED BLEACHERS. COORDINATE EXACT ELECTRICAL REQUIREMENTS WITH EQUIPMENT SUPPLIER.



KEY PLAN



TRUE NORTH / PLAN NORTH

1 **ELECTRICAL 1st FLOOR POWER PLAN - AREA B**
SCALE: 1/8" = 1'-0"

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CYPRESS, TX 77433

STATE OF TEXAS
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LICENSED PROFESSIONAL ELECTRICAL ENGINEER
07/06/2026

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REV.	DATE:	ISSUED FOR:
	12/19/2025	PERMIT
1	07/06/2026	ADDENDUM 01

PROJECT NO.: 06.22.013
DRAWN BY: AL, KO QC: KO

ELECTRICAL 1st FLOOR POWER PLAN - AREA B

EP-101B

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I.T. INFRASTRUCTURE

EDP	TEACHER'S WORK STATION DATA OUTLET BOXES, REFER TO I.T. DWGS. FOR ADDITIONAL INFORMATION.
△	DATA OUTLET BOX, REFER TO I.T. DWGS. FOR ADDITIONAL INFORMATION.
M	FLOOR DATA OUTLET BOX, REFER TO I.T. DWGS. FOR ADDITIONAL INFORMATION.
C 96"	CLOCK DATA OUTLET BOX, REFER TO I.T. DWGS. FOR ADDITIONAL INFORMATION.
132"	CAMERA WEATHERPROOF BOX, REFER TO I.T. DWGS. FOR ADDITIONAL INFORMATION.

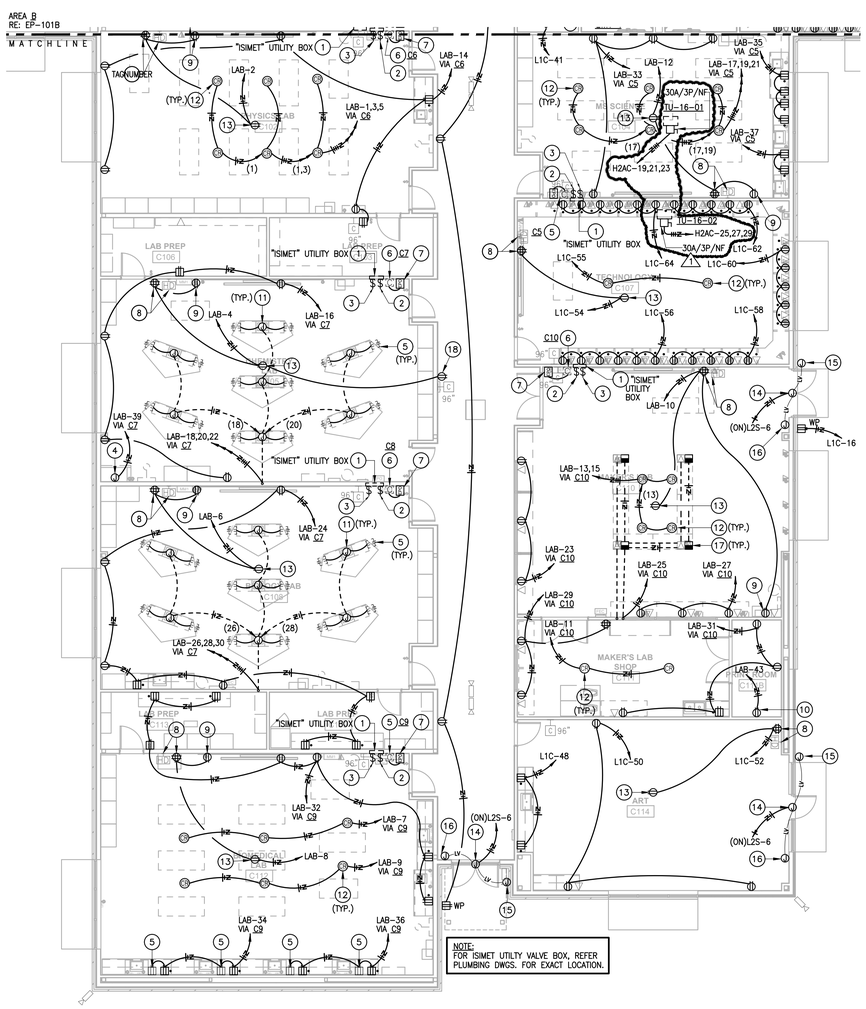
NOTE:
A JUNCTION BOX AND CONDUIT INFRASTRUCTURE WILL BE REQUIRED AT LOCATIONS WHERE THE DEVICES IN THIS SCHEDULE ARE SHOWN ON THIS PLAN AND PER THE I.T. DRAWINGS. COORDINATE WITH I.T. DRAWINGS FOR BOX TYPE AND FOR ANY ADDITIONAL REQUIREMENTS.

FIRE ALARM SYSTEM: ATTENTION PLAN EXAMINER AND GENERAL CONTRACTOR !!!!!!!!!!!!!!

A FIRE ALARM SYSTEM SHALL BE PROVIDED UNDER THIS CONTRACT AND SHALL BE DESIGNED AND DRAWN BY A LICENSED FIRE ALARM CONTRACTOR. THE DRAWING(S) SHALL BE SUBMITTED TO THE CITY OR AUTHORITY HAVING JURISDICTION FOR PERMIT REVIEW AND APPROVAL UPON THE SELECTION OF THE FIRE ALARM SUBCONTRACTOR FOR THIS PROJECT. THE DRAWING(S) SHALL MEET ALL APPLICABLE: CODES, LOCAL CODES, THE NFPA AND AUTHORITY HAVING JURISDICTION.

EMERG. RESPONDER RADIO COVERAGE: ATTENTION PLAN EXAMINER AND GENERAL CONTRACTOR !!!!!!!!!!!!!!

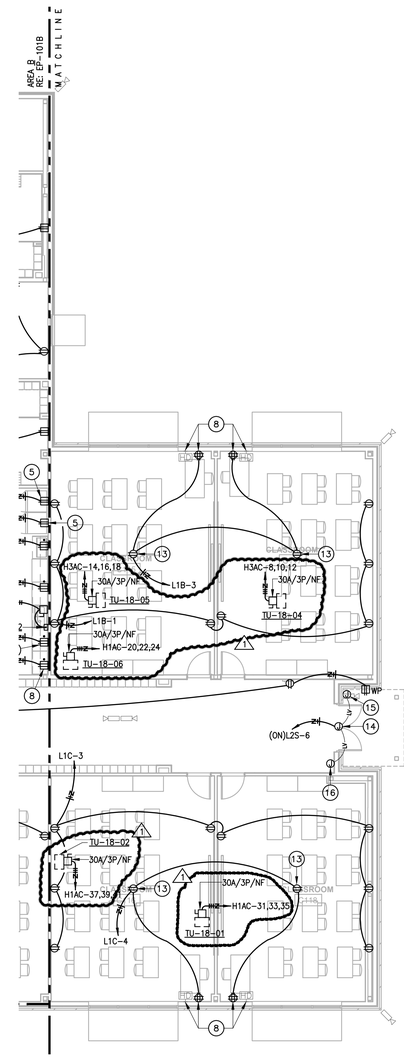
EMERGENCY RESPONDER RADIO COVERAGE SHALL BE PROVIDED UNDER THIS CONTRACT AND SHALL BE DESIGNED AND DRAWN BY A LICENSED FIRE ALARM CONTRACTOR. THE DRAWING(S) SHALL BE SUBMITTED TO THE CITY OR AUTHORITY HAVING JURISDICTION FOR PERMIT REVIEW AND APPROVAL UPON THE SELECTION OF THE FIRE ALARM SUBCONTRACTOR FOR THIS PROJECT. THE DRAWING(S) SHALL MEET ALL APPLICABLE: CODES, LOCAL CODES, THE NFPA AND AUTHORITY HAVING JURISDICTION.



NOTE:
FOR ISIMET UTILITY VALVE BOX, REFER PLUMBING DWGS. FOR EXACT LOCATION.

1 **ELECTRICAL PARTIAL 1st FLOOR POWER PLAN - AREA C**
SCALE: 1/8" = 1'-0"

TRUE NORTH PLAN NORTH



2 **ELECTRICAL PARTIAL 1st FLOOR POWER PLAN - AREA C**
SCALE: 1/8" = 1'-0"

TRUE NORTH PLAN NORTH

ELECTRICAL GENERAL NOTES:

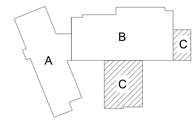
(FOR SHEET EP-101C)

1. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION AND MOUNTING HEIGHTS OF ALL ELECTRICAL DEVICES.
2. NO MORE THAN THREE SINGLE PHASE CIRCUITS AND NO MORE THAN SIX CURRENT CARRYING CONDUCTORS SHALL BE INSTALLED IN A SINGLE RACEWAY. WHEN FOUR, FIVE, OR SIX CURRENT CARRYING CONDUCTORS ARE INSTALLED IN A SINGLE RACEWAY, THEIR CURRENT CARRYING AMPACITIES SHALL BE DERATED AS REQUIRED BY THE NEC FOR NON-DIVERSIFIED LOADS. THE INSTALLED WIRE SIZE SHALL HAVE A NOMINAL AMPACITY RATING OF 125% OF THAT REQUIRED OR SPECIFIED WHEN FOUR OR MORE CURRENT CARRYING CONDUCTORS ARE INSTALLED IN A SINGLE RACEWAY. NEUTRAL CONDUCTORS SHALL BE CONSIDERED A CURRENT CARRYING CONDUCTOR IN ALL NON-LINEAR LOADED CIRCUITS AS REQUIRED BY THE NEC.
3. ALL RECEPTACLE, AND EQUIPMENT BRANCH CIRCUITS CONDUITS SHALL CONTAIN A GROUND WIRE. USING THE CONDUIT SYSTEM AS THE ONLY GROUND PATH IS NOT ACCEPTABLE.
4. ELECTRICIAN OF RECORD, & BONDED PER DIVISION 0-"CONTRACT" SPECIFICATIONS, AND BE FAMILIAR & EXPERIENCED WITH SUCH WORK INDICATED HEREIN, & QUALIFIED BY MOST RECENT OSHA CERTIFICATION TO WORK ON ENERGIZED EQUIPMENT. REFER TO & COMPLY WITH OSHA 29CFR.1910 & 1926 ELECTRICAL SAFETY PORTIONS. CONSTRUCTION METHOD AND MEANS AND THEIR REQUIREMENTS. CONTRACTOR SHALL PROVIDE WORK WITHIN STANDARD OF CARE FOR PROFESSION.
5. MOUNT ALL RECEPTACLES AT +17 1/2" A.F.F. UNLESS OTHERWISE NOTED.
6. ALL ELECTRICAL WORK INCLUDED IN THIS PROJECT SHALL MEET THE REQUIREMENTS OF THE 2023 NATIONAL ELECTRICAL CODE (N.E.C.).
7. ELECTRICAL CONDUITS AND OR CIRCUITS PENETRATING FIRE RATED CEILING AND WALLS TO BE BE SEALED FIRE AND SMOKE TIGHT AT THE PENETRATION AND SHALL BE IN COMPLIANCE WITH N.E.C. 300-21.
8. PROVIDE FIRE RATED SLEEVES IN ALL FLOOR PENETRATIONS.
9. FOR EACH NEW DATA AND TELEPHONE OUTLET, PROVIDE OUTLET BOX IN WALL WITH BLANK COVERPLATE AND RUN 3/4" CONDUIT WITH PULL-STRING FROM BOX TO ACCESSIBLE CEILING CAVITY.
10. ELECTRICAL CONTRACTOR SHALL FIRESTOP HIS OWN PENETRATIONS THROUGH RATED WALLS IN ACCORDANCE WITH SPECIFICATIONS.
11. PER N.E.C. 2020, ARTICLE 406.12: ALL 15 AND 20 AMP, 120V NON-LOCKING TYPE RECEPTACLES ON THIS PROJECT SHALL BE LISTED AS TAMPER-RESISTANT.
12. ALL G.F.C.I. TYPE RECEPTACLES SHARING THE SAME CIRCUIT ON THIS PROJECT SHALL HAVE ITS OWN RE-SET AND TEST BUTTON. FEED-THRU G.F.C.I. IS NOT PERMISSIBLE.
13. WHEN LOCATING ROUGH-IN BOXES FOR ANY SYSTEMS NEXT TO A DOOR, LOCATE THEM 8" FROM JAMB TO CENTER OF BOX.
14. REFER TO SHEET E-001 FOR ELECTRICAL SYMBOL LEGEND.
15. REFER TO INFORMATION TECHNOLOGY DRAWINGS FOR ALL ROUGH-INS REQUIRED FOR TECHNOLOGY, AUDIO-VISUAL, PUBLIC ADDRESS, AND SECURITY.
16. CONTRACTOR SHALL WALK-THRU WITH OWNER REP. PRIOR TO WALL AND CEILING SHEETROCK COVER-UP TO ASSURE ALL ELECTRICAL AND I.T. OUTLETS ARE LOCATED IN THE DESIRED LOCATION(S). FAILURE TO DO SO MAY RESULT IN THE CONTRACTOR RELOCATING THEM AT HIS/HER EXPENSE.
17. CONTRACTOR TO INDICATE POWER CIRCUIT CONTROLLED BY EACH RECEPTACLE BY PROVIDING TYPE WRITTEN VINYL LABELING LOCATED ON EACH RECEPTACLE COVER PLATE.

ELECTRICAL KEYED NOTES:

(FOR SHEET EP-101C)

1. ISIMET UTILITY CONTROLLER BOX, COORDINATE PREFERRED LOCATION WITH SCHOOL REPRESENTATIVE.
2. MASTER SHUT-OFF SWITCH FOR CONTACTOR CONTROLLED RECEPTACLE CIRCUITS. STATE SWITCH FUNCTION NEAR SWITCH. SWITCH LOCATED IN ISIMET UTILITY CONTROLLER BOX.
3. MASTER SHUT-OFF SWITCH FOR WATER UTILITY. CONNECT SWITCH TO WATER VALVE. COORDINATE WATER VALVE WITH PLUMBING DRAWINGS. STATE SWITCH FUNCTION NEAR SWITCH. SWITCH LOCATED IN ISIMET UTILITY CONTROLLER BOX.
4. J-BOX FOR FUME HOOD. COORDINATE EXACT LOCATION WITH OWNER/ARCHITECT PRIOR TO ROUGH-IN. FUME HOOD COMES WITH INTEGRAL LIGHT FIXTURE AND DUPLEX RECEPTACLE. CONTRACTOR TO MAKE FINAL CONNECTIONS AS REQUIRED FOR A FULLY FUNCTIONING FUME HOOD.
5. RECEPTACLE MOUNTED IN LAB TABLE. COORDINATE WITH ARCHITECTURAL ELEVATIONS AND DETAILS.
6. PROVIDE 8-POLE CONTACTOR FOR CONTROLLED RECEPTACLES IN THIS ROOM. LOCATE ABOVE CEILING IN AN ACCESSIBLE LOCATION. CONNECT TO NEAREST 120V GENERAL PURPOSE CIRCUIT. COIL VOLTAGE SHALL BE 24V. DO NOT PROVIDE LINE VOLTAGE FROM CONTACTOR CONTROLLED CIRCUITS.
7. MASTER "EMERGENCY-POWER-OFF" BUTTON IN CLEAR COVER FOR CONTACTOR CONTROLLED RECEPTACLE CIRCUIT(S) IN THIS ROOM.
8. PROVIDE QUAD RECEPTACLE AND I.T. ROUGH-IN BOXES FOR TEACHERS WORK STATION. COORDINATE EXACT LOCATION WITH OWNER/ARCHITECT PRIOR TO ROUGH-IN. RE: DETAIL #3 ON SHEET E-002 FOR QUANTITY AND TYPES OF ROUGH-IN BOXES NEEDED.
9. MOUNT DUPLEX RECEPTACLE WITHIN THE CONFINEMENTS OF THE GOGGLE STERILIZATION CABINET. COORDINATE EXACT LOCATION WITH OWNER/ARCHITECT PRIOR TO ROUGH-IN.
10. PROVIDE RECEPTACLE FOR LASER CUTTER. COORDINATE EXACT LOCATION/MOUNTING HEIGHT & EXACT ELECTRICAL REQUIREMENTS WITH OWNER/EQUIPMENT SUPPLIER PRIOR TO ROUGH-IN.
11. PROVIDE CONDUIT STUB-UP AT STUDENT STATION UTILITY CHASE. EXTEND POWER TO FURNITURE MOUNTED GFCI RECEPTACLES PROVIDED WITH OWNER PROVIDED FURNITURE.
12. J-BOX MOUNTED TO BOTTOM OF STRUCTURAL MEMBER FOR CONNECTION OF CORD REEL ASSEMBLY. CORD REEL TO BE SPRING RETRACTED TYPE FROM HUBBELL. MODEL #HBLC40123TT WITH 40' OF SO CORD TRAVEL DISTANCE. PLUGS ON END OF CORD REEL TO BE HUBBELL MODEL #50355 OR #63CM60. COORDINATE EXACT LOCATION AND PLUG NEMA TYPE WITH OWNER PRIOR TO PURCHASE OF ALL COMPONENTS. RE: DETAIL #1 ON SHEET E-502.
13. PROVIDE DUPLEX RECEPTACLE LOCATED IN ACCESSIBLE CEILING FOR PROJECTOR. VERIFY EXACT LOCATION WITH OWNER/ARCHITECT PRIOR TO ROUGH-IN.
14. J-BOX ABOVE CEILING FOR ELECTRIC DOOR LOCK POWER. VERIFY EXACT REQUIREMENTS WITH MANUFACTURER'S EQUIPMENT PRIOR TO ROUGH-IN.
15. J-BOX MOUNTED AT +48" A.F.F. FOR CARD READER. VERIFY EXACT REQUIREMENTS WITH MANUFACTURER'S EQUIPMENT PRIOR TO ROUGH-IN.
16. J-BOX MOUNTED AT +48" A.F.F. FOR DOOR RELEASE PUSH-BUTTON. VERIFY EXACT REQUIREMENTS WITH MANUFACTURER'S EQUIPMENT PRIOR TO ROUGH-IN.
17. MULTI-SERVICE FLUSH FLOOR BOX WITH A DUPLEX ISOLATED GROUND RECEPTACLE AND PROVISIONS FOR (2) DATA OUTLETS (PROVIDED BY DIVISION 27). COORDINATE EXACT LOCATION WITH OWNER PRIOR TO ROUGH-IN. ROUGH-IN FLOOR BOX SHALL BE "FSR" #FL-500P-6, 6" DEEP RECESSED FLOOR BOX WITH #FL-500P-BLK-C HINGED DOOR COVER. FLOOR BOX AND DOOR COVER SHALL BE COMPLETELY FLUSH WITH FINISHED FLOOR.
18. PROVIDE DUPLEX RECEPTACLE AT +96" FOR DOUBLE-FACED DIGITAL CLOCK. COORDINATE EXACT LOCATION WITH OWNER PRIOR TO ROUGH-IN.



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JOHN ROBERT BUNT
85353
REGISTERED
PROFESSIONAL ENGINEER
07/06/2026

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1	07/06/2026	ADDENDUM 01

PROJECT NO.: 06.22.013
DRAWN BY: AL.KO QC: KO

ELECTRICAL 1st FLOOR PARTIAL PLANS - AREA C

EP-101C

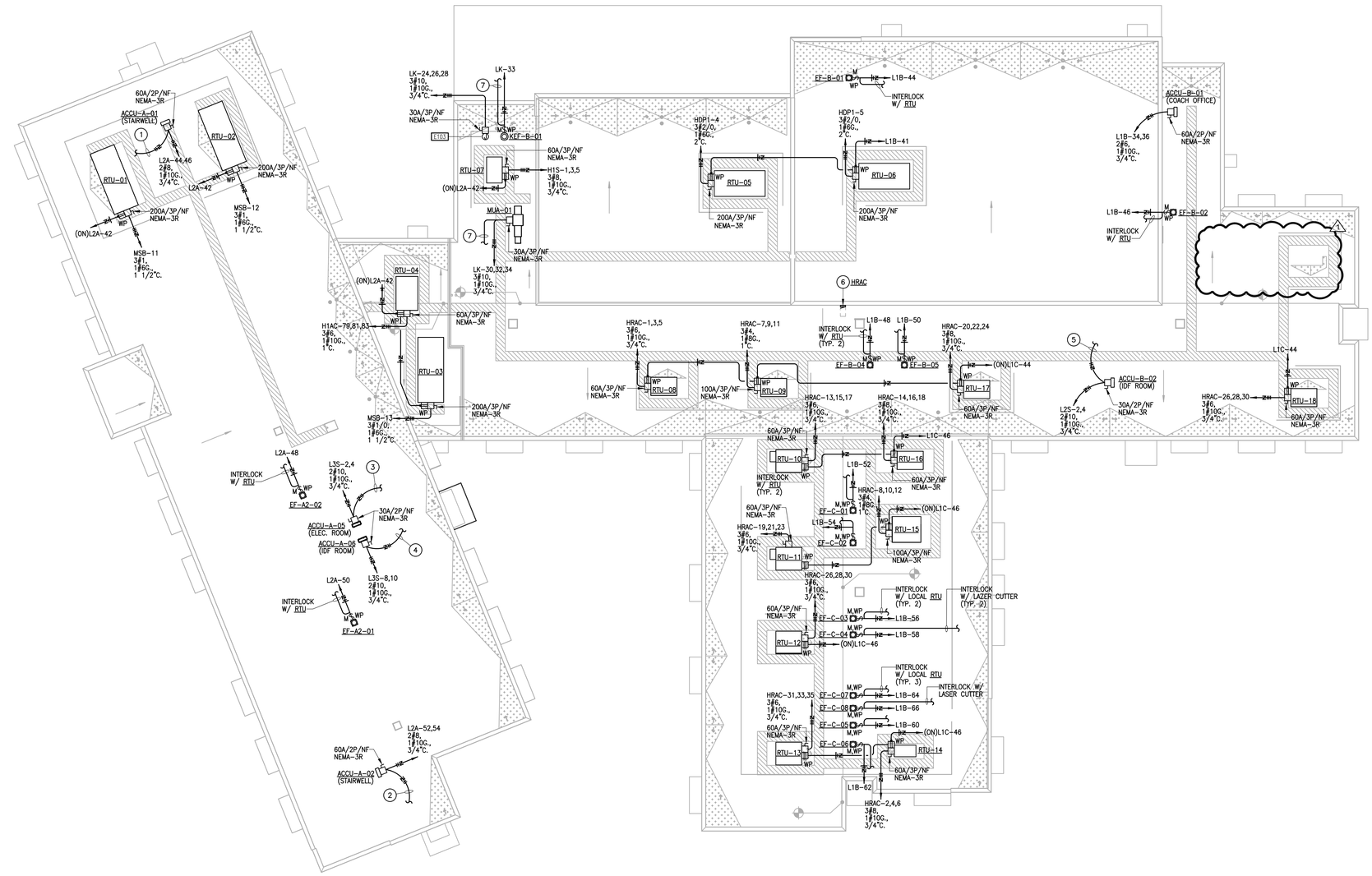
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EMERG. RESPONDER RADIO COVERAGE: ATTENTION PLAN EXAMINER AND GENERAL CONTRACTOR !!!!!!!!!!!!!!

EMERGENCY RESPONDER RADIO COVERAGE SHALL BE PROVIDED UNDER THIS CONTRACT AND SHALL BE DESIGNED AND DRAWN BY A LICENSED FIRE ALARM CONTRACTOR. THE DRAWING(S) SHALL BE SUBMITTED TO THE CITY OR AUTHORITY HAVING JURISDICTION FOR PERMIT REVIEW AND APPROVAL UPON THE SELECTION OF THE FIRE ALARM SUBCONTRACTOR FOR THIS PROJECT. THE DRAWING(S) SHALL MEET ALL APPLICABLE: CODES, LOCAL CODES, THE NFPA AND AUTHORITY HAVING JURISDICTION.

ELECTRICAL FOOD SERVICE SCHEDULE

ITEM	QTY.	SERVICE TO	AMPS	VOLTS	PH	LOC	AFF	REMARKS
E103	1	WALK-IN FREEZER CONDENSER	25.0A	208	3	ROOF	-	VERIFY CONNECTION REQUIREMENTS



1 **ELECTRICAL ROOF PLAN**
SCALE: 1/16" = 1'-0"

ELECTRICAL GENERAL NOTES:

(FOR SHEET EP-201R)

1. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION AND MOUNTING HEIGHTS OF ALL ELECTRICAL DEVICES.
2. NO MORE THAN THREE SINGLE PHASE CIRCUITS AND NO MORE THAN SIX CURRENT CARRYING CONDUCTORS SHALL BE INSTALLED IN A SINGLE RACEWAY. WHEN FOUR, FIVE, OR SIX CURRENT CARRYING CONDUCTORS ARE INSTALLED IN A SINGLE RACEWAY, THEIR CURRENT CARRYING AMPACITIES SHALL BE DERATED AS REQUIRED BY THE NEC FOR NON-DIVERSIFIED LOADS. THE INSTALLED WIRE SIZE SHALL HAVE A NOMINAL AMPACITY RATING OF 125% OF THAT REQUIRED OR SPECIFIED WHEN FOUR OR MORE CURRENT CARRYING CONDUCTORS ARE INSTALLED IN A SINGLE RACEWAY. NEUTRAL CONDUCTORS SHALL BE CONSIDERED A CURRENT CARRYING CONDUCTOR IN ALL NON-LINEAR LOADED CIRCUITS AS REQUIRED BY THE NEC.
3. ALL RECEPTACLE, AND EQUIPMENT BRANCH CIRCUITS CONDUITS SHALL CONTAIN A GROUND WIRE. USING THE CONDUIT SYSTEM AS THE ONLY GROUND PATH IS NOT ACCEPTABLE.
4. ELECTRICIAN OF RECORD, & BONDED PER DIVISION 0-"CONTRACT" SPECIFICATIONS, AND BE FAMILIAR & EXPERIENCED WITH SUCH WORK INDICATED HEREIN, & QUALIFIED BY MOST RECENT OSHA CERTIFICATION TO WORK ON ENERGIZED EQUIPMENT. REFER TO & COMPLY WITH OSHA 29CFR.1910 & 1926 ELECTRICAL SAFETY PORTIONS. CONSTRUCTION METHOD AND MEANS AND THEIR REQUIREMENTS. CONTRACTOR SHALL PROVIDE WORK WITHIN STANDARD OF CARE FOR PROFESSION.
5. MOUNT ALL RECEPTACLES AT +17 1/2" A.F.F. UNLESS OTHERWISE NOTED.
6. ALL ELECTRICAL WORK INCLUDED IN THIS PROJECT SHALL MEET THE REQUIREMENTS OF THE 2023 NATIONAL ELECTRICAL CODE (N.E.C.).
7. ELECTRICAL CONDUITS AND OR CIRCUITS PENETRATING FIRE RATED CEILING AND WALLS TO BE BE SEALED FIRE AND SMOKE TIGHT AT THE PENETRATION AND SHALL BE IN COMPLIANCE WITH N.E.C. 300-21.
8. ELECTRICAL CONTRACTOR SHALL FIRESTOP HIS OWN PENETRATIONS THROUGH RATED WALLS IN ACCORDANCE WITH SPECIFICATIONS.
9. PER N.E.C. 2020, ARTICLE 406.12: ALL 15 AND 20 AMP, 120V NON-LOCKING TYPE RECEPTACLES ON THIS PROJECT SHALL BE LISTED AS TAMPER-RESISTANT.
10. ALL G.F.C.I. TYPE RECEPTACLES SHARING THE SAME CIRCUIT ON THIS PROJECT SHALL HAVE ITS OWN RE-SET AND TEST BUTTON. FEED-THRU G.F.C.I. IS NOT PERMISSIBLE.
11. ELECTRICAL CONTRACTOR SHALL COORDINATE ALL EXHAUST FAN CONTROLS WITH MECHANICAL CONTRACTOR.
12. ELECTRICAL CONTRACTOR SHALL COORDINATE THE EXACT LOCATION OF ALL EQUIPMENT ON ROOF WITH MECHANICAL CONTRACTOR PRIOR TO ANY WORK BEING DONE.
13. ELECTRICAL CONTRACTOR TO PROVIDE "WHILE-IN-USE" WEATHERPROOF BOX AND G.F.C.I. DUPLEX RECEPTACLE WITHIN A 25'-0" RADIUS OF ALL ROOF MOUNTED MECHANICAL EQUIPMENT.
14. REFER TO SHEET E-001 FOR ELECTRICAL SYMBOL LEGEND.

ELECTRICAL KEYED NOTES:

(FOR SHEET EP-201A)

1. CONNECT ACCU-A-01 ON SAME CIRCUIT AS FAN COIL UNIT. RE: DETAIL #1 ON SHEET EP-201A FOR FCU-A-01 LOCATION. (SERVES STAIRWELL)
2. CONNECT ACCU-A-02 ON SAME CIRCUIT AS FAN COIL UNIT. RE: DETAIL #1 ON SHEET E-301 FOR FCU-A-02 LOCATION. (SERVES STAIRWELL)
3. CONNECT ACCU-A-05 ON SAME CIRCUIT AS FAN COIL UNIT. RE: DETAIL #2 ON SHEET EP-201A FOR FCU-A-05 LOCATION. (SERVES ELECT. ROOM-2nd FLOOR)
4. CONNECT ACCU-A-06 ON SAME CIRCUIT AS FAN COIL UNIT. RE: DETAIL #2 ON SHEET EP-201A FOR FCU-A-06 LOCATION. (SERVES IDF ROOM-2nd FLOOR)
5. CONNECT ACCU-B-02 ON SAME CIRCUIT AS FAN COIL UNIT. RE: DETAIL #2 ON SHEET EP-101B FOR FCU-B-02 LOCATION. (SERVES IDF ROOM-1st FLOOR)
6. 277/480V., 3Ø, 4W PANEL HRAC. REFER TO SHEET E-403 FOR PANEL SCHEDULE INFORMATION.
7. FINAL CONNECTION TO PRE-WIRED ELECTRICAL PACKAGE PROVIDED BY HOOD MANUFACTURER "ACCUREX".

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BRIDGELAND NEW MIDDLE/HIGH SCHOOL

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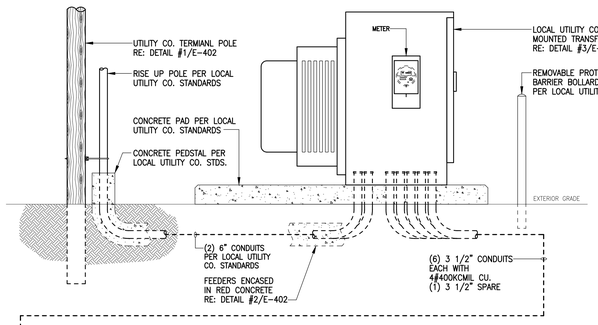
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1	07/06/2026	ADDENDUM 01

PROJECT NO.: 06.22.013
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ELECTRICAL ROOF PLAN

EP-201R

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NOTE TO CONTRACTOR FOR COORDINATION WITH LOCAL ELECTRIC UTILITY COMPANY DESIGN STANDARDS:

1. ALTHOUGH THE ENGINEER HAS MADE EVERY EFFORT TO VERIFY & COORDINATE THE PROJECT SITE UTILITIES, THE SITE UTILITY SERVICE LOCATIONS ARE NOT NECESSARILY FINAL AND ARE SUBJECT TO REVISIONS PER REVIEW BY THE RESPECTIVE UTILITY COMPANIES. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN APPROVALS FROM, AND COORDINATE WITH THE LOCAL UTILITY COMPANY TERMS & CONDITIONS PACKAGE, TO PROVIDE UTILITY SERVICE TO THE PROJECT. CONTRACTOR SHALL BASE HIS BID ON CONFORMANCE TO ALL UTILITY REQUIREMENTS AND SPECIFICATIONS DRAWINGS & NOTES.
2. CONTRACTOR SHALL CONTACT LOCAL ELECTRIC UTILITY COMPANY IMMEDIATELY UPON AWARD OF CONTRACT. CONTRACTOR SHALL COORDINATE ALL UTILITIES AND THEIR REQUIREMENTS, ROUTING, METERING, AND DISCONNECTING MEANS PRIOR TO INSTALLATION OF ANY CONDUITS OR PIPING AS ESTABLISHED ELECTRICAL SERVICE DESIGN STANDARDS MAY HAVE CHANGED DURING THE DESIGN PHASE OF THIS PROJECT TO WHEN THE ACTUAL CONSTRUCTION PHASE STARTS.

NOTE TO ELECTRICAL CONTRACTOR
COORDINATE WITH LOCAL UTILITY COMPANY FOR SERVICE STANDARDS AND THE USE OF METERING, C.T. AND P.T. CANS FOR 277/480V.,3PH-4W ELECTRICAL SERVICES.



WARNING LABELS:

CONTRACTOR TO PROVIDE WARNING LABELS ON ALL SERVICE DISCONNECTS, METER SOCKETS, PANELS, AND TRANSFORMERS MEETING THE MINIMUM REQUIREMENTS OF NFPA 70 AND 70E PPE REQUIREMENTS STATING: I WARNING ARC FLASH HAZARD APPROPRIATE PPE REQUIRED. ARC FLASH LABELS FOR SERVICE RATED EQUIPMENT RATED 1200 AMPS OR MORE WILL REQUIRE DETAILED INFORMATION PER N.E.C. SECTION 110.21(B) CONTAINING THE MINIMUM:

- NOMINAL SYSTEM VOLTAGE
- AVAILABLE FAULT CURRENT AT THE SERVICE OVERCURRENT PROTECTIVE DEVICES.
- THE CLEARING TIME OF THE SERVICE OVERCURRENT PROTECTIVE DEVICES BASED ON THE AVAILABLE FAULT CURRENT AT THE SERVICE EQUIPMENT
- THE DATE THE LABEL WAS APPLIED.
- SEE SAMPLE ARC FLASH LABEL.

'MSB' ELECTRONIC METERING

INCLUDE ELECTRONIC METERING DEVICE ON MAIN SWITCHBOARD. UNIT SHALL BE 6-DIGIT LED DIGITAL READOUT DISPLAY WITH THE FOLLOWING FEATURES.

1. VOLTMETER PHASE TO PHASE AND PHASE TO GND. OR NEUTRAL
2. CURRENT PER PHASE RMS AND THREE PHASE COVERAGE
3. DEMAND CURRENT PER PHASE
4. POWER FACTOR PER PHASE AND THREE PHASE COVERAGE
5. REAL POWER, THREE PHASE TOTAL
6. REACTIVE POWER, THREE PHASE TOTAL
7. APPARENT POWER, THREE PHASE TOTAL
8. FREQUENCY
9. AVERAGE DEMAND REAL POWER
10. ADJUSTABLE DEMAND INTERVAL (5-60 MINUTES)
11. NONVOLATILE MEMORY
12. KEYED SWITCH SET-UP AND RESET
13. FULL SCALE READ-OUTS WITH THE FOLLOWING ACCURACY:
    A. CURRENT AND VOLTAGE MEASUREMENT - +/-1%
    B. POWER AND ENERGY - +/-2%
    C. FREQUENCY - +/-0.5%
    D. POWER FACTOR - +/-4%

ELECTRICAL GENERAL NOTES:

(FOR SHEET E-401)

1. ALL CONDUCTORS SHALL BE (CU) COPPER UNLESS NOTED OTHERWISE.
2. NO MORE THAN THREE SINGLE PHASE CIRCUITS AND NO MORE THAN SIX CURRENT CARRYING CONDUCTORS SHALL BE INSTALLED IN A SINGLE RACEWAY. WHEN FOUR, FIVE, OR SIX CURRENT CARRYING CONDUCTORS ARE INSTALLED IN A SINGLE RACEWAY, THEIR CURRENT CARRYING AMPACITIES SHALL BE DERATED AS REQUIRED BY THE NEC FOR NON-DIVERSIFIED LOADS. THE INSTALLED WIRE SIZE SHALL HAVE A NOMINAL AMPACITY RATING OF 125% OF THAT REQUIRED OR SPECIFIED WHEN FOUR OR MORE CURRENT CARRYING CONDUCTORS ARE INSTALLED IN A SINGLE RACEWAY. NEUTRAL CONDUCTORS SHALL BE CONSIDERED A CURRENT CARRYING CONDUCTOR IN ALL NON-LINEAR LOADED CIRCUITS AS REQUIRED BY THE NEC.
3. METERING EQUIPMENT TO BE INSTALLED ON THE CPE PAD MOUNTED TRANSFORMER. ELECTRICAL CONTRACTOR TO COORDINATE ANY REQUIREMENTS CPE HAS IN REGARDS TO THE INSTALLATION OF THE ELECTRICAL SERVICE METER.
4. THE ELECTRICAL ENGINEER HAS COORDINATED THE BUILDING ELECTRICAL SERVICE LOCATION, SIZE AND EASEMENTS WITH THE LOCAL C.P.E. REPRESENTATIVE.

ELECTRICAL KEYED NOTES:

(FOR SHEET E-401)

1. PER N.E.C. ARTICLE 240.87 "ARC ENERGY REDUCTION": PROVIDE ARC-FAULT ENERGY REDUCING MAINTENANCE SWITCHING WITH LOCAL STATUS INDICATOR WITHIN SAME CABINET AS MAIN SWITCH. REFER TO SPECIFICATIONS FOR MORE INFORMATION.
2. PROVIDE A PERMANENTLY AFFIXED 2"X3" LABEL WITH BLUE LETTERING ON CONTRASTING BACKGROUND LISTING THE FAULT CURRENT AT THE TIME OF INSTALLATION. REFER TO DETAIL #1 ON SHEET E-403 FOR LABELING REQUIREMENTS. THE CALCULATED A.I.C. FOR EACH PANEL IS ALSO LISTED ON SHEET E-403.
3. PROVIDE ACUITY BRANDS "nLIGHT" SPRINTENC16NLT-16FCR-MVOLT-1VB-HLK-SM-DTC-ARPAPC, RELAY PANEL DESIGNATION LISTED ON ONE-LINE. REFER TO SHEET E-002 FOR RELAY SYSTEM PANEL SCHEDULES.
4. PROVIDE "K7" RATED SHIELDED DRY TYPE TRANSFORMER MOUNTED OF 6" RAISED CONCRETE PAD WITH VIBRATION ISOLATION.
5. PROVIDE "ASCO" #5101220YP16ACAJ20 (S.P.D.) '500 SERIES' OR EQUAL WITH ACCU/GUIDE CABLES. CONTRACTOR TO PROVIDE SUBMITTAL WITH COMPATIBLE PANELBOARD(S). MOUNT DIRECTLY TO BOTTOM OF PANELBOARD.
6. 3-POLE AUTOMATIC TRANSFER SWITCH ATS-1 IN NEMA-1 ENCLOSURE. REFER TO SPECIFICATIONS FOR MORE INFORMATION.
7. 3-POLE AUTOMATIC TRANSFER SWITCH ATS-2 IN NEMA-1 ENCLOSURE. REFER TO SPECIFICATIONS FOR MORE INFORMATION.
8. 3-POLE MANUAL TRANSFER SWITCH MTS-1 IN NEMA-4X(S.S.) ENCLOSURE. REFER TO SPECIFICATIONS FOR MORE INFORMATION.
9. PROVIDE 160KW NATURAL GAS STAND-BY EMERGENCY GENERATOR "GENERAC" #SG160 SERIES OR APPROVED EQUAL WITH WEATHERPROOF ENCLOSURE AND LEVEL 2 SOUND ATTENUATION. SECURELY ATTACH GENERATOR SKID PLATE TO CONCRETE PAD ON ALL SIDES. PROVIDE 1" CHAMFER ON ALL SIDES OF CONCRETE PAD.
10. PROVIDE "ASCO" #5602277YP25ACCG10 (S.P.D.) '500 SERIES' OR EQUAL WITH ACCU/GUIDE CABLES. CONTRACTOR TO PROVIDE SUBMITTAL WITH COMPATIBLE PANELBOARD(S). MOUNT TO THE LEFT OF MAIN SWITCHBOARD ON WALL.
11. PROVIDE CONTACTOR ENCLOSURE PER SPORTS FIELD LIGHTING SUPPLIER DIRECTION.

EMERGENCY GENERATOR LOAD ANALYSIS

EMERGENCY LOAD DESCRIPTION 277/480V., 3ø - 4W	LOAD KVA
LIGHTING CONNECTED LOAD= 11.1 KVA AT 1.25% =	13.9
RECEPTACLES - FIRST 10 KW + 50% OF REMAINDER AT 100% = <2.0>	2.0
I.T. EQUIPMENT AT 100% =	17.4
H.V.A.C. (COOLING) AT 100% =	50.4
PLUMBING AT 100% =	12.4
KITCHEN AT 65% (N.E.C.) = <62.3 KVA>	40.5
25% LARGEST MOTOR =	1.2
MISCELLANEOUS AT 100% =	8.7
TOTAL ESTIMATED CONNECTED LOAD =	160.4 KVA
BUILDING EMERGENCY SERVICE = <160KW>	200.0 KVA
BUILDING EMERGENCY SERVICE SPARE CAPACITY	39.6 KVA

ELECTRICAL LOAD ANALYSIS

PROJECT: HARMONY - BRIDGELAND M.S./H.S. DESCRIPTION: SCHOOL
LOCATION: BRIDGELAND, TX VOLTAGE: 277/480V, 3ø, 4W

NEW LOAD DESCRIPTION	LOAD KVA
LIGHTING LOAD 3W/SQ. FT. (80,000 SQ.FT.) AT 1.25% = 240.0 KVA LIGHTING CONNECTED LOAD = 73.9 KVA AT 1.25% = 92.4	300.0
RECEPTACLES - FIRST 10 KW of 120.3 KVA AT 100% =	10.0
REMAINDER 110.3 KVA AT 50% (N.E.C. 220-44) =	55.2
COMPUTERS/COPIERS AT 100% =	15.3
HVAC:	
COOLING LOAD AT 100% = <608.4 KVA>	-
HEATING LOAD AT 100% = <HEATING IS GREATER THAN COOLING>	793.8
EXHAUST FANS AT 100% =	14.1
ELECTRIC UNIT/DUCT HEATERS AT 100% =	3.3
PLUMBING EQUIPMENT AT 100% =	41.4
PUMPS AT 100% =	2.1
ELEVATOR AT 100% =	28.2
25% LARGEST MOTOR (N.E.C. 430-24) =	7.0
KITCHEN AT 65% (N.E.C.) = <62.3 KVA>	40.5
MISCELLANEOUS NON-CONTINUOUS AT 100% =	118.1
MISCELLANEOUS CONTINUOUS 23.3 KVA AT 125% (N.E.C. 215-2) =	29.1
TOTAL ESTIMATED CONNECTED LOAD =	1,458.1
1,458.1 KVA / 480 / $\sqrt{3}$ = AMPS	1,755.9 AMPS
NEW FACILITY SERVICE SIZE = 2,000.0 AMPS AT 480V., 3ø, - 4W SERVICE SPARE CAPACITY = 244.1 AMPS	

1 **ELECTRICAL ONE-LINE DIAGRAM**
SCALE: NONE

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BRIDGELAND NEW MIDDLE/HIGH SCHOOL
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CYPRESS, TX 77433

STATE OF TEXAS
JOHN ROBERT BUNT
85353
REGISTERED
ENGINEER
07/06/2026

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ELECTRICAL ONE-LINE DIAGRAM
E-401

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PANEL 'H1A'

277/480V, 3ø, 4W — 200 AMP MLO — MOUNTING: SURFACE, NEMA-1, 35K ISCA

LOCATION: ELECTRICAL ROOM A109

CKT	LOAD	*	KVA	WIRE	BKR	BKR	WIRE	KVA	*	LOAD	CKT
1	EXTERIOR BUILDING LTG.	1	1.3	#10	20/1	20/1	#12	3.1		LTG. 1st Flr. – AREA "A"	2
3	SITE LIGHTING	2	1.8	#10	20/2	20/1	#12	2.7		LTG. 1st Flr. – AREA "A"	4
5	----		–	–	–	20/1	#12	3.0		LTG. 1st Flr. – AREA "A"	6
7	(NL) SITE LIGHTING	3	0.9	#10	20/2	20/1	–			SPARE	8
9	----		–	–	–	20/1	–			SPARE	10
11	FLAG POLE LIGHTING	4	0.1	#10	20/1	20/1	–			SPARE	12
13	EXTERIOR BLDG. SIGNAGE	5	0.5	#12	20/1	–	–			SPACE	14
15	1st FLR. CORRIDOR LTG.	6	1.9	#12	20/1	–	–			SPACE	16
17	2nd FLR. CORRIDOR LTG.	7	1.3	#12	20/1	–	–			SPACE	18
19	MONUMENT SIGN	8	1.3	#8	20/1	–	–			SPACE	20
21	MOTORIZED GATES		1.0	#8	20/1	–	–			SPACE	22
23	SPARE			–	20/1	–	–			SPACE	24
25	SPARE			–	20/1	–	–			SPACE	26
27	SPACE			–	–	–	–			SPACE	28
29	SPACE			–	–	–	–			SPACE	30
31	SPACE			–	–	–	–			SPACE	32
33	SPACE			–	–	–	–			SPACE	34
35	SPACE			–	–	–	–			SPACE	36
37	SPACE			–	–	–	–			SPACE	38
39	SPACE			–	–	–	–			SPACE	40
41	SPACE			–	–	–	–			SPACE	42

CONTINUOUS (LTG.) LOAD 16.6 x 1.25 = 20.8
MISC. LOAD x 1.0 = 2.3
TOTAL KVA = 23.1

∗ NOTES
1. VIA RELAY 'RA-1' IN ACUITY BRANDS 'nLIGHT' RELAY PANEL. (PHOTOCELL ON/TIMECLOCK OFF)
2. VIA RELAY 'RA-2' IN ACUITY BRANDS 'nLIGHT' RELAY PANEL. (PHOTOCELL ON/TIMECLOCK OFF)
3. VIA RELAY 'RA-3' IN ACUITY BRANDS 'nLIGHT' RELAY PANEL. (PHOTOCELL ON/OFF)
4. VIA RELAY 'RA-4' IN ACUITY BRANDS 'nLIGHT' RELAY PANEL. (PHOTOCELL ON/OFF)
5. VIA RELAY 'RA-5' IN ACUITY BRANDS 'nLIGHT' RELAY PANEL. (PHOTOCELL ON/OFF)
6. VIA RELAY 'RA-6' IN ACUITY BRANDS 'nLIGHT' RELAY PANEL. (TIMECLOCK ON/OFF)
7. VIA RELAY 'RA-7' IN ACUITY BRANDS 'nLIGHT' RELAY PANEL. (TIMECLOCK ON/OFF)
8. VIA RELAY 'RA-8' IN ACUITY BRANDS 'nLIGHT' RELAY PANEL. (PHOTOCELL ON/OFF)

SHORT CIRCUIT CALCULATIONS

Equipment Name	Feeder Length (ft)	Parallel Sets	Conduit	Wire Type	Wire Size	L-L KVA	Voltage	%Z	C-Value	Load Served (A)	Upstream I[SCA]	f-Value	Multiplier (M)	Calculated Values (A)
Utility Transformer*						3750	480	5.75		4510.5			17.391	78444
MSB	45	12	Steel	Copper	#500kcmil		480		22185	0.0	78444	0.048	0.954	74862
MCCA	25	2	Steel	Copper	#3/0		480		12844	0.0	74862	0.263	0.792	59278
HDPA	25	3	Steel	Copper	#600kcmil		480		22965	0.0	74862	0.098	0.911	68179
HDPB	425	3	Steel	Copper	#600kcmil		480		22965	0.0	74862	1.666	0.375	28076
HA	20	1	Steel	Copper	#3/0		480		12844	0.0	68179	0.383	0.723	49295
HB	20	1	Steel	Copper	#3/0		480		12844	0.0	28076	0.158	0.864	24250
HC	270	1	Steel	Copper	#3/0		480		12844	0.0	68179	5.172	0.162	11047
TL1A	15	1	Steel	Copper	#1	75	480	1.4		90.2	68179	10.581	0.086	5887
TL2A	20	1	Steel	Copper	#1	75	480	1.4		90.2	68179	10.581	0.086	5887
TL3A	290	1	Steel	Copper	#4	45	480	1.4		54.1	68179	17.635	0.054	3659
TL1B	200	3	Steel	Copper	#1	75	480				28076	4.357	0.187	5241
T1LC	6	1	Steel	Copper	#4		208				11047	1.238	0.447	4936
	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!		#REF!		#REF!	#REF!	#REF!	#REF!

KEYNOTES (#)

1. WALL MOUNTED EQUIPMENT RACK. DATA REQUIRED ELECTRICAL POWER REQUIRED.
2. WALL MOUNTED CONTROL PANEL. MOUNTE 48" TO TOP OF ELECTRICAL BACK BOX.
3. WALL MOUNTED MULTIMEDIA INPUT PLATE, HDMI INPUT. MOUNT 18" AFF. ADJACENT ELECTRICAL POWER REQUIRED.
4. WALL MOUNTED WIRELESS MICROPHONE ANTENNA. MOUNT 120" AFF.
5. WALL MOUNTED ASSISTIVE LISTENING ANTENNA. MOUNT 120" AFF.
6. CEILING MOUNTED PROJECTOR. ELECTRICAL POWER REQUIRED.
7. CEILING MOUNTED VIDEO PROJECTION SCREEN. ELECTRICAL POWER REQUIRED.



1 LEVEL 1 AUDIO VISUAL RCP - AREA 'B'
1/8" = 1'-0"

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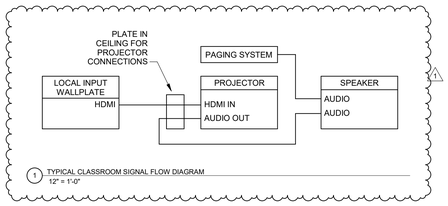
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1	07/06/2026	ADDENDUM #01

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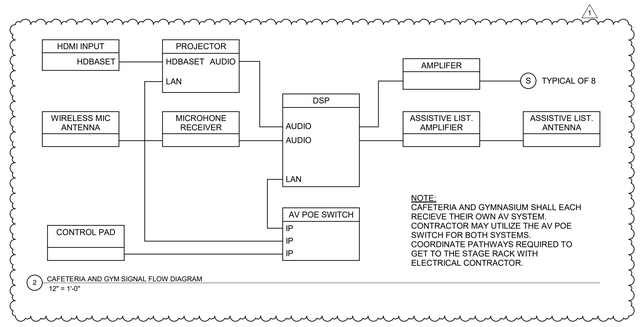
AUDIO VISUAL PLAN LEVEL 1 - AREA 'B'

TA-101B

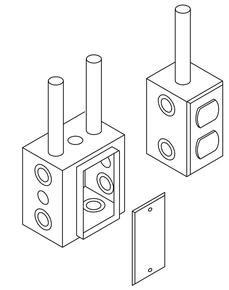
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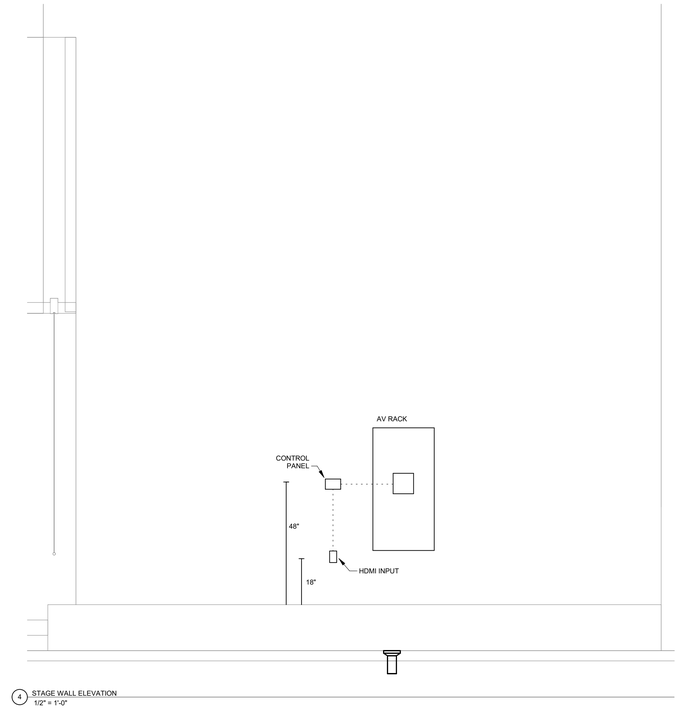
1 TYPICAL CLASSROOM SIGNAL FLOW DIAGRAM
12" = 1'-0"



2 CAFETERIA AND GYM SIGNAL FLOW DIAGRAM
12" = 1'-0"



3 TYPICAL 'HD' ROUGH-IN
12" = 1'-0"



4 STAGE WALL ELEVATION
1/2" = 1'-0"

5 GYM SIGNAL FLOW DIAGRAM
12" = 1'-0"

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AUDIO VISUAL DETAILS

TA-300

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CAMERA SCHEDULE - AREA A, 1ST FLOOR

EXTERIOR CAMERAS

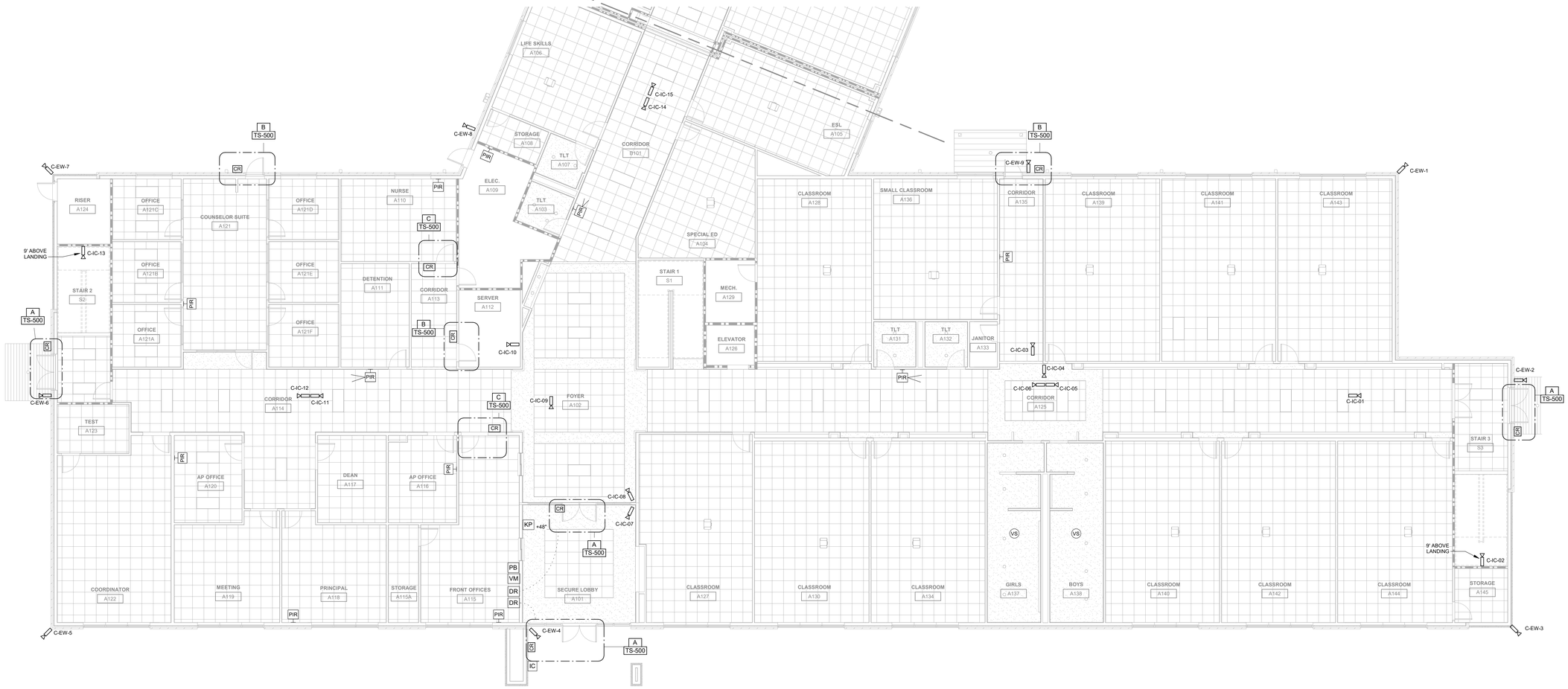
REFERENCE	MOUNT	ELEVATION	MANUFACTURER	MODEL	RESOLUTION	FRAMERATE	FoV	WDR	DESCRIPTION	KEYNOTES
C-EW-1	CORNER	132" A.F.G.	iPRO - Advidia	WV-S4556LA	5MP	12.5/15FPS	360°	120dB	GENERAL COVERAGE, EXTERIOR	
C-EW-2	WALL	108" A.F.G.	iPRO - Advidia	M-46-FW-V2	4MP	25FPS	H: 112.9°, V: 59.1°	120dB	GENERAL COVERAGE, EXT ENTRY	
C-EW-3	CORNER	132" A.F.G.	iPRO - Advidia	WV-S4556LA	5MP	12.5/15FPS	360°	120dB	GENERAL COVERAGE, EXTERIOR	
C-EW-4	WALL	108" A.F.G.	iPRO - Advidia	M-46-FW-V2	4MP	25FPS	H: 112.9°, V: 59.1°	120dB	GENERAL COVERAGE, EXT ENTRY	
C-EW-5	CORNER	132" A.F.G.	iPRO - Advidia	WV-S4556LA	5MP	12.5/15FPS	360°	120dB	GENERAL COVERAGE, EXTERIOR	
C-EW-6	WALL	108" A.F.G.	iPRO - Advidia	M-46-FW-V2	4MP	25FPS	H: 112.9°, V: 59.1°	120dB	GENERAL COVERAGE, EXT ENTRY	
C-EW-7	CORNER	132" A.F.G.	iPRO - Advidia	WV-S4556LA	5MP	12.5/15FPS	360°	120dB	GENERAL COVERAGE, EXTERIOR	
C-EW-8	WALL	108" A.F.G.	iPRO - Advidia	M-46-FW-V2	4MP	25FPS	H: 112.9°, V: 59.1°	120dB	GENERAL COVERAGE, EXT ENTRY	
C-EW-9	WALL	108" A.F.G.	iPRO - Advidia	M-46-FW-V2	4MP	25FPS	H: 112.9°, V: 59.1°	120dB	GENERAL COVERAGE, EXT ENTRY	

INTERIOR CAMERAS

REFERENCE	MOUNT	ELEVATION	MANUFACTURER	MODEL	RESOLUTION	FRAMERATE	FoV	WDR	DESCRIPTION	KEYNOTES
C-IC-01	CEILING	CEILING	iPRO - Advidia	M-46-V	4MP	30FPS	H:102.79°, V:54.50°	120dB	GENERAL COVERAGE, CORRIDOR	
C-IC-02	CEILING	CEILING	iPRO - Advidia	WV-S4156A	5MP	30FPS	360°	120dB	GENERAL COVERAGE, STAIRWELL	
C-IC-03	CEILING	CEILING	iPRO - Advidia	M-46-V	4MP	30FPS	H:102.79°, V:54.50°	120dB	GENERAL COVERAGE, CORRIDOR	
C-IC-04	CEILING	CEILING	iPRO - Advidia	M-46-V	4MP	30FPS	H:102.79°, V:54.50°	120dB	GENERAL COVERAGE, CORRIDOR	
C-IC-05	CEILING	CEILING	iPRO - Advidia	M-46-V	4MP	30FPS	H:102.79°, V:54.50°	120dB	GENERAL COVERAGE, CORRIDOR	
C-IC-06	CEILING	CEILING	iPRO - Advidia	M-46-V	4MP	30FPS	H:102.79°, V:54.50°	120dB	GENERAL COVERAGE, CORRIDOR	
C-IC-07	CEILING	CEILING	iPRO - Advidia	M-46-V	4MP	30FPS	H:102.79°, V:54.50°	120dB	GENERAL COVERAGE, CORRIDOR	
C-IC-08	CEILING	CEILING	iPRO - Advidia	M-46-V	4MP	30FPS	H:102.79°, V:54.50°	120dB	GENERAL COVERAGE, CORRIDOR	
C-IC-09	CEILING	CEILING	iPRO - Advidia	M-46-V	4MP	30FPS	H:102.79°, V:54.50°	120dB	GENERAL COVERAGE, CORRIDOR	
C-IC-10	CEILING	CEILING	iPRO - Advidia	M-46-V	4MP	30FPS	H:102.79°, V:54.50°	120dB	GENERAL COVERAGE, CORRIDOR	
C-IC-11	CEILING	CEILING	iPRO - Advidia	M-46-V	4MP	30FPS	H:102.79°, V:54.50°	120dB	GENERAL COVERAGE, CORRIDOR	
C-IC-12	CEILING	CEILING	iPRO - Advidia	M-46-V	4MP	30FPS	H:102.79°, V:54.50°	120dB	GENERAL COVERAGE, CORRIDOR	
C-IC-13	CEILING	CEILING	iPRO - Advidia	WV-S4156A	5MP	30FPS	360°	120dB	GENERAL COVERAGE, STAIRWELL	
C-IC-14	CEILING	CEILING	iPRO - Advidia	M-46-V	4MP	30FPS	H:102.79°, V:54.50°	120dB	GENERAL COVERAGE, CORRIDOR	
C-IC-15	CEILING	CEILING	iPRO - Advidia	M-46-V	4MP	30FPS	H:102.79°, V:54.50°	120dB	GENERAL COVERAGE, CORRIDOR	

GENERAL NOTES:
A. PROVIDE ALL NECESSARY MOUNTING HARDWARE AND APPURTENANCES FOR PROPER INSTALLATION.
B. CAMERAS TO BE LOCATED AND FOCUSED TO PROVIDE MAXIMUM COVERAGE FOR AREAS SERVED, WHILE PREVENTING FIELD OF VIEW FROM BEING OBSTRUCTED.
C. COORDINATE ROUGH-IN LOCATION WITH ELECTRICAL CONTRACTOR (DIV 26) AND ALL OTHER TRADES TO AVOID CONFLICTS WITH BUILDING FEATURES.

KEYNOTES:
1. CAMERA TO BE WALL MOUNTED +96" ABOVE LANDING BETWEEN LEVEL 1 AND LEVEL 2.



1 LEVEL 1 SECURITY RCP - AREA 'A'
1/8" = 1'-0"

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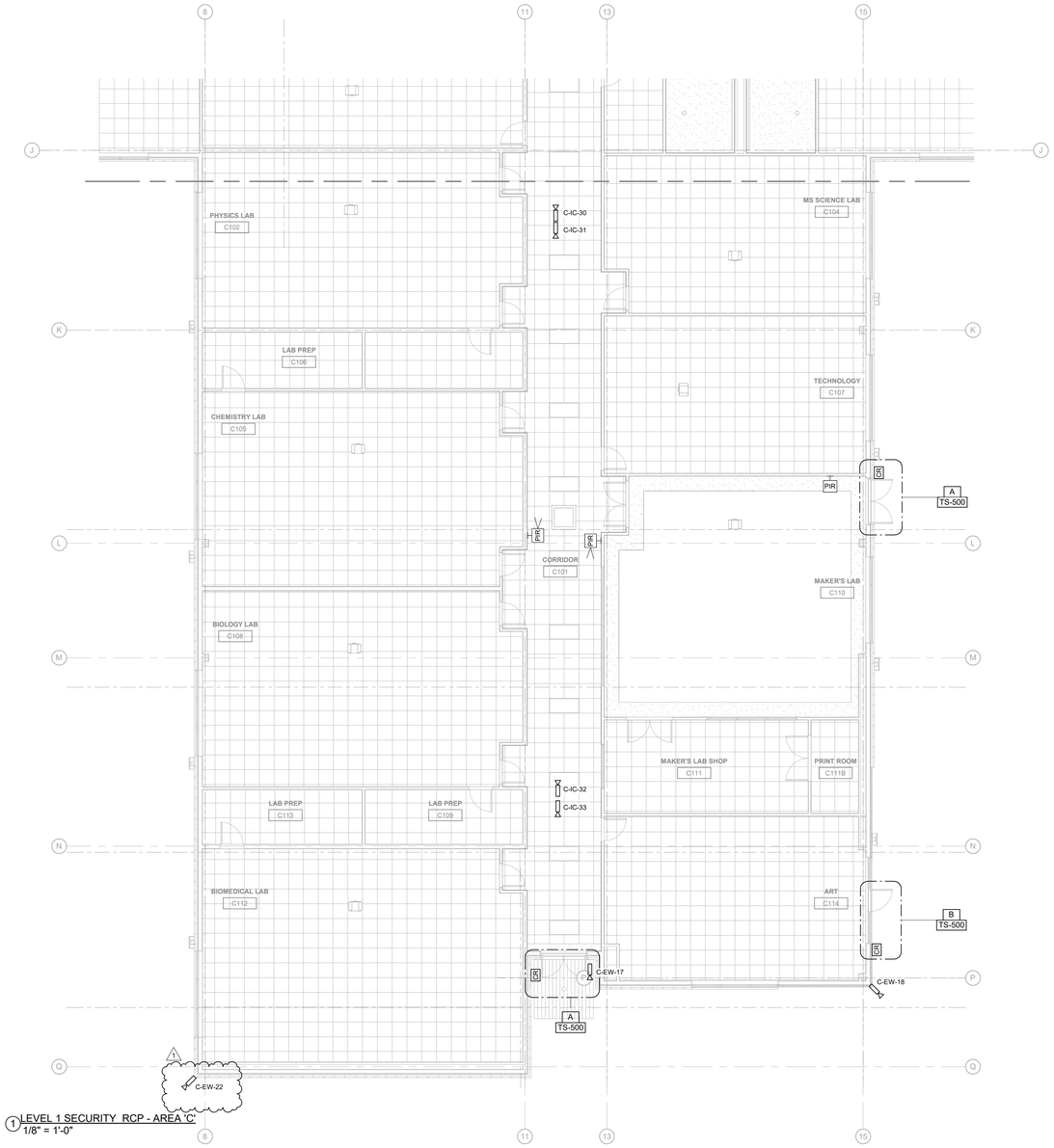
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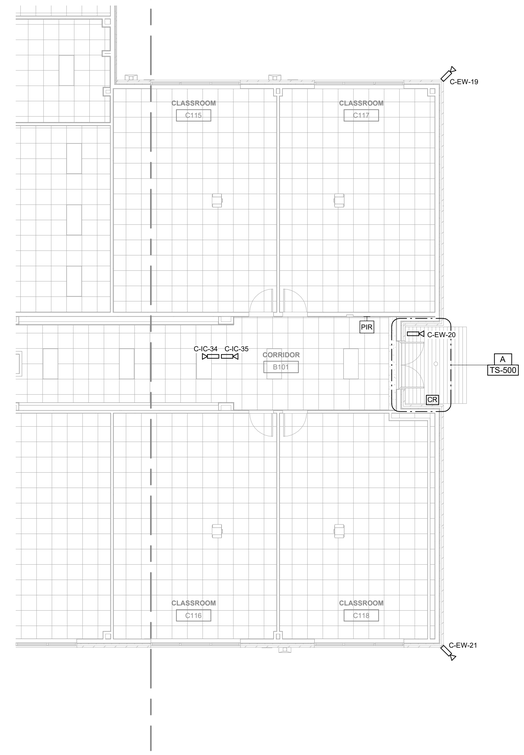
SECURITY LEVEL
1 RCP - AREA 'A'

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1 LEVEL 1 SECURITY RCP - AREA 'C'
1/8" = 1'-0"



2 LEVEL 1 SECURITY RCP - AREA
1/8" = 1'-0"

CAMERA SCHEDULE - AREA C

EXTERIOR CAMERAS

REFERENCE	MOUNT	ELEVATION	MANUFACTURER	MODEL	RESOLUTION	FRAMERATE	FoV	WDR	DESCRIPTION	KEYNOTES
C-EW-17	WALL	108" A.F.G.	iPRO - Advidia	M-46-FW-V2	4MP	25FPS	H: 112.9°, V: 59.1°	120dB	GENERAL COVERAGE, EXT ENTRY	
C-EW-18	CORNER	132" A.F.G.	iPRO - Advidia	WV-S4556LA	5MP	12.5/15FPS	360°	120dB	GENERAL COVERAGE, EXTERIOR	
C-EW-19	CORNER	132" A.F.G.	iPRO - Advidia	WV-S4556LA	5MP	12.5/15FPS	360°	120dB	GENERAL COVERAGE, EXTERIOR	
C-EW-20	WALL	108" A.F.G.	iPRO - Advidia	M-46-FW-V2	4MP	25FPS	H: 112.9°, V: 59.1°	120dB	GENERAL COVERAGE, EXT ENTRY	
C-EW-21	CORNER	132" A.F.G.	iPRO - Advidia	WV-S4556LA	5MP	12.5/15FPS	360°	120dB	GENERAL COVERAGE, EXTERIOR	
C-EW-22	CORNER	132" A.F.G.	iPRO - Advidia	WV-S4556LA	5MP	12.5/15FPS	360°	120dB	GENERAL COVERAGE, EXTERIOR	

INTERIOR CAMERAS

REFERENCE	MOUNT	ELEVATION	MANUFACTURER	MODEL	RESOLUTION	FRAMERATE	FoV	WDR	DESCRIPTION	KEYNOTES
C-1C-30	CEILING	CEILING	iPRO - Advidia	M-46-V	4MP	30FPS	H:102.79°, V:54.50°	120dB	GENERAL COVERAGE, CORRIDOR	
C-1C-31	CEILING	CEILING	iPRO - Advidia	M-46-V	4MP	30FPS	H:102.79°, V:54.50°	120dB	GENERAL COVERAGE, CORRIDOR	
C-1C-32	CEILING	CEILING	iPRO - Advidia	M-46-V	4MP	30FPS	H:102.79°, V:54.50°	120dB	GENERAL COVERAGE, CORRIDOR	
C-1C-33	CEILING	CEILING	iPRO - Advidia	M-46-V	4MP	30FPS	H:102.79°, V:54.50°	120dB	GENERAL COVERAGE, CORRIDOR	
C-1C-34	CEILING	CEILING	iPRO - Advidia	M-46-V	4MP	30FPS	H:102.79°, V:54.50°	120dB	GENERAL COVERAGE, CORRIDOR	
C-1C-35	CEILING	CEILING	iPRO - Advidia	M-46-V	4MP	30FPS	H:102.79°, V:54.50°	120dB	GENERAL COVERAGE, CORRIDOR	

GENERAL NOTES:
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KEYNOTES:
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SECURITY LEVEL
1 RCP - AREA 'C'

TS-101C

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KEYNOTES (#)



2 LEVEL 1 TELECOMMUNICATIONS FLOOR PLAN - AREA 'B'
1/8" = 1'-0"

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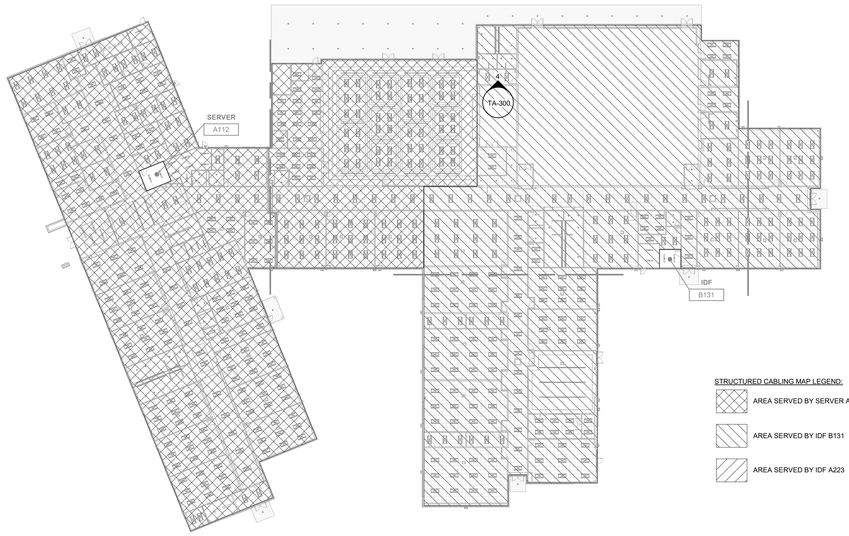
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TELECOMM.
LEVEL 1 - AREA 'B'

TT-101B

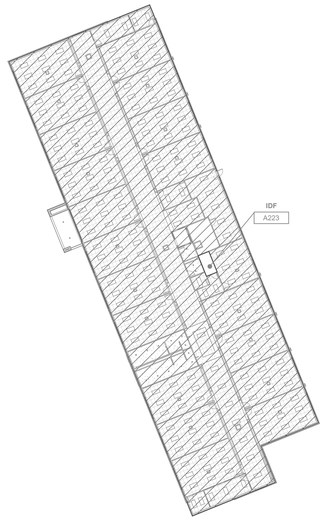
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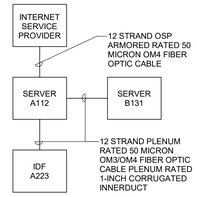


STRUCTURED CABLING MAP LEGEND:

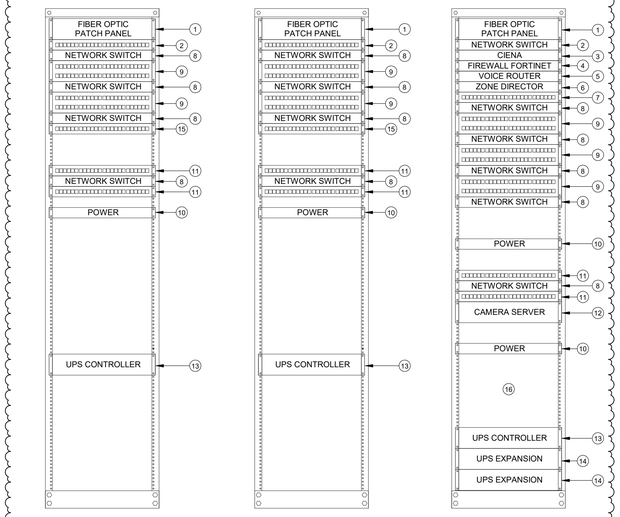
- AREA SERVED BY SERVER A112
- AREA SERVED BY IDF B131
- AREA SERVED BY IDF A223

1 STRUCTURED CABLING PLAN - LEVEL 1
1/32" = 1'-0"





6 TELECOM RISER
1/4" = 1'-0"



7 RACK DIAGRAM - IDF B131
1/4" = 1'-0"

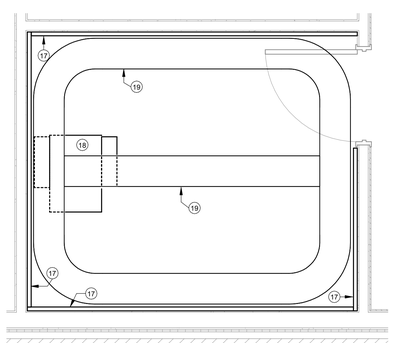
8 RACK DIAGRAM - IDF A223
1/4" = 1'-0"

9 RACK DIAGRAM - SERVER A112
1/4" = 1'-0"

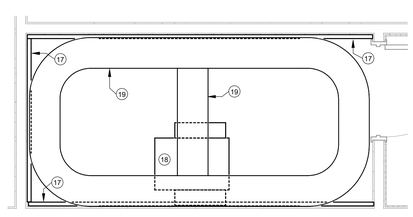
5 SERVER A112 ENLARGED PLAN
1/2" = 1'-0"

KEYNOTES (#)

1 FIBER OPTIC PATCH PANEL.
2 FIBER SWITCH.
3 CIENA.
4 FIREWALL FORTINET.
5 VOICE ROUTER.
6 ZONE DIRECTOR.
7 PANEL "A" 24 PORT PATCH PANEL SERVING WIRELESS ACCESS.
8 48 PORT NETWORK SWITCH.
9 PANEL "B" 48 PORT PATCH PANEL SERVING DATA NETWORK.
10 RACK MOUNT HORIZONTAL POWER DISTRIBUTION UNIT (PDU).
11 PANEL "C" 24 PORT PATCH PANEL SERVING CAMERAS.
12 CAMERA SERVER EQUIPMENT.
13 UNINTERRUPTABLE POWER SUPPLY CONTROLLER (UPS).
14 UNINTERRUPTABLE POWER SUPPLY EXPANSION/BATTERY BACKUP.
15 PANEL "C" 24 PORT PATCH PANEL SERVING DATA NETWORK.
16 AREA RESERVED FOR RACK MOUNTED PAGING SYSTEM HEADEND UNIT.
17 INSTALL FIRE RETARDANT 3/4" THICK 4'X8' SHEETS OF PAINTED WHITE PLYWOOD BACKBOARD TO THIS WALL.
18 4 POST 19" X 84" EQUIPMENT RACK WITH VERTICAL WIRE MANAGERS.
19 12" LADDER RACK CABLE TRAY MOUNTED +87" AFF.



4 IDF B131 ENLARGED PLAN
1/2" = 1'-0"



3 IDF A223 ENLARGED PLAN
1/2" = 1'-0"

VOIP NETWORK

ROOM	ROOM NAME	MANUFACTURER	MODEL	QUANTITY	VOICEMAIL
A104	SPECIAL ED	CISCO	CP-7841	1	NO
A105	ESL	CISCO	CP-7841	1	NO
A106	LIFE SKILLS	CISCO	CP-7841	1	NO
A110	NURSE	CISCO	CP-8875	1	NO
A115	FRONT OFFICE	CISCO	WEBEX WIRELESS PHONE 840	1	NO
A115	FRONT OFFICE	CISCO	CP-9861	2	YES
A116	AP OFFICE	CISCO	CP-8875	1	NO
A117	DEAN	CISCO	CP-8875	1	NO
A118	PRINCIPAL	CISCO	CP-8875	1	NO
A120	AP OFFICE	CISCO	CP-8875	1	NO
A121A	OFFICE	CISCO	CP-8875	1	NO
A121B	OFFICE	CISCO	CP-8875	1	NO
A121C	OFFICE	CISCO	CP-8875	1	NO
A121D	OFFICE	CISCO	CP-8875	1	NO
A121E	OFFICE	CISCO	CP-8875	1	NO
A121F	OFFICE	CISCO	CP-8875	1	NO
A127	CLASSROOM	CISCO	CP-7841	1	NO
A128	CLASSROOM	CISCO	CP-7841	1	NO
A134	CLASSROOM	CISCO	CP-7841	1	NO
A136	SMALL CLASSROOM	CISCO	CP-7841	1	NO
A139	CLASSROOM	CISCO	CP-7841	1	NO
A140	CLASSROOM	CISCO	CP-7841	1	NO
A141	CLASSROOM	CISCO	CP-7841	1	NO
A142	CLASSROOM	CISCO	CP-7841	1	NO
A143	CLASSROOM	CISCO	CP-7841	1	NO
A144	CLASSROOM	CISCO	CP-7841	1	NO
B103	MS SCIENCE 1	CISCO	CP-7841	1	NO
B104	MS SCIENCE 2	CISCO	CP-7841	1	NO
B105	MS SCIENCE 3	CISCO	CP-7841	1	NO
B106	ENGINEERING LAB	CISCO	CP-7841	1	NO
B108A	OFFICE	CISCO	CP-8875	1	NO
B118	COACH	CISCO	CP-8875	1	NO
B126	TECHNOLOGY	CISCO	CP-7841	1	NO
B127	ADMIN	CISCO	CP-9871	1	YES
B134	CLASSROOM	CISCO	CP-7841	1	NO
C102	PHYSICS LAB	CISCO	CP-7841	1	NO
C104	MS SCIENCE LAB	CISCO	CP-7841	1	NO
C105	CHEMISTRY LAB	CISCO	CP-7841	1	NO
C107	TECHNOLOGY	CISCO	CP-7841	1	NO
C108	BIOLOGY LAB	CISCO	CP-7841	1	NO
C110	MAKER'S LAB	CISCO	CP-7841	1	NO
C112	BIOMEDICAL LAB	CISCO	CP-7841	1	NO
C114	ART	CISCO	CP-7841	1	NO
C115	CLASSROOM	CISCO	CP-7841	1	NO
C116	CLASSROOM	CISCO	CP-7841	1	NO
C117	CLASSROOM	CISCO	CP-7841	1	NO
C118	CLASSROOM	CISCO	CP-7841	1	NO
A202	CLASSROOM	CISCO	CP-7841	1	NO
A203	CLASSROOM	CISCO	CP-7841	1	NO
A205	CLASSROOM	CISCO	CP-7841	1	NO
A206	CLASSROOM	CISCO	CP-7841	1	NO
A207	CLASSROOM	CISCO	CP-7841	1	NO
A208	CLASSROOM	CISCO	CP-7841	1	NO
A209	CLASSROOM	CISCO	CP-7841	1	NO
A210	CLASSROOM	CISCO	CP-7841	1	NO
A211	TEACHERS LOUNGE	CISCO	CP-7841	1	NO
A212	OFFICE	CISCO	CP-8875	1	NO
A215	CLASSROOM	CISCO	CP-7841	1	NO
A219	CLASSROOM	CISCO	CP-7841	1	NO
A224	SMALL CLASSROOM	CISCO	CP-7841	1	NO
A225	CLASSROOM	CISCO	CP-7841	1	NO
A226	CLASSROOM	CISCO	CP-7841	1	NO
A229	CLASSROOM	CISCO	CP-7841	1	NO
A230	CLASSROOM	CISCO	CP-7841	1	NO
A231	CLASSROOM	CISCO	CP-7841	1	NO
A232	CLASSROOM	CISCO	CP-7841	1	NO
A233	CLASSROOM	CISCO	CP-7841	1	NO
A234	CLASSROOM	CISCO	CP-7841	1	NO
SPARE DEVICES	NA	CISCO	CP-8875 (TURNED INTO IT DEPT)	5	
SPARE DEVICES	NA	CISCO	CP-7841 (TURNED INTO IT DEPT)	5	

NOTES:
A.

WIRELESS NETWORK

ROOM	ROOM NAME	MANUFACTURER	MODEL	QUANTITY
A104	SPECIAL ED	MERAKI	CW9162I-MR	1
A105	ESL	MERAKI	CW9162I-MR	1
A106	LIFE SKILLS	MERAKI	CW9162I-MR	1
A110	NURSE	MERAKI	CW9162I-MR	1
A114	CORRIDOR	MERAKI	CW9162I-MR	1
A121	COUNSELOR SUITE	MERAKI	CW9162I-MR	1
A122	COORDINATOR	MERAKI	CW9162I-MR	1
A127	CLASSROOM	MERAKI	CW9162I-MR	1
A128	CLASSROOM	MERAKI	CW9162I-MR	1
A130	CLASSROOM	MERAKI	CW9162I-MR	1
A134	CLASSROOM	MERAKI	CW9162I-MR	1
A136	SMALL CLASSROOM	MERAKI	CW9162I-MR	1
A139	CLASSROOM	MERAKI	CW9162I-MR	1
A140	CLASSROOM	MERAKI	CW9162I-MR	1
A141	CLASSROOM	MERAKI	CW9162I-MR	1
A142	CLASSROOM	MERAKI	CW9162I-MR	1
A143	CLASSROOM	MERAKI	CW9162I-MR	1
A144	CLASSROOM	MERAKI	CW9162I-MR	1
B103	MS SCIENCE 1	MERAKI	CW9162I-MR	1
B104	MS SCIENCE 2	MERAKI	CW9162I-MR	1
B105	MS SCIENCE 3	MERAKI	CW9162I-MR	1
B106	ENGINEERING LAB	MERAKI	CW9162I-MR	1
B107	CAFETERIA	MERAKI	CW9162	2
B108	KITCHEN/SERVING	MERAKI	CW9162-MR	1
B108A	OFFICE	MERAKI	CW9162I-MR	1
B116	GYMNASIUM	MERAKI	CW9162	2
B126	TECHNOLOGY	MERAKI	CW9162I-MR	1
B133	TEACHERS LOUNGE	MERAKI	CW9162I-MR	1
B134	CLASSROOM	MERAKI	CW9162I-MR	1
C102	PHYSICS LAB	MERAKI	CW9162I-MR	1
C104	MS SCIENCE LAB	MERAKI	CW9162I-MR	1
C105	CHEMISTRY LAB	MERAKI	CW9162I-MR	1
C107	TECHNOLOGY	MERAKI	CW9162I-MR	1
C108	BIOLOGY LAB	MERAKI	CW9162I-MR	1
C110	MAKER'S LAB	MERAKI	CW9162I-MR	1
C112	BIOMEDICAL LAB	MERAKI	CW9162I-MR	1
C114	ART	MERAKI	CW9162I-MR	1
C115	CLASSROOM	MERAKI	CW9162I-MR	1
C116	CLASSROOM	MERAKI	CW9162I-MR	1
C117	CLASSROOM	MERAKI	CW9162I-MR	1
C118	CLASSROOM	MERAKI	CW9162I-MR	1
A202	CLASSROOM	MERAKI	CW9162I-MR	1
A203	CLASSROOM	MERAKI	CW9162I-MR	1
A205	CLASSROOM	MERAKI	CW9162I-MR	1
A206	CLASSROOM	MERAKI	CW9162I-MR	1
A207	CLASSROOM	MERAKI	CW9162I-MR	1
A208	CLASSROOM	MERAKI	CW9162I-MR	1
A209	CLASSROOM	MERAKI	CW9162I-MR	1
A210	CLASSROOM	MERAKI	CW9162I-MR	1
A211	TEACHERS LOUNGE	MERAKI	CW9162I-MR	1
A215	CLASSROOM	MERAKI	CW9162I-MR	1
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A229	CLASSROOM	MERAKI	CW9162I-MR	1
A230	CLASSROOM	MERAKI	CW9162I-MR	1
A231	CLASSROOM	MERAKI	CW9162I-MR	1
A232	CLASSROOM	MERAKI	CW9162I-MR	1
A233	CLASSROOM	MERAKI	CW9162I-MR	1
A234	CLASSROOM	MERAKI	CW9162I-MR	1
SPARE DEVICES	NA			
SPARE DEVICES	NA			

NOTES:
A.

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