

PROJECT: William Fox Elementary School Reconstruction Richmond Public Schools IFB: 23-7053-10 QE: 42240940

The following items represent changes, modifications and/or clarifications to the Contract Documents for this project. This Addendum shall become a part of the Contract Documents and all Bidders shall acknowledge its inclusion in their bid.

Responses to Bidder Questions:

- 1 **QUESTION**: Is it expected that a General Contractor will bid on the entire project, including the AV installation, or if the school system intends to award the AV component separately and directly to a vendor.
 - **<u>ANSWER</u>**: The Contractor shall provide the full scope of work indicated in the posted Bid Documents. Owner will procure additional equipment, not indicated in Bid Documents via a separate contract.
- 2 <u>QUESTION:</u> The security camera manufacturer for the project is listed as 'Avigilon or an approved Owner's equal. Is there any other approved camera manufacturer's that could be bid?
 - ANSWER: The Project Specifications require that the Camera 'head-end' software and hardware be by Avigilon as it is the Basis-of-Design and that provided system be compatible with Owner's existing Avigilon systems. The Specifications allow for the individual cameras to be by other manufacturers provided that they are equals, as determined by Owner and Architect, and fully compatible with the Avigilon system and RS2 Security Management System. Note that Substitutions are not approved prior to Bid Opening and that Bidders must ensure their product is equal to the Basis-of-Design. There is no guarantee after Bid Opening that Substitutions will be accepted.
- 3 **<u>QUESTION:</u>** Please confirm Sarco glaze putty may be used as wood window glazing compound.
 - **ANSWER:** Sarco Products appear to meet Project Specifications. Products equal to those Specified or meeting requirements of Specifications may be Submitted for review upon award of Contract.
- 4 **QUESTION:** Please provide clarification on required wood species to be used for Period Opening repairs/replication. Existing material is likely old growth heart pine which is very expensive and hard to source.
 - **ANSWER:** Old-growth heart pine is not required for this project. Refer to Section 060300 Conservation Treatment for Period Wood for wood species requirements.
- 5 <u>QUESTION:</u> Please confirm period opening replacement sash and period opening replication window components can be provided by historic window repair vendors or other qualified offerors.
 - **ANSWER:** There are no restrictions on which companies or type of companies can furnish replacement window components if company can satisfy requirements of Specifications and Drawings.
- 6 <u>QUESTION:</u> Please confirm storm windows should be priced and provided per Storm Window Scope notes on A611 and not only at detailed locations shown on A610.



ANSWER: Correct, Storm Windows shall be provided per Storm Window Scope Notes on Sheet A611

- 7 QUESTION: On A611 Window Restoration Scope Note 4. C. indicates replacement of broken glass with 1/4" tempered glass. Existing glass is likely 1/8" or at most 3/16". Replacing broken glass with heavier glass that is tempered, will change weight of sash leading to non-functional balance system(additional work) and will present a significant visual difference when looking at original glass next to proposed glass to be provided. Please confirm it's acceptable to price and provide 1/8" DSB float glass to replace missing and broken glass for existing historic wood window sash instead of 1/4' tempered.
 - **ANSWER:** Glass for Historic Window Restoration shall be 1/8" to match existing. Refer to revised Specification Section 088000 Glazing and Glazing Schedule on Sheet A001 Abbreviations, Symbols and Schedules included in this Addendum.
- **<u>8</u> QUESTION:** Please provide window schedule referenced on A513 and A610.
 - **ANSWER** References to Window Schedule have been deleted, all scope is documented on Sheets in current Bid Set. Refer to Revised Sheets A513 and A610 included in this Addendum.
- 9 QUESTION: Plan notes call for using screws to secure non-operable windows in place. This practice will lead to future damage and increased future maintenance costs. Best practice would be to add chock-blocks under top sash to avoid damaging sash structure and concealing fasteners. Please confirm chock-blocks may be used to secure top sash in place in lieu of concealed fasteners.
 - ANSWER: Chock-Blocks under top sash shall be provided in-lieu of concealed fasteners. Refer to revised Sheets A610 and A611 included in this Addendum. Delete references to screwing sashes in-place.
- **10 QUESTION:** Window Restoration Scope note 14 indicates to provide zinc weatherstrip and kerf cut only at sill while Spec Section 080300 "3.10 Weatherization" indicates to provide weatherstripping along "edge of sash". For typical Double Hung windows, zinc weatherstripping and sash modifications are performed at 5 surfaces of each sash which requires 10 modifying cuts and 10 individual pieces of zinc weatherstripping per opening. 4 for edges of top sash, 4 for edges of bottom sash and 2 at meeting rails where top and bottom sash come together. Please confirm that only bottom rail kerf cut and sill applied zinc weatherstripping is required as indicated on plan notes.
 - **ANSWER:** Weatherstripping shall be provided at edge of sash, meaning all (5) surfaces or edges as described in question, as indicated in Specification Section 080300 Conservation Treatment for Period Openings.
- 11 QUESTION: Hazardous Material survey indicates presence of lead-based paint at various window sills and frames, but does not indicate sampling of window sash or mention LBP on window sash. Should contractors assume that window sash also contains lead-based paint and apply same safety and surface preparation scope to all window sash components assuming they also com?
 - ANSWER: The Lead Paint Chip Analysis Report dated 1/13/2023 included in the Project Manual indicates that many paint samples contained lead above the limit, while many did not. Due to the age of the building and the continuous repairs, renovations and replacements that have been carried out over its 100+ year life, it is expected that during some eras, lead-based paint was used extensively throughout the building, and at other times, non-lead-based paint was used extensively. Without testing every surface within the building, it is not possible to provide a complete list of which surfaces should be assumed to contain lead-based paint and which



should not. It is the Contractors responsibility to bid the project in a manner that ensures all applicable safety and environmental regulations are met when working with a building such as this one, with paint and coatings of various types and ages.

12 QUESTION: Window Restoration Scope Note 4, B. indicates only the removal of loose glaze putty at each glass lite and then Note 4, H. calls for "application of new glazing compound at all glass lites". When addressing non-broken existing glass, should contractors: A. Price removal of existing glass panes to rebed and reglaze consistent with the design intent of Spec Section 080300 3.09 Reglazing?

B. Price leaving sound glaze putty and existing glass lites in place and applying new glaze putty only where loose and failing?

- ANSWER: Reglazing scope shall be consistent with Window Restoration Scope Note 4, B. Refer to revised Sheet A611 New Windows and Details for revised notes.
- **13 QUESTION:** Please provide letter by Viro-technology detailing previous ACM survey referenced on page 125 of Specifications. Our intent is to verify ACM has been tested for and does not exist at window sash glaze putty locations. Please confirm no ACM glaze putty exists on the project.
 - **ANSWER:** Refer to letter and Asbestos Report, by AmeriSci / Viro-Technology and dated May 1, 2022, included in this Addendum.
- **14** QUESTION: Question regarding the Quartz Tile initials on the spec sheet and the finish plans. The Finish plans show QT-1 and QT-2 being installed. However in the spec sheet the Quartz Tile is indicated as QZ-1 and QZ-2. Could you please verify the QT-1 and QT-2 on the finish plans is in fact the Quartz Tiles? I assumed it was just a typo because there is no quarry tile on the job but just want to make sure.
 - **ANSWER:** Correct, the Specification Section contains a typographical error. QT-1 and QT-2 indicated Quartz Tile. QT-1 is the same as QZ-1 and QT-2 is the same as QZ-2.
- **<u>15</u> QUESTION:** Please confirm that the Documents indicate that the Existing Building is Boarded Up in Plywood and what the intent is to remain/remove this as work moves forward.
 - **ANSWER:** Contractor may elect to remove plywood currently installed over window openings as required to perform the work. The Contractor shall be responsible for protecting the interior of the building from weather, including blowing precipitation throughout the course of the Work.
- **<u>16</u> QUESTION:** Please confirm that the Documents indicate temporary plywood subfloor is in place on Level 3 and what the intent is to remain/remove this work.
 - ANSWER: Refer to General Demo Note 17 on Sheets AD101, AD102 and AD103
- **17 QUESTION:** Instructions to Bidders para 2.1.9 and A201 General Conditions of the Contract for Construction para 3.7.1 both state "The Contractor shall not pay for: Any permits issued by the City of Richmond. The Bid Form states "The Contractor will be responsible for obtaining and bearing the cost of all subcontractor permits". Which is correct?
 - A201 is Correct, refer to Revise Bid Form included in this Addendum
- **<u>18</u> <u>QUESTION:</u>** Given that all documentation is provided; will the Owner be prepared to pay for materials stored off-site?
 - **ANSWER:** Refer to Section 012900 Payment Procedures for requirements relate to stored materials.



- **<u>19</u> <u>QUESTION:</u>** Please confirm that the following are requirements to this project and explain intent if you do not mind. Reason for the ask is that this is typically seen more for LEED projects and this is not a LEED project.
 - 015719 Temporary Environmental Controls:
 - 1. Includes:
 - 1. Building flush-out after construction and before occupancy.
 - 2. Testing indoor air quality before commencement of construction; existing building areas only.
 - 3. Testing indoor air quality after completion of construction.
 - 4. Testing air change effectiveness after completion of construction.
 - 2. Building Flush-Out:
 - 1. Contractor's Option: Either full continuous flush-out OR satisfactory air contaminant testing is required, not both.
 - 2. Perform building flush-out before occupancy.
 - 3. Building Flush-Out:
 - Operate all ventilation systems at normal flow rates with 100percent outside air until a total air volume of 14,000 CF per SF of floor area has been supplied.
 - 1. 65,000 SF of floor area times 14,000 CF = 910 million CF of ventilation
 - **ANSWER:** The requirements included in 01579 Temporary Environmental Controls ARE required for this project. This is to provide the Owner with information about air quality before and after construction due to the building be open to the weather for a significant period of time prior to the reconstruction.
- 20 QUESTION: In a lot of the spec sections they have language associated with "Sustainable Design Submittals" and/or "Regional Materials". Is this a LEED project? Are these notes from a previous project thus not required and can be removed from this project?
 - **ANSWER:** LEED and Sustainable Design Submittals are not required for this Project. Delete all reference to LEED and Sustainable Design Submittals from the Project Manual
- **21 QUESTION:** 061000 Rough Carpentry calls for Sustainable Design Submittals/Chain of Custody Qualification Data/FSC Certified Wood/Regional Materials. Please confirm that this is not a requirement of this project.
 - **ANSWER:** Sustainable Design Submittals are not required for this project.
- 22 QUESTION: 061600 Sheathing calls for Sustainable Design Submittals/Chain of Custody Qualification Data/FSC Certified Wood/Regional Materials. Please confirm that this is not a requirement of this project.
 - **ANSWER:** Sustainable Design Submittals are not required for this project.
- 23 QUESTION: 061715 Engineered Structural Wood calls for Sustainable Design Submittals/Chain of Custody Qualification Data/FSC Certified Wood/Regional Materials. Please confirm that this is not a requirement of this project.
 - **ANSWER:** Sustainable Design Submittals are not required for this project.



<u>24</u> <u>QUESTION:</u> Are they planning on having a finish schedule and or a finish legend?

ANSWER: All finish information (floor, wall and base finishes) for each room are included in the Room Tag used on the Finish Plans. Refer to the Finish Legend for hatches, abbreviations, and explanation of how to read the Finish Plan Room Tags.

FINISH LEGEND

ROOM NAME ROOM #	FINISH TAG	STORAGE 115
FLOOR FINISH	REFER TO PLAN NOTES FOR	SCON
BASE FINISH	ACCENT AREAS AND OTHER	RB-1
WALL FINISH	SPECIFIC INFORMATION.	PT-5

25 QUESTION: The RCP only shows SACP 2 & 3. Does that mean that any other grid shown is SACP 1?

ANSWER: SACP-01 is 'Typical' unless indicated otherwise. Refer to Ceiling Legend.

		SACP-01, TYP, SACP-03 WHERE NOTED. 2' x 2' ACOUSTICAL CEILING PANEL. REFER TO SPECS. CENTER LIGHTS, SPRINKLERS,
	l	SPEAKERS, ETC IN CEILING TILES, UNO

- **26 QUESTION:** ACT Spec 095100 SACP 1 say Armstrong Cortega #769 which is a 2'x4' panel. Then later in the spec it says it is a 2'x2' panel. There are no 2'x4' ceiling panels on the plans. Can I assume that SACP 1 is Armstrong Cortega #770 which is a 2'x2' panel?
 - ANSWER: Correct, SACP 1 is Armstrong Cortega #770, 2x2 panel
- **<u>27</u> QUESTION:** Please provide additional information regarding the existing Temporary Fence around the perimeter of the site. Will the Owner take full responsibility of this during construction?
 - **ANSWER:** The Owner, Richmond Public Schools (RPS), owns the existing fencing currently installed at perimeter of site. During the course of the Work, Contractor shall be responsible for maintaining complete and continuous fencing perimeter and making modifications by adding or moving gates/entrances, making repairs to damaged panels, and other work as required. RPS will remove fencing at end of project.
- **28 QUESTION:** Section 116623, paragraph 2.04.A.2.c. specifies custom graphics but none are indicated on the drawings. Custom graphics are priced per 2'-0" wide by 7'-0" high wall pad. Can a quantity of pads to receive graphics be provided or should this paragraph be deleted?
 - ANSWER: Delete Paragraph 2.04.A.2.c
- 29 QUESTION: Section 116623, paragraph 2.03.C. specifies the padding to have 16 ounce vinyl but most manufacturers utilize 14 ounce vinyl for padding. Will 14 ounce vinyl be acceptable?
 - ANSWER: Provide 14 oz. vinyl for wall padding

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- 30 QUESTION: Section 116623, paragraph 2.04.A.5. specifies the padding to have nailing/fastening margins but paragraph 2.04.A.6. specifies Z-clips for attachment. Generally the padding is without lips when Z-clips are provided. Can you advise if the padding should be mounted to the wall with fasteners at the top and bottom 1" nailing margins of the padding or attached with concealed Z-clips and not have 1" nailing margins?
 - **ANSWER:** Wall pads shall be secured with Z-clips. Delete reference to nailing margins in paragraph 2.04.A.5
- 31 QUESTION: Section 116623, paragraph 2.03.G. specifies the stage padding to be attached with Velcro but drawing A513, detail 4 indicates the stage padding to be attached with Z-clips. Generally stage padding is removable and attached with Velcro either to the face of the stage or the stage floor. Can it be confirmed the stage padding should be attached by Velcro and not Z-clips as shown on drawing A513?
 - **ANSWER:** Vertically installed pads on face of stage shall be secured with z-clips, as indicated on Sheet A5013. The top-return portion of the pad that sits on the stage surface shall be secured in place with Velcro, as noted in Specifications. Refer to revised notes on Sheet A5013 included in this Addendum.
- 32 QUESTION: Section 116623 does not specify the netting that is detailed on drawing A402, Keynote 12.08. Can a specification be provided for this netting at the windows (size net squares and color, generally black)?
 - ANSWER: Netting indicated by Keynote 12.08 is specified in Section 109000 Miscellaneous Specialties
- 33 QUESTION: Will shorter wall pads be required below the windows shown on A402?
 - **ANSWER:** Yes provide shorter wall pads below windows seen at Interior Elevations 2/A402 and 6/402. Refer to revised Sheet A402 included in this Addendum.
- **<u>34</u>** QUESTION: Drawing C200. Who owns the modular buildings that are to be removed from the site by the contractor at project completion? If the City, then please provide a location where the units are to be removed to or are they to be completely removed/demolished/disposed of?
 - **ANSWER:** Modular buildings are leased by Richmond Public Schools. Owner will remove buildings at end of project.
- 35 **QUESTION:** Where is the Signage Spec?
 - **ANSWER:** Signage will be procured by the Owner under separate Contract
- 36 QUESTION: In further review in division 230100-3 paragraph 1.14 A states a three (3) year warranty is this correct? Usually 12 months. In paragraph 1.14 D It requires monthly filter changes through warranty period. Should not the school systems' maintenance do their own filter changes? There is a lot of cost added for us to travel for a 3 year period just to change air filters. Will monthly filter changes during warranty be deleted and the warranty to 1 year?
 - **ANSWER**: The 36-month warranty will be updated to reflect a 12 month warranty period. The contractor shall conduct the monthly filter changes through the warranty period.

<u>38</u> <u>QUESTION:</u> Reference specification 230800-1, 1.03 a. iii. DALT report. Please specify what we are testing. Specification 230593-2, C. states that TAB contractor to test to +/-10% of respective design



quantities. Since all duct is considered low pressure 2"WG< is it necessary to DALT the ductwork?

ANSWER: A DALT is not necessary for the ductwork since it is all low-pressure.

- 39 QUESTION: Reference specification 230500-6, b. for boiler combustion air intake. Specs states outside combustion air pipe to be PVC, mechanical equipment schedule for the boiler on M003 calls for galvanized pipe for combustion air and AL294-C for the boiler vents. Boiler detail on M402 shows PVC for both combustion and exhaust. Please clarify.
 - **ANSWER:** The outside combustion air pipe is to be smooth-walled galvanized steel and the boiler vent pipe is to be AL294-C.
- **40 QUESTION:** M001, note 26 indicates exposed ductwork is required to be 2" double-wall with paintable outer jacket. Please confirm the ductwork in attic is not considered "exposed" and shall be insulated per the concealed duct insulation specifications 230700, 3.03, B.
 - **<u>ANSWER:</u>** The ductwork in the attic is not considered "exposed" and shall be insulated per the concealed duct insulation specifications.
- **<u>41</u> QUESTION:** Specification 230900, Section 2.01 calls for Honeywell Building Solutions as an approved manufacturer. Will a Honeywell Tridium N4 JACE headend with BACnet field controllers, installed by an independent Contractor, be acceptable?
 - **ANSWER:** Per 230900 specification section 1.02 A., the alternative manufacturer is the Honeywell Building Solutions local factory office, so the installation by an independent contractor is not acceptable.
- **42** QUESTION: Specification 230900, Section 2.01 calls for Siemens and Honeywell Building Solutions as an approved manufacturer. Will a Schneider Electric Ecostruxure headend with BACnet field controllers be acceptable as an alternative as it meets/exceeds the performance criteria listed in specification 230900? This will give the school system additional competition, and the school system currently has additional control vendors in the existing buildings beyond just Siemens and Honeywell.
 - **ANSWER:** Controls contractor to provide controls based on acceptable manufacturers listed in 230900 specification section 1.02 A, Schneider is not an acceptable alternative.
- **43** QUESTION: 013200 Construction Progress Documentation: Given the project as a whole: Are Cost Loading and Resource Loading for the Schedule actually required for this project? Please confirm that it is not required for this project.
 - **ANSWER:** No, Cost Loading and Resource Loading are not required for this project.
- **44 QUESTION:** Section 012100 Allowances, 1.07.B Unit-Cost Allowances states "Unless otherwise indicated, Contractors costs for receiving and handling at Project site, labor, installation, overhead and profit, and similar costs related to products and materials ordered by Owner or selected by Architect under allowance shall be included as part of the Contract Sum and not part of the allowance."

Please make clear what costs are included in the Unit Cost allowance amounts and what costs the contractor should include separately in its base bid.

- A. Exterior and Interior Masonry Repointing
- B. Exterior Window Sill Replacement
- C. Interior Wood Subfloor Removal and Replacement
- D. Structural Joist Repair
- E. Plaster Wall Finish Repair



		F. Interior Wood Trim, Less Than 6"G. Interior Wood Trim, Greater Than 6"
	ANSWER	Change Section 01200 Allowances, Paragraph 1.07.B to read as follows:
		"Unless otherwise indicated, Contractors costs for receiving and handling at Project site, labor, installation, overhead and profit, and similar costs related to scope included in each Unit Price Allowance shall be included as part of the Unit Price."
<u>45</u>	QUESTION:	Drawing C102 and drawing F701 provide differing details for the Fire Department (Siamese) Connection. Which detail is correct for this project?
	ANSWER:	Detail 9 on Sheet F701 is the correct Fire Department Connection Detail. Delete Detail 'Siamese Connector Detail' from Sheet C102.
<u>46</u>	QUESTION:	The OM4 fiber shown on sheet TT401 is indicated by a dotted line, is this existing to remain or are we to provide this?
	ANSWER:	The OM4 fiber shown on Sheet TT401 is not existing, it is to be provided by Contractor under this contract. It is shown dashed to differentiate it as a fiber line, rather than a copper line which is shown solid.
<u>47</u>	QUESTION:	Specification 312000 Earthwork, para.3.10 Additional Excavation requires additional excavations, Mass, Trenches, Footings with select backfill, stone and/or lean concrete as may be directed by the Architect. Sections D. and E. indicate All additional excavations shall be included in the Base Bid Contract Amount with no consideration for additional cost or time extensions granted. Currently, there are no earthwork related unit cost allowances included in the bid documents to cover any possible additional excavations, disposal, backfill nor are any soil borings included. Please provide how contractors should include this additional work without the information noted above or preferably consider providing unit costs allowances for the possible additional excavations.
	ANSWER:	Delete paragraph 3.1 Additional Excavation and all sub-paragraphs from Section 312000 - Earthwork
<u>48</u>	QUESTION:	 Please confirm the following not associated with this project: 024113 - Selective Site Demolition: 1. Includes: 1. Permanent abandonment of the existing well. 2. Removal and disposal of material from dump areas. 3. Underground tanks.
	ANSWER:	Confirmed, the scope in question is not included. Delete Paragraphs 1.2.A.5, 6 & 7 from Section 024113 – Selective Site Demolition
<u>49</u>	QUESTION:	 Drawings A121, A122, A123: 1. What is the ceiling finish for room 110 IDF? 2. What is the ceiling finish for room 119 Custodial? 3. What is the ceiling finish for room 126 Book Storage? 4. What is the ceiling finish for room 226 Storage? 5. What is the ceiling finish for room 311a AV?
	ANSWER:	 Refer to revised Sheets A121, A122 and A123 – Reflected Ceiling Plans for notes describing the following ceiling finishes: 1. 110 IDF: Gypsum Board Installed Directly to Joists of Floor Structure Above 2. 119 Custodial: Gypsum Board Installed Directly to Joists of Floor Structure Above



- 3. 126 Book Storage: Gypsum Board Installed Directly to Joists of Floor Structure Above
- 4. 226 Storage: Gypsum Board Installed Directly to Joists of Floor Structure Above
- 5 311a AV: Gypsum Board Installed Directly to Joists of Floor Structure Above
- **50 QUESTION:** Drawing A133 and specification 096429. Finish plan notes on A133 call for one layer of ½" plywood subfloor at locations where wood plank flooring is indicated. Wood Plank Floor specification call for 23/32 inch (3/4") thick T&G plywood subfloor. Which requirement is correct? If ½" material, are tongue and groove boards required?
 - ANSWER: Specification Sections 096428 Wood Strip and Plank Flooring and 061600 Sheathing indicate that 23/32" subfloor materials shall be provided. Change Finish Plan Note 3 on Sheets A131, A132 and A133 to read as follows: 3. Level 2 and level 3: Install new plywood sub-floor over existing wood sub-floor at all rooms, Typ. Provide (1) layer of sub-floor at locations where wood plank flooring is indication. Provide (2) layers sub-floor where carpet, resilient tile or rubber flooring are indicated. Coordinate thickness of new subfloor with floor finishes and existing conditions, including but not limited to existing stone stair treads, to ensure final height of floor finishes are flush at same level. Advise architect of conditions where floor finish heights will not align.
- 51 QUESTION: Drawing A601 Door Schedule. Doors 201, 206, 207, 208, 209 and 210 indicate Frame HM16 but there is no HM16 detailed on A602 Hollow Metal Storefront Frame Types. Door 201 has designation HM09 on the A102 floor plan but none of the other doors show HM designations. Please clarify.
 - ANSWER: Doors 206, 207, 208, 209 and 210 shall be HM11 Door 201 shall be HM09
- 52 QUESTION: Drawing A601 Door Schedule. Doors 209b and 216 indicate Frame HM with no number designation. Please clarify frame type.
 - ANSWER: Door 209b shall be HM01 Door 216 shall be HM02
- 53 QUESTION: Drawing A601 Door Schedule. Door 108 is scheduled with frame HM04 but floor plans indicate HM07. Door 120 is scheduled with frame HM04 but floor plans indicate HM06. Please clarify
 - ANSWER: Door 108 shall be HM07 Door 106 shall be HM06
- 54 QUESTION: On the plans for the camera system, the plans list 360 cameras. Would you mind updating the technology for each location whether it is a "multi-sensor" or a "fisheye" type camera?
 - **ANSWER:** Refer to Specification Section 282329 Video Surveillance Field Devices, paragraph 2.05 Fixed Environmental IP Dome Camera for 360 camera type .
- 55 QUESTION: Drawing A201 Building Elevations. Keynote 07.12 New Exterior Insulated Finish System. Please provide specification information for the new EFIS system that is to match existing.
 - ANSWER: Provide air and water-resistive barrier and EIFS cladding components from single-source manufacturer. Basis-of-Design: StoTherm ci XPS by Sto Corp, or equal product as determined by Architect. Refer to notes on revised Sheet A201 – Building Elevations included in this Addendum.
- 56 QUESTION: Questions Regarding Specification 122413 (122414) Manual Roller Shades and Motorized Roller Shades:



1. 2.03.A. (2.04.A.) specifies, "1 percent and 3 percent openness." May we include EcoFabrix 241 (1%) and 243 (3%) for this project?

2. 2.03.B. (2.04.B.) specifies, "0 percent openness." May we include EcoFabrix 700 or EcoFabrix 770GC for this project?

- ANSWER: 1. EcoFabrix 241 does not appear to exist in EcoFabrix line. Basis-of-Design is EcoFabrix Classix 251 line.
 - 2. EcoFabrix <u>243</u> does not appear to exist in EcoFabrix line. Basis-of-Design is EcoFabrix Classix <u>253</u> line.

Change Specification Section 122413 – Manual Roller Shades, paragraph 2.03.A to read as follows: Basis-of-Design Product: EcoFabrix Solar Protective Sheer Fabrics, Classix Line

Change Specification Section 122413 – Manual Roller Shades, paragraph 2.03.B to read as follows: Basis-of-Design Product: EcoFabrix Solar Protective Light Blocking Fabrics, Classix Line

Change Specification Section 122414 – Motorized Roller Shades, paragraph 2.04.A to read as follows: Basis-of-Design Product: EcoFabrix Solar Protective Sheer Fabrics, Classix Line

Change Specification Section 122414 – Motorized Roller Shades, paragraph 2.04.A to read as follows: Basis-of-Design Product: EcoFabrix Solar Protective Light Blocking Fabrics, Classix Line

57 QUESTION: Sheet A001, Roller Shade Schedule. RS-2: What fabric (openness) is required?

ANSWER: Roller Shade RS-2 Shall receive fabric with 1% openness

58 **QUESTION:** A610, Details (3, 6)

1. These details show the roller shade chain offset from the bottom of the clutch, which is not how the product is designed. This would result in accelerated wear/damage on the chain rubbing on the bottom of the clutch, and a more difficult/physical experience operating the chain. Further, there appear to be eyelets around the chain at the window head and sill, which are not provided by the Basis of Design. Additionally, the shroud is designed to be free-hanging, not attached to any substate. Can the chain and shroud be located directly below the bottom of the shade, rather than offset from the bottom of the shade/clutch?

2. The shades are drawn open roll. Is this correct, or do they require either a fascia, a closure trim/closure or shade pocket?

- **ANSWER:** 1. Roller shade and chain installation is not typical due to historic nature of window and trimwork dimensions. Details provided indicate design intent and coordination with existing conditions will be required.
 - 2. A fascia is required.

Add the following paragraph to Specification Section 122413 – Manual Roller Shades: 2.02.B Fascia: At all surface-mounted shades; L-shaped, formed-steel sheet or extruded aluminum; long edges returned or rolled; continuous panel concealing front and bottom shade roller, brackets and operating hardware and operators; length as indicated on Drawings; removable for access.

- 59 QUESTION: Sound Absorbing Wall & Ceiling Units 098430 1.Is it possible to label the products listed in the specs with AWP 1,2 or 3 so that they match up with what is shown on the plans?
 - **ANSWER:** Refer to Acoustic Wall Panel Schedule on Sheet A001 Abbreviations, Symbols, Schedules for information on which specified products are AWP-1, 2 and 3:



ACOUSTIC WALL PANEL SCHEDULE

REFER TO SPECIFICATIONS SECTION "ACOUSTIC WALL PANELS", TO INTERIOR ELEVATIONS, AND TO ENLARGED PLAN/ELEVS - GYMATORIUM, FOR LOCATIONS.

TYPE MARK	SIZE	TYPE
AWP-1	24" X 24"	PET PLASTIC PANELS
AWP-2	36" X 59"	FELT WALL PANELS
AWP-3	12" X 24"	FABRIC-WRAPPED PANELS

- 60 QUESTION: 087100 Door Hardware: How do we figure "Provide Wrap-Around as needed for existing wood doors only"?
 - **ANSWER:** Provide Wrap-around at ALL of the existing doors that are being reused.
- 61 QUESTION: Please confirm the requirement for color coded PVC insulation jacketing for exosed piping and equipment in mechanical rooms and mechanical mezzanines per Section 230100, 3.12, C. This work is typical of industrial projects not commercial and the additional cost to provide this work does not benefit the end user, especially when piping is already identified with service markers and directional arrows.
- 62 ANSWER: The specified insulation jacketing shall be included.
- 63 QUESTION: Per 064100 Architectural Wood Casework: References Countertops spec section 123600. Please provide this spec section if you do not mind.
 - ANSWER: Refer to Section 123600 Countertops included in this Addendum
- <u>64</u> <u>QUESTION:</u> Please clarify if we are to quote single-station as required by code or system CO Detectors with sounder bases.
 - **ANSWER:** The specified system shall be included in the Bid.
- 64 QUESTION: Specs reference ANSI 117.1 which states that you must have power door operators/gates on a 90 degree configuration but Spec 144200 Sec 2.02.C.8 and Sec 2.02.D mention only manual gates/doors. Specs reference ANSI 117.1 which requires a surface mount remote hall call if ramp is involved but Sec 2.02.11.b calls for frame mount. Please confirm you want a frame mount. Specs reference ANSI 117.1 which requires a 42x60 platform for a 90 degree config on new construction and 36x60 platform on existing bldg but Sec 2.02.D.6/7 call for 36x53 7/8".
 - **ANSWER:** The specified configuration shall be included in the Bid.

Changes to Drawings:

1. REPLACE the following Sheets with the Revised Sheets contained herein:

Sheet A001 – Abbreviations, Symbols, Schedules Sheet AD101 – Demolition Plan – Level 1 Sheet AD102 – Demolition Plan – Level 2



Sheet AD103 – Demolition Plan – Level 3 Sheet A201 – Building Elevations Sheet A121 – Reflected Ceiling Plan Level 1 Sheet A122 - Reflected Ceiling Plan Level 2 Sheet A123 - Reflected Ceiling Plan Level 3 & Mezzanine Sheet A131 – Finish Plan Level 1 Sheet A132 - Finish Plan Level 2 Sheet A133 - Finish Plan Level 2 Sheet A133 - Finish Plan Level 3 & Mezzanine Sheet A402 – Enlarged Plan/Elevs – Admin & Library Sheet A513 – Interior Section Details Sheet A610 – Existing Window Restoration Sheet A611 – New Windows And Details

2. Sheets A131 Finish Plan Level 1, Sheet A132 Finish Plan Level 2 and A133 Finish Plan Level 3:

CHANGE: Finish Plan Note 3 to read as follows:

3. Level 2 and Level 3: Install new plywood sub-floor over existing wood sub-floor at all rooms, Typ. Provide (1) layer of sub-floor at locations where wood plank flooring is indication. Provide (2) layers sub-floor where carpet, resilient tile or rubber flooring are indicated. Coordinate thickness of new subfloor with floor finishes and existing conditions, including but not limited to existing stone stair treads, to ensure final height of floor finishes are flush at same level. Advise architect of conditions where floor finish heights will not align.

3. Sheet C102 – Utility Details II

DELETE: Detail 'Siamese Connector Detail' from Sheet C102.

Changes to Specifications:

1. 280000 – Electronic Safety and Security:

DELETE: Paragraph 2.01 Substitutions and sub-paragraphs A, B, C and D in their entirety.

2. 088000 – Glazing:

REPLACE: with Revised Section 088000 – Glazing included in this Addendum

3. 096500 - Resilient Flooring:

REPLACE: with Revised Section 096500 – Resilient Flooring included in this Addendum

4. 116623 – Gymnasium Equipment:

REPLACE: with Revised Section 116623 – Gymnasium Equipment included in this Addendum

5. BID FORM:

REPLACE: Bid Form with revised Bid Form included in this Addendum, which includes the following changes:

DELETE: section 'Permits' and **REPLACE** with the following:

Permits:

The Owner has applied and paid for the Building and Trade Permits listed below:

- Building Permit
- Mechanical Permit
- Gas Permit

Page 12 of 14



- Electrical Permit
- Plumbing Permit

It shall be the responsibility of the Contractor to assume those permits upon Notice to Proceed and diligently pursue their issuance in coordination with the Architect and Owner.

It shall be the responsibility of the Contractor to apply for and diligently pursue any additional required Permits from the City of Richmond.

6. Bid Form, Section C. Delivery Schedule:

ADD: Paragraph 'Liquidated Damages' to read as follows:

The Owner and the Contractor recognize that time is of the essence and that the Owner will suffer financial loss if the Work is not completed by the Substantial Completion date required by the Contract Documents. Both parties recognize the delays, expense and damages involved in proving in a legal proceeding the actual loss suffered by the Owner if the Work is not completed on time. Accordingly, the Owner and the Contractor agree, stipulate and fix as liquidated damages if delayed, but not as a penalty, the sum of one thousand and 00/100 Dollars (\$1,000.00) that the Contractor shall pay the Owner for each calendar day or part thereof that expires after the dates specified for the Substantial Completion of the Work indicated in the Base Bid. Additionally, the Owner and the Contractor agree, to stipulate and fix as liquidated damages if delayed, but not as a penalty, the sum of five hundred and 00/100 Dollars (\$500.00) that the Contractor shall pay the Owner for each calendar day or part calendar day or part thereof that expires after the date specified for the Substantial Completion of the Work indicated in the Base Bid. Additionally, the Owner and the Contractor agree, to stipulate and fix as liquidated damages if delayed, but not as a penalty, the sum of five hundred and 00/100 Dollars (\$500.00) that the Contractor shall pay the Owner for each calendar day or part thereof that expires after the date specified for the Final Completion of the Work.

7. All Specification Sections:

DELETE: All references to LEED and Sustainable Design Requirements

8. 01200 - Allowances

CHANGE: Paragraph 1.07.B to read as follows:

Unless otherwise indicated, Contractors costs for receiving and handling at Project site, labor, installation, overhead and profit, and similar costs related to scope included in each Unit Price Allowance shall be included as part of the Unit Price.

9. 122413 – Manual Roller Shades

<u>CHANGE:</u> Paragraph 2.03.A to read as follows: Basis-of-Design Product: EcoFabrix Solar Protective Sheer Fabrics, Classix Line

<u>CHANGE:</u> Paragraph 2.03.B to read as follows: Basis-of-Design Product: EcoFabrix Solar Protective Light Blocking Fabrics, Classix Line

ADD: Paragraph 2.02.B Fascia: At all surface-mounted shades; L-shaped, formed-steel sheet or extruded aluminum; long edges returned or rolled; continuous panel concealing front and bottom shade roller, brackets and operating hardware and operators; length as indicated on Drawings; removable for access.

10. 122414 – Motorized Roller Shades

<u>CHANGE:</u> Paragraph 2.04.A to read as follows: Basis-of-Design Product: EcoFabrix Solar Protective Sheer Fabrics, Classix Line

<u>CHANGE</u>: Paragraph 2.04.A to read as follows: Basis-of-Design Product: EcoFabrix Solar Protective Light Blocking Fabrics, Classix Line

11. 312000 - Earthwork

DELETE: Paragraph 3.1 Additional Excavation and all sub-paragraphs



12. 024113 - Selective Site Demolition

DELETE: Paragraphs 1.2.A.5, 1.2.A.6 and 1.2.A.7

13. 064100 – Architectural Wood Casework

REPLACE: With Revised section 064100 - Architectural Wood Casework included in this Addendum

14. 028500 - Mold Remediation

ADD: New Section 028500 - Mold Remediation

Clarifications:

Reference A201-2017 - notwithstanding Section 13.2.1, the Contractor agrees that the Owner has the right to make any necessary transfers to the LLC for purposes of obtaining historical tax credits. END OF ADDENDUM 02

BID FORM

(Submit one (1) copy of this form)

Invitation for Bid #23-7053-10 **Project: William Fox Elementary School Reconstruction**

A. BASIS OF AWARD:

Award will be made to the lowest responsive and responsible bidder based on the Total **Bid Amount.**

B. PRICING SCHEDULE:

Having carefully examined the site, the drawings, specifications and other documents, and in compliance with your "Invitation to Bid", Instructions to Bidders AIA701-2018 Edition, and this "Bid Form", the undersigned proposes to furnish all labor, materials, supplies and equipment necessary for William Fox Elementary School Reconstruction. All shall be in accordance with Drawings prepared by Quinn Evans dated October 3, 2023 and the Project Manual, dated October 3, 2023.

The bidder agrees to furnish the goods/services as specified herein, and in compliance with the terms and conditions of this Invitation for Bids at the following price(s):

PART A - BASE BID: _	Dollars
(\$)

Unit Price Allowances:

Unit Price Allowances are based on a price per unit of measurement for materials or services that will be adjusted upward or downward based on site conditions to the Contract by Change Order in the event the quantities of Work required by the Contract Documents are increased or decreased from those shown or indicated. Unit price allowances shall include all material and labor, overhead, profit and applicable taxes. Prices quoted being sum total compensation payable or creditable for such items or work. It is understood that extra work will not be executed without prior written notice.

Refer to Section 012100 – Allowances for full description of scope included in each Allowance listed below.

PART B:

Unit-Cost Allowance No. 1: Exterior and Interior Masonry Repointing

Cost for 1 SF _____ x 6,000 SF = \$____

PART C:

Unit-Cost Allowance No. 2: Exterior Window Sill Replacement

Cost for 1 LF x 200 LF =\$

PART D:

Unit-Cost Allowance No. 3: Interior Wood Subfloor Removal and Replacement

Cost for 1 SF _____ x 2,000 SF = \$_____

Cost for 1 Repair	x 60 Locations = \$	
PART F:		
Unit-Cost Allowance No. 5:	Plaster Wall Finish Repair:	
Cost for 1 SF	x 3,000 SF = \$	
PART G:		
Unit-Cost Allowance No. 6:	Interior Wood Trim, Less than 6" Height:	
Cost for 1 LF	x 1,000 LF = \$	
PART H:		
Unit-Cost Allowance No. 7:	Interior Wood Trim, Greater than 6" Height:	
Cost for 1 I F	x 1,000 LF = \$	

	DOLLARS
(\$)

PERMITS:

The Owner has applied and paid for the Building and Trade Permits listed below:

- Building Permit
- Mechanical Permit
- Gas Permit
- Electrical Permit
- Plumbing Permit

It shall be the responsibility of the Contractor to assume those permits upon Notice to Proceed and diligently pursue their issuance in coordination with the Architect and Owner.

It shall be the responsibility of the Contractor to apply for and diligently pursue any additional required Permits from the City of Richmond.

C. DELIVERY SCHEDULE:

If awarded a Contract, the Undersigned agrees to complete the work by the following dates:

- 1. Substantial Completion: May 1, 2025
- 2. Final Completion: July 1, 2025

LIQUIDATED DAMAGES:

The Owner and the Contractor recognize that time is of the essence and that the Owner will suffer financial loss if the Work is not completed by the Substantial Completion date required by the Contract Documents. Both parties recognize the delays, expense and damages involved in proving in a legal proceeding the actual loss suffered by the Owner if the Work is not completed on time. Accordingly, the Owner and the Contractor agree, stipulate and fix as liquidated damages if delayed, but not as a penalty, the sum of one thousand and 00/100 Dollars (\$1,000.00) that the Contractor shall pay the Owner for each calendar day or part thereof that expires after the dates specified for the Substantial Completion of the Work indicated in the Base Bid. Additionally, the Owner and the Contractor agree, to stipulate and fix as liquidated damages if delayed, but not as a penalty, the sum of five hundred and 00/100 Dollars (\$500.00) that the Contractor shall pay the Owner for each calendar day or part thereof that expires after the dates a penalty, the sum of five hundred and 00/100 Dollars (\$500.00) that the Contractor shall pay the Owner for each calendar day or part thereof that expires after the date specified for the Substantial Completion of the Work indicated in the Base Bid. Additionally, the Owner and the Contractor agree, to stipulate and fix as liquidated damages if delayed, but not as a penalty, the sum of five hundred and 00/100 Dollars (\$500.00) that the Contractor shall pay the Owner for each calendar day or part thereof that expires after the date specified for the Final Completion of the Work.

D. ADDENDA:

Bidder hereby acknowledges receipt of and incorporation of all requirements of any addenda issued for this Invitation for Bid.

Addendum #	Date	

E. BID BOND: Attached hereto is a Bid Bond for 5% of the undersigned base bid made payable to RICHMOND PUBLIC SCHOOLS.

F. BUSINESS CLASSIFICATION

Bidders are requested to provide the following information regarding their business. This information is for statistical purposes and, except in the case of tie bids, all firms submitting bids will receive equal consideration. Bidder shall indicate whether they are classified as a:

Minority-Owned Business	Yes □	No 🗆
Service Disabled Veteran-Owned Business	Yes □	No 🗆
Small Business	Yes □	No 🗆
Women-Owned Business	Yes □	No 🗆
Employment Services Organization	Yes □	No □

If certified by the Virginia Department of Small Business and Supplier Diversity (SBSD), provide SBSD certification number and expiration date.

NUMBER DATE

G. VIOLATIONS OF FEDERAL OR STATE OSHA STANDARDS

Each bid submitted to RPS for a contract for construction, alternation, and/or repairs should include a list of all willful violations, violations for failure to abate, repeated violations, or three or more serious safety violations of Federal or State OSHA Standards. Additionally, the bids must include information regarding termination of a contract.

No Violations/Termination of contract to report

Authorized Signature Date Date

H. VIRGINIA CONTRACTOR LICENSE

In accordance with the *Code of Virginia* Section 54.1-1100, as amended, contractors that for a fixed price, commission, fee, or percentage undertake to bid upon, or accepts, or offers to accept, orders or contracts for performing, managing, or superintending in whole or in part, the construction, removal, repair or improvement of any building or structure permanently annexed to real property owned, controlled, or leased by him or another person or any other improvement to such real property, are required to hold a business license issued by the Virginia Board for Contractors, phone (804)367-8511. If a Bidder shall fail to obtain the required license prior to submission of a bid, the bid shall not be considered.

Class of License Definitions:

<u>Class A Contractor</u> – perform or manage construction, removal, repair, or improvements when (i) the total value referred to in a single contract or project is \$120,000 or more, or (ii) the total value of all such construction, removal, repair, or improvements undertaken by such person within any 12-month period is \$750,000 or more.

<u>Class B Contractor</u> – perform or manage construction, removal, repair, or improvements when (i) the total value referred to in a single contract or project is \$10,000 or more, but less than \$120,000, or (ii) the total value of all such construction, removal, repair or improvements undertaken by such person within any 12-month period is \$150,000 or more, but less than \$750,000.

<u>Class C Contractor</u> – perform or manage construction, removal, repair, or improvements when (i) the total value referred to in a single contract or project is over \$1,000 but less than \$10,000, or (ii) the total value of all such construction, removal, repair, or improvements undertaken by such person within any 12-month period is less than \$150,000. The Board shall require a master tradesmen license as a condition of licensure for electrical, plumbing and heating, ventilation and air conditioning contractors.

The Contractor license shall have the appropriate specialty classification that is predominant for the respective work.

Contractor is required to possess a Class A Contractor's Business License for this project.

Provide contractor license number below:

Class A Virginia Contractor License No. ______ Classification/Specialty: ______



AmeriSci Richmond 13635 GENITO ROAD

MIDLOTHIAN, VIRGINIA 23112 TEL: 8047631200 FAX: 8047631800

May 1, 2022

Viro-Technology Attn: Vincent White 1108 E. Main St. Suite 702 Richmond, VA 23219

RE: Viro-Technology Job Number 122042344 P.O. #Fox Elementary Fox Elementary

Dear Vincent White:

Enclosed are the results for PLM asbestos analysis of the following Viro-Technology samples received at AmeriSci on Thursday, April 28, 2022, for a 48 hour turnaround:

1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47

The 47 samples contained in zip lock bag were shipped to AmeriSci via Hand Delivered. These samples were prepared and analyzed according to EPA PLM Method (EPA 600/R-93/116 Section 2.2). The required analytical information, analysis results, analyst signature and laboratory identification are contained in the PLM Bulk Asbestos Report. If TEM analysis was requested for selected samples the gravimetric reduction data (by Sec 2.3) and TEM Asbestos % (by Sec 2.5) are included in Table 1 along with a summary of Asbestos % by PLM for all samples analyzed.

This report relates ONLY to the sample analysis expressed as % asbestos. AmeriSci assumes no responsibility for customer supplied data such as "sample type", "location", or "area sampled". This report must not be used to claim product endorsement by AmeriSci, NVLAP or any agency of the U. S. Government. The National Institute of Standards and Technology accreditation requirements mandate that this report must not be reproduced, except in full, without the written approval of the laboratory. This report may contain specific data not covered by NVLAP or ELAP accreditations, if so identified in relevant footnotes.

AmeriSci appreciates this opportunity to serve your organization. Please contact us for any further assistance or with any questions.

Sincerely,

Jea Mayes

Jean L. Mayes QA Manager | Authorized Signatory



AmeriSci Richmond

13635 GENITO ROAD MIDLOTHIAN, VIRGINIA 23112 TEL: (804) 763-1200 • FAX: (804) 763-1800

PLM Bulk Asbestos Report

Viro-Technology	Date Received 04/28/22	AmeriSci Job #	122042344
Attn: Vincent White	Date Examined 05/01/22	P.O. #	
1108 E. Main St.		Page 1 of	12
Suite 702	RE: Fox Elementary		
Richmond, VA 23219			

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
1 Location: Fire Debr	122042344-01 is: 2nd El Hall	No	NVA
			by Gordon T. Saleeby on 05/01/22
Analyst Description:Black, Heteroger Asbestos Types: Other Material: Cellulose Presen	t Eibrous glass Present N	on-fibrous 100%	
Location: Fire Debr	122042344-02.1 is; 1st Fl Hall	NO	NAD (by CVES) by Gordon T. Saleeby on 05/01/22
Analyst Description:Off-White, Hetero Asbestos Types: Other Material: Non-fibrous 1009	ogeneous, Non-Fibrous, Skir %	n Coat (Plaster)	
Location: Fire Debr	122042344-02.2 is; 1st Fl Hall	Νο	NAD (by CVES) by Gordon T. Saleeby on 05/01/22
Analyst Description:Lt. Beige, Hetero Asbestos Types: Other Material: Cellulose Trace,	geneous, Non-Fibrous, Base Non-fibrous 100%	e Coat (Plaster)	
	122042344-02L3	Νο	NAD
Location: Fire Debr	is; 1st Fl Hall		(by CVES) by Gordon T. Saleeby on 05/01/22
Analyst Description: Black, Heteroger Asbestos Types: Other Material: Cellulose 2% Fi	neous, Non-Fibrous, Felt	ıs 78%	
Location: Fire Debr	122042344-02L4 is; 1st Fl Hall	ΝΟ	NAD (by CVES) by Gordon T. Saleeby on 05/01/22
Analyst Description: Black, Heteroger Asbestos Types:	neous, Non-Fibrous, Sub Flo	or	

PLM Bulk Asbestos Report

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
3	122042344-03.1 Location: Ceiling Plaster; 1st Fl	Νο	NAD (by CVES) by Gordon T. Saleeby on 05/01/22
Analyst Descript Asbestos Typ Other Mater	ion: White, Heterogeneous, Non-Fibrous, Skim C bes: rial: Non-fibrous 100%	oat (Plaster)	
3	122042344-03.2 Location: Ceiling Plaster; 1st Fl	Νο	NAD (by CVES) by Gordon T. Saleeby on 05/01/22
Analyst Descript Asbestos Typ Other Mater	ion:Beige, Homogeneous, Non-Fibrous, Cement bes: rial: Animal hair Trace, Non-fibrous 100%	itious, Base Coat (Plaster)	
4	122042344-04.1 Location: Ceiling Plaster; 2nd Fl	Νο	NAD (by CVES) by Gordon T. Saleeby
Analyst Descript Asbestos Typ Other Mater	ion: Off-White, Heterogeneous, Non-Fibrous, Skii bes: rial: Non-fibrous 100%	m Coat (Plaster)	011 03/0 1/22
4	122042344-04.2 Location: Ceiling Plaster; 2nd Fl	Νο	NAD (by CVES) by Gordon T. Saleeby on 05/01/22
Analyst Descript Asbestos Typ Other Mater	ion:Lt. Beige, Heterogeneous, Non-Fibrous, Bas bes: rial: Animal hair Trace, Non-fibrous 100%	e Coat (Plaster)	
5	122042344-05 Location: Ceiling Plaster; Basement	Νο	NAD (by CVES) by Gordon T. Saleeby on 05/01/22
Analyst Descript Asbestos Typ Other Mater	ion: Lt. Beige, Heterogeneous, Non-Fibrous, Bulk bes: rial: Animal hair Trace, Non-fibrous 100%	x Material	
Comme	ent: Sample contains Base Coat Plaster only.		

PLM Bulk Asbestos Report

Fox Elementary

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
6 Locatio	122042344-06.1 n: Wall Plaster; 1st Fl	Νο	NAD (by CVES)
			by Gordon T. Saleeby on 05/01/22
Analyst Description: Lt. G Asbestos Types: Other Material: Non-	ray, Heterogeneous, Non-Fibrous, Skim	Coat (Plaster)	
6	122042344_06.2	No	ΝΔΠ
Locatio	n: Wall Plaster; 1st Fl		(by CVES) by Gordon T. Saleeby on 05/01/22
Analyst Description: Brow Asbestos Types: Other Material: Non-	n, Heterogeneous, Non-Fibrous, Base C fibrous 100%	coat (Plaster)	
7	122042344-07.1	No	NAD
Locatio	n: Wall Plaster; 1st Fl		(by CVES) by Gordon T. Saleeby on 05/01/22
Analyst Description:Lt. G Asbestos Types: Other Material: Non-	ray, Homogeneous, Non-Fibrous, Skim (fibrous 100%	Coat (Plaster)	
7	122042344-07.2	No	NAD
Locatio	n: Wall Plaster; 1st Fl		(by CVES) by Gordon T. Saleeby on 05/01/22
Analyst Description: Brow Asbestos Types: Other Material: Anim	n, Homogeneous, Non-Fibrous, Cement al hair Trace. Non-fibrous 100%	itious, Base Coat (Plaster)	
8	122042344-08 1	Νο	NAD
Locatio	n: Wall Plaster; 2nd Fl		(by CVES) by Gordon T. Saleeby on 05/01/22
Analyst Description:Lt. G Asbestos Types: Other Material: Non-	ray, Homogeneous, Non-Fibrous, Skim (fibrous 100%	Coat (Plaster)	
8	122042344-08.2	No	NAD
Locatio	n: Wall Plaster; 2nd Fl		(by CVES) by Gordon T. Saleeby on 05/01/22
Analyst Description: Brow Asbestos Types:	n, Homogeneous, Non-Fibrous, Cement	itious, Base Coat (Plaster)	
Other Material: Anim	al hair Trace, Non-fibrous 100%		

See Reporting notes on last page

Client No. / HGA	No. / HGA Lab No. Asbestos Prese			
9 Location: JC; 1st F	122042344-09 I	Νο	NAD (by CVES) by Jean L. Mayes on 05/01/22	
Analyst Description: Off-White, Heter Asbestos Types: Other Material: Non-fibrous 100	ogeneous, Non-Fibrous, Joir %	nt Compound		
10	122042344-10	Νο	NAD	
Location: JC; 2nd			(by CVES) by Jean L. Mayes on 05/01/22	
Analyst Description: Off-White, Heter Asbestos Types: Other Material: Non-fibrous 100	ogeneous, Non-Fibrous, Joir %	nt Compound		
11 Location: JC; Base	122042344-11 ement	Νο	NAD (by CVES) by Jean L. Mayes on 05/01/22	
Analyst Description: Off-White, Heter Asbestos Types: Other Material: Non-fibrous 100	ogeneous, Non-Fibrous, Joir %	nt Compound		
12 Location: DW; 1st	122042344-12	Νο	NAD (by CVES) by Jean L. Mayes on 05/01/22	
Analyst Description:Off-White/Brown Asbestos Types: Other Material: Cellulose 7%, F	, Heterogeneous, Non-Fibro ibrous glass 2%, Non-fibrou	us, Drywall Is 91%		
13 Location: DW; 2nd	122042344-13	Νο	NAD (by CVES) by Jean L. Mayes on 05/01/22	
Analyst Description: Off-White/Brown Asbestos Types: Other Material: Cellulose 12%,	, Heterogeneous, Non-Fibro Non-fibrous 88%	us, Drywall		
14	122042344-14	No	NAD	
Location: DW; Bas	ement		(by CVES) by Jean L. Mayes on 05/01/22	
Analyst Description: Off-White/Brown Asbestos Types: Other Material: Cellulose 12%.	, Heterogeneous, Non-Fibro Non-fibrous 88%	us, Drywall		

Client No. / HGA	Io. / HGA Lab No. Asbestos Pre		
15 Location: CJC; 1st	122042344-15 Fl	Νο	NAD (by CVES) by Jean L. Mayes on 05/01/22
Analyst Description: Off-White, Hetero Asbestos Types: Other Material: Non-fibrous 100%	ogeneous, Non-Fibrous, Joir %	nt Compound	
16 Location: CJC; 2nd	122042344-16 Fl	Νο	NAD (by CVES) by Jean L. Mayes on 05/01/22
Analyst Description:Off-White, Hetero Asbestos Types: Other Material: Non-fibrous 100%	ogeneous, Non-Fibrous, Joir %	nt Compound	
17 Location: CJC; Bas	122042344-17 ement	Νο	NAD (by CVES) by Jean L. Mayes on 05/01/22
Analyst Description:Off-White, Hetero Asbestos Types: Other Material: Non-fibrous 100%	ogeneous, Non-Fibrous, Joir %	nt Compound	
8 Location: CDW; 1st	122042344-18 : FL	Νο	NAD (by CVES) by Jean L. Mayes on 05/01/22
Analyst Description: White/Brown, He Asbestos Types: Other Material: Cellulose 5%, Fi	terogeneous, Non-Fibrous, brous glass 2%, Non-fibrou	Drywall s 93%	
9 Location: CDW; 2nd	122042344-19 d Fl	Νο	NAD (by CVES) by Jean L. Mayes on 05/01/22
Analyst Description: White, Heteroger Asbestos Types: Other Material: Cellulose 2%, Fi	neous, Non-Fibrous, Drywall brous glass 4%, Non-fibrou	s 94%	
20 Location: CDW; Ba	122042344-20 sement	Νο	NAD (by CVES) by Jean L. Mayes on 05/01/22
Analyst Description: White/Brown, He Asbestos Types: Other Material: Cellulose 5%, Fi	terogeneous, Non-Fibrous, brous glass 2%, Non-fibrou	Drywall s 93%	

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
21 Location: C	122042344-21 Location: Ceiling HP; 1st Fl Office		NAD (by CVES) by Jean L. Mayes on 05/01/22
Analyst Description: Brown, H Asbestos Types: Other Material: Non-fibro	eterogeneous, Non-Fibrous, Mastic us 100%		
22 Location: C	122042344-22 eiling HP; Basement	Νο	NAD (by CVES) by Jean L. Mayes on 05/01/22
Analyst Description: Brown, H Asbestos Types: Other Material: Non-fibro	eterogeneous, Non-Fibrous, Mastic us 100%		
23 Location: C	122042344-23 eiling HP; Basement	Νο	NAD (by CVES) by Jean L. Mayes on 05/01/22
Analyst Description: Brown, H Asbestos Types: Other Material: Non-fibro	eterogeneous, Non-Fibrous, Mastic us 100%		
24 Location: 12	122042344-24 2x12 CT; Basement	Νο	NAD (by CVES) by Jean L. Mayes on 05/01/22
Analyst Description: Brown, H Asbestos Types: Other Material: Cellulose	eterogeneous, Fibrous, Ceiling Tile 95%, Non-fibrous 5%		
25 Location: 12	122042344-25 2x12 CT; Basement	Νο	NAD (by CVES) by Jean L. Mayes on 05/01/22
Analyst Description: Brown, H Asbestos Types: Other Material: Cellulose	eterogeneous, Fibrous, Ceiling Tile 95%, Non-fibrous 5%		
26 Location: 12	122042344-26 2x12 CT; 1st Fl	Νο	NAD (by CVES) by Jean L. Mayes on 05/01/22
Analyst Description: Brown, H Asbestos Types: Other Material: Cellulose	eterogeneous, Fibrous, Ceiling Tile 95%, Non-fibrous 5%		

PLM Bulk Asbestos Report

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
27 Location: Du	122042344-27 act Covering; Basement	Νο	NAD (by CVES) by Jean L. Mayes on 05/01/22
Analyst Description: White/Silv Asbestos Types: Other Material: Non-fibrou	er, Heterogeneous, Non-Fibrous, E ıs 100%	Bulk Material	
28	122042344-28	Νο	NAD
Location: Du	ct Covering; Basement		(by CVES) by Jean L. Mayes on 05/01/22
Analyst Description: White/Silv Asbestos Types: Other Material: Non-fibrou	er, Heterogeneous, Non-Fibrous, E ıs 100%	Bulk Material	
29 Location: Bu	122042344-29 lletin Board Mastic; 2nd Fl	Νο	NAD (by CVES) by Jean L. Mayes on 05/01/22
Analyst Description: Yellow, He Asbestos Types: Other Material: Non-fibrou	terogeneous, Non-Fibrous, Bulk M Is 100%	laterial	
30 Location: Bu	122042344-30 lletin Board Mastic; 1st Fl	Νο	NAD (by CVES) by Jean L. Mayes on 05/01/22
Analyst Description: Yellow, He Asbestos Types: Other Material: Non-fibrou	terogeneous, Non-Fibrous, Bulk M Is 100%	laterial	
31 Location: Pij	122042344-31 be Ins; Rm 110 L	Yes	10% (by CVES) by Jean L. Mayes on 05/01/22
Analyst Description: Gray, Hete Asbestos Types: Chrysotile Other Material: Cellulose	erogeneous, Fibrous, Insulation 10.0 % 70%, Fibrous glass 3%, Non-fibro	ous 17%	
32 Location: Pij	122042344-32 be Ins; Rm 110 R	Yes	20% (by CVES) by Jean L. Mayes on 05/01/22
Analyst Description: Gray, Hete Asbestos Types: Chrysotile Other Material: Cellulose	erogeneous, Fibrous, Insulation 20.0 % 50%, Fibrous glass 3%, Non-fibro	ous 27%	

PLM Bulk Asbestos Report

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
33 Location: Pi	122042344-33 pe Ins; Rm 110 erogeneous Eibrous Insulation	Yes	20% (by CVES) by Jean L. Mayes on 05/01/22
Asbestos Types: Chrysotile Other Material: Cellulose	50%, Fibrous glass 3%, Non-fibrou	us 27%	
34 Location: St	122042344-34L1 air Tread; Stairway	Νο	NAD (by CVES) by Jean L. Mayes on 05/01/22
Analyst Description: Brown, He Asbestos Types: Other Material: Non-fibro	eterogeneous, Non-Fibrous, Stair Tr us 100%	ead	
34 Location: St	122042344-34L2 air Tread; Stairway	Νο	NAD (by CVES) by Jean L. Mayes on 05/01/22
Analyst Description: Yellow, He Asbestos Types: Other Material: Non-fibro	eterogeneous, Non-Fibrous, Mastic us 100%		
35 Location: St	122042344-35L1 air Tread; Stairway	Νο	NAD (by CVES) by Jean L. Mayes on 05/01/22
Analyst Description: Brown, He Asbestos Types: Other Material: Non-fibro	eterogeneous, Non-Fibrous, Stair Truus us 100%	ead	
35 Location: St	122042344-35L2 air Tread; Stairway	Νο	NAD (by CVES) by Jean L. Mayes on 05/01/22
Analyst Description: White, He Asbestos Types: Other Material: Non-fibro	terogeneous, Non-Fibrous, Mastic us 100%		
36 Location: Flo	122042344-36 ooring; Basement	Νο	NAD (by CVES) by Jean L. Mayes on 05/01/22
Analyst Description: White, He Asbestos Types: Other Material: Non-fibroi	terogeneous, Non-Fibrous, Flooring		

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
37 Location: Flo	122042344-37L1 por Tile/Mastic; Basement B-6	Νο	NAD (by CVES) by Jean L. Mayes on 05/01/22
Analyst Description:Blue, Hete Asbestos Types: Other Material: Non-fibrou	erogeneous, Non-Fibrous, Floor Tile us 100%		
37	122042344-37L2	No	NAD
Location: Flo	oor Tile/Mastic; Basement B-6		(by CVES) by Jean L. Mayes on 05/01/22
Analyst Description: Yellow, He Asbestos Types: Other Material: Non-fibrou	eterogeneous, Non-Fibrous, Mastic us 100%		
38 Location: Re	122042344-38 ed Duct Mastic; 1st	Νο	NAD (by CVES) by Jean L. Mayes on 05/01/22
Analyst Description:Red, Hete Asbestos Types: Other Material: Non-fibrou	rogeneous, Non-Fibrous, Mastic us 100%		
39 Location: Re	122042344-39 ed Duct Mastic; 2nd FI RR	Νο	NAD (by CVES) by Jean L. Mayes on 05/01/22
Analyst Description: Red, Hete Asbestos Types: Other Material: Non-fibrou	rogeneous, Non-Fibrous, Mastic us 100%		
40	122042344-40	No	NAD
Location: Du	ict Vent Tape; 2nd FI RR		(by CVES) by Jean L. Mayes on 05/01/22
Analyst Description: Silver, He Asbestos Types: Other Material: Non-fibrou	terogeneous, Non-Fibrous, Tape us 100%		
41 Location: Co	122042344-41 Iumn Material; 2nd Fl	Νο	NAD (by CVES) by Jean L. Mayes
Analyst Description: Gray, Hete Asbestos Types: Other Material: Fibrous gl	erogeneous, Fibrous, Bulk Material ass 80%, Non-fibrous 20%		on 05/01/22

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
42	122042344-42	Νο	NAD
Location: E	xt WG; windows		(by CVES) by Jean L. Mayes on 05/01/22
Analyst Description: White, H Asbestos Types: Other Material: Non fibre	eterogeneous, Non-Fibrous, Glazing		
		No	
45 Location: E	TZ2042344-43 xt WG; windows	ΝΟ	(by CVES) by Jean L. Mayes on 05/01/22
Analyst Description: White, H Asbestos Types: Other Material: Non-fibro	eterogeneous, Non-Fibrous, Glazing ous 100%		
44 Location: R	122042344-44L1 oofing Material; Roof	Νο	NAD (by CVES) by Jean L. Mayes on 05/01/22
Analyst Description:Black, He Asbestos Types: Other Material: Fibrous g	eterogeneous, Non-Fibrous, Shingle glass 20%, Non-fibrous 80%		
44 Location: R	122042344-44L2 oofing Material; Roof	Νο	NAD (by CVES) by Jean L. Mayes on 05/01/22
Analyst Description: Black, He Asbestos Types: Other Material: Fibrous g	eterogeneous, Non-Fibrous, Roofing Jass 45%, Non-fibrous 55%		
44 Location: R	122042344-44L3 oofing Material; Roof	Νο	NAD (by CVES) by Jean L. Mayes on 05/01/22
Analyst Description: White/Blu Asbestos Types: Other Material: Synthetic	ue, Heterogeneous, Non-Fibrous, Mei ; fibers 80%, Non-fibrous 20%	mbrane	
44	122042344-44L4	No	NAD
Location: R	oofing Material; Roof		(by CVES) by Jean L. Mayes on 05/01/22
Analyst Description: Black, He Asbestos Types: Other Material: Non-fibro	eterogeneous, Non-Fibrous, Cementit ous 100%	ious, Slate	

PLM Bulk Asbestos Report

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
45 Location: F	122042344-45L1 Roofing Material; Roof	Νο	NAD (by CVES) by Jean L. Mayes on 05/01/22
Analyst Description: Black, H Asbestos Types: Other Material: Fibrous	eterogeneous, Non-Fibrous, Shingle glass 20%, Non-fibrous 80%		
45 Location: F	122042344-45L2 Roofing Material; Roof	Νο	NAD (by CVES) by Jean L. Mayes on 05/01/22
Analyst Description: Black, H Asbestos Types: Other Material: Fibrous	eterogeneous, Non-Fibrous, Roofing glass 40%, Non-fibrous 60%		
45 Location: F	122042344-45L3 Roofing Material; Roof	Νο	NAD (by CVES) by Jean L. Mayes on 05/01/22
Analyst Description: White/Bl Asbestos Types: Other Material: Syntheti	ue, Heterogeneous, Fibrous, Membra c fibers 80%, Non-fibrous 20%	ine	
45 Location: F	122042344-45L4 Roofing Material; Roof	Νο	NAD (by CVES) by Jean L. Mayes on 05/01/22
Analyst Description:Black, H Asbestos Types: Other Material: Non-fibre	eterogeneous, Non-Fibrous, Cementi ous 100%	tious, Slate	
46 Location: F	122042344-46 Floor Paper; 1st FL	Νο	NAD (by CVES) by Jean L. Mayes on 05/01/22
Analyst Description:Black, H Asbestos Types: Other Material: Cellulos	eterogeneous, Fibrous, Tar Paper e 80%, Non-fibrous 20%		
47 Location: F	122042344-47 Floor Paper; 2nd Fl	Νο	NAD (by CVES) by Jean L. Mayes on 05/01/22
Analyst Description:Black, H Asbestos Types: Other Material: Cellulos	eterogeneous, Fibrous, Tar Paper e 80%, Non-fibrous 20%		

PLM Bulk Asbestos Report

Fox Elementary

Analyzed by: Gordon T. Saleeby Date: 5/1/2022

Judon 7 Ally

Reviewed by: Jean L. Mayes

Jean Maya

*NAD = no asbestos detected, Detection Limit <1%, Reporting Limits: CVES = 1%, 400 Pt Ct = 0.25%, 1000 Pt Ct = 0.1%; "Present" or NVA = "No Visible Asbestos" are observations made during a qualitative analysis; NA = not analyzed; NA/PS = not analyzed / positive stop; PLM Bulk Asbestos Analysis using Olympus, Model BH-2 microscope, Serial #237649, by EPA 600/R-93/116 per 40 CFR 763 (NVLAP Lab Code 101904-0) and ELAP PLM Analysis Protocol 198.1 for New York friable samples which includes quantitation of any vermiculite observed (198.6 for NOB samples) or EPA 400 pt ct by EPA 600/M4-82-020 (NYSDOH ELAP Lab # 10984); CA ELAP Lab # 2508; Note: PLM is not consistently reliable in detecting asbestos in floor coverings and similar NOB materials. NAD or Trace results by PLM are inconclusive, TEM is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos-containing in New York State (also see EPA Advisory for floor tile, FR 59, 146, 38970, 8/1/94). NIST Accreditation requirements mandate that this report must not be reproduced except in full without the approval of the laboratory. This PLM report relates ONLY to the items tested.

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SECTION 028500 - MOLD REMEDIATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. The work to be performed under this contract comprises the satisfactory completion of all items specified herein:
 - 1. Furnishing of all labor, tools, materials, equipment, and waste disposal services necessary for and reasonably incidental to the remediation and removal and disposal of mold within the existing building and materials.
 - 2. The work as specified herein shall be performed as required to accommodate final EPA AHERA and NESHAP air clearance testing of all interior work sites where standard negative air enclosures have been established, and satisfactory visual inspections and environmental air testing for all areas. None of the negative air enclosures shall be removed until visual inspections and air clearance testing results are satisfactory for the contained work site(s), nor the barricades removed until the final visual inspections and environmental testing results are satisfactory for areas not inside negative air containments.
 - 3. Mold Remediation work includes the complete and proper removal and disposal of mold containing materials, using the procedures specified herein. Mold Remediation work shall be performed under the base bid.
- B. Other Hazardous Materials Present in the Building
 - The building stabilization process that occurred after the fire included asbestos abatement throughout all areas. If materials suspected to contain asbestos are uncovered or observed, Contractor shall stop work and bring these materials to the Owner and Architect's attention for direction on how to proceed.
 - Lead-based Paint (LBP) is known to be present in the building. Refer to Project Manual Section 001500 Hazardous Materials Reports for Lead-Based Paint Analysis Report. The Contractor should perform Work in accordance with the current EPA Renovation, Repair and Repainting (RRP) Rule.
- C. Save Harmless
 - The Contractor shall agree to indemnify and save harmless the Owner and all of its officers, agents, employees, the Architect, and all its officers, agents and employees from all suits, actions or claims of any character, name and description brought for or on account of any injuries or damages received or sustained by any person, persons or property by or from the said Contractor or by or in consequence of any neglect in safeguarding the Work, or through the use of unacceptable materials in the construction of improvements, or by or on
account of any act or omission, neglect, misconduct or negligence of the Contractor.

1.3 PRECONSTUCTION SUBMITTALS

- A. Within 10 days from the award of the contract and prior to the start of the work, submit the following items:
- B. Preliminary Visual Assessment Report: The Contractor shall provide a written report to document the pre-remediation condition of the work areas, performed by a qualified Environmental Consultant.
- C. Microbial Remediation Plan: Submit a job-specific, detailed abbreviated plan approved by the contractor's Certified Industrial Hygienist (CIH) for approval prior to start of work. The plan shall address the following items at a minimum:
 - 1. Description of materials to be remediated, providing location and quantities, and methods to be used for remediation.
 - 2. Products: Disinfectants, detergents, biocides, sanitizing solutions, and fungicidal agents, (EPA).
 - Containment procedures to include description and locations of engineering controls and decontamination unit to include entry and exit procedures (provide sketch of floor plan showing location of containment barriers and decontamination units). Include locations of Air Filtration Units (AFU) and AFU discharges to the outside.
 - 4. Description of personal protective equipment to be used during the remediation.
 - 5. Construction barricades and barriers in occupied areas.
 - 6. HVAC Shut down and start-up procedures.
 - 7. HVAC Evaluation and remediation procedures.
 - 8. Moisture and relative humidity control procedures and equipment.
 - 9. Packaging and disposal procedures.
 - 10. Safety Precautions to include lockout / tag-out, fall protection, confined space entry procedures, and fire protection.
 - 11. Description of the method to be employed to control cross contamination of areas not in the work area. Include a risk assessment related to the suitability of people to occupy areas adjoining the remediation area while remediation activities are ongoing.
 - 12. CIH Quality Control procedures to include visual inspection.
 - 13. Procedures to control, abate, and dispose of Asbestos Containing Materials (ACM), Presumed Asbestos Containing Materials (PACM) and Lead Based Paint (LBP) coincident with microbial remediation. ACM, PACM, and LBP shall be identified before work begins; Identify the presence, location, and quantity of ACM, PACM, and LBP therein pursuant to paragraphs (g),(k)(1) of 29 CFR 1926.1101 and for lead 29 CFR 1926.62.
- D. Respiratory Protection Program: Provide written copy of Contractor's Respiratory Protection program.

- E. Worker Records: Provide the following documents for all workers, including supervisory personnel. If new workers are added to the crew, provide the same documentation for them. Employee Instruction and Release Form: Provide documentation showing that each employee has been instructed on the following items:
 - 1. Use and fit of respirators for employees entering and working in the Containment area.
 - 2. Protective clothing.
 - 3. Protective measures.
 - 4. Safety and Emergency Egress Procedures.
 - 5. Site specific fall protection plan and training.
 - 6. Microbial remediation hazards and practices including engineering controls and isolation. Training should include "hands on" training for microbial remediation supervisors.
 - 7. Workers' release forms stating the potential hazards involved with the scope of the work.
 - 8. Worker Training Certification: Submit copies of training certificates for each employee indicating that the employee has received training at the appropriate level for the work prescribed in the description of work.
- F. Certified Industrial Hygienist (CIH) Qualifications: Submit the name, address, and telephone number of the Certified Industrial Hygienist (CIH). Provide copies of board certificates, resume to document field experience, and evidence that the CIH have successfully completed training in microbial investigation and remediation.
- G. Microbial Remediation Supervisor Qualifications: Onsite supervisor shall have one of the following certifications: Certified Microbial Remediator (CMR), Certified Microbial Remediation Supervisor (CMRS), or Applied Microbial Remediation Specialist (AMRS). Submit copies of supervisory training certificates.

1.4 PRODUCT DATA

- A. Within 14 days of completion of remediation work submit:
 - 1. Daily Project Logs including the following information.
 - a. Date.
 - b. Name of Microbial Remediation Supervisor.
 - c. Name of CIF monitoring work area.
 - d. Number of workers on site.
 - e. Equipment utilized.
 - f. Brief description of daily work activities.
 - g. Listing of any non-compliance noted, emergencies, stop work orders and descriptions of any other significant events.
 - 2. CIH Daily Reports.
 - 3. Photographic Logs.
 - 4. Contractor's Industrial Hygienist Report certifying the microbial remediation is complete.

- 5. The contractor shall submit to an initial Microbial Assessment Survey with containment categories and remediation methods specified for each work area and material within the work area to the COR. The initial Microbial Assessment Survey specified below shall be completed by a certified by a qualified assessor authorized by the Contracting Officer to do such work.
- 6. After approval of the initial visual assessment report and having instructions from the COR to proceed, prepare a microbial remediation plan for approval by the Contractor's Certified Industrial Hygienist (CIH). Include an assessment of the risk for people occupying areas adjoining the remediation area while remediation work occupying areas adjoining the remediation area while remediation work CIH approval of the plan, submit the plan to the COR or approval.
- 7. The Contractor's CIH shall monitor the site on a daily basis while remediation work is in progress, identifying work and work practices that are not in compliance with the approved microbial remediation plan, and performing all inspections required by this specification. The COR may require the removal of any individual for non-compliance with quality requirements specified in the contract.

1.5 MICROBIAL ASSESSOR REQUIREMENTS

- A. General: The microbial assessor shall provide documentation proving that the assessor meets at least one of the following criteria:
 - 1. Certification as an industrial hygienist (CIH) as certified by the American Board of Industrial Hygienists, safety professional (CSP) as certified by the Board of Certified Safety Professionals or engineer (PE). Additionally, one year experience in conducting microbial investigations is required.

1.6 QUALITY ASSURANCE / QUALITY CONTROL PROCEDURES

- A. Superintendent Qualifications: Work shall be performed by a qualified remediation contractor. Superintendent shall carry insurance that specifically covers mold remediation.
 - Remediation contractors' on-site supervisor shall have one of the following certifications: Certified Microbial Remediator (CMR), Certified Microbial Remediation Supervisor (CMRS), or Applied Microbial Remediation Specialist (AMRS). Qualified supervisor shall be onsite whenever active remediation is being performed. Set-up activities may be performed without supervisor present; qualified supervisor shall review set-up prior to start of work.
 - 2. Mold remediation workers shall be given training in PPE and mold remediation activities as required for their particular job. Microbial remediation plan shall provide details of worker training.
- B. Use proper cleaning procedures, engineering controls, and apply best management practices to remove microbial growth and spore fallout from all surfaces and building materials to minimize the further release of microbial spores. Address semi-porous and nonporous surfaces within the

facility in each cleaning phase of the project. Damp wipe and HEPA vacuum all surfaces, at a minimum. Remove and dispose of porous building materials that are supporting microbial growth.

PART 2 - PRODUCTS

2.1 DISINFECTANTS, SANITIZING SOLUTIONS AND FUNGICIDAL AGENTS (EPA):

- A. Disinfectants, sanitizing solutions and fungicidal agents shall be EPA registered for the use detailed in the microbial remediation plan and used in accordance with the manufacturer's specifications. Provide SDS sheets to the COR for any chemicals that shall be used during the performance of the work for approval.
 - 1. Basis of Design: Concrobium OAE
- B. HAZARD COMMUNICATION: Adhere to all parts of 29 CFR 1926.59 and provide the Contracting Officer with a copy of the Safety Data Sheets (SDS) for all materials brought to the site.

PART 3 - EXECUTION

- 3.1 EQUIPMENT: Provide manufacturer's certificate of compliance for all equipment used to contain the microbial contamination.
 - A. Respirators: Select respirators from those approved by the National Institute for Occupational Safety and Health (NIOSH), Department of Health and Human Services. Provide personnel engaged in set-up, pre-cleaning, cleanup, handling, and removal of contaminated materials with the appropriate respiratory protection as specified in 29 CFR 1910.134. Microbial remediation plan shall consider Table 17.1 in AIHA IMOM08-679 "Recognition, Evaluation, and Control of Indoor Mold", which lists the minimum levels of respiratory protection based on the activity and size of the remediated area.
 - B. Protective Clothing: Provide all workers with protective clothing as appropriate for the work being accomplished, as required by the Microbial Remediation Plan.
 - C. Warning Signs and Labels: Provide warning signs printed in English at all approaches to the work areas. Locate signs at such a distance that personnel may read the sign and take the necessary protective steps required before entering the area. Warning signs may be in the form of continuous plastic tape. The warning signs shall have black characters on a yellow background.
 - i. WARNING DO NOT ENTER MICROBIAL REMEDIATION WORK IN PROGRESS
 - D. Dehumidifiers: Install and use dehumidifiers as needed during the remediation to maintain relative humidity below 60 percent in the work area. Drain the condensate water to a permanent drain, or empty as needed to prevent water overflowing from the dehumidifiers. IHFOM, CH 13, Sec. 3.

- E. Air Filtration Units (AFU): Install and use AFUs with HEPA filters, and manufacturer specified prefilters, as part of the exhaust ventilation system to develop and maintain the specified desired air pressure differential inside the enclosed work area relative to the outside areas. Acquire and pay for any licenses needed for use of any equipment, including but not limited to, air pressure differential systems and air filtration systems.
 - 1. Replace HEPA filters and pre-filters for AFUs as required to maintain pressurization performance requirements during demolition and cleaning. Do not reuse filters. Bag used filters at a minimum in clear 0.15 millimeter 6 mil (IHFOM, CH 13, Sec. 3) polyethylene bags within the containment and disposed as contaminated waste.
 - 2. Discharge air from any AFUs located in the work area containment to the outside environment when creating a negative pressure containment to create a negative pressure relative to the outside and adjacent work areas not undergoing active remediation of 5 pascals 0.02 inch H2O to 10 pascals 0.04 inch H2O AIHA IMOM08-679. Discharge air in excess of that required for creating the proper negative pressure to the work area. The AFUs shall provide four to six air changes per hour in the work area (ANSI/IICRC S520). Under no circumstances may air from AFUs discharge to an occupied area. Coordinate location of window sashes or doors required for discharge openings with the COR. Exhaust discharge openings may be constructed of plywood, and the seals around such opening shall be airtight.
 - 3. Seal all exhaust and intake openings in AFUs with one layer of 0.15 millimeters 6 mil (IHFOM, CH 13, Sec. 3) polyethylene sheeting when not in use.
- F. Vacuum Cleaners Equipped with HEPA Filters: Provide vacuum cleaners equipped with HEPA filters designed for continuous operation in order to complete the work in a timely and efficient manner.
 - 1. Provide nozzle attachments as required to adequately remove all dust. As a minimum, nozzle attachments shall include crevice and extended bristle brush nozzles. Any vacuum that is not equipped with a HEPA filter shall not be used at any time.
 - 2. Provide sufficient vacuum cleaners equipped with HEPA filters designed for continuous operation in the work area during microbial remediation inside the containment area.
 - 3. Provide additional vacuum cleaners equipped with HEPA filters in the enclosed work area during remediation or cleaning work as required by the size (area) of the containment and to maintain timely progress of the work.

3.2 GENERAL REQUIREMENTS:

- A. Pre-Microbial Remediation Work Conference: Meet prior to beginning work to discuss in detail the Microbial Remediation Plan, including work procedures and safety precautions. Once approved by the Owner, the plan shall be enforced as if a part of this specification. Any variances to the specification as a result of the plan shall be specifically identified to allow for free discussion and approved in writing prior to starting work. Before work in areas with Asbestos Containing Materials (ACM), Presumed Asbestos Containing Materials (PACM) and Lead begins, identify the presence, location, and quantity of ACM, PACM and Lead. Ensure proper notification of regulatory authorities. Consult with Onwer to obtain facility ACM / LBP surveys. Mitigate any disturbance of painted/coated surfaces in accordance with 29 CFR 1926.62, 29 CFR 1926.1126 and 29 CFR 1926.1127.
- B. Containment Entry / Exit Procedure: Ensure that each worker and authorized visitor follows entry and exit procedures detailed in the Microbial Remediation Plan.

3.3 REMOVAL PROCEDURES

A. Protection of Existing Work Areas: Perform work in a manner to minimize the damage or contamination to areas outside or directly adjacent to the work area. Inspect areas inside and outside proposed work areas to identify existing damage and notify Owner prior to start of work.

Where materials outside work area are damaged or contaminated as a result of the Contractors work efforts using visual inspection or sample analysis, it shall be restored to its original condition or decontaminated by the Contractor at no expense to the Owner. Should adjacent or outside areas become contaminated as a result of the Contractor's work efforts, stop work immediately. Clean the newly contaminated areas at no additional expense to the Owner. The work may proceed at the discretion of the Owner once the area has been verified by visual inspection as restored.

- B. Remediation of Fungally Contaminated Building Materials: The removal of contaminated materials shall follow in general the listed sequence of work. The Contractor may make changes to improve workflow with the approval of the Owner.
 - 1. Provide level of containment and PPE required by the Microbial Remediation Plan.
 - 2. Disable all HVAC units and exhaust fans in the area to be remediated. Cover and seal all supply vents, return vents, and air handling units in the project area using two layers of 0.15-millimeter 6 mil poly (IHFOM, CH 13, Sec. 3).
 - 3. Protect materials to remain in work area. Where possible, clean all materials to be salvaged in place to prevent possible cross-contamination created by moving materials through non-remediation areas.
 - 4. Remove undamaged items and materials to be cleaned and salvaged from the work area. Store materials in an area with relative humidity maintained below 60 percent and where temperatures shall not damage the material. Notify Owner of existing damage to items prior to removal.
 - 5. Set up containments, including protection of materials remaining within the containment and AFUs. Notify Owner that the area is prepared for remediation activities.
 - 6. Pre-demolition inspection by the Owner.
 - 7. Demolition and removal / cleaning of contaminated materials.
 - 8. Post-remediation inspection by the Owner.
 - 9. Perform final cleaning in the containment.
 - 10. Clearance inspection by the Owner.
 - 11. Duct and HVAC cleaning, if necessary.
 - 12. Deconstruction of containment, removal of AFUs.
 - 13. Return previously items that were removed and cleaned to the occupied area.
- C. Remediation Procedures:
 - 1. Remediation of Non-Porous Materials:

- a. HEPA vacuum all surfaces.
- b. Damp wipe all surfaces using clean water or a detergent solution.
- c. Ensure all cleaned surfaces are dried thoroughly.
- 2. Semi-Porous Materials (Unfinished Wood): Use this method for remediating unfinished woodbased items, including wood and wood framing in wall cavities:
 - a. Cleaning
 - 1) HEPA vacuum all surfaces.
 - 2) Scrub surfaces with a brush and detergent to remove mold.
 - 3) Ensure all cleaned surfaces are dried thoroughly.
 - 4) HEPA vacuum all surfaces to remove dust.
 - 5) Repair finishes as required to match original.
 - b. Removal: Where unfinished wood products have been structurally damaged, remove and replace with an equivalent materials. This includes wall studs and sheathing, flooring, or wall construction. Lightly mist mold contaminated material before removal.
- 3. Semi-Porous Materials: Use this method for surface cleaning semi-porous materials such as concrete, masonry, plaster, and finished wood products:
 - a. HEPA vacuum all surfaces.
 - b. Damp wipe surfaces using clean water or a detergent solution. Avoid over-wetting the material. Ensure all materials are dried thoroughly.

3.4 DETAILED SEQUENCE OF WORK FOR MOLD REMOVAL UNDER CONTAINMENT

A. Preparation for Remediation Work

1. Provide level of containment and PPE required for the remediation based on the Microbial Remediation Plan.

2. Remove undamaged materials from the work area if they are to be salvaged but cannot be cleaned in place. Store materials in an area with relative humidity maintained below 60 percent (IHFOM, CH 13, Sec.3) and where temperatures shall not damage the material. Notify Contracting Officer of existing damage to items prior to removal. Clean materials using procedures detailed in Remediation Procedures.

3. Construct containment barriers. Existing walls can be used as a portion of the containment barriers if existing openings in walls (such as doors, wall openings, vents) are sealed using 0.15 millimeter 6 mil polyethylene.

4. Install the AFUs and dehumidifiers.

5. Seal supply, return, and exhaust openings with 0.15 millimeter 6 mil polyethylene sheeting and protect intakes to air handling units.

6. Install all equipment needed for removal work in the containment area to minimize egress during demolition.

7. Inspect the containment to verify that the containment is properly constructed and the containment area has an overall negative pressure of 5 to 10 pascals 0.02 to 0.04 inch water column AIHA IMOM08-679 relative to the outside and adjacent work areas not undergoing active remediation, prior to beginning demolition work.

B. Demolition

1. Remove mold contaminated materials to be discarded. double bag material in 0.15 millimeter 6 mil (IHFOM, CH 13, Sec. 3) poly bags. Seal poly bags using duct tape inside the containment. HEPA vacuum bags before removing them from the containment or airlock. When possible, pass the bags directly from the containment or airlock to the outside. Transport bags to a dumpster. Do not leave the bags in the building.

2. Lightly mist all contaminated materials that are being discarded to minimize generation of airborne mold spores during demolition/removal.

3. Use dust collection attachments on all power tools, such as sanders, saws, to capture dust created when using the tools. Outlet of dust collector should discharge into inlet of AFU.

4. If wood studs are contaminated, HEPA vacuum all surfaces, scrub them with a brush and detergent to remove mold. After scrubbing studs, HEPA vacuum again to remove any remaining dust. Replace wood studs with damage severe enough to reduce the structural capacity of the member. Prior to removal of any structural member consult with the Architect.

5. Clean all metal framing with a dilute detergent solution. Clean metal framing with light rust using steel wool and coat with a rust inhibiting paint. Replace metal framing with rust damage severe enough to reduce the structural capacity of the member. Prior to removal of any structural material, consult with the Architect.

6. Remediation workers shall HEPA vacuum their PPE, then remove their PPE within the airlock chamber. Discard disposable coverall suits into a 0.15 millimeter 6 mil (IHFOM, CH 13, Sec. 3) poly bag.

- C. Post-Demolition Inspection
 - 1. Inspect the containment area to verify that all contaminated materials have been removed.

2. Allow a minimum of 12-hours after completion of removal work, with AFUs operating, for airborne dust in the containment to settle or be removed by the AFUs.

- D. Cleaning after Demolition, and Cleaning of Settled Spores from Porous / Non-Porous Materials
 - 1. Continue to operate AFUs during cleaning.
 - 2. Clean exposed surfaces.
 - 1. HEPA vacuum all surfaces.
 - 2. Damp wipe all non-porous exposed surfaces including polyethylene sheets used to protect materials, external surfaces of ductwork, studs, and floors with clean rag and clean potable water or detergent solution.
 - 3. Remove poly sheeting inside the containment.
 - 4. HEPA vacuum all surfaces protected by poly sheeting.

- 5. Damp wipe non-porous surfaces protected by poly sheeting with clean water or a detergent solution.
- 3. Final clearance inspections shall be performed using the procedures detailed in Post-Remediation Inspection. If areas fail final clearance inspections, additional corrective actions taken by the contractor shall be at no additional cost to the Owner. Maintain containments in place until spaces are inspected and accepted by the Owner as being fully remediated. The Owner shall determine whether additional cleaning is required by the Contractor and whether the clearance process shall be repeated.
- 3.5 FIRE PROTECTION: Provide portable fire extinguishers within the containment area and outside the decontamination unit. Fire extinguishers shall be rated for the class of fire hazards in the work area and shall be sized for coverage of the areas within the containment. At a minimum, one 10 pound ABC fire extinguisher for every 1,000 square feet shall be strategically placed around the containment. Personnel shall be trained for emergency egress and the use of fire extinguishers. Notify fire officials of work activities as required.

3.6 CONSTRUCTION BARRIERS:

- A. Provide interior shoring, bracing, or support to prevent movement, settlement, or collapse of structure or element to be demolished and adjacent facilities or work to remain. Shoring, bracing or support shall be necessary when structural wood studs or metal framing need to be removed and replaced when they cannot be cleaned.
- B. Do not disturb microbial-contaminated building materials while isolating work areas. This precaution prevents the release of microbial spores.
- C. Workers shall wear respirators and other PPE as outlined in the microbial remediation plan when installing critical barriers where microbial contaminated surfaces (walls or surfaces with visible settled dusts) are likely to be disturbed. Operate an AFU if disturbance is likely during setup.
- D. Monitor the air pressure differential across work area containments. The monitoring system shall be in place before the start of remedial activities. Verification by the Industrial Hygienist is required prior to the start of the microbial remediation.

3.7 WASTE MANAGEMENT AND REMOVAL

A. Keep the site and work area free from accumulations of dust, waste materials, or rubbish caused by Contractor operations and free from any flammable materials or other sources of fire hazard. Remove all waste materials and rubbish from and about the work site in strict accordance with the specifications and applicable codes and regulations.

3.8 POST-REMEDIATION INSPECTION

A. Clean up all debris and dust in interior spaces outside the work area resulting from the Contractor's remediation work. After all visible accumulations of material and debris are removed from the containment, provide the COR a 24-hour notice for a final clearance visual inspection. The COR and Contractor's CIH shall conduct a thorough visual inspection of the work area. If during this inspection any visible debris or microbial contamination are observed, the Contractor shall re-clean the work area without additional cost to the Owner.

3.9 CLEARANCE

- A. Clearance shall be based on visual assessment (all visible mold removed, all visible dust removed, based on a "white glove" test) by Owner. "White glove" test shall consist of wiping the surface with a clean cloth of color suitable to reveal expected type of dust. For most surfaces, a white cloth is suitable. For GWB dust, a dark cloth may be more appropriate.
- B. Failed remediation areas shall be recleaned at no additional cost to the Owner and the AFUs kept in operation another 12-hours, followed by another visual assessment. Subsequent failures shall follow the same routine until a pass condition is secured.

3.10 CLEAN-UP AND DISPOSAL

- A. Disposal of Material: Dispose of contaminated bagged waste materials removed during this remediation as general construction debris. Follow all applicable local, State, and Federal requirements for the disposal of this material.
- B. Material Packaging: Place waste, as waste is removed, into a disposal container promptly. Disposal containers shall consist of at a minimum, two layers of clear 0.15-millimeter 6 mil (IHFOM, CH 13, Sec. 3) polyethylene bags. Tape bags in a gooseneck fashion to form an airtight seal and label appropriately. Bag waste from vacuums equipped with HEPA filters in 0.15millimeter 6 mil (IHFOM, CH 13, Sec. 3) polyethylene bags.
- C. Building Exit (Waste Disposal): HEPA vacuum and damp wipe bags of contaminated waste material prior to removal from the building. When possible, pass the bags directly from the containment or airlock to the outside. Transport bags to a dumpster.
- D. Hazardous Material: Should the Contractor encounter any hazardous materials, notify the Owner immediately for direction.

END OF SECTION 028500

SECTION 088000 GLAZING

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Insulating glass units.
- B. Glazing units.
- C. Laminated glass interlayers.
- D. Glass coatings.
- E. Glazing compounds.

1.02 RELATED REQUIREMENTS

- A. Section 081113 Hollow Metal Doors and Frames: Glazed lites in doors and borrowed lites.
- B. Section 081416 Flush Wood Doors: Glazed lites in doors.
- C. Section 081433 Stile and Rail Wood Doors: Glazed lites in doors.
- D. Section 085200 Wood Windows: Glazing provided by window manufacturer.
- E. Section 088700 Architectural Window Films

1.03 REFERENCE STANDARDS

- A. 16 CFR 1201 Safety Standard for Architectural Glazing Materials Current Edition.
- B. ANSI Z97.1 American National Standard for Safety Glazing Materials Used in Buildings -Safety Performance Specifications and Methods of Test 2015 (Reaffirmed 2020).
- C. ASCE 7 Minimum Design Loads and Associated Criteria for Buildings and Other Structures Most Recent Edition Cited by Referring Code or Reference Standard.
- D. ASTM C864 Standard Specification for Dense Elastomeric Compression Seal Gaskets, Setting Blocks, and Spacers 2005 (Reapproved 2019).
- E. ASTM C1036 Standard Specification for Flat Glass 2021.
- F. ASTM C1048 Standard Specification for Heat-Strengthened and Fully Tempered Flat Glass 2018.
- G. ASTM C1172 Standard Specification for Laminated Architectural Flat Glass 2019.
- H. ASTM C1193 Standard Guide for Use of Joint Sealants 2016.
- I. ASTM C1376 Standard Specification for Pyrolytic and Vacuum Deposition Coatings on Flat Glass 2021a.
- J. ASTM E903 Standard Test Method for Solar Absorptance, Reflectance, and Transmittance of Materials Using Integrating Spheres 2020.
- K. ASTM E1300 Standard Practice for Determining Load Resistance of Glass in Buildings 2016.
- L. ASTM F1233 Standard Test Method for Security Glazing Materials And Systems 2021.
- M. GANA (GM) GANA Glazing Manual 2022.
- N. GANA (SM) GANA Sealant Manual 2008.
- O. GANA (LGRM) Laminated Glazing Reference Manual 2019.
- P. ICC (IBC) International Building Code Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.
- Q. IGMA TM-3000 North American Glazing Guidelines for Sealed Insulating Glass Units for Commercial & Residential Use 1990 (2016).
- R. NFRC 100 Procedure for Determining Fenestration Product U-factors 2023.
- S. NFRC 200 Procedure for Determining Fenestration Product Solar Heat Gain Coefficient and Visible Transmittance at Normal Incidence 2023.

Т NFRC 300 - Test Method for Determining the Solar Optical Properties of Glazing Materials and Systems 2023.

1.04 SUBMITTALS

- A. See Section 013000 Administrative Requirements for submittal procedures.
- Product Data on Insulating Glass Unit and Glazing Unit Glazing Types: Provide structural, B. physical and environmental characteristics, size limitations, special handling and installation requirements.
- Product Data on Glazing Compounds and Accessories: Provide chemical, functional, and C. environmental characteristics, limitations, special application requirements, and identify available colors.
- D. Samples: Submit two samples 12 inches by 12 inches in size of glass units.
- E. Samples: Submit 6 inch long bead of glazing sealant, color as selected.
- F. Certificate: Certify that products of this section meet or exceed specified requirements.
- G. Manufacturer's qualification statement.
- H. Installer's qualification statement.
- Warranty Documentation: Submit manufacturer warranty and ensure that forms have been Ι. completed in Owner's name and registered with manufacturer.

1.05 QUALITY ASSURANCE

- A. Perform Work in accordance with GANA (GM), GANA (SM), GANA (LGRM), and IGMA TM-3000 for glazing installation methods.
- Manufacturer Qualifications: Company specializing in manufacturing the products specified in B. this section with minimum three years of documented experience.
- C. Installer Qualifications: Company specializing in performing work of the type specified and with at least three years documented experience.

1.06 MOCK-UPS

- A. Provide mock-up of Restored Historic Window Unit Glazing including glass.
- B. Provide on-site glazing mock-up with the specified glazing components.
- C. Locate where directed.

1.07 FIELD CONDITIONS

- A. Do not install glazing when ambient temperature is less than 40 degrees F.
- Maintain minimum ambient temperature before, during and 24 hours after installation of glazing B compounds.

1.08 WARRANTY

- A. See Section 017800 Closeout Submittals for additional warranty requirements.
- B. Insulating Glass Units: Provide a five (5) year manufacturer warranty to include coverage for seal failure, interpane dusting or misting, including providing products to replace failed units.
- C. Laminated Glass: Provide a five (5) year manufacturer warranty to include coverage for delamination, including providing products to replace failed units.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- Float Glass Manufacturers: A.
 - Cardinal Glass Industries; _____: www.cardinalcorp.com/#sle. Guardian Glass, LLC; _____: www.guardianglass.com/#sle. 1.
 - 2.
 - Pilkington North America Inc; _____: www.pilkington.com/na/#sle. Saint Gobain North America; ____: www.saint-gobain.com/#sle. 3.
 - 4.
 - 5. Vitro Architectural Glass (formerly PPG Glass); : www.vitroglazings.com/#sle.

- B. Laminated Glass Manufacturers:
 - 1. Cardinal Glass Industries; _____: www.cardinalcorp.com/#sle.
 - 2. Viracon, Architectural Glass segment of Apogee Enterprises, Inc; _____: www.viracon.com/#sle.

2.02 PERFORMANCE REQUIREMENTS - EXTERIOR GLAZING ASSEMBLIES

- A. Provide type and thickness of exterior glazing assemblies to support assembly dead loads, and to withstand live loads caused by positive and negative wind pressure acting normal to plane of glass.
 - 1. Design Pressure: Calculated in accordance with ASCE 7.
 - 2. Comply with ASTM E1300 for design load resistance of glass type, thickness, dimensions, and maximum lateral deflection of supported glass.
 - 3. Provide glass edge support system sufficiently stiff to limit the lateral deflection of supported glass edges to less than 1/175 of their lengths under specified design load.
 - 4. Glass thicknesses listed are minimum.
- B. Weather-Resistive Barrier Seals: Provide completed assemblies that maintain continuity of building enclosure water-resistive barrier, vapor retarder, and/or air barrier.
 - 1. In conjunction with weather barrier related materials described in other sections, as follows:
- C. Thermal and Optical Performance: Provide exterior glazing products with performance properties as indicated. Performance properties are in accordance with manufacturer's published data as determined with the following procedures and/or test methods:
 - 1. Center of Glass U-Value: Comply with NFRC 100 using Lawrence Berkeley National Laboratory (LBNL) WINDOW 6.3 computer program.
 - 2. Center of Glass Solar Heat Gain Coefficient (SHGC): Comply with NFRC 200 using Lawrence Berkeley National Laboratory (LBNL) WINDOW 6.3 computer program.
 - 3. Solar Optical Properties: Comply with NFRC 300 test method.

2.03 GLASS MATERIALS

- A. Float Glass: Provide float glass based glazing unless otherwise indicated.
 - 1. Annealed Type: ASTM C1036, Type I Transparent Flat, Class 1 Clear, Quality Q3.
 - 2. Kind HS Heat-Strengthened Type: Complies with ASTM C1048.
 - 3. Kind FT Fully Tempered Type: Complies with ASTM C1048.
 - 4. Fully Tempered Safety Glass: Complies with ANSI Z97.1 or 16 CFR 1201 criteria for safety glazing used in hazardous locations.
 - 5. Thicknesses: As indicated; provide greater thickness as required for exterior glazing wind load design.
- B. Laminated Glass: Float glass laminated in accordance with ASTM C1172.
 - 1. Laminated Safety Glass: Complies with ANSI Z97.1 Class B or 16 CFR 1201 Category I impact test requirements.
 - 2. Polyvinyl Butyral (PVB) Interlayer: 0.030 inch thick, minimum.

2.04 BASIS OF DESIGN - INSULATING GLASS UNITS

- A. Type GL-3 Insulating Glass Units: Vision glazing, with low-e coating.
 - 1. Applications: Exterior insulating glass glazing unless otherwise indicated.
 - 2. Space between lites filled with air.
 - 3. Total Thickness: 1 inch.
 - 4. Thermal Transmittance (U-Value), Winter Center of Glass: 0.28, nominal.
 - 5. Solar Heat Gain Coefficient (SHGC): 0.28
 - 6. Visible Light Transmittance (VLT): 68
 - 7. Coated Glass: Comply with requirements of ASTM C1376 for pyrolytic (hard-coat) or magnetic sputter vapor deposition (soft-coat) type coatings on flat glass; coated vision glass, Kind CV; coated overhead glass, Kind CO; or coated spandrel glass, Kind CS.
 - 8. Spacer Color: Black.
 - 9. Edge Seal:

- 10. Color: Black.
- 11. Purge interpane space with dry air, hermetically sealed.
- 12. Basis of Design Vitro Architectural Glass (formerly PPG Glass): www.vitroglazings.com/#sle.
- 13. Outboard Lite: Annealed, low-iron float glass, 1/4 inch thick, minimum.
 - a. Low-E Coating: Vitro Architectural Glass (formerly PPG Glass) Solarban 72 on #2 surface.
 - b. Glass: Starphire (Ultra Clear).
- 14. Inboard Lite: Heat-strengthened, low-iron float glass, 1/4 inch thick. a. Glass: Starphire (Ultra Clear).

2.05 GLAZING UNITS

- A. Type GL-4 Monolithic Storm Window Glazing:
 - 1. Applications: Interior and Exterior Storm Windows Installed at all Existing-to-Remain Restored Windows.
 - 2. Glass Type: Annealed float glass, ultra-clear, low-iron.
 - 3. Tint: Clear.
 - 4. Thickness: 1/4 inch, nominal.
 - 5. Visible Light Transmittance (VLT): 68% percent, nominal.
 - 6. Solar Heat Gain Coefficient (SHGC): 0.28, nominal.
 - 7. Manufacturers:
 - a. Basis-of-Design: Vitro Solarban 72 on Starphire Ultraclear glass
- B. Type GL-1 Monolithic Interior Vision Glazing:
 - 1. Applications: Interior glazing unless otherwise indicated.
 - 2. Glass Type: Annealed float glass.
 - 3. Tint: Clear.
 - 4. Thickness: 1/4 inch, nominal.
- C. Type GL-2 Laminated glass, 2-ply.
 - 1. Applications: Locations as indicated on drawings.
 - 2. Tint: Clear.
 - 3. Thickness: As required to meet performance criteria.
 - 4. Outside Lite: Heat-strengthened glass.
 - 5. Interlayer: Polyvinyl butyral (PVB); thickness as required to meet performance criteria.
 - 6. Middle Lite: Heat-strengthened glass.
 - 7. Interlayer, Inboard Side: Polyvinyl butyral (PVB); thickness as required to meet performance criteria.
 - 8. Inside Lite: Heat-strengthened glass.
- D. Type GL-5 Monolithic Glass
 - 1. Applications: Replacement glass lites for restoration of historic windows
 - 2. Glass Type: Annealed float glass
 - 3. Tint: Clear
 - 4. Thickness: 1/8"

2.06 LAMINATED GLASS INTERLAYERS

- A. Sound Control Polyvinyl Butyral (PVB) Interlayer for Laminated Glazing:
 - 1. Functionality: Post-breakage safety, security, and sound control.
 - 2. Applications:
 - a. Single pane, laminated glass unit, Type GL-2.
 - 3. Color: Clear.
 - 4. Thickness: As required for indicated performance of laminated glass application.
 - 5. Improvement in Sound Transmission: Up to 3 dB.
 - 6. Manufacturers:
 - a. Eastman Chemical Company; Saflex Acoustic PVB Interlayer: www.saflex.com/#sle.
 - b. Kuraray America, Inc; Trosifol Sound Control (SC): www.kuraray.us.com/#sle.

c. Sekisui S-LEC America, LLC; S-LEC Sound Acoustic Film: www.s-lec.us/#sle.

2.07 ACCESSORIES

- A. Setting Blocks: Silicone, with 80 to 90 Shore A durometer hardness; ASTM C864 Option II. Length of 0.1 inch for each square foot of glazing or minimum 4 inch by width of glazing rabbet space minus 1/16 inch by height to suit glazing method and pane weight and area.
- B. Spacer Shims: Neoprene, 50 to 60 Shore A durometer hardness; ASTM C864 Option II. Minimum 3 inch long by one half the height of the glazing stop by thickness to suit application, self adhesive on one face.
- C. Glazing Tape, Back Bedding Mastic Type: Preformed, butyl-based, 100 percent solids compound with integral resilient spacer rod applicable to application indicated; 5 to 30 cured Shore A durometer hardness; coiled on release paper; black color.
 - 1. Width: As required for application.
 - 2. Thickness: As required for application.
 - 3. Spacer Rod Diameter: As required for application.

PART 3 EXECUTION

3.01 VERIFICATION OF CONDITIONS

- A. Verify that openings for glazing are correctly sized and within tolerances, including those for size, squareness, and offsets at corners.
- B. Verify that surfaces of glazing channels or recesses are clean, free of obstructions that may impede moisture movement, weeps are clear, and support framing is ready to receive glazing system.
- C. Proceed with glazing system installation only after unsatisfactory conditions have been corrected.

3.02 PREPARATION

- A. Clean contact surfaces with appropriate solvent and wipe dry within maximum of 24 hours before glazing. Remove coatings that are not tightly bonded to substrates.
- B. Seal porous glazing channels or recesses with substrate compatible primer or sealer.
- C. Prime surfaces scheduled to receive sealant where required for proper sealant adhesion.

3.03 INSTALLATION, GENERAL

- A. Install glazing in compliance with written instructions of glass, gaskets, and other glazing material manufacturers, unless more stringent requirements are indicated, including those in glazing referenced standards.
- B. Install glazing sealants in accordance with ASTM C1193, GANA (SM), and manufacturer's instructions.
- C. Set glass lites of system with uniform pattern, draw, bow, and similar characteristics.
- D. Set glass lites in proper orientation so that coatings face exterior or interior as indicated.
- E. Prevent glass from contact with any contaminating substances that may be the result of construction operations such as, and not limited to the following; weld splatter, fire-safing, plastering, mortar droppings, etc.

3.04 FIELD QUALITY CONTROL

- A. Glass and Glazing product manufacturers to provide field surveillance of the installation of their products.
- B. Monitor and report installation procedures and unacceptable conditions.

3.05 PROTECTION

A. After installation, mark pane with an 'X' by using removable plastic tape or paste; do not mark heat absorbing or reflective glass units.

B. Remove and replace glass that is damaged during construction period prior to Date of Substantial Completion.

END OF SECTION 088000

SECTION 096500 RESILIENT FLOORING

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Resilient tile flooring.
- B. Static control resilient tile flooring.
- C. Resilient base.
- D. Resilient stair accessories.
- E. Installation accessories.

1.02 RELATED REQUIREMENTS

- A. Section 016116 Volatile Organic Compound (VOC) Content Restrictions.
- B. Section 033000 Cast-in-Place Concrete: Restrictions on curing compounds for concrete slabs and floors to receive adhesive-applied resilient flooring.
- C. Section 090561 Common Work Results for Flooring Preparation: Removal of existing floor coverings, cleaning, and preparation.
- D. Section 090561 Common Work Results for Flooring Preparation: Concrete slab moisture and alkalinity testing and remediation procedures.
- E. Section 260526 Grounding and Bonding for Electrical Systems: Grounding and bonding of static control flooring to building grounding system.
- F. Section 260539 Underfloor Raceways for Electrical Systems: Electrical floor cover plates for installation of resilient flooring specified in this section.

1.03 REFERENCE STANDARDS

- A. ASTM D6329 Standard Guide for Developing Methodology for Evaluating the Ability of Indoor Materials to Support Microbial Growth Using Static Environmental Chambers 1998 (Reapproved 2023).
- B. ASTM E90 Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements 2009 (Reapproved 2016).
- C. ASTM E492 Standard Test Method for Laboratory Measurement of Impact Sound Transmission through Floor-Ceiling Assemblies Using the Tapping Machine 2022.
- D. ASTM E648 Standard Test Method for Critical Radiant Flux of Floor-Covering Systems Using a Radiant Heat Energy Source 2019a, with Editorial Revision (2020).
- E. ASTM F150 Standard Test Method for Electrical Resistance of Conductive and Static Dissipative Resilient Flooring 2006 (Reapproved 2018).
- F. ASTM F710 Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring 2022.
- G. ASTM F1344 Standard Specification for Rubber Floor Tile 2021a.
- H. ASTM F1861 Standard Specification for Resilient Wall Base 2021.
- I. ASTM F2169 Standard Specification for Resilient Stair Treads 2015 (Reapproved 2020).
- J. ASTM F2170 Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using in situ Probes 2019a.
- K. NSF 332 Sustainability Assessment for Resilient Floor Coverings 2022.
- L. UL 2824 GREENGUARD Certification Program Method for Measuring Microbial Resistance from Various Sources Using Static Environmental Chambers Current Edition, Including All Revisions.

1.04 SUBMITTALS

A. See Section 013000 - Administrative Requirements for submittal procedures.

- B. Product Data: Provide data on specified products, describing physical and performance characteristics; including sizes, patterns and colors available; and installation instructions.
- C. Shop Drawings: Indicate seaming plans and floor patterns.
- D. Selection Samples: Unless the Basis of Design Product was furnished, the specified item requires color/finish selections to be made by the Architect from a physical color chart or physical sample submittals.
- E. Verification Samples: Submit two samples, 12 by 12 inch12 in size illustrating color and pattern for each resilient flooring product specified.
- F. Electronic submittals for color, pattern, texture, or similar characteristics are not acceptable.
- G. Sustainable Design Submittal: Submit VOC content documentation for flooring and adhesives.
- H. Concrete Subfloor Test Report: Submit a copy of the moisture and alkalinity (pH) test reports.
- I. Certification: Prior to installation of flooring, submit written certification by flooring manufacturer and adhesive manufacturer that condition of subfloor is acceptable.
- J. Manufacturer's Qualification Statement.
- K. Installer's Qualification Statement.
- L. Maintenance Data: Include maintenance procedures, recommended maintenance materials, and suggested schedule for cleaning, stripping, and re-waxing.
- M. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
 - 1. See Section 016000 Product Requirements, for additional provisions.
 - 2. Extra Flooring Material: 10 percent of each type and color.
 - 3. Extra Wall Base: 5 percent of each type and color.
 - 4. Extra Stair Materials: Quantity equivalent to 5 percent of each type and color.

1.05 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing specified flooring with minimum three years documented experience.
- B. Installer Qualifications: Company specializing in installing specified flooring with minimum three years documented experience.
- C. Testing Agency Qualifications: Independent firm specializing in performing concrete slab moisture testing and inspections of the type specified in this section.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Upon receipt, immediately remove any shrink-wrap and check materials for damage and the correct style, color, quantity and run numbers.
- B. Store all materials off of the floor in an acclimatized, weather-tight space.
- C. Maintain temperature in storage area between 55 degrees F and 90 degrees F.
- D. Protect roll materials from damage by storing on end.
- E. Do not double stack pallets.

1.07 FIELD CONDITIONS

A. Store materials for not less than 48 hours prior to installation in area of installation at a temperature of 70 degrees F to achieve temperature stability. Thereafter, maintain conditions above 55 degrees F.

PART 2 PRODUCTS

2.01 SHEET FLOORING

2.02 TILE FLOORING

- A. Rubber Tile Type RF-1: Homogeneous, color and pattern throughout thickness.
 - 1. Manufacturers:
 - a. Flexco Corporation; Distinct Designs Rubber Tile: www.flexcofloors.com/#sle.

- b.
- Johnsonite, a Tarkett Company; _____: www.johnsonite.com/#sle. Mannington Commercial; _____: www.manningtoncommercial.com#sle. C.
- Roppe Corporation; Rubber Tile: www.roppe.com/#sle. d.
- Minimum Requirements: Comply with ASTM F1344, of Class corresponding to type 2. specified.
- 3. VOC Content Limits: As specified in Section 016116.
- Size: 18 by 18 inch nominal. 4.
- Wear Layer Thickness: 0.040 inch. 5.
- 6. Total Thickness: 0.125 inch.
- 7. Texture: Hammered.
- 8. Color: To be selected by Architect from manufacturer's full range.
- B. Rubber Tile Type[RF-2]: Homogeneous, color and pattern throughout thickness.
 - Manufacturers: 1.
 - a. Flexco Corporation; Distinct Designs Rubber Tile: www.flexcofloors.com/#sle.
 - Johnsonite, a Tarkett Company;[___]: www.johnsonite.com/#sle. b.
 - Mannington Commercial; [____]: www.manningtoncommercial.com#sle. C.
 - Roppe Corporation; Rubber Tile: www.roppe.com/#sle. d.
 - Minimum Requirements: Comply with ASTM F1344, of Class corresponding to type 2. specified.
 - 3. VOC Content Limits: As specified in Section 016116.
 - 4. Size: 18 by 18 inch (457 by 457 mm) nominal.
 - 5. Wear Layer Thickness: 0.040 inch (1 mm).
 - Total Thickness: 0.125 inch (3.2 mm). 6.
 - Texture: Hammered. 7.
 - Color: To be selected by Architect from manufacturer's full range. 8.
- C. ELECTROSTATIC DISCHARGE TILE Type SDT-1: Homogeneous; color and pattern throughout thickness.
 - 1. Manufacturers:
 - a. Flexco Corporation; Delane ESD Vinyl: www.flexcofloors.com/#sle.
 - b. Mannington Commercial; _____: www.manningtoncommercial.com#sle.
 - Roppe Corporation; ESD Rubber Static Control Tile: www.roppe.com/#sle. C.
 - Substitutions: See Section 016000 Product Requirements. d.
 - Minimum Requirements: Rubber tile complying with ASTM F1344, Class 1, Type B. 2.
 - 3. Electrical Resistance:
 - Conductive Tile: Resistance between 25 kiloohms and 1.0 megohms as tested in a. accordance with ASTM F150.
 - Dissipative Tile: Resistance between 1.0 megohms and 1000 megohms as tested in b. accordance with ASTM F150.
 - Critical Radiant Flux (CRF): Minimum 0.45 watt per square centimeter, when tested in 4. accordance with ASTM E648 or NFPA 253.
 - VOC Content Limits: As specified in Section 016116. 5.
 - Tile Size: 12 by 12 inch. 6.
 - 7. Total Thickness: 0.125 inch.
 - 8. Color: To be selected by Architect from manufacturer's full range.
- D. QUARTZ TILE through-pattern Quartz vinyl tile made from polyvinyl esters and inorganic fillers materials formed under heat and pressure and cut to create resilient tile flooring in a variety of sizes, colors and linear patterns.
 - 1. Type QT-1: Quartz Tile
 - Basis of Design Product: Subject to compliance, provide Kahrs Upofloor Quartz a. Lines, Kahrs International, Upofloor Commercial Division. 800.800.5247, www.kahrs.com or Approved Equal that meets all of the technical, performance, and aesthetic characteristics of the following.
 - b. Requirements:
 - 1) Class 1 per ASTM E 648

- 2) Size: **12 x 24**
- 3) Thickness: **0.080 inches**
- 4) Color: 8203 GABBRO GREY
- 5) Composition: Quartz Vinyl tile formulated from PVC with through-pattern and solid-color cosntruction
- 6) Surface: Type A, Smooth
- 7) Recyled Content: 15%
- 8) Manufacturer Warranty. Provide manufacturer's non-prorated fifteen (15) year limited warranty to be free from defects in material and workmanship, under normal use and service, to repair or replace all defective tiles including reasonable labor.
- 2. Type QT-2: Quartz Tile
 - Basis of Design Product: Subject to compliance, provide Kahrs Upofloor Quartz Lines, Kahrs International, Upofloor Commercial Division. 800.800.5247, www.kahrs.com or Approved Equal that meets all of the technical, performance, and aesthetic characteristics of QZ-1, above
 - b. Requirements:
 - 1) Color: 8202 Conglomerate Grey

2.03 STAIR COVERING

- A. Stair Treads with Integral Risers: Rubber; full height of riser, full width and depth of tread in one piece; tapered thickness.
 - 1. Manufacturers:
 - a. Flexco Corporation; Heavy Duty One-Piece Tread with Riser: www.flexcofloors.com/#sle.
 - b. Johnsonite, a Tarkett Company; _____: www.johnsonite.com.
 - c. Mannington Commercial; _____: www.manningtoncommercial.com#sle.
 - d. Roppe Corporation; ____: www.roppe.com/#sle.
 - 2. Minimum Requirements: Comply with ASTM F2169, Type TS, rubber, vulcanized thermoset.
 - 3. Critical Radiant Flux (CRF): Minimum 0.45 watt per square centimeter, when tested in accordance with ASTM E648 or NFPA 253.
 - 4. Nominal Thickness: 0.1875 inch.
 - 5. Nosing: Square.
 - 6. Tread Texture: Raised.
 - 7. Color: To be selected by Architect from manufacturer's full range.

2.04 RESILIENT BASE

- A. Resilient Base Type RB-1 and RB-2: ASTM F1861, Type TS, rubber, vulcanized thermoset; style as scheduled.
 - 1. Manufacturers:
 - a. Flexco Corporation; Base Sculptures: www.flexcofloors.com/#sle.
 - b. Johnsonite, a Tarkett Company; _____: www.johnsonite.com/#sle.
 - c. Mannington Commercial; _____: www.manningtoncommercial.com#sle.
 - d. Roppe Corporation; Contours Profiled Wall Base System: www.roppe.com/#sle.
 - 2. Height: 4 inches.
 - 3. Style: Cove
 - 4. Thickness: 0.125 inch.
 - 5. Finish: Satin.
 - 6. Length: Roll.
 - 7. Color: To be selected by Architect from manufacturer's full range.
 - 8. Accessories: Premolded external corners and internal corners.

2.05 ACCESSORIES

A. Subfloor Filler: White premix latex; type recommended by adhesive material manufacturer.

- B. Primers, Adhesives, and Seam Sealer: Waterproof; types recommended by flooring manufacturer.
 - 1. VOC Content Limits: As specified in Section 016116.
- C. Transition and Edge Strips: rubber. Refer to Floor Finish Transitions for locations.
 - 1. Basis of Design Product: Subject to compliance, provide **JOHNSONITE TRANSITION STRIP, CTA-XX-A** or Approved Equal that meets all of the technical, performance, and aesthetic characteristics of the product.
 - 2. Basis of Design Product: Subject to compliance, provide **JOHNSONITE REDUCER STRIP, CTA-XX-P** or Approved Equal that meets all of the technical, performance, and aesthetic characteristics of the product.
 - 3. Basis of Design Product: Subject to compliance, provide **JOHNSONITE REDUCER STRIP, RRS-XX-C** or Approved Equal that meets all of the technical, performance, and aesthetic characteristics of the product.
- D. Transition and Edge Strips: Metal. Refer to Floor Finish Transitions for locations.
 - Basis of Design: Subject to compliance, provide Schluter®-RENO-U, Schlutter Systems, Approved Equal that meets all of the technical, performance, and aesthetic characteristics of the product.
 - a. Schluter®-RENO-U is designed to provide a smooth transition between tile coverings and floor coverings at lower elevations or finished concrete. RENO-U features a trapezoid-perforated anchoring leg, which is secured in the mortar bond coat beneath the tile, and a sloped surface (approximately 25°) that eliminates trip hazards and protects tile edges. The leading edge of the profile abuts the lower surface covering. RENO-U, in aluminum, features an integrated joint spacer that establishes a defined joint cavity between the tile and the profile.
 - b. Material: Anodized aluminum.
 - c. ADA Compliance: Select ADA Compliant size. In installations where the leading edge abuts a lower surface covering, all sizes of RENO-U, except the 3/4" (20 mm) and 11/16" (17.5 mm), are compliant with the Americans with Disabilities Act (ADA). In installations where the leading edge rests on top of the lower floor covering (e.g., finished concrete), the 3/4" (20 mm), 11/16" (17.5 mm), and 9/16" (15 mm) sizes are not ADA-compliant.
 - 2. Basis of Design: Subject to compliance, provide **Schluter®-RENO-RAMP-K**, **Schlutter Systems**, Approved Equal that meets all of the technical, performance, and aesthetic characteristics of the product.
 - a. The RENO-RAMP-K profile is designed to be bonded to existing floor coverings.
 - b. Creates smooth transitions to eliminate trip hazards
 - c. Suitable for wheel carts in commercial applications
 - d. ADA Compliance: Select ADA Compliant size.
 - e. RENO-RAMP is installed in conjunction with the tile and features an anchoring leg which is embedded in the tile bond coat
 - 3. Manufacturers:
 - a. Mannington Commercial; ____: www.manningtoncommercial.com#sle.
 - b. Flexco Corporation; Base Sculptures: www.flexcofloors.com/#sle..
 - c. Johnsonite, a Tarkett Company; ____: www.johnsonite.com/#sle..
 - Roppe Corporation: www.roppe.com/#sle.
 - d. Substitutions: See Section 016000 Product Requirements.
- E. Copper Grounding Strips: Type and size as recommended by static control flooring manufacturer.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that surfaces are flat to tolerances acceptable to flooring manufacturer, free of cracks that might telegraph through flooring, clean, dry, and free of curing compounds, surface hardeners, and other chemicals that might interfere with bonding of flooring to substrate.

- B. Verify that wall surfaces are smooth and flat within the tolerances specified for that type of work, are dust-free, and are ready to receive resilient base.
- C. Cementitious Subfloor Surfaces: Verify that substrates are ready for resilient flooring installation by testing for moisture and alkalinity (pH).
 - 1. Test in accordance with Section 090561.
 - 2. Obtain instructions if test results are not within limits recommended by resilient flooring manufacturer and adhesive materials manufacturer.
 - 3. Follow moisture and alkalinity remediation procedures in Section 090561.
- D. Verify that required floor-mounted utilities are in correct location.

3.02 PREPARATION

- A. Prepare floor substrates as recommended by flooring and adhesive manufacturers.
- B. Remove subfloor ridges and bumps. Fill minor low spots, cracks, joints, holes, and other defects with subfloor filler to achieve smooth, flat, hard surface.
- C. Prohibit traffic until filler is fully cured.
- D. Clean substrate.
- E. Apply primer as required to prevent "bleed-through" or interference with adhesion by substances that cannot be removed. Apply primer to ______ surfaces.

3.03 INSTALLATION - GENERAL

- A. Starting installation constitutes acceptance of subfloor conditions.
- B. Install in accordance with manufacturer's written instructions.
- C. Adhesive-Applied Installation:
 - 1. Spread only enough adhesive to permit installation of materials before initial set.
 - 2. Place copper grounding strip in conductive adhesive and apply additional adhesive to top side of strip before installing static control flooring. Allow strip to extend beyond flooring in accordance with static control flooring manufacturer's instructions. Refer to Section 260526 for grounding and bonding to building grounding system.
 - 3. Fit joints and butt seams tightly.
 - 4. Set flooring in place, press with heavy roller to attain full adhesion.
- D. Where type of floor finish, pattern, or color are different on opposite sides of door, terminate flooring under centerline of door.
- E. Install edge strips at unprotected or exposed edges, where flooring terminates, and where indicated.
 - 1. Resilient Strips: Attach to substrate using adhesive.
- F. Scribe flooring to walls, columns, cabinets, floor outlets, and other appurtenances to produce tight joints.
- G. Install flooring in recessed floor access covers, maintaining floor pattern.

3.04 INSTALLATION - SHEET FLOORING

A. Lay flooring with joints and seams parallel to longer room dimensions, to produce minimum number of seams. Lay out seams to avoid widths less than 1/3 of roll width; match patterns at seams.

3.05 INSTALLATION - TILE FLOORING

- A. Mix tile from container to ensure shade variations are consistent when tile is placed, unless otherwise indicated in manufacturer's installation instructions.
- B. Lay flooring with joints and seams parallel to building lines to produce symmetrical pattern.
- C. Install square tile to ashlar pattern. Allow minimum 1/2 full size tile width at room or area perimeter.

3.06 INSTALLATION - RESILIENT BASE

- A. Fit joints tightly and make vertical. Maintain minimum dimension of 18 inches between joints.
- B. Miter internal corners. At external corners, use premolded units. At exposed ends, use premolded units.
- C. Install base on solid backing. Bond tightly to wall and floor surfaces.
- D. Scribe and fit to door frames and other interruptions.

3.07 INSTALLATION - STAIR COVERINGS

- A. Install stair coverings in one piece for full width and depth of tread.
- B. Adhere over entire surface. Fit accurately and securely.

3.08 CLEANING

- A. Remove excess adhesive from floor, base, and wall surfaces without damage.
- B. Clean in accordance with manufacturer's written instructions.

3.09 PROTECTION

A. Prohibit traffic on resilient flooring for 48 hours after installation.

END OF SECTION 096500

SECTION 116623 GYMNASIUM EQUIPMENT

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Wall mounted protection pads.
- B. Stage-mounted protection pads

1.02 REFERENCE STANDARDS

A. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials 2023b.

1.03 SUBMITTALS

- A. See Section 013000 Administrative Requirements, for submittal procedures.
- B. Product Data: Provide manufacturer's data showing configuration, sizes, materials, finishes, hardware, and accessories; include:
 - 1. Fire rating certifications.
 - 2. Manufacturer's installation instructions.
- C. Selection Samples: the specified item requires color/finish selections to be made by the Architect from a physical color chart or physical sample submittals.
- D. Electronic submittals for color, pattern, texture, or similar characteristics are not acceptable.
- E. Shop Drawings: For custom fabricated equipment indicate, in large scale detail, construction methods; method of attachment or installation; type and gauge of metal, hardware, and fittings; plan front elevation; elevations and dimensions; minimum one cross section; utility requirements as to types, sizes, and locations.
- F. Erection Drawings: Detailed dimensional requirements for proper location of equipment.
- G. Warranty: Submit manufacturer warranty and ensure that forms have been completed in Owner's name and registered with manufacturer.

1.04 DELIVERY, STORAGE, AND HANDLING

- A. Deliver products to project site in manufacturer's original packaging with factory original labels attached.
- B. Store products indoors and elevated above floor; prevent warping, twisting, or sagging.
- C. Store products in accordance with manufacturer's instructions; protect from extremes of weather, temperature, moisture, and other damage.

1.05 WARRANTY

A. See Section 017800 - Closeout Submittals, for additional warranty requirements.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Gymnasium Equipment:
 - 1. Grand Slam Safety, LLC; ____: www.grandslamsafety.com/#sle.
 - 2. IPI by Bison, Inc; ____: www.ipibybison.com/#sle.
 - 3. Performance Sports Systems; ____: www.perfsports.com/#sle.
 - 4. Porter Athletic Equipment Company; ____: www.porterathletic.com/#sle.

2.02 GENERAL REQUIREMENTS

- A. See drawings for sizes and locations, unless noted otherwise.
- B. Provide mounting plates, brackets, and anchors of sufficient size and strength to securely attach equipment to building structure; comply with requirements of Contract Documents.
- C. Hardware: Heavy duty steel hardware, as recommended by manufacturer.

2.03 STAGE PADS WITH TOP RETURN

- A. Removable safety wall padding manufactured in 2-in-thickness, standard 2-ft- accordion style fold construction: Each mat is sewn with loop attachment along horizontal edge for connection to YKK® engineered wall hook and rail system.
- Basis of Design Product: Subject to compliance, provide Mancino Manufacturing Company model 512, Top-Return Removable Stage Padding, https://www.mancinomats.com/. or Approved Equal that meets all of the technical, performance, and aesthetic characteristics of the following.
- C. Covering: 14 -oz. / yd2 vinyl coated polyester., UV and Anti-Mildew treated.
 1. Color: As selected from manufacturer's standard range.
- D. Filler: firm crosslinked polyethylene foam, 2-inch Cross-linked (50.8-mm-) thick foam 2-lb/ ft3 (32-kg/ m3) density.
- E. Meets ASTM standard 2440-04 Impact attenuation where the panel has achieved ratings below 1000 HIC and 200 g max.
- F. Sizing: Standard fold every 24-inches- in lengths of 4-ft-, 6-ft-, 8-ft-, or 10-ft-. *Combination of lengths and heights may be required to complete area. Refer to drawings for sizes.
- G. YKK® engineered wall hook and rail system mounts directly to stage top lying flat and running along stage edge, YKK, Powerhook,

https://www.ykkfastening.com/products/hook_loop/powerhook/

2.04 WALL PADDING

- A. Wall Padding: Foam filling bonded to backing board, wrapped in covering; each panel fabricated in one piece.
 - 1. Same construction as standard padding
 - 2. Covering: Vinyl-coated polyester fabric, mildew and rot resistant; stapled to back of board.
 - a. Color: As selected from manufacturer's standard range.
 - b. Texture: Smooth.
 - 3. Foam Thickness: 1-1/2 inches.
 - 4. Backing Board: Plywood.
 - a. Thickness: 3/8 inch, minimum.
 - 5. Panel Dimensions: refer to drawings, .
 - 6. Mounting: Removable; Z-clips fixed to wall and to padding.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Take field measurements to ensure proper fitting of work. If taking field measurements before fabrication will delay work, allow for adjustments within recommended tolerances.
- B. Inspect areas and conditions before installation, and notify Architect in writing of unsatisfactory or detrimental conditions.
- C. Do not proceed with this work until conditions have been corrected; commencing installation constitutes acceptance of work site conditions.

3.02 INSTALLATION

- A. Install in accordance with Contract Documents and manufacturer's instructions.
- B. Coordinate installation of inserts and anchors that must be built in to flooring or subflooring.
- C. Install equipment rigid, straight, plumb, and level.
- D. Secure equipment with manufacturer's recommended anchoring devices.
- E. Install wall padding securely, with edges tight to wall and without wrinkles in fabric covering.
- F. Separate dissimilar metals to prevent electrolytic corrosion.

3.03 ADJUSTING

- A. Verify proper placement of equipment.
- B. Verify proper placement of equipment anchors and sleeves, and use actual movable equipment to be anchored if available.

3.04 CLEANING

- A. Remove masking or protective covering from finished surfaces.
- B. Clean equipment in accordance with manufacturer's recommendations.

3.05 PROTECTION

- A. Protect installed products until Date of Substantial Completion.
- B. Replace damaged products before Date of Substantial Completion.

END OF SECTION 116623

ABBREVIATIONS

	CBB	CONCRETE BACKER BOARD
	A/E ABV	ARCHITECT / ENGINEER ABOVE
	ACCESS	ACCESSIBLE
	ACP ACST	ACOUSTICAL CEILING PANEL
L	AD	
	ADA	DISABILITIES ACT
	ADD'L	ADDITIONAL ADJACENT/ADJUST
	AFF	ABOVE FINISHED FLOOR
	AFG AGG	ABOVE FINISHED GRADE AGGREGATE
	ALT	ALTERNATE
K	ALUM APPROX	APPROXIMATE(LY)
	ARCH	ARCHITECT(URAL, URE)
	AUTO	AUTOMATIC
		AVERAGE
	FRP	AIR CONDITIONING
	BLDG	BUILDING
J	BLKG BLKG	BLOCKING
	BLW	BELOW
	BM הסא	BEAM BASIS OF DESIGN
	BOS	BOTTOM OF STEEL
	BOT BRG	BEARING
	с с	CENTER TO CENTER
ц	CAB	CABINET
11	CEM CFS	CEMENT COLD FORMED STEEL
	CIP	CAST-IN-PLACE
	CL	CENTER LINE
	CLG	CEILING
	CLR	CLEAR(ANCE)
	CMU COL	CONCRETE MASONRY UNIT
G	COM	COMMUNICATIONS
	CONC	CONDITION
	CONFIG(S)	CONFIGURATION(S)
	CONT	CONTINUOUS
	COORD CORR	COORDINATE CORRIDOR
	CPT	
F	СТВ	CERAMIC TILE BASE
	CTR	CENTER
	D	DEEP/DEPTH
	DEG	DEGREE DEMOLISH, DEMOLITION
	DF	DRINKING FOUNTAIN
	DIAG	DIAGONAL
E	DIM(S) DIV	DIMENSION(S) DIVIDE
	DN	DOWN
	DR	DOUR, DRAIN DOWNSPOUT
	DTL DWG(S)	DETAIL DRAWING(S)
	DWR	DRAWER
	E	EAST
D	E-P EA	EPOXY PAINT EACH
	EJ	EXPANSION JOINT
	EL	ELECTRICAL
	ELEV	ELEVATION (ARCH), ELEVATOR
	ENGR	ENGINEER
С	ENTR EOS	ENTRANCE EDGE OF SLAB
	EPDM	ETHYLENE PROPYLENE DIENE MONOMER
	EPS	EXPANDED POLYSTYRENE BOARD
	EQ	
	EQUIP ESB	EQUIPMENT EXISTING STEEL BASE
_	ESD	ELECTROSTATIC DISCHARGE
В	EST	ESTIMATE(D)
	EWC	ELECTRIC WATER COOLER
	EX EXH	EXISTING EXHAUST
	EXHB	EXHIBIT
	EXIST	EXPOSED, EXPANSION
	EXT	EXTERIOR

1

2

3

F.P. FILLER PANEL MED MEDIUM FA FIRE ALARM MEMB MEMBRANE FAS FASTEN(ER) FD FLOOR DRAIN **min** minimum **FDC** FIRE DEPARTMENT CONNECTION FDTN FOUNDATION MTD MOUNTED **FE** FIRE EXTINGUISHER MTG MOUNTING FEC FIRE EXTINGUISHER MTL METAL CABINET FF FINISH(ED) FACE N NORTH **FF&E** FURNITURE, FIXTURES & EQUIPMENT NAT NATURAL **FH** FIRE HOSE, FIRE HYDRANT FHC FIRE HOSE CABINET FIN(S) FINISH(ES) FIXT FIXTURE NO('S) NUMBER(S) FL FLOOR(ING) NOM NOMINAL FLAM FLAMMABLE NRC NOISE REDUCTION **FO** FINISHED OPENING FOS FACE OF STUDS **FP** FIRE PROTECTION FRP FIBERGLASS REINFORCED **0-0** OUT TO OUT PLASTIC FT FEET FTG FOOTING **FUR** FURR(ED,ING) OFC OFFICE **G** NATURAL GAS **GA** GAUGE **OPNG** OPENING(S) **GALV** GALVANIZED **ORIG** ORIGINAL **GB** GRAB BAR **GC** GENERAL CONTRACT(OR) **GEN** GENERATOR PAR PARALLEL **GF** GLASS FILM **GFRC** GLASS-FIBER-REINFORCED CONCRETE **GFRG** GLASS-FIBER-REINFORCED GYPSUM GFRP GLASS-FIBER-REINFORCED POLYESTER, GLASS-FIBER-REINFORCED PLASTIC **GL** GLASS, GLAZING **GLU LAM** GLUE LAMINATED WOOD **GOVT** GOVERNMENT **GT** GROUT **GWB** GYPSUM WALLBOARD h High HAZ MAT HAZARDOUS MATERIAL **HB** HOSE BIBB **HC** HOLLOW CORE, HOSE CABINET HCWD HOLLOW CORE WOOD DOOR HD HEAVY DUTY HDR HEADER HDWD HARDWOOD HDWR HARDWARE **HID** HIGH INTENSITY DISCHARGE **HM** HOLLOW METAL HORIZ HORIZONTAL(LY) HP HIGH POINT **HSS** HOLLOW STRUCTURAL SECTION HT HEIGHT(S) HT HEIGHT **HVAC** HEATING, VENTILATION & AIR CONDITIONING HW HOT WATER **ID** INSIDE DIAMETER ILO IN LIEU OF IN INCH(ES) **INCL** INCLUDE(S,D,ING) **INFO** INFORMATION **INSUL** INSULATION, INSULATED **INT** INTERIOR INV INVERT **IR** IMPACT-RESISTANT J-BOX JUNCTION BOX JT(S) JOINT(S) KIT KITCHEN KO KNOCK OUT L ANGLE **LAM** LAMINATE(D) LAV LAVATORY LBL LABEL **LH** LEFT HAND LHR LEFTHAND REVERSE LL LIVE LOAD LLH LONG LEG HORIZONTAL **LLV** LONG LEG VERTICAL LP LOW POINT LT GA LIGHT GAUGE SECT SECTION **LTG** LIGHTING LV LOW VOLTAGE SHT SHEET LVT LUXURY VINYL TILE SIM SIMILAR LW LIGHT WEIGHT SQ SQUARE MAS MASONRY **MATL** MATERIAL(S) Max Maximum ST STONE MECH MECHANICAL STD STANDARD STL STEEL

PC PRECAST **PERF** PERFORATE(D) **PL** PLATE, PROPERTY LINE, PLASTIC LAMINATE PLAS PLASTER PLWD PLYWOOD **PNL** PANEL(ED) POL POLISHED **POLY** POLYETHYLENE **PR** PAIR **PREP** PREPARE (SURFACE) **PSF** POUNDS PER SQUARE FOOT **PSI** POUNDS PER SQUARE INCH **PT** PAINT, POST-TENSIONED, PRESSURE TREATED PTD PAINTED **PVC** POLYVINYL CHLORIDE **PVMT** PAVEMENT **PWR** POWER QTY QUANTITY QZ QUARRY TILE QZ QUARTZ FLOORING **R** RADIUS, RISER, THERMAL RESISTANCE **RB** RUBBER BASE **RCP** REFLECTED CEILING PLAN RD ROOF DRAIN **REBAR** REINFORCING BAR **REF** REFERENCE **REINF** REINFORCED REPL REPLACE **REQ** REQUIRED **RES** RESILIENT **RET** RETAINING, RETURN **REV** REVISION(S) / REVISE(D) **RF** RUBBER FLOORING RFG ROOFING **RH** RIGHT HAND, RELATIVE HUMIDITY **RHR** RIGHT HAND REVERSE **RL** RAIN LEADER RM ROOM **RO** ROUGH OPENING **RS** RESILIENT SHEET **RTF** RUBBER TILE FLOOR **RTU** ROOF TOP UNIT **RV** ROOF VENTILATOR SOUTH, SEAL **SAB** SOUND ATTENUATION BATT SACP SUSPENDED ACCOUSTIC CEILING PANEL SALV SALVAGE SAN SANITARY SC SOLID CORE SCHED SCHEDULE **SCON** SEALED CONCRETE SCWD SOLID CORE WOOD DOOR

MFR MANUFACTURE(R) MISC MISCELLANEOUS **MO** MASONRY OPENING

NA NOT APPLICABLE **NC NOISE CRITERIA NIC NOT IN CONTRACT, NOISE ISOLATION CLASS**

COEFFICIENT NTS NOT TO SCALE

OC ON CENTER **OD** OUTSIDE DIAMETER OF/CI OWNER FURNISHED / CONTRACTOR INSTALLED

OH OPPOSITE HAND, OVERHEAD

PA PUBLIC ADDRESS **PART** PARTITION(S), PARTIAL

SDT STATIC DISSIPATIVE TILE **SEC** SECURE, SECURITY

SF SQUARE FEET

SPEC SPECIFICATION

SS STAINLESS STEEL **SSM** SOLID SURFACE MATERIAL

5

6

STN STAIN

4

STO STRUC SUB SUSP SYS	STORAGE STRUCTURAL SUBSTITUTION SUSPENDED SYSTEM
T T&G T.O. TB TBB TECH TEL TEMP THRS THRU TOC TOF TOJ TOM TOF TOJ TOM TOP TOS TOW TRANS TYP	THICK, TREAD, TOILET TONGUE AND GROOVE TOP OF TACKBOARD TILE BACKER BOARD TECHNOLOGY TELEPHONE TEMPORARY, TEMPERED THRESHOLD THROUGH TOP OF CONCRETE TOP OF FOOTING TOP OF FOOTING TOP OF JOIST TOP OF MASONRY TOP OF PARAPET TOP OF STEEL TOP OF WALL TRANSPARENT TYPICAL
UC UH UIO UL UNFIN UR	UNDERCUT UNIT HEATER UNLESS INDICATED OTHERWISE UNDERWRITER'S LABORATORY UNFINISHED URINAL
VAR VCT VERT VEST VIF VTR VU	VARIES VINYL COMPOSITION TILE VERTICAL VESTIBULE VERIFY IN FIELD VENT THROUHG ROOF VENTILATION UNIT
W W-W W/O WO WD WDW WH WOC WP WPF WT WVF	WEST, WIDE, WIDE FLANGE WALL TO WALL WITH WITHOUT WATER CLOSET WOOD WINDOW WALL HEATER WALL HEATER WALL OFF CARPET WATERPROOFING, WORK POINT WOOD PLANK FLOORING WEIGHT WELDED WIRE FABRIC WELDED WIRE MESH
XFER	
YD # & ±	YARD, YARD DRAIN NUMBER, POUND AND PLUS / MINUS

GRAPHIC SYMBOLS

DETAIL / PLAN DRAWING REFERENCE SIM A101 \ A101 SHEET REFERENCE INTERIOR ELEVATION DRAWING REFERENCE A101 A101 SHEET REFERENCE EXTERIOR ELEVATION WALL SECTION CUT DRAWING REFERENCE A101 / SHEET REFERENCE

MATERIAL SYMBOLS

EARTH

GRAVEL

BRICK

CMU

GROUT

STONE

STEEL

ALUMINUM

BRASS/BRONZE

CONCRETE-PLAN

CONCRETE-SECTION

PRECAST CONCRETE

4 - A , AA

A 4

DIMENSIONAL LUMBER (SIZE AS INDICATED) **DISCONTINUOUS LUMBER** (SIZE AS INDICATED) WOOD PLYWOOD

PARTICLE BOARD

SYMBOLS

oom name 101	ROOM NUMBER FINISH TYPE	XX-XX	KEYNOTE
101	DOOR NUMBER	XX	CURTAINWA HOLLOWME STOREFROI
xx	WALL TYPES		REVISION C AND INDICA
$\langle \mathbf{x}\mathbf{x} \rangle$	WINDOW NUMBER	XX	CONSTRUC ASSEMBLY
××	LOUVER TAG	X/SHEET # X/SHEET #	MATCHLINE
\oplus	EXISTING ELEVATION		EXISTING C
\bullet	NEW ELEVATION	(A)	LINE
+	WORK POINT	A	NEW COLUN

GLAZING SCHEDULE

7

GENERAL NOTE:				
1. F	1. REFER TO SPECIFICATION SECTION 088000 FOR GLAZING PRODUCTS			
MARK	DESCRIPTION			
GL-1 GL-2 GL-3 GL-4 GL-5	INTERIOR 1/4" GLAZING, TEMPERED INTERIOR 1/2" LAMINATED GLAZING, CLEAR, TEMPERED EXTERIOR 1" INSULATED LOW-E GLAZING, TEMPERED STORM-WINDOW GLAZING, 1/4" LOW-E, TEMPERED EXTERIOR 1/8" GLAZING FOR REPLACEMENT OF GLASS IN HISTORIC			

8

BLDG SECTION CUT

-DRAWING REFERENCE \A101 / -SHEET REFERENCE

DETAIL CUT

∖ SIM

SIM

3/8"

-DRAWING REFERENCE

-SHEET REFERENCE

-DRAWING REFERENCE

SHEET REFERENCE

BATT INSULATION

RIGID INSULATION

SPRAY FOAM INSULATION

SPRAY FIREPROOFING

GLASS

PLASTIC

SHIM

SEALANT & BACKER ROD (SIZE AS INDICATED)

GYPSUM BOARD / PLASTER

PLASTER AND LATH

METAL STUD

METAL TRACK

CARPET

AINWALL, OWMETAL OR

EFRONT FRAME TYPE

SION CLOUD NDICATOR

TRUCTION

HLINE

ING COLUMN

COLUMN LINE

9

METAL SHELVING SCHEDULE

BASIS OF DESIGN: ULINE. REFER TO SPECIFICATIONS SECTION 105613 - METAL STORAGE SHELVING AND TO FLOORPLANS FOR LOCATIONS.

MARK	DESCRIPTION	SIZE (W x D x H)
MS-2	METAL STORAGE SHELVING	36" x 18" x 60"
MS-4	METAL STORAGE SHELVING	48" x 18" x 60"
MS-5	METAL STORAGE SHELVING	36" x 12" x 84"
MS-6	METAL STORAGE SHELVING	36" x 18" x 84"
MS-7	METAL STORAGE SHELVING	48" x 18" x 84"
MS-8	METAL STORAGE SHELVING	72" x 36" x 72"
MS-9	METAL STORAGE SHELVING	96" x 36" x 72"

LIBRARY SHELVING SCHEDULE

BASIS OF DESIGN: ESTEY, LIBRARY DESIGNER DESIGNER SERIES SHELVING, REFER TO SPECIFICATIONS SECTION - 115123 "LIBRARY STACK SYSTEMS" AND TO ENLARGED PLAN/ELEVS - ADMIN & LIBRARY, FOR LOCATIONS.

TAG	DESCRIPTION	SIZE (W x D x H)
LS-1	ONE SIDED 66" TALL	36" x 13" x 66"
LS-2	ONE SIDED 66" TALL	24" x 13" x 66"
LS-3	ONE SIDED 42" TALL	36" x 13" x 42"
LS-4	DOUBLE SIDED 42" TALL	36" x 13" x 42".
LS-5	ONE SIDED 42" TALL	30" x 13" x 42".
LS-10	CIRCULATION DESK	30" X 84"

ROLLER SHADE SCHEDULE

BASIS OF DESIGN: HELIARISE SLIM MANUAL ROLLER SHADE (MANUAL SHADES) AND MOTORISE MR150 SLIM SYSTEM (MOTORIZED), WT SHADE. REFER TO SPECIFICATIONS SECTIONS 122413 -"MANUAL ROLLER SHADES", 122414 - "MOTORIZED ROLLER SHADES", AND TO REFLECTED CEILING PLANS FOR LOCATIONS.

RS-1 - MANUAL, REGULAR SHADE, 3% OPEN (LEVEL 1)

RS-2 - MANUAL, REGULAR SHADE (LEVEL 1)

RS-3 - MANUAL, REGULAR SHADE, 3% OPEN (LEVEL 2, LEVEL 3, & MEZZANINE)

RS-4 - MANUAL, REGULAR SHADE, 1% OPEN (LEVEL 2, LEVEL 3, & MEZZANINE)

RS-5 - MANUAL, REGULAR SHADE, 3% OPEN (LEVEL 2)

RS-6 - MOTORIZED, REGULAR SHADE + BLACKOUT SHADE, 3% OPEN (LEVEL 3 GYMATORIUM) RS-7 - MOTORIZED, REGULAR SHADE + BLACKOUT SHADE, 3% OPEN (LEVEL 3 GYMATORIUM)

VINYL FILM SCHEDULE

BASIS OF DESIGN: DECORATIVE FILMS, SOLYX. REFER TO SPECIFICATIONS SECTION "DECORATIVE WINDOW FILM" AND TO STOREFRONT ELEVATIONS FOR LOCATIONS.

VF-1 - TRANSLUSCENT FILM, DECORATIVE FILMS, SOLYX, SX-C300 DUSTED ETCH

VF-2 - DECORATIVE FILMS, SOLYX, SXP-030, DARK RED VF-3 - DECORATIVE FILMS, SOLYX, SXP-096UV, STEEL BLUE

VF-4 - DECORATIVE FILMS, SOLYX, SXP-068UV, GRASS GREEN

VF-5 - DECORATIVE FILMS, SOLYX, SXP-034UV, ORANGE

TACKBOARD SCHEDULE

TYPE MARK	SIZE	DESCRIPTION
TB-1	VARIES, REFER TO TYP. CLASSROOM AND CORRIDOR ELEVATIONS	SHEET PRODUCT, APPLIED TO SUBSTRATE OR WALL SURFACE WITHIN HISTORIC WOOD MILLWORK FRAME
TB-4	4' W x 3' H	ALUMINUM-FRAMED UNIT

MARKBERBOARD SCHEDULE

TYPE MARK	SIZE	DESCRIPTION
MB-AV	8' W x VARYING H	ROLL-GOODS SHEET PRODUCT - AV MARKERBOARD (REFER TO AV SPEC) CUT TO FIT AND APPLIED TO SUBSTRATE IN CUSTOM FRAME, WITH WALL-MOUNTED PROJECTOR ABOVE. ON LEVELS 2 & 3 MARKERBOARD WILL BE MOUNTED IN FRONT OF EXISTING TRIM AS SHOWN IN SECTION DETAILS. ON LEVEL 1 SUBSTRATE WILL BE MOUNTED DIRECTLY TO WALL. REF. AV DRAWINGS (AVB1, AVB2)
MB-1	VARIES, REF. TYP. CLASSROOM ELEVATIONS	UNFRAMED MARKERBOARD/MAGNETIC BOARD, CUT TO FIT AND MOUNTED WITHIN HISTORIC WOOD TRIM
MB-4	4' W x 3' H	ALUMINUM-FRAMED UNIT
MB-6	6' W x 3' H	ALUMINUM-FRAMED UNIT
MB-8	8' W x 3' H	ALUMINUM-FRAMED UNIT
MB-10	10' W x 3' H	ALUMINUM-FRAMED UNIT
MB-12	12' W x 3' H	ALUMINUM-FRAMED UNIT

ACOUSTIC WALL PANEL SCHEDULE

REFER TO SPECIFICATIONS SECTION "ACOUSTIC WALL PANELS", TO INTERIOR ELEVATIONS, AND TO ENLARGED PLAN/ELEVS - GYMATORIUM, FOR LOCATIONS.

TYPE MARK	SIZE	TYPE
AWP-1	24" X 24"	PET PLASTIC PANELS
AWP-2	36" X 59"	FELT WALL PANELS
AWP-3	12" X 24"	FABRIC-WRAPPED PANELS

¢ RESTORED/REPLICATED WINDOWS)-2



1840 WEST BROAD STREET SUITE 400 RICHMOND, VA 23220 v 804.788.4774

QUINNEVANS.COM



WILLIAM FOX **ELEMENTARY SCHOOL** RECONSTRUCTION

RICHMOND PUBLIC SCHOOLS 2300 HANOVER AVENUE RICHMOND, VA 23220

STATE PROJECT No: 123-20-00-101

No.	Date	Description
projec KS	ET MANAGER:	DRAWN BY: BG/KB/LC/LG
QEA	No.4224	0940
BID DOCUMENTS 10/3/2023		
ABBREVIATIONS, SYMBOLS, SCHEDULES		

A001



EXTERIOR ADJUSTABLE UPLIGHT, REFER TO LEVEL 3 AT ROOF OVERHANGS		LED TAPE LIGHT
THEATRICAL TRACK LIGHT		
DECORATIVE ACOUSTIC PENDANT, SMALL		
DECORATIVE ACOUSTIC PENDANT		
LARGE		
SURFACE-MOUNTED, WET-RATED FIXTURE		
DECORATIVE PENDANT	CJ	CONTROL JOINT
WALL-MOUNTED LINEAR	RS-X	ROLLERSHADE. REFER TO
DECORATIVE WALL SCONCE		SPECIFICATIONS FOR SHADE SCHEDULE.
DECORATIVE PENDANT, CORRIDORS		ACCOUSTIC CEILING- MOUNTED BAFFLES
4" RECESSED LED, TROFFERED		
DECORATIVE PENDANT, CORRIDORS		STAGE CURTAIN

	KEYN	IOTES
	09.10	2-HR RATED HORIZONTAL MEMBRANE AER-09038. REFER TO SHEET A002, ASSEMBLY TYPE CS2H
	09.11	PROVIDE OPAQUE VF-5 AT INSIDE FACE OF GLAZING, REFER TO INTERIOR ELEVATION
WEEN PRIMARY	09.15	DRYFALL EXISTING EXPOSED CONCRETE CEILING, EXPOSED CONDUITS, DUCTWORK, HVAC UNITS, SPRINKLERS, AND ALL OTHER ITEMS AT THE CEILING PLANE. PAINT PNT-21, UNLESS NOTED OTHERWISE ON FINISH TRANSITIONS LEVEL 1 SHEET.
E SACT IS RD CEILING AT	09.16	DRYFALL EXISTING UNDERSIDE OF METAL STAIR, EXPOSED CONDUITS, DUCTWORK, HVAC UNITS, SPRINKLERS, AND ALL OTHER ITEMS BELOW THE STAIR. PAINT PNT-21.
	11.03	
TAL STUD	14.04	ELEVATOR: ELEVATOR CEILING SYSTEM W/ (6) LED DOWNLIGHTS, PROVIDED BY MANUFACTURER. REFER TO SPECS FOR FINISH AND LIGHTING SELECTIONS AND ADDITIONAL INFORMATION.
CORD. REFER TO	23.02	AIR RETURN PLENUM ABOVE SOFFIT - INSTALL 5/8" GYPSUM BOARD UL TYPE SCX
	26.05	SUSPEND LIGHTS ON UNISTRUT/AIRCRAFT CABLE BENEATH HVAC DUCTS/EQUIPMENT, AS NEEDED.
ND EXTENTS IN 2		
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EXTERIOR ADJUSTABLE UPLIGHT, REFER TO LEVEL 3 AT ROOF OVERHANGS		LED TAPE LIGHT
THEATRICAL TRACK LIGHT		
DECORATIVE ACOUSTIC PENDANT, SMALL		
DECORATIVE ACOUSTIC PENDANT.		
LARGE		
SURFACE-MOUNTED, WET-RATED FIXTURE		
DECORATIVE PENDANT	CJ	CONTROL JOINT
WALL-MOUNTED LINEAR	RS - X	ROLLERSHADE. REFER TO SHEET A001 AND
DECORATIVE WALL SCONCE		SPECIFICATIONS FOR SHADE SCHEDULE.
DECORATIVE PENDANT, CORRIDORS		ACCOUSTIC CEILING- MOUNTED BAFFLES
4" RECESSED LED, TROFFERED		
DECORATIVE PENDANT, CORRIDORS		STAGE CURTAIN

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	6.		LEVEL SPACE	2 AND S, ABC	LEVE VE S	EL 3: USPE	INSTA ENDEI	LL G D CE	YPS	UM I GS A	BOA ND V	RD C VHEI	EILIN RE NO	G IN) CE	ACC	ori G FII
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EXTERIOR ADJUSTABLE UPLIGHT, REFER TO LEVEL 3 AT ROOF OVERHANGS		LED TAPE LIGHT
THEATRICAL TRACK LIGHT		
DECORATIVE ACOUSTIC PENDANT, SMALL		
DECORATIVE ACOUSTIC PENDANT,		
LARGE		
SURFACE-MOUNTED, WET-RATED FIXTURE		
DECORATIVE PENDANT	CJ	CONTROL JOINT
WALL-MOUNTED LINEAR	RS-X	ROLLERSHADE. REFER TO SHEET A001 AND
DECORATIVE WALL SCONCE		SPECIFICATIONS FOR SHADE SCHEDULE.
DECORATIVE PENDANT, CORRIDORS		ACCOUSTIC CEILING- MOUNTED BAFFLES
4" RECESSED LED, TROFFERED		2 2 2
DECORATIVE PENDANT, CORRIDORS		STAGE CURTAIN

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No. Date PROJECT MANAGER: DRAWN BY: BG/KB/LC/LG KS QEA No.42240940 BID DOCUMENTS 10/3/2023 **REFLECTED CEILING** PLAN LEVEL 3 & MEZZANINE







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EYN	EYNOTES					
08	EXISTING FLOOR GRILL, TO REMAIN					
01	NEW SLATE TREADS; MATCH EXISTING COLOR. REPLACEMENT SLATE TO BE APPROVED BY ARCHITECT.					
11	PROVIDE OPAQUE VF-5 AT INSIDE FACE OF GLAZING, REFER TO INTERIOR ELEVATION					
20	WALK-OFF CARPET TILE					
21	SINGLE HOLE TOILETS: TYPICAL TILED WALLS ARE FROM FLOOR T0 5'-0" AFF, UNO ON FINISH PLAN. TILE WET WALLS FROM FLOOR TO CEILING; REFER TO "ELEVATION: WET WALL ACCENT TILE" FOR PATTERN.					





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01	NEW SLATE TREADS; MATCH EXISTING COLOR. REPLACEMEN SLATE TO BE APPROVED BY ARCHITECT.
02	EXISTING SLATE TREADS.
19	FLOOR GRAPHICS, REFER TO GYMATORIUM FLOOR GRAPHICS DRAWING.
21	SINGLE HOLE TOILETS: TYPICAL TILED WALLS ARE FROM FLOOR T0 5'-0" AFF, UNO ON FINISH PLAN. TILE WET WALLS FROM FLOOR TO CEILING; REFER TO "ELEVATION: WET WALL ACCENT TILE" FOR PATTERN.









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BID DOCUMENTS

10/3/2023

FINISH PLAN LEVEL 3 &

MEZZANINE

A133





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 	7			CE CONT. PTD WE E RAIL, TP-08a)		1
	EQ	EQ	EQ	Ł	EQ	+	
ALIGN	_3'-0"_TYP 12.	07	26.07	12.07			4' - 11"
			1	2.06 ×			7' - 4"

<pre>KEYNOTES</pre>					
4.05	PATCH HOLES OF EXISTING CHIMNEYS WITH BRICK - THICKNESS TO MATCH EXISTING WALL				
9.24	HANDRAIL, PAINT PT-4				
1.02	CEILING-MOUNTED STAGE CURTAIN, REFER TO SPECS				
2.05	2" CONTINUOUS REMOVABLE SPORTS WALL PADS ON Z-CLIPS				
2.06	2" X 7' CONTINUOUS SAFETY WALL PADS, MOUNT ABOVE 4" WOOD WALL BASE				
2.07	ACOUSTICAL WALL PANELS, AWP-02				
2.08	PROTECTIVE NETTING SYSTEM IN FRONT OF WINDOWS AT GYM. INSTALL SCREW EYES AT JAMBS AS SHOWN ON A611, 12" MIN SPACING. FASTEN NETTING PANEL TO EYES HOOKS IN TENSION W/ CARABINERS, ALIGN WITH TOP OF ADJACENT WALL PADS.				
2.09	ROLLER SHADE. REFER TO REFLECTED CEILING PLANS.				
4.03	VERTICAL WHEEL CHAIR LIFT, REFER TO ENLARGED DRAWINGS				
6.07	DECORATIVE SCONCE, REFER TO ELECTRICAL				
6.08	FLOOR OUTLET, REFER TO ELECTRICAL & TELECOM. COORDINATE FINAL LOCATION WITH ARCHITECT.				





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WILLIAM FOX **ELEMENTARY SCHOOL** RECONSTRUCTION

RICHMOND PUBLIC SCHOOLS 2300 HANOVER AVENUE RICHMOND, VA 23220

STATE PROJECT No: 123-20-00-101

2 10/27/2023 ADDENDUM 002 No. Date Description PROJECT MANAGER: DRAWN BY: BG/KB/LC/LG KS QEA No.42240940 BID DOCUMENTS

10/3/2023 ENLARGED PLAN/ELEVS -GYMATORIUM

A402






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NEW PLASTER VENEER SYSTEM

PROVIDE PT WOOD BLOCKING CONT. AT HEAD TO SUPPORT REPLACED TRIM AND SHADING DEVICES RESTORE PAINTED WOOD

FASCIA AT CORNICE PREFIN. METAL FLASHING

FIXED TRANSOM, PROVIDE CONT. SEALANT, BOTH SIDES

CONT. SEALANT ALL SIDES PREFIN. METAL FLASHING

AIR & VAPOR BARRIER

RECONSTRUCT HORIZONTAL WOOD MULLION WHERE TRANSOM WINDOWS OCCUR TO MATCH EXISTING IN EXTERIOR MATERIAL, DIMENSION, & PROFILE. PROVIDE BATT INSULATION

REF STRUCTURAL

EXTERIOR

PREFIN. METAL FLASHING UPPER SASH FIXED, PROVIDE

CONT. SEALANT, BOTH SIDES

2-1/2" MIN SS SCREW EYES LAG THREADED. SPACED EVERY 12" MIN AT JAMBS, FASTENED W/ MIN. 5/16" GALV. STEEL CARABINER, REF. SPEC OPERABLE WOOD LOWER SASH, SINGLE-HUNG CONT. SEALANT ALL SIDES

NEW HARDWOOD SILL, PAINT TO MATCH CONT. SEALANT PREFIN. METAL FLASHING

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14.

EXISTING STONE SILL CONT. PT BLOCKING

REPLACEMENT WINDOW SCOPE

ALL REPLACEMENT WOOD WINDOWS SHALL BE INSTALLED WITHIN EXISTING ROUGH OPENINGS. REFER TO BUILDING ELEVATIONS FOR CONDITION, LOCATION, AND OVERALL SIZES. DIMENSIONS OF ROUGH OPENINGS SHALL BE VERIFIED IN FIELD.

NEW EXTERIOR HARDWOOD SILL, INTERIOR STOOL PLATE, APRON, AND ASSOCIATED BLOCKING AT SILL. NEW VERTICAL AND HORIZONTAL WOOD MULLIONS, REF. STRUCTURAL FOR VERTICAL STEEL SUPPORTS. NO STORM WINDOWS REQUIRED AT LEVEL 3 TYPICAL DOUBLE-HUNG REPLACEMENT WINDOWS.

WINDOW RESTORATION SCOPE

NOTE: REFER TO SHEET A610 FOR WINDOW RESTORATION DETAILS

	RES	TORATION LEVEL OF INDIVIDUAL WINDOWS.
2.	DIME	ENSIONS OF WINDOWS FRAMES AND SASHES SHALL BE VERIFIED IN FIELD.
3.	THE	CONDITION OF EACH EXISTING WINDOW IN THE BUILDING HAS BEEN CATEGORIZED AS ONE OF THE FOLLOWING
	Α.	GOOD
	B	FAIR
	C.	POOR
	О. П	VERY POOR
1.	THE	RESTORATION OF EACH WINDOW INDICATED TO BE 'GOOD' CONDITION, AND ALL WINDOWS OF ALL CONDITIONS SHALL
	INCL	UDE THE FOLLOWING:
	Α.	REMOVAL OF ALL LOOSE, FLAKING OR OTHERWISE COMPROMISED PAINT COATING USING AT A MINIMUM,
		DEEMED NECESSARY TO ACHIEVE THE REQUIRED COMPLETED PROJECT
	в	REMOVAL OF ALL LOOSE, FLAKING OR OTHERWISE COMPOUNDS AT EACH GLASS LITE
	C.	REPLACEMENT OF BROKEN GLASS LITES WITH NEW 1/8" TEMPERED GLASS (REFER TO GLAZING SCHEDULE AND
	0.	SPECIFICATIONS)
	D	REMOVAL OF WINDOW COUNTER-WEIGHTS AND ROPES $\sqrt{2}$
	E.	REMOVAL OF METAL AIR SEAL STRIPS
	F.	
	G.	REMOVAL OF WINDOW SHADES AND/OR BCINDS
	H.	APPLICATON OF NEW GLAZING COMPOUND WHERE REQUIRED
	I.	PREPARE AND PAINT WITH THREE COAT SYSTEM INCLUDING (1) LAYER OF PRIMER AND (1) LAYERS OF FINISH PAINT
5.	THE	RESTORATION OF EACH WINDOW INDICATED TO BE 'FAIR' CONDITION' SHALL INCLUDE THE FOLLOWING. IN ADDITION TO
	SCO	PE INDICATED FOR ALL WINDOWS:
	Α.	REMOVAL OF BROKEN GLASS LITES AND REPLACEMENT WITH NEW 1/4" TEMPERED GLASS (REFER TO GLAZING
		SCHEDULE AND SPECIFICATIONS)
	В.	REMOVAL OF DAMAGED WOOD FROM SASH FRAMES, APPLICATION OF WOOD HARDENER AND PATCH/FILL WITH
		EPOXY WOOD FILLER. SAND SMOOTH AND PREPARE FOR PAINT.
3.	THE	RESTORATION OF EACH WINDOW INDICATED TO BE 'POOR' CONDITION' SHALL INCLUDE THE FOLLOWING, IN ADDITION
	TO S	COPE INDICATED FOR ALL WINDOWS:
	Α.	REMOVAL AND REPLACEMENT OF GREATER THAN 50% OF GLASS LITES
	В.	REMOVAL AND REPLACEMENT OF LESS THAN 50% OF WOOD SASH FRAMES AND MUNTINS WITH NEW FABRICATED
		WOOD COMPONENTS TO MATCH EXISTING.
7.	THE	RESTORATION OF EACH WINDOW INDICATED TO BE 'VERY POOR" CONDITION' SHALL INCLUDE THE FOLLOWING, IN
	ADD	ITION TO SCOPE INDICATED FOR ALL WINDOWS:
	Α.	REPLACEMENT OF ENTIRE WINDOW SASHES WITH NEW FABRICATED SASHES, MUNTINS, GLASS LITES, ETC TO
		MATCH EXISTING.
3.	EXIE	ERIOR WOOD WINDOW SILLS: REMOVE LOOSE PAINT AND ROTTED OR DAMAGED WOOD. APPLY WOOD HARDENER AND
	FILL	GAPS, HOLES AND DEPRESSIONS WITH EPOXY WOOD FILLER TO ACHIEVE A SMOOTH AND CONSISTENT SURFACE.
	SAN	D AND PREPARE FUR PAINT.
۶.		KIUK WUUD STUUL, APRUN AND CASINGS: REMUVE LUUSE PAINT AND CAULK. FILL DEPRESSIONS, CHIPS OR OTHER
		AGE TO WOOD WITH EPOXY WOOD FILLER, SAND AND PREPARE FOR PAINT. SECURE LOOSE COMPONENTS WITH
	FINIS	SH SCREWS AND FILL ALL HOLES. CAULK ALL JUINTS BETWEEN TRIM AND CASING COMPONENTS. PAINT WITH THREE

ALL EXISTING WOOD WINDOWS SHALL BE RESTORED. REFER TO BUILDING ELEVATIONS FOR CONDITION, LOCATION AND

COAT SYSTEM INCLUDING (1) LAYER OF PRIMER AND (1) LAYERS OF FINISH PAINT. TO PERFORM RESTORATION WORK, WINDOW SASHES MAY BE REMOVED OR LEFT IN PLACE, AT CONTRACTORS OPTION. REMOVE CASING OVER COUNTERWEIGHT CAVITY, REMOVE COUNTERWEIGHTS AND FILL CAVITY WITH FIBERGLASS INSULATION. SASHES (CASEMENT AND DOUBLE-HUNG) SHALL BE REINSTALLED (IF REMOVED FOR RESTORATION) AND REINSTALLED. HISTORICALLY DOUBLE-HUNG UPPER SASHES TO BE FIXED IN-PLACE SO AS NOT TO BE OPERATIONAL, LOWER SASHES TO

BE OPERATIONAL. OPERABLE LOWER SASHES SHOULD BE PROVIDED WITH A SAWCUT KIRF IN THE BOTTOM RAIL PROVIDE ZINC WEATHERSTRIPPING ATOP SILL AS A WINDOW STOP, COORDINATE WITH KIRF IN LOWER SASH

STORM WINDOW SCOPE

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- 1. STORM WINDOW TYPES A. ST-1: EXTERIOR FIXED STORM WINDOW INSTALLED AT LEVEL 1 CASEMENT WINDOWS (W01-W02) ST-2: INTERIOR REMOVABLE, MULTI-PART STORM WINDOW. INSTALLED AT ALL LEVEL 2 AND 3 RESTORED В. WINDOWS.
 - ST-3: INTERIOR FIXED STORM WINDOW INSTALLED AT FIXED TRANSOM WINDOWS С INSTALL STORM WINDOWS AT ALL EXISTING-TO-REMAIN WINDOWS, TRANSOMS, AND OTHER GLAZED OPENINGS IN EXTERIOR WALLS REFER TO SPECIFICATION SECTION 085169

DIMENIONS PROVIDED ARE TYPICAL, CONDITIONS VARY THROUGHOUT BULDING, VERIFY FIELD DIMENSIONS OF ALL EXISTING OPENINGS FOR STORM WINDOW SIZES

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U.N.O., REMOVAL OF PARTITIONS ASEWORK, ELECTRICAL, PLUMBING, OR INSTALLATION OF NEW WORK.	10.	GRIND SMOOTH AND PATCH EXISTING FLOOR WITH FLOOR LEVELING COMPOUND AREAS WHERE ADJACENT SLABS ARE NOT LEVEL AFTER REMOVAL OF WALLS. PR NEW FINISHES.
EARING ELEMENTS, THE ACTUAL SIZE	11.	COORDINATE REMOVAL OF SLAB ON GRADE AS REQUIRED FOR INSTALLATION OF PIPING AND CONNECTIONS TO EXISTING IN OR BELOW SLAB WORK. REFERENCE P UNDER-SLAB PIPE LOCATIONS AND ROUTING. REFERENCE STRUCTURAL DRAWING
ING CONDITIONS SHALL BE VERIFIED ONTRACTOR SHALL NOTIFY THE I INCLUDING BUT NOT LIMITED TO NENTS.	12.	WHERE RECESSED ELECTRICAL BOXES FOR RECEPTACLES, SWITCHES AND/OR O ABANDONDED IN-PLACE, REMOVE BOX TO EXTENTS NECESSARY TO PATCH WALL ADJACENT FINISHED SURFACES BY PATCHING PLASTER, DRYWALL OTHER MATER CONSTRUCTION AND MATERIAL.
REQUIRED TO SAFELY SUPPORT ALL IG TO REMAIN IN ITS EXISTING DNTRACT.	13.	DIMENSIONS SHOWN IN DEMOLITION DRAWINGS ARE APPROXIMATE TO FINISHED CONTRACTOR TO COORDINATE EXTENT OF DEMO NECESSARY WITH NEW WORK.
LUDING, BUT NOT LIMITED TO WALKS,	(14.	ELEVATOR DEMOLITION: A. ALL COMPONENTS OF ELEVATOR, INCLUDING BUT NOT LIMITED TO CAB, CA
IENT, FIXTURES, WIRING, PIPING, ETC. TO BE DEMOLISHED IS INDICATED ON ALL BE CAPPED IN CONCEALED		 HYDRAULIC LINES AND EQUIPMENT, ELECTRONIC CONTROLS, DOORS, DOORS, DOORS, HALL BE DEMOLISHED. B. ELEVATOR COMPONENENTS SHALL BE REMOVED FROM THE HOISTWAY THE OPENINGS. THE HOISTWAY SHAFT WALLS AND HOISTWAY SHAFT CAP SHALL DEMOLISHED, OR OTHERWISE MODIFIED.
ERWISE, SHALL BE AS FOLLOWS: HED. WHERE WALLS ARE INDICATED TO CTIONS OF ONE OR MORE WALLS TO S ARE CUT. REPAIR REMAINING		 D. DEMOLISH PORTION OF LEVEL 3 HOISTWAY WALL AS REQUIRED FOR INSTA CONTROLS (JAMB-MOUNTED MACHINE-ROOM-LESS ELEVATOR CONTROLS) EXTENTS WITH ELEVATOR INSTALLER.
ADJACENT SURFACE CONDITION. REMOVED OR ADDED, REPAIR WALLS EXISTING. DNS TO 8" MINIMUM BELOW FLOOR AND		E. FILL REMAINING UN-USED HOLES, PENETRATIONS, GAPS, ETC. IN HOISTWA WHERE NOT REUSED FOR INSTALLATION OF NEW ELEVATOR AND ASSOCIA COMPONENTS.
H NEW SUBFLOOR MATERIAL	15.	REFER TO CIVIL PLANS FOR DEMOLITION OF SITE ELEMENTS
ONLY SOUND MATERIAL SUITABLE FOR	(16. [']	REMOVE ALL EXISTING DEVICES, NAILS, FASTENERS, ANCHORS, HANGERS OR OTH WOOD TRIM AND OTHER HISTORIC BUILDING ELEMENTS) SECURED TO WALLS THA
	(PEMAIN DATCH HOLES



/E EXISTING RUBBER STAIR TREADS AT STAIRS AND LANDINGS, TYP
/E FILM FROM GLAZING WOOD STOREFRONT FRAMING.
ISH QUARRY TILE FLOOR FINISH. PREPARE SUBSTRATE AS REQUIRED FOR NEW FINISH
ISH METAL PIPE GUARD RAIL AND/OR HANDRAIL. CORE DRILL TO REMOVE PORTION OF PIPE ANCHORED IN CURB AND REMOVE TO ALLOW INSTALLATION OF NEW RAIL IN NG LOCATIONS.
/E SLIDING DOOR AND HARDWARE. SALVAGE FOR REUSE.
ISH PLASTER FROM EXISTING MASONRY WALL THIS AREA, REFER TO PLASTER REPAIR SCOPE FOR EXTENTS AND REQUIREMENTS.
INDICATES APPROXIMATE EXTENT OF SLAB DEMOLITION FOR DEPRESSED SLAB AT NEW WALK-IN COOLERS - COORDINATE DIMENSIONS WITH SIZE AND REQUIREMENTS OF IN COOLER.
GE DOOR FOR RELOCATION OR DISPLAY USE
ISH WOOD DOOR TRIM AND CASING AT OPENING
/E WOOD PANEL AT WALL
INDICATES APPROXIMATE EXTENTS OF SLAB DEMOLITION TO CUT, CAP AND ABANDON SANITARY PIPING BELOW SLAB. PATCH AND REPAIR SLAB PER STRUCTURAL REPAIR S AND PREPARE FOR NEW FINISHES.
ISH EXISTING CONCRETE EQUIPMENT PAD. PATCH AND REPAIR SLAB AS REQUIRED FOR INSTALLATION OF NEW FINISHES.
ISH METAL GATE, FRAME, HARDWARE, AND ANCHORS
ISH ELEVATOR AND ALL COMPONENTS. REFER TO GENERAL NOTES.
ISH EXISTING ELEVATED SLAB OVER BELOW-SLAB PASSAGEWAY
/E EXISTING CERAMIC TILE AND SALVAGE FOR PATCHING IN KITCHEN.
ISH ALL "ELEVATED ELEMENTS" (CONCRETE AND MASONRY PADS) WITHIN RECESSED SLAB AREA
ISH SPRINKLER RISER AND PIPING, AND ALL ASSOCIATED WIRING, ELECTRICAL PANELS, AND OTHER EQUIPMENT
NG VERTICAL CONDUIT TRENCH TO BE REUSED. CLEAR AWAY DEBRIS AND CUT WHERE NECESSARY TO FIT NEW CONDUIT AND BOXES. SEE DETAILS A512.
INDICATES APPROXIMATE EXTENTS OF SLAB DEMOLITION FOR NEW BELOW-SLAB GREASE INTERCEPTOR. COORDINATE WITH PLUMBING DRAWINGS.
ISH CONCRETE CAP ABOVE EXISTING CMU WALLS.
ISH EXISTING FINISHES, NOSINGS, COATINGS, ETC AT STAIR TREADS. DEMOLISH EXISTING HANDRAILS AND PATCH WALL.
/E TOP PART OF EXISTING BRICK SHAFT WALL AFTER CONSTRUCTION OF CMU WALL BESIDE. SEE SHEET A515 FOR SHAFT DETAILS
ISH ELEVATOR DOOR ASSEMBLY AND RELATED COMPONENTS TO PREPARE FOR NEW ELEVATOR DOOR INSTALLATION.
how





			KEYN
O., REMOVAL OF PARTITIONS VORK, ELECTRICAL, PLUMBING, ISTALLATION OF NEW WORK.	10.	GRIND SMOOTH AND PATCH EXISTING FLOOR WITH FLOOR LEVELING COMPOUND AND AS REQUIRED IN ALL AREAS WHERE ADJACENT SLABS ARE NOT LEVEL AFTER REMOVAL OF WALLS. PREPARE FOR INSTALLATION OF NEW FINISHES.	02.04
SHALL BE REPAIRED TO MATCH	11.	COORDINATE REMOVAL OF SLAB ON GRADE AS REQUIRED FOR INSTALLATION OF NEW SANITARY AND STORM PIPING AND CONNECTIONS TO EXISTING IN OR BELOW SLAB WORK. REFERENCE PLUMBING DRAWINGS FOR	02.09
NG ELEMENTS, THE ACTUAL SIZE CONDITIONS SHALL BE VERIFIED	40	UNDER-SLAB PIPE LOCATIONS AND ROUTING. REFERENCE STRUCTURAL DRAWINGS FOR SLAB REPAIR DETAILS.	02.14
LUDING BUT NOT LIMITED TO	12.	WHERE RECESSED ELECTRICAL BOXES FOR RECEPTACLES, SWITCHES AND/OR OTHER DEVICES ARE ABANDONDED IN-PLACE, REMOVE BOX TO EXTENTS NECESSARY TO PATCH WALL MATERIAL TO MATCH ADJACENT FINISHED SURFACES BY PATCHING PLASTER, DRYWALL OTHER MATERIAL MATCHING EXISTING CONSTRUCTION AND MATERIAL.	02.29 02.30 02.31
UIRED TO SAFELY SUPPORT ALL O REMAIN IN ITS EXISTING RACT.	13.	DIMENSIONS SHOWN IN DEMOLITION DRAWINGS ARE APPROXIMATE TO FINISHED FACE OF NEW OPENING U.N.O. CONTRACTOR TO COORDINATE EXTENT OF DEMO NECESSARY WITH NEW WORK.	02.38
NG, BUT NOT LIMITED TO WALKS,	(14.	ELEVATOR DEMOLITION: A. ALL COMPONENTS OF ELEVATOR, INCLUDING BUT NOT LIMITED TO CAB, CABLES, RAILS, JACKSHAFT, HYDRAULIC LINES AND FOUNDMENT ELECTRONIC CONTROLS DOORS DOOREDAMES, DOOR SILLS, ETC.	02.41
, FIXTURES, WIRING, PIPING, ETC. BE DEMOLISHED IS INDICATED ON BE CAPPED IN CONCEALED	Ś	B. ELEVATOR COMPONENTS SHALL BE REMOVED FROM THE HOISTWAY THROUGH THE ELEVATOR DOOR OPENINGS THE HOISTWAY SHAET WALLS AND HOISTWAY SHAET CAP SHALL NOT BE DAMAGED	02.49
ISE SHALL BE AS FOLLOWS:	}	DEMOLISHED, OR OTHERWISE MODIFIED. C. AFTER REMOVAL OF HYDRAULIC JACK PISTON, FILL REMAINING HOLE IN SLAB WITH CONCRETE AND STRIKE FLUSH WITH PIT SLAB	02.59
WHERE WALLS ARE INDICATED TO DNS OF ONE OR MORE WALLS TO E CUT. REPAIR REMAINING	}	D. DEMOLISH PORTION OF LEVEL 3 HOISTWAY WALL AS REQUIRED FOR INSTALLATION OF NEW ELEVATOR CONTROLS (JAMB-MOUNTED MACHINE-ROOM-LESS ELEVATOR CONTROLS) COORDINATE SCOPE AND EXTENTS WITH ELEVATOR INSTALLER.	02.63
ACENT SURFACE CONDITION. IOVED OR ADDED, REPAIR WALLS TING.		E. FILL REMAINING UN-USED HOLES, PENETRATIONS, GAPS, ETC. IN HOISTWAY WALLS WITH FIRESTPOPING WHERE NOT REUSED FOR INSTALLATION OF NEW ELEVATOR AND ASSOCIATED ELECTRICAL COMPONENTS.	02.68
TO 8" MINIMUM BELOW FLOOR AND EW SUBFLOOR MATERIAL	15.	REFER TO CIVIL PLANS FOR DEMOLITION OF SITE ELEMENTS	
Y SOUND MATERIAL SUITABLE FOR	(16.	REMOVE ALL EXISTING DEVICES, NAILS, FASTENERS, ANCHORS, HANGERS OR OTHER ITEMS (EXCLUSIVE OF WOOD TRIM AND OTHER HISTORIC BUILDING ELEMENTS) SECURED TO WALLS THAT ARE NOT INDICATED TO	Z
	47		
IL, PICTURE RAILS, CHALK TRAYS	17.	INSTALLED BY ROOF CONTRACTOR AND LEFT IN PLACE TO PROVIDE SAFE WALKING ENVIRONMENT UNTIL	
FULLY SECURE TO SUBSTRATES.		EXISTING CHILLER LOCATED AT NORTH-EAST CORNER OF SITE WITHIN FENCE ENCLOSURE: CONTRACTOR SHALL DISCONNECT CHILLER FROM ELECTRICAL AND PIPING SYSTEMS AND TRANSPORT TO 2325 MAURY	
	(19.	CLEANING: AFTER COMPLETION OF DEMOLITION, REMEDIATION, PAINT REMOVAL, PLASTER REMOVAL AND OTHER ACTIVITIES OCCURING PRIOR TO INSTALLATION OF NEW MATERIALS, COMPLETE REMOVAL OF DIRT,	
ED TO BE DEMOLISHED, REMOVE	>	DEBRIS, CONSTRUCTION MATERIALS, DAMAGED AND DETERIORATED BUILDING MATERIALS, PAINT COATINGS, $\ \ ,$	







		KEYNC
, REMOVAL OF PARTITIONS PRK, ELECTRICAL, PLUMBING,	10. GRIND SMOOTH AND PATCH EXISTING FLOOR WITH FLOOR LEVELING COMPOUND AND AS REQUIRED IN ALL AREAS WHERE ADJACENT SLABS ARE NOT LEVEL AFTER REMOVAL OF WALLS. PREPARE FOR INSTALLATION OF	02.05 02.09
ALL BE REPAIRED TO MATCH	11. COORDINATE REMOVAL OF SLAB ON GRADE AS REQUIRED FOR INSTALLATION OF NEW SANITARY AND STORM PIPING AND CONNECTIONS TO EXISTING IN OR BELOW SLAB WORK. REFERENCE PLUMBING DRAWINGS FOR	02.20
G ELEMENTS, THE ACTUAL SIZE ONDITIONS SHALL BE VERIFIED CTOR SHALL NOTIFY THE	UNDER-SLAB PIPE LOCATIONS AND ROUTING. REFERENCE STRUCTURAL DRAWINGS FOR SLAB REPAIR DETAILS.	02.26 02.29
IDING BUT NOT LIMITED TO	ABANDONDED IN-PLACE, REMOVE BOX TO EXTENTS NECESSARY TO PATCH WALL MATERIAL TO MATCH ADJACENT FINISHED SURFACES BY PATCHING PLASTER, DRYWALL OTHER MATERIAL MATCHING EXISTING CONSTRUCTION AND MATERIAL.	02.38
RED TO SAFELY SUPPORT ALL REMAIN IN ITS EXISTING CT.	13. DIMENSIONS SHOWN IN DEMOLITION DRAWINGS ARE APPROXIMATE TO FINISHED FACE OF NEW OPENING U.N.O. CONTRACTOR TO COORDINATE EXTENT OF DEMO NECESSARY WITH NEW WORK.	02.45 02.49
G, BUT NOT LIMITED TO WALKS,	(14. ELEVATOR DEMOLITION: A. ALL COMPONENTS OF ELEVATOR, INCLUDING BUT NOT LIMITED TO CAB, CABLES, RAILS, JACKSHAFT,	02.55 02.56 02.59
IXTURES, WIRING, PIPING, ETC. DEMOLISHED IS INDICATED ON CAPPED IN CONCEALED	B. ELEVATOR COMPONENENTS SHALL BE REMOVED FROM THE HOISTWAY THROUGH THE ELEVATOR DOOR OPENINGS. THE HOISTWAY SHAFT WALLS AND HOISTWAY SHAFT CAP SHALL NOT BE DAMAGED,	02.63
E, SHALL BE AS FOLLOWS:	C. DEMOLISHED, OR OTHERWISE MODIFIED. C. AFTER REMOVAL OF HYDRAULIC JACK PISTON, FILL REMAINING HOLE IN SLAB WITH CONCRETE AND STRIKE FLUSH WITH PIT SLAB.	02.64 02.66
S OF ONE OR MORE WALLS TO CUT, REPAIR REMAINING	C D. DEMOLISH PORTION OF LEVEL 3 HOISTWAY WALL AS REQUIRED FOR INSTALLATION OF NEW ELEVATOR CONTROLS (JAMB-MOUNTED MACHINE-ROOM-LESS ELEVATOR CONTROLS) COORDINATE SCOPE AND EXTENTS WITH ELEVATOR INSTALLER.	02.67 02.68
VED OR ADDED, REPAIR WALLS NG.	WHERE NOT REUSED FOR INSTALLATION OF NEW ELEVATOR AND ASSOCIATED ELECTRICAL	~~~~
SUBFLOOR MATERIAL	15. REFER TO CIVIL PLANS FOR DEMOLITION OF SITE ELEMENTS	
ETAL LATH AND FASTENERS IN	WOOD TRIM AND OTHER HISTORIC BUILDING ELEMENTS) SECURED TO WALLS THAT ARE NOT INDICATED TO REMAIN. PATCH HOLES.	
IGS FROM WALL SURFACES PICTURE RAILS, CHALK TRAYS	17. REMOVE PLYWOOD PANELS SCREWED DOWN TO EXISTING SUBFLOOR THROUGHOUT LEVEL 3. PANELS WERE INSTALLED BY ROOF CONTRACTOR AND LEFT IN PLACE TO PROVIDE SAFE WALKING ENVIRONMENT UNTIL	
ULLY SECURE TO SUBSTRATES.	(18. EXISTING CHILLER LOCATED AT NORTH-EAST CORNER OF SITE WITHIN FENCE ENCLOSURE: CONTRACTOR SHALL DISCONNECT CHILLER FROM ELECTRICAL AND PIPING SYSTEMS AND TRANSPORT TO 2325 MAURY	
	19. CLEANING: AFTER COMPLETION OF DEMOLITION, REMEDIATION, PAINT REMOVAL, PLASTER REMOVAL AND OTHER ACTIVITIES OCCURING PRIOR TO INSTALLATION OF NEW MATERIALS, COMPLETE REMOVAL OF DIRT,	
TO BE DEMOLISHED, REMOVE	DEBRIS, CONSTRUCTION MATERIALS, DAMAGED AND DETERIORATED BUILDING MATERIALS, PAINT COATINGS, PLASTER DEBRIC, MASONRY DEBRIS, SAWDUST, GREASE, ETC. SHALL BE CARRIED OUT BY MEANS REQUIRED	
OLISHED, REMOVE DOORS AND	TO PROVIDE CLEAN INTERIOR SPACE, FREE OF DUST, PARTICULATES, CONTAMINANTS AND OTHER MATERIALS	

ES
EMOVE EXISTING RUBBER STAIR TREADS AT STAIRS AND LANDINGS, TYP
EMOLISH SLATE TREADS, TYP
EMOLISH METAL PIPE GUARD RAIL AND/OR HANDRAIL. CORE DRILL TO REMOVE PORTION OF PIPE ANCHORED IN CURB AND REMOVE TO ALLOW INSTALLATION OF NEW RAIL IN EXISTING OCATIONS.
EMOLISH PLASTER FROM EXISTING MASONRY WALL THIS AREA, REFER TO PLASTER REPAIR SCOPE FOR EXTENTS AND REQUIREMENTS.
EMOLISH WOOD DOOR TRIM AND CASING AT OPENING
EMOLISH EXISTING CONCRETE EQUIPMENT PAD. PATCH AND REPAIR SLAB AS REQUIRED FOR INSTALLATION OF NEW FINISHES.
EMOLISH EXISTING PYROBLOCK SHAFT AT LEVEL 3 AND AT TOP PART OF LEVEL 2 (11'-4" FROM FINISH FLOOR). COORDINATE EXTENTS OF DEMOLITION WITH INSTRUCTION OF NEW ORK. SEE SHAFT SECTIONS.
EMOLISH EXISTING WALL-MOUNTED HEATER. PATCH PARTITION AS NECESSARY
KISTING FRAME TO REMAIN
EMOLISH EXISTING WIRING RACEWAYS EMBEDDED IN EXISTING PLASTER, WHERE NEW WIRING RACEWAY IS TO BE INSTALLED. COORDINATE WITH NEW WORK PLANS. TYPICAL AT ASSROOM DOORS. ALL LOCATIONS MAY NOT BE INDICATED ON PLANS.
KISTING DOOR OPENING. DEMOLISH REMNANTS OF EXISTING DAMAGED FRAME AND CASING - PREPARE OPENING TO RECEIVE NEW DOOR, FRAME AND CASING
EMOLISH OVERHEAD MEZZANINE LEVEL FLOOR JOISTS, FRAMING AND FLOORING
EMOLISH EXISTING PYROBLOCK CHASEWALL AND FINISHES IN ITS ENTIRETY.
KISTING SLIDING DOOR AND TRACK SYSTEM: REMOVE DOOR (WHERE EXISTING) AND SALVAGE FOR RESTORATION. DEMOLISH ENTIRE DOOR TRACK. STEEL SUPPORT STRUCTURE TEEL CHANNEL AND PLATE) SHALL REMAIN IN PLACE AND SUPPORTED AS REQUIRED DURING DEMOLITION OF EXISTING ADJACENT SHAFTS AND CONSTRUCTION OF NEW WALLS. KISTING WOOD TRIM SHALL BE SUPPORTED IN PLACE OR REMOVED AND REINSTALLED, AS REQUIRED TO CARRY OF NEW WORK
EMOVE LOUVER, INFILL MASONRY WALL WITH CMU, AND PATCH WITH PLASTER.
EMOLISH ELEVATOR HYDRAULIC AND ELECTRICAL CONTROL COMPONENTS, WIRING, BOXES AND CONDUIT. PATCH ALL REMAINING HOLES IN HOISTWAY SHAFT WALLS UNLESS ENETRATIONS ARE TO BE REUSED TO SERVE NEW ELEVATOR.
EMOLISH DAMAGED EXTERIOR INSULATED FINISH SYSTEM PANEL. PREPARE FOR INSTALLATION OF NEW FINISH.
EMOLISH ELEVATOR DOOR ASSEMBLY AND RELATED COMPONENTS TO PREPARE FOR NEW ELEVATOR DOOR INSTALLATION.

