

THE SCHOOL DISTRICT OF PHILADELPHIA
Office of Capital Programs
440 North Broad Street, 3rd Floor – Suite 371
Philadelphia, PA 19130

TELEPHONE: (215) 400-4730

Addendum No. 003

Subject: 2020 Classroom Modernizations
SDP Contract Numbers: B-001 C of 19/20 & B-003 C of 19/20

Location: Francis Scott Key School
2230 S. 8th St, Philadelphia PA 19148

This Addendum, dated February 27, 2020, shall modify and become part of the Contract Documents for the work of this project. Any items not mentioned herein, or affected by, shall be performed strictly in accordance with the original documents.

1. CLARIFICATIONS & CORRECTIONS TO DRAWINGS & SPECS:

A. SECTON 01 1100 ENVIRONMENTAL REMEDIATION

01 1135 ASBESTOS ABATEMENT SPECIFICATION, prepared by Westchester Environmental, dated 1/22/20.

(i) DELETE ASBESTOS ABATEMENT SPECIFICATION, Print Date 1/22/20,

(i) REPLACE WITH ATTACHED ASBESTOS ABATEMENT SPECIFICATION,

Date 2/27/20

(iii) ADD THE ATTACHED ASBESTOS INSPECTION REPORT, Print Date 2/27/20
TECHNICAL SPECIFICATIONS

3. SPECIFICATION 262416 – PANELBOARDS

1. ADD specification in its entirety.

4. SPECIFICATION 275313 – WIRELESS CLOCK SYSTEM

1. REVISE 2.2.H. to read “H. Basis of Design: Sapling Inc. SMA ~~2000~~ **3000** Series Master Clock (V8.1), Wireless Clock System. [Addendum No. 1].”

5. DRAWINGS

COVER SHEETS

DRAWING CS.1 – COVER SHEET

1. ADD deed address to read “2226-50 S 8TH STREET, PHILADELPHIA, PA 19148-310.”

DRAWING CS.2 – GENERAL INFORMATION

1. REVISE Gypsum Wall Board Location Schedule to read at Cementitious Backer Unit "AT WALLS SCHEDULED TO RECEIVE CERAMIC TILE."

ARCHITECTURAL DRAWINGS

DRAWING A6.1 – ROOM FINISH & DOOR SCHEDULE

1. REVISE Room Finish Schedule as indicated:
 - a. REVISE column "COLOR SCHEME" at ROOMS 13, 13A, 13B, 16, 16A, 16B, 18, 18A, 18B to correspond to Color Scheme "C".
 - b. REVISE column "COLOR SCHEME" at ROOMS 19, 19A, 20, 20A, 21, 21A to correspond to Color Scheme "D".
2. REVISE Color Scheme Schedule as indicated:
3. REVISE Color Scheme A to read as: "COLOR SCHEME A – KINDERGARTEN".
 - a. REVISE item no. 6 to read as: "6. VINYL COMPOSITION TILE, ACCENT '2': ARMSTRONG, NO. 51947 BASIL GREEN"
 - b. ADD item no. 8 to read as: "8. VINYL BASE: JOHNSONITE, NO. 469 MYSTIFY".
4. REVISE Color Scheme B to read as: "COLOR SCHEME B – FIRST GRADE AND SPECIAL EDUCATION".
 - a. REVISE item no. 3 to read as: "3. ACCENT PAINT 'B' TEACHING WALL: SHERWIN WILLIAMS, NO. SW6765 SPA"
 - b. REVISE item no. 5 to read as: "5. VINYL COMPOSITION TILE, ACCENT '1': ARMSTRONG, NO. 51927 FIELD GRAY"
 - c. REVISE item no. 6 to read as: "6. VINYL COMPOSITION TILE, ACCENT '2': ARMSTRONG, NO. 57509 LEMON LICK"
 - d. ADD item no. 8 to read as: "8. VINYL BASE: JOHNSONITE, NO. 469 MYSTIFY".
5. REVISE Color Scheme C to read as: "COLOR SCHEME C – SECOND GRADE".
 - a. ADD Color Scheme Information for Color Scheme C.
6. REVISE Color Scheme D to read as: "COLOR SCHEME D – THIRD GRADE".
 - a. ADD Color Scheme Information for Color Scheme D.
7. REVISE General Notes Item No. 7 to read as: "NOT USED".

INTERIOR DRAWINGS

DRAWING I4.1 – LARGE SCALE LAYOUTS - KINDERGARTEN

1. REVISE detail 1/I4.1 KINDERGARTEN – ROOM 5 – Revise "Tack Board w/ Aluminum Frame" from 712 to 713. Revise "Marker Board w/ Aluminum Frame" from 702 to 703.
2. REVISE detail 2/I4.1 KINDERGARTEN – ROOM 10 – Revise "Tack Board w/ Aluminum Frame" from 714 to 715. Revise "Marker Board w/ Aluminum Frame" from 704 to 705.

DRAWING I4.2 – LARGE SCALE LAYOUTS - FIRST & SECOND GRADE

1. REVISE detail 1/I4.2 FIRST GRADE CLASSROOM – ROOM 3 & OPPOSING CLASSROOM WALL – Revise "Tack Board w/ Aluminum Frame" from 712 to 713. Revise "Marker Board w/ Aluminum Frame" from 702 to 703.
2. REVISE detail 2/I4.2 SECOND GRADE – ROOM 13 – Revise "Tack Board w/ Aluminum Frame" from 710 to 711.
3. REVISE detail 3/I4.2 SECOND GRADE CLASSROOM – ROOM 16 – Revise "Tack Board w/ Aluminum Frame" from 712 to 713. Revise "Marker Board w/ Aluminum Frame" from 702 to 703.
4. REVISE detail 4/I4.2 FIRST GRADE CLASSROOM – ROOM 12 – Revise Smart Board location to align with right side of Visual Display Infill.
5. REVISE detail 5/I4.2 SECOND GRADE – ROOM 18 – Revised one continuous "Frameless Marker Board Infill" from 716 into three separate markerboard/tack board infills

as follows, "Frameless Markerboard 742, centered. Provided "Frameless Tack Board" 744 on either side.

6. ADD "742 FRAMELESS MARKERBOARD INFILL" & "744 FRAMELESS TACK BOARD INFILL" to I4.2 – GENERAL CASEWORK AND EQUIPMENT SCHEDULE.

DRAWING I4.3 – LARGE SCALE LAYOUTS - THIRD GRADE & CASEWORK DETAILS

1. REVISE detail 1/I4.3 THIRD GRADE – ROOMS 19 and 20 – Revised one continuous "Frameless Marker Board Infill" from 718 into three separate markerboard/tack board infills as follows, "Frameless Markerboard 743, centered. Provided "Frameless Tack Board" 728 on either side.
2. REVISE detail 1/I4.3 THIRD GRADE – ROOM 21 – Revised one continuous "Frameless Marker Board Infill" from 717 into three separate markerboard/tack board infills as follows, "Frameless Markerboard 743, centered. Provided "Frameless Tack Board" 727 on either side.
3. ADD detail S/I4.3 "THIRD GRADE SECONDARY TEACHING WALL – TYPICAL" elevation to sheet to correspond to owner visual display changes. Revised this elevation indicator on detail 1/I4.3 THIRD GRADE in classrooms 19 and 20.
4. ADD "743 FRAMELESS MARKERBOARD INFILL" to I4.3 – GENERAL CASEWORK AND EQUIPMENT SCHEDULE.

DRAWING I4.4 – INTERIOR ELEVATIONS

1. REVISE detail B/I4.4 SECONDARY TEACHING WALL 'A' – TYPICAL – Revise to show board size adjustment per the floor plans. Contractor shall reference the note and floor plans for actual sizing of boards, typical.
2. REVISE detail D/I4.4 PRIMARY TEACHING WALL 'B' – TYPICAL – Revise to show board size adjustment per the floor plans. Contractor shall reference the note and floor plans for actual sizing of boards, typical.

ELECTRICAL DRAWINGS

DRAWING ED1.1 - ELECTRICAL FIRST FLOOR DEMOLITION PLAN

1. ADD general note "ELECTRICAL CONTRACTOR TO PROVIDE ALLOWANCE FOR REMOVAL OF 50'-0" OF SURFACE MOUNTED RACEWAY/CONDUIT AND CONDUCTORS IN EACH ROOM."

DRAWING ED1.2 - ELECTRICAL SECOND FLOOR DEMOLITION PLAN

1. ADD general note "ELECTRICAL CONTRACTOR TO PROVIDE ALLOWANCE FOR REMOVAL OF 50'-0" OF SURFACE MOUNTED RACEWAY/CONDUIT AND CONDUCTORS IN EACH ROOM."

DRAWING E2.1 - ELECTRICAL FIRST FLOOR POWER AND TECHNOLOGY PLAN

1. ADD General Sheet Note #6 to read "ELECTRICAL CONTRACTOR TO RUN ALL NEW SURFACE MOUNTED CONDUITS AND RACEWAYS 6" FROM CORNERS OF EACH CLASSROOM TO AVOID CONFLICT WITH DISPLAY BOARDS AND OTHER CLASSROOM FURNISHINGS."
2. REVISE power and data layout as indicated on the drawings.

DRAWING E2.2 - ELECTRICAL SECOND FLOOR POWER AND TECHNOLOGY PLAN

1. ADD General Sheet Note #6 to read "ELECTRICAL CONTRACTOR TO RUN ALL NEW SURFACE MOUNTED CONDUITS AND RACEWAYS 6" FROM CORNERS OF EACH CLASSROOM TO AVOID CONFLICT WITH DISPLAY BOARDS AND OTHER CLASSROOM FURNISHINGS."

2. **REVISE** power and data layout as indicated on the drawings.

DRAWING E6.1 - ELECTRICAL PANEL SCHEDULES

1. **REVISE** panel schedules as indicated on drawing.

4. BIDDER QUESTIONS SUBMITTED TO DATE & RESPONSES ARE AS FOLLOWS:

1. On the website, each school has an EC and GC bid. Who will be responsible for the HVAC and Plumbing work that is included?

Answer: There is no HVAC work in the project. Plumbing will be the responsibility of the GC.

2. Specifications call for Sapling Master 2000 Clock. Sapling 3000 is normally the school district standard. Manufacturer comment "a 3000 can set up bell schedules where a 2000 cannot. Philly schools does not have intercom systems, so they have no way of ringing bells without the 3000." Should the specs be revised to install a 3000?

Answer: Specification 275313 has been revised in this addendum. Refer to specification addendum section, above.

3. The specifications do not contain a specification for the electrical panels. Can you provide?

Answer: The specification has been added as part of this addendum.

4. Drawing D1.1, Demolition Note 9A states "*existing unit ventilator and/or radiator, radiator cover and all associated piping and components to be removed (as applicable) and refinished with electrostatic paint and reinstalled as scheduled. Clean unit ventilator and/or radiator and all associated components prior to reinstallation of cover.*" Is this the responsibility of the GC?

Answer Part 1: Drawing D1.1, Demolition Note 9A should read "*existing unit ventilator cover and/or radiator cover to be removed (as applicable) and refinished with electrostatic paint and reinstalled as scheduled. Clean unit ventilator and/or radiator and all associated components prior to reinstallation of cover.*"

Answer Part 2: Yes, the refinishing and reinstallation of the unit ventilator cover is the responsibility of the GC.

5. The contract drawings don't show any details regarding the scope of work. The notes on the drawings lead us to believe that the intent is to Paint the Ventilator Grilles and Radiator covers. Please clarify?

Answer: See Question #6, above. Also refer to Specification 105115 Electrostatic Painting for refinishing requirements for metal surfaces.

6. The contract drawings don't show any window film. Please clarify?

Answer: Per Specification 101115, Section 2.2.B.2, location to be at Samuel L. Gompers Elementary per drawings only.

7. Drawings don't show S.S. Corner Guard locations. Please Clarify?

Answer: Per Specification 102600, Section 2.3.A.7, we have indicated corner guards to be received at three schools; John B. Kelly Elementary per drawings, Overbrook Educational Center per drawings, and Fox Chase Elementary per drawings.

8. Can Site Visits be arranged for these Schools after classes are done in order to see rooms not seen @ site visit on 2/11? If so please provide contact info.

Answer: An additional site visit can be scheduled with the Construction Manager. Contact George Leone via email: gleone@philasd.org

9. Is asbestos part of this scope of work?

Answer: Yes. Refer to Specification Section 01 1100 Environmental Coordination, 01 1135-Asbestos Abatement and Lead Based Paint Stabilization Specifications

10. Is asbestos the responsibility of the contractor awarded the project?

Answer: Asbestos is the responsibility of the GC that is awarded the project.

11. Is electrical part of this scope of work?

Answer: The electrical part of the scope is the responsibility of the Electrical Contractor.

12. Is electrical the responsibility of the contractor awarded the project?

Answer: The electrical is the responsibility of the Electrical Contractor that is awarded the electrical contract.

ATTACHMENTS

SPECIFICATIONS

SPECIFICATION 262416 PANELBOARDS

DRAWINGS

DRAWING A6.1	ROOM FINISH & DOOR SCHEDULE
DRAWING I4.1	LARGE SCALE LAYOUTS - KINDERGARTEN
DRAWING I4.2	LARGE SCALE LAYOUTS - FIRST & SECOND GRADE
DRAWING I4.3	LARGE SCALE LAYOUTS - THIRD GRADE & CASEWORK DETAILS
DRAWING I4.4	INTERIOR ELEVATIONS
DRAWING E2.1	ELECTRICAL FIRST FLOOR POWER AND TECHNOLOGY PLAN
DRAWING E2.2	ELECTRICAL SECOND FLOOR POWER AND TECHNOLOGY PLAN
DRAWING E6.1	ELECTRICAL PANEL SCHEDULES

REVISED ASBESTOS ABATEMENT SPECIFICATION

ASBESTOS INSPECTION REPORT

END OF ADDENDUM #003

SECTION 262416 – PANELBOARDS [Addendum No. 1]

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. Section Includes:
 - 1. Lighting and appliance branch-circuit panelboards.

1.3 DEFINITIONS

- A. ATS: Acceptance testing specification.
- B. GFCI: Ground-fault circuit interrupter.
- C. GFEP: Ground-fault equipment protection.
- D. MCCB: Molded-case circuit breaker.
- E. VPR: Voltage protection rating.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of panelboard.
 - 1. Include materials, switching and overcurrent protective devices, SPDs, accessories, and components indicated.
 - 2. Include dimensions and manufacturers' technical data on features, performance, electrical characteristics, ratings, and finishes.
- B. Shop Drawings: For each panelboard and related equipment.
 - 1. Include dimensioned plans, elevations, sections, and details.
 - 2. Show tabulations of installed devices with nameplates, conductor termination sizes, equipment features, and ratings.
 - 3. Detail enclosure types including mounting and anchorage, environmental protection, knockouts, corner treatments, covers and doors, gaskets, hinges, and locks.
 - 4. Detail bus configuration, current, and voltage ratings.
 - 5. Short-circuit current rating of panelboards and overcurrent protective devices.
 - 6. Detail features, characteristics, ratings, and factory settings of individual overcurrent protective devices and auxiliary components.
 - 7. Include wiring diagrams for power, signal, and control wiring.

8. Key interlock scheme drawing and sequence of operations.
9. Include time-current coordination curves for each type and rating of overcurrent protective device included in panelboards. Submit on translucent log-log graph paper; include selectable ranges for each type of overcurrent protective device. Include an Internet link for electronic access to downloadable PDF of the coordination curves.

C. Contractor shall submit a "specifications compliance statement" for each manufactured piece of equipment. Contractor/Supplier shall add "redlined" line-by-line notations to a PDF of the Specifications Section indicating the product or actions required "complies". Contractor/Supplier shall itemize all deviations from the specified requirement on a line-by-line basis. List of exceptions to product specification shall include proposed materials, methods and cost difference where substitutions are allowed. If product does not comply with the specification the Contractor/Supplier shall state what modifications and actions are being implemented to ensure the product shall comply per the substitution section of the contract documents.

1.5 STATEMENT OF COMPLIANCE

A. Contractor shall submit a "specifications compliance statement" for each manufactured piece of equipment. Contractor/Supplier shall add "redlined" notations to a PDF of the Specifications Section indicating the product or actions required "complies". If product does not comply the Contractor/Supplier shall state what modifications and actions are being implemented to ensure the product shall comply per the substitution section of the contract documents.

1.6 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For testing agency.
- B. Panelboard Schedules: For installation in panelboards. Submit final versions after load balancing.

1.7 CLOSEOUT SUBMITTALS

- A. Operation and Maintenance Data: For panelboards and components to include in emergency, operation, and maintenance manuals. In addition to items specified in other section for "Operation and Maintenance Data," include the following:
1. Manufacturer's written instructions for testing and adjusting overcurrent protective devices.
 2. Time-current curves, including selectable ranges for each type of overcurrent protective device that allows adjustments.

1.8 QUALITY ASSURANCE

- A. Manufacturer Qualifications: ISO 9001 or 9002 certified.

1.9 DELIVERY, STORAGE, AND HANDLING

- A. Remove loose packing and flammable materials from inside panelboards; install temporary electric heating (250 W per panelboard) to prevent condensation.
- B. Handle and prepare panelboards for installation according to NECA 407.

1.10 FIELD CONDITIONS

A. Environmental Limitations:

- 1. Do not deliver or install panelboards until spaces are enclosed and weathertight, wet work in spaces is complete and dry, work above panelboards is complete, and temporary HVAC system is operating and maintaining ambient temperature and humidity conditions at occupancy levels during the remainder of the construction period.
- 2. Rate equipment for continuous operation under the following conditions unless otherwise indicated:
 - a. Ambient Temperature: Not exceeding 23 deg F (minus 5 deg C) to plus 104 deg F (plus 40 deg C).
 - b. Altitude: Not exceeding 6600 feet (2000 m).

B. Service Conditions: NEMA PB 1, usual service conditions, as follows:

- 1. Ambient temperatures within limits specified.
- 2. Altitude not exceeding 6600 feet (2000 m).

C. Interruption of Existing Electric Service: Do not interrupt electric service to facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary electric service according to requirements indicated:

- 1. Notify Construction Manager no fewer than two days in advance of proposed interruption of electric service.
- 2. Do not proceed with interruption of electric service without Construction Manager's written permission.
- 3. Comply with NFPA 70E.

1.11 WARRANTY

A. Manufacturer's Warranty: Manufacturer agrees to repair or replace panelboards that fail in materials or workmanship within specified warranty period.

- 1. Panelboard Warranty Period: 18 months from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PANELBOARDS COMMON REQUIREMENTS

A. Fabricate and test panelboards according to IEEE 344 to withstand seismic forces defined in other section for "Seismic Controls for Electrical Systems."

- B. Product Selection for Restricted Space: Drawings indicate maximum dimensions for panelboards including clearances between panelboards and adjacent surfaces and other items. Comply with indicated maximum dimensions.
- C. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- D. Comply with NEMA PB 1.
- E. Comply with NFPA 70.
- F. Enclosures: Flush and Surface-mounted, dead-front cabinets.
 - 1. Rated for environmental conditions at installed location.
 - a. Indoor Dry and Clean Locations: NEMA 250, Type 1.
 - b. Indoor Locations Subject to Dust, Falling Dirt, and Dripping Noncorrosive Liquids: NEMA 250, Type 5.
 - 2. Height: 84 inches (2.13 m) maximum.
 - 3. Hinged Front Cover: Entire front trim hinged to box and with standard door within hinged trim cover. Trims shall cover all live parts and shall have no exposed hardware.
 - 4. Gutter Extension and Barrier: Same gage and finish as panelboard enclosure; integral with enclosure body. Arrange to isolate individual panel sections.
 - 5. Finishes:
 - a. Panels and Trim: Steel, factory finished immediately after cleaning and pretreating with manufacturer's standard two-coat, baked-on finish consisting of prime coat and thermosetting topcoat.
 - b. Back Boxes: Same finish as panels and trim.
- G. Incoming Mains:
 - 1. Location: Top and Bottom.
 - 2. Main Breaker: Main lug interiors up to 400 amperes shall be field convertible to main breaker.
- H. Phase, Neutral, and Ground Buses:
 - 1. Material: Hard-drawn copper, 98 percent conductivity.
 - a. Plating shall run entire length of bus.
 - b. Bus shall be fully rated the entire length.
 - 2. Interiors shall be factory assembled into a unit. Replacing switching and protective devices shall not disturb adjacent units or require removing the main bus connectors.
 - 3. Equipment Ground Bus: Adequate for feeder and branch-circuit equipment grounding conductors; bonded to box.
 - 4. Full-Sized Neutral: Equipped with full-capacity bonding strap for service entrance applications. Mount electrically isolated from enclosure. Do not mount neutral bus in gutter.
- I. Conductor Connectors: Suitable for use with conductor material and sizes.

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1. Material: Hard-drawn copper, 98 percent conductivity.
 2. Terminations shall allow use of 75 deg C rated conductors without derating.
 3. Size: Lugs suitable for indicated conductor sizes, with additional gutter space, if required, for larger conductors.
 4. Main and Neutral Lugs: Mechanical type, with a lug on the neutral bar for each pole in the panelboard.
 5. Ground Lugs and Bus-Configured Terminators: Mechanical type, with a lug on the bar for each pole in the panelboard.
 6. Feed-Through Lugs: Mechanical type, suitable for use with conductor material. Locate at opposite end of bus from incoming lugs or main device.
 7. Subfeed (Double) Lugs: Mechanical type suitable for use with conductor material. Locate at same end of bus as incoming lugs or main device.
 8. Gutter-Tap Lugs: Mechanical type suitable for use with conductor material and with matching insulating covers. Locate at same end of bus as incoming lugs or main device.
- J. Future Devices: Panelboards or load centers shall have mounting brackets, bus connections, filler plates, and necessary appurtenances required for future installation of devices.
1. Percentage of Future Space Capacity: 20 percent.
- K. Panelboard Short-Circuit Current Rating: Match existing condition Ratings (Field coordinate).
- L. Panelboard Short-Circuit Current Rating: Fully rated to interrupt symmetrical short-circuit current available at terminals. Assembly listed by an NRTL for 100 percent interrupting capacity. However, if the short-circuit & coordination study requires higher AIC rating, then the contractor shall provide higher rated panels without any additional cost to the owners. It is highly recommended that short-circuit & coordination study be prepared prior to ordering the panels.
1. Panelboards and overcurrent protective devices rated 240 V or less shall have short-circuit ratings as shown on Drawings, but not less than 10,000 A rms symmetrical.
 2. Panelboards and overcurrent protective devices rated above 240 V and less than 600 V shall have short-circuit ratings as shown on Drawings, but not less than 14,000 A rms symmetrical.

2.2 PERFORMANCE REQUIREMENTS

- A. Seismic Performance: Panelboards shall withstand the effects of earthquake motions determined according to ASCE/SEI 7.
1. The term "withstand" means "the unit will remain in place without separation of any parts from the device when subjected to the seismic forces specified."

2.3 LIGHTING AND APPLIANCE BRANCH-CIRCUIT PANELBOARDS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
1. Eaton.
 2. East coast Panelboard Inc.
 3. Square D; by Schneider Electric.

- B. Panelboards: NEMA PB 1, lighting and appliance branch-circuit type.
- C. Mains: Circuit breaker or lugs only.
- D. Branch Overcurrent Protective Devices: Bolt-on circuit breakers, replaceable without disturbing adjacent units.
- E. Doors: Door-in-door construction with concealed hinges; secured with multipoint latch with tumbler lock; keyed alike. Outer door shall permit full access to the panel interior. Inner door shall permit access to breaker operating handles and labeling, but current carrying terminals and bus shall remain concealed.

2.4 DISCONNECTING AND OVERCURRENT PROTECTIVE DEVICES

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. Eaton.
 - 2. East coast Panelboard Inc.
 - 3. Square D; by Schneider Electric.
- B. MCCB: Comply with UL 489, with interrupting capacity to meet available fault currents.
 - 1. Thermal-Magnetic Circuit Breakers:
 - a. Inverse time-current element for low-level overloads.
 - b. Instantaneous magnetic trip element for short circuits.
 - c. Adjustable magnetic trip setting for circuit-breaker frame sizes 250 A and larger.
 - 2. GFCI Circuit Breakers: Single- and double-pole configurations with Class A ground-fault protection (6-mA trip).
 - 3. Subfeed Circuit Breakers: Vertically mounted.
 - 4. MCCB Features and Accessories:
 - a. Standard frame sizes, trip ratings, and number of poles.
 - b. Breaker handle indicates tripped status.
 - c. UL listed for reverse connection without restrictive line or load ratings.
 - d. Lugs: Mechanical style, suitable for number, size, trip ratings, and conductor materials.
 - e. Application Listing: Appropriate for application; Type SWD for switching fluorescent lighting loads.
 - f. Communication Capability: Circuit-breaker-mounted communication module with functions and features compatible with power monitoring and control system specified in other section for "Electrical Power Monitoring and Control."
 - g. Shunt Trip: 120-V trip coil energized from separate circuit, set to trip at 55 percent of rated voltage.
 - h. Undervoltage Trip: Set to operate at 35 to 75 percent of rated voltage without intentional time delay.
 - i. Auxiliary Contacts: One, SPDT switch with "a" and "b" contacts; "a" contacts mimic circuit-breaker contacts and "b" contacts operate in reverse of circuit-breaker contacts.
 - j. Alarm Switch: Single-pole, normally open contact that actuates only when circuit breaker trips.

- k. Multipole units enclosed in a single housing with a single handle or factory assembled to operate as a single unit.
- l. Handle Padlocking Device: Fixed attachment, for locking circuit-breaker handle in on or off position.
- m. Handle Clamp: Loose attachment, for holding circuit-breaker handle in on position.

2.5 IDENTIFICATION

- A. Panelboard Label: Manufacturer's name and trademark, voltage, amperage, number of phases, and number of poles shall be located on the interior of the panelboard door.
- B. Breaker Labels: Faceplate shall list current rating, UL and IEC certification standards, and AIC rating.
- C. Circuit Directory: Computer-generated circuit directory mounted inside panelboard door with transparent plastic protective cover.
 - 1. Circuit directory shall identify specific purpose with detail sufficient to distinguish it from all other circuits.

2.6 ACCESSORY COMPONENTS AND FEATURES

- A. Accessory Set: Include tools and miscellaneous items required for overcurrent protective device test, inspection, maintenance, and operation.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify actual conditions with field measurements prior to ordering panelboards to verify that equipment fits in allocated space in, and comply with, minimum required clearances specified in NFPA 70.
- B. Receive, inspect, handle, and store panelboards according to NECA 407.
- C. Examine panelboards before installation. Reject panelboards that are damaged, rusted, or have been subjected to water saturation.
- D. Examine elements and surfaces to receive panelboards for compliance with installation tolerances and other conditions affecting performance of the Work.
- E. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. Coordinate layout and installation of panelboards and components with other construction that penetrates walls or is supported by them, including electrical and other types of equipment, raceways, piping, encumbrances to workspace clearance requirements, and adjacent

surfaces. Maintain required workspace clearances and required clearances for equipment access doors and panels.

- B. Comply with NECA 1.
- C. Install panelboards and accessories according to NECA 407.
- D. Equipment Mounting:
 - 1. Attach panelboard to the vertical finished or structural surface behind the panelboard.
 - 2. Comply with requirements for seismic control devices specified in other section for "Seismic Controls for Electrical Systems."
- E. Comply with mounting and anchoring requirements specified in other section for "Seismic Controls for Electrical Systems."
- F. Mount top of trim **90 inches (2286 mm)** above finished floor unless otherwise indicated.
- G. Mount panelboard cabinet plumb and rigid without distortion of box.
- H. Mount recessed panelboards with fronts uniformly flush with wall finish and mating with back box.
- I. Mount surface-mounted panelboards to steel slotted supports **5/8 inch (16 mm)** in depth. Orient steel slotted supports vertically.
- J. Install overcurrent protective devices and controllers not already factory installed.
 - 1. Set field-adjustable, circuit-breaker trip ranges.
 - 2. Tighten bolted connections and circuit breaker connections using calibrated torque wrench or torque screwdriver per manufacturer's written instructions.
- K. Install filler plates in unused spaces.
- L. Arrange conductors in gutters into groups and bundle and wrap with wire ties after completing load balancing.

3.3 IDENTIFICATION

- A. Identify field-installed conductors, interconnecting wiring, and components; install warning signs complying with requirements in other section for "Identification for Electrical Systems."
- B. Create a directory to indicate installed circuit loads after balancing panelboard loads; incorporate Owner's final room designations. Obtain approval before installing. Handwritten directories are not acceptable. Install directory inside panelboard door.
- C. Panelboard Nameplates: Label each panelboard with a nameplate complying with requirements for identification specified in other section for "Identification for Electrical Systems."
- D. Device Nameplates: Label each branch circuit device in power panelboards with a nameplate complying with requirements for identification specified in other section for "Identification for Electrical Systems."

- E. Install warning signs complying with requirements in other section for "Identification for Electrical Systems" identifying source of remote circuit.

3.4 FIELD QUALITY CONTROL

- A. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect, test, and adjust components, assemblies, and equipment installations, including connections.
- B. Perform tests and inspections.
 - 1. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect components, assemblies, and equipment installations, including connections, and to assist in testing.
- C. Acceptance Testing Preparation:
 - 1. Test insulation resistance for each panelboard bus, component, connecting supply, feeder, and control circuit.
 - 2. Test continuity of each circuit.
- D. Tests and Inspections:
 - 1. Perform each visual and mechanical inspection and electrical test for low-voltage air circuit breakers stated in NETA ATS, Paragraph 7.6 Circuit Breakers. Perform optional tests. Certify compliance with test parameters.
 - 2. Correct malfunctioning units on-site, where possible, and retest to demonstrate compliance; otherwise, replace with new units and retest.
 - 3. Perform the following infrared scan tests and inspections and prepare reports:
 - a. Infrared Scanning: After Substantial Completion, but not more than 60 days after Final Acceptance, perform an infrared scan of each panelboard. Remove front panels so joints and connections are accessible to portable scanner.
 - b. Instruments and Equipment:
 - 1) Use an infrared scanning device designed to measure temperature or to detect significant deviations from normal values. Provide calibration record for device.
- E. Panelboards will be considered defective if they do not pass tests and inspections.
- F. Prepare test and inspection reports, including a certified report that identifies panelboards included and that describes scanning results, with comparisons of the two scans. Include notation of deficiencies detected, remedial action taken, and observations after remedial action.

3.5 ADJUSTING

- A. Adjust moving parts and operable components to function smoothly, and lubricate as recommended by manufacturer.
- B. Set field-adjustable circuit-breaker trip ranges as specified in other section for "Coordination Studies."

- C. Load Balancing: After Substantial Completion, but not more than 60 days after Final Acceptance, measure load balancing and make circuit changes. Prior to making circuit changes to achieve load balancing, inform Architect of effect on phase color coding.
 - 1. Measure loads during period of normal facility operations.
 - 2. Perform circuit changes to achieve load balancing outside normal facility operation schedule or at times directed by the Architect. Avoid disrupting services such as fax machines and on-line data processing, computing, transmitting, and receiving equipment.
 - 3. After changing circuits to achieve load balancing, recheck loads during normal facility operations. Record load readings before and after changing circuits to achieve load balancing.
 - 4. Tolerance: Maximum difference between phase loads, within a panelboard, shall not exceed 20 percent.

3.6 PROTECTION

- A. Temporary Heating: Prior to energizing panelboards, apply temporary heat to maintain temperature according to manufacturer's written instructions.

END OF SECTION 262416

ROOM FINISH SCHEDULE										
NUMBER	NAME	COLOR SCHEME	FLOOR	BASE	WALLS			CEILING FINISH	REMARKS	
					WALL FINISH	WAINSCOT FINISH	HEIGHT			
FIRST FLOOR										
3	1ST GRADE CLASSROOM	B	SLR	WD1/WD2	PNT			ACT	R51, R53	
3A	STORAGE	B	SLR	WD1	PNT			ACT		
3B	ALCOVE	B	SLR	WD1	PNT			ACT		
4	1ST GRADE CLASSROOM	B	SLR	WD1/WD2	PNT			ACT	R51, R53	
4A	STORAGE	B	SLR	WD1	PNT			ACT		
4B	ALCOVE	B	SLR	WD1	PNT			ACT		
5	KINDERGARTEN CLASSROOM	A	SLR	WD1/WD2	PNT			ACT	R51, R53	
5A	STORAGE	A	SLR	WD1	PNT			ACT		
5B	ALCOVE	A	SLR	WD1	PNT			ACT		
10	KINDERGARTEN CLASSROOM	A	VCT	WD1	PNT			ACT	R51, R53	
10A	TOILET	G	PT	CT	EPX3	CT	7'-0"	ACT	R52	
10B	STORAGE	A	VCT	WD1	PNT			ACT		
11	KINDERGARTEN CLASSROOM	A	VCT	WD1/WD2	PNT			ACT	R51, R53	
11A	TOILET	G	PT	CT	EPX3	CT	7'-0"	ACT	R52	
11B	STORAGE	A	SLR	WD2	PNT			ACT		
SECOND FLOOR										
12	1ST GRADE CLASSROOM	B	SLR	WD1	PNT			ACT	R51, R53, R76	
12A	STORAGE	B	SLR	WD1	PNT			ACT		
12B	ALCOVE	B	SLR	WD1	PNT			ACT		
13	2ND GRADE CLASSROOM	C	SLR	WD1	PNT			ACT	R51, R53	
13A	STORAGE	C	SLR	WD1	PNT			ACT		
13B	ALCOVE	C	SLR	WD1	PNT			ACT		
16	2ND GRADE CLASSROOM	C	SLR	WD1/WD2	PNT			ACT	R51, R53	
16A	STORAGE	C	SLR	WD1	PNT			ACT		
16B	ALCOVE	C	SLR	WD1	PNT			ACT		
18	2ND GRADE CLASSROOM	C	SLR	WD1	PNT			ACT	R51, R53, R76	
18A	STORAGE	C	SLR	WD1	PNT			ACT		
18B	ALCOVE	C	SLR	WD1	PNT			ACT		
19	3RD GRADE CLASSROOM	D	SLR	WD1	PNT			ACT	R51, R53	
19A	STORAGE	D	SLR	WD1	PNT			ACT		
20	3RD GRADE CLASSROOM	D	SLR	WD1	PNT			ACT	R51, R53	
20A	STORAGE	D	SLR	WD1	PNT			ACT		
21	3RD GRADE CLASSROOM	D	SLR	WD1	PNT			ACT	R51, R53	
21A	STORAGE	D	SLR	WD1/WD2	PNT			ACT		

COLOR SCHEME SCHEDULE

COLOR SCHEME A - KINDERGARTEN CLASSROOMS-ORANGE & GREEN

- WALL PAINT: SHERWIN WILLIAMS, NO. SW7044 AMAZING GRAY
- ACCENT PAINT 'A' STORAGE: SHERWIN WILLIAMS, NO. SW9171 FELTED WOOL
- ACCENT PAINT 'B' TEACHING WALL: SHERWIN WILLIAMS, NO. SW6890 OSAGE ORANGE
- VINYL COMPOSITION TILE, FIELD: ARMSTRONG, NO. 51803 PEARL WHITE
- VINYL COMPOSITION TILE, ACCENT '1': ARMSTRONG, NO. 51866 LITTLE GREEN APPLE
- VINYL COMPOSITION TILE, ACCENT '2': ARMSTRONG, NO. 51947 BASIL GREEN
- VERTICAL CASEWORK WOOD FINISH: **COLOR TO BE SELECTED BY OWNER.**
- VINYL BASE: JOHNSONITE, NO. 469 MYSTIFY

SEE ENLARGED FLOOR PLANS FOR FLOOR PATTERNS AND ACCENT WALL COLOR LOCATIONS.

COLOR SCHEME B - FIRST GRADE & SPECIAL EDUCATION CLASSROOMS-BLUE & RED

- WALL PAINT: SHERWIN WILLIAMS, NO. SW7044 AMAZING GRAY
- ACCENT PAINT 'A' STORAGE: SHERWIN WILLIAMS, NO. SW9171 FELTED WOOL
- ACCENT PAINT 'B' TEACHING WALL: SHERWIN WILLIAMS, NO. SW6765 SPA
- VINYL COMPOSITION TILE, FIELD: ARMSTRONG, NO. 51803 PEARL WHITE
- VINYL COMPOSITION TILE, ACCENT '1': ARMSTRONG, NO. 51927 FIELD GRAY
- VINYL COMPOSITION TILE, ACCENT '2': ARMSTRONG, NO. 57509 LEMON LICK
- VERTICAL CASEWORK WOOD FINISH: **COLOR TO BE SELECTED BY OWNER.**
- VINYL BASE: JOHNSONITE, NO. 469 MYSTIFY

SEE ENLARGED FLOOR PLANS FOR FLOOR PATTERNS AND ACCENT WALL COLOR LOCATIONS.

COLOR SCHEME C - SECOND GRADE CLASSROOMS-BLUE & ORANGE

- WALL PAINT: SHERWIN WILLIAMS, NO. SW6233 SAMOVAR SILVER
- ACCENT PAINT 'A' STORAGE: SHERWIN WILLIAMS, NO. SW9143 CADET
- ACCENT PAINT 'B' TEACHING WALL: SHERWIN WILLIAMS, NO. SW6767 AQUARIUM
- VINYL COMPOSITION TILE, FIELD: ARMSTRONG, NO. 51860 SOFT COOL GRAY
- VINYL COMPOSITION TILE, ACCENT '1': ARMSTRONG, NO. 51927 FIELD GRAY
- VINYL COMPOSITION TILE, ACCENT '2': ARMSTRONG, NO. 57516 SCREAMIN' PUMPKIN
- VERTICAL CASEWORK WOOD FINISH: **COLOR TO BE SELECTED BY OWNER.**
- VINYL BASE: JOHNSONITE, NO. 262 DRIZZLE

SEE ENLARGED FLOOR PLANS FOR FLOOR PATTERNS AND ACCENT WALL COLOR LOCATIONS.

COLOR SCHEME D - THIRD GRADE CLASSROOMS-BLUE & YELLOW

- WALL PAINT: SHERWIN WILLIAMS, NO. SW6233 SAMOVAR SILVER
- ACCENT PAINT 'A' STORAGE: SHERWIN WILLIAMS, NO. SW9143 CADET
- ACCENT PAINT 'B' TEACHING WALL: SHERWIN WILLIAMS, NO. SW6903 CHEERFUL
- VINYL COMPOSITION TILE, FIELD: ARMSTRONG, NO. 51860 SOFT COOL GRAY
- VINYL COMPOSITION TILE, ACCENT '1': ARMSTRONG, NO. 57517 BOJACIOUS BLUE
- VINYL COMPOSITION TILE, ACCENT '2': ARMSTRONG, NO. 59230 VICTORIA BLUE
- VERTICAL CASEWORK WOOD FINISH: **COLOR TO BE SELECTED BY OWNER.**
- VINYL BASE: JOHNSONITE, NO. 262 DRIZZLE

SEE ENLARGED FLOOR PLANS FOR FLOOR PATTERNS AND ACCENT WALL COLOR LOCATIONS.

COLOR SCHEME E NOT USED

COLOR SCHEME F NOT USED

COLOR SCHEME G BATHROOMS

- WALL PAINT: SHERWIN WILLIAMS, NO. SW7029 AGREEABLE GRAY
- PORCELAIN FLOOR TILE: DAL TILE, EVER PORCELAIN, COLOR: EV03 ARCTIC UNPOLISHED
- PORCELAIN WALL TILE, FIELD: DAL TILE, SEMI-GLOSS GLAZED TILE, 0182 SUEDE GRAY
- PORCELAIN WALL TILE, ACCENT '1': DAL TILE, SEMI-GLOSS GLAZED TILE, Q151 TOTALLY TANGIERINE
- PORCELAIN WALL TILE, ACCENT '2': DAL TILE, SEMI-GLOSS GLAZED TILE, Q097 ORANGE BURST
- GROUT COLOR FOR WALLS: MAPEI, COLOR: 00 WHITE
- GROUT COLOR FOR FLOORS: MAPEI, COLOR: 27 SILVER

SEE ENLARGED PLANS FOR ACCENT WAINSCOT COLOR LOCATIONS.

GENERAL NOTES:
THE FOLLOWING MATERIALS ARE TO BE APPLIED AT ALL LOCATIONS WHERE SPECIFIED UNLESS OTHERWISE NOTED.

- TACK BOARDS: CLARIDGE FABRICOR, KL 498 WINTHROPE
- ROLLER WINDOW SHADES: MERMET, GREENSCREEN REVIVE, 5% OPEN, COLOR: 022 STONE
- SOLID SURFACE COUNTERTOP & SIDE/BACK SPLASH: CORIAN, COLOR: DEEP CAVIAR
- CEILING PAINT: SHERWIN WILLIAMS, NO. SW7006 EXTRA WHITE
- PREVIOUSLY PAINTED WOOD COMPONENTS: DOORS, TRIM, BASE, CHAIR RAIL, CROWN MOULDING, VISUAL DISPLAY TRIM, WINDOW SILLS: SHERWIN WILLIAMS, NO. SW7068 GRIZZLE GRAY
- PREVIOUSLY STAINED WOOD COMPONENTS: WOOD DOORS, WOOD TRIM, WOOD BASE, VISUAL DISPLAY BOARD TRIM, ETC.: **COLOR TO MATCH EXISTING AND FIELD VERIFIED BY ARCHITECT/OWNER.**
- NOT USED.
- PREVIOUSLY PAINTED METAL TIERED COAT HOOKS & PREVIOUSLY PAINTED STUDENT CUBBIES SHALL BE PAINTED TO MATCH ADJACENT WALL COLOR.

NOTES:

- IF ROOM IS NOT INDICATED TO RECEIVE A FLOOR PATTERN, FIELD COLOR VCT SHALL BE USED.
- VCT ORIENTATION SHALL BE MATCHED TO EXISTING ADJACENT ROOM.
- ARCHITECT REQUIRES AN ON-SITE MOCK-UP FOR EACH PAINT COLOR. PROVIDE A MINIMUM 8'x10' AREA, A DOOR FRAME, CONTRACTOR MUST RECEIVE ARCHITECT'S APPROVAL BEFORE ORDERING.
- VERTICAL AND HORIZONTAL PLANES OF SOFFIT AND BULKHEAD SHALL BE PAINTED TO MATCH THE ADJACENT WALL COLOR, UNLESS OTHERWISE NOTED.
- COORDINATE ROOM FINISH SCHEDULE AND COLOR SCHEME SCHEDULE WITH DEMOLITION NOTES.
- ALL EXPOSED MECHANICAL, PLUMBING, & HVAC COMPONENTS SHALL BE PAINTED THE ADJACENT WALL COLOR. ITEMS INCLUDING BUT NOT LIMITED TO: PIPING, CONDUIT, VENTS, LOUVERS, GRILLES, RADIATORS, RADIATOR COVERS, ELECTRICAL PANELS, METAL ACCESS PANELS, METAL LOCKERS SHALL BE PAINTED ADJACENT WALL COLOR.

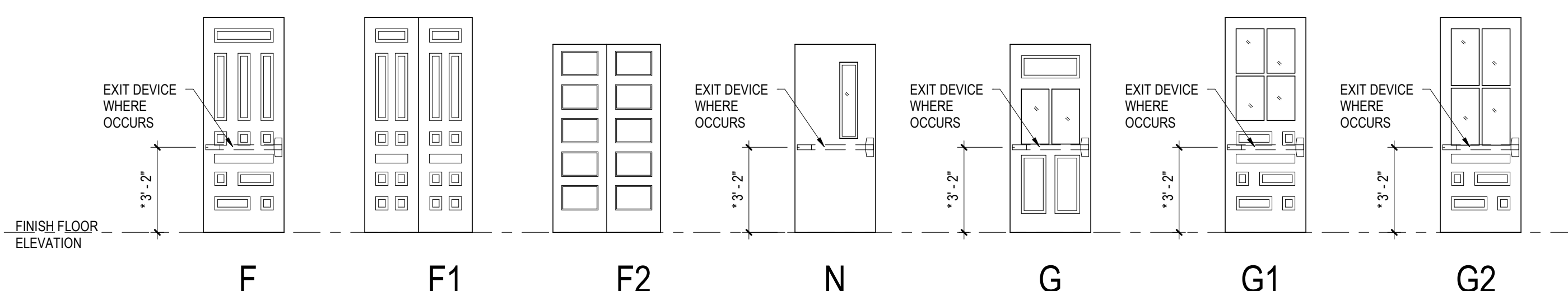
ROOM FINISH SCHEDULE LEGEND	
FLOOR FINISH	
PT	PORCELAIN TILE
VCT	VINYL COMPOSITION TILE
SLR	SEALER ON WOOD FLOOR
FLOOR REMARKS	
R1-R25: NOT USED	
BASE FINISH	
CT	CERAMIC TILE
WD1	PAINT ON WOOD BASE, EXISTING
WD2	PAINT ON WOOD BASE, NEW WOOD
BASE REMARKS	
R26-R50: NOT USED	
WALL FINISH	
CT	CERAMIC TILE
EPX	EPOXY PAINT
PNT	PAINT
WALL REMARKS	
R51:	PROVIDE NEW CHAIR RAIL AROUND PERIMETER OF CLASSROOM. SEE SPECS.
R52:	SEE INTERIOR ELEVATIONS FOR VARYING WALL MATERIALS.
R53:	PROVIDE ACCENT WALL.
R54-R75:	NOT USED
CEILING FINISH	
ACT	ACOUSTICAL CEILING TILE
PNT	PAINTED GYPSUM WALLBOARD/PLASTER
CEILING REMARKS	
R76:	PROVIDE NEW CROWN MOULDING AROUND PERIMETER OF CLASSROOM. SEE SPECS.
R77-R100:	NOT USED
GENERAL NOTES	
1.	REFER TO SPECIFICATIONS FOR DETAILED DESCRIPTION OF FINISH SYSTEM TYPES.
2.	REFER TO WALL TYPES FOR MASONRY LOCATIONS AND DETAILS.
3.	GYPSUM WALLBOARD BULKHEADS AND SOFFITS SHALL BE PAINTED.
4.	ALL HOLLOW METAL DOOR AND FRAMES, INTERIOR AND EXTERIOR, SHALL BE PAINTED.
5.	ALL INTERIOR FERROUS METAL SHALL BE PAINTED INCLUDING LINTELS, RAILINGS, GRILLES AND LOUVERS. (DOES NOT INCLUDE FACTORY OR PRE-FINISHED ITEMS)
6.	SEE I4 DRAWINGS FOR MATERIAL TRANSITIONS & FLOOR PATTERN PLANS.
7.	ETR = EXISTING TO REMAIN
8.	EXIST = EXISTING

DOOR SCHEDULE													
OPENING NUMBER	DOOR				DIMENSIONS			FRAME			GLAZING/ INFILL TYPE	HARDWARE SET	REMARKS
	DOOR TYPE	EXISTING / NEW	DOOR MATERIAL	DOOR SCHEDULED FINISH	WIDTH			FRAME TYPE	FRAME MATERIAL	FRAME SCHEDULED FINISH			
					LEAF 1	LEAF 2	HEIGHT						
FIRST FLOOR													
3	N	ETR	WD	PNT	3'-0"		7'-0"	ETR	HM / WD	PNT	TG	FSK-04	B, F, G, I, K
3A	F	ETR	WD	PNT	3'-0"		8'-0"	ETR	WD	PNT	ETR	FSK-02	B, F, G
3B	F1	ETR	WD	PNT	2'-0"	2'-0"	8'-0"	ETR	WD	PNT	--	FSK-05	B, F, J
4	N	ETR	WD	PNT	3'-0"		7'-0"	ETR	HM / WD	PNT	TG	FSK-04	B, F, G, I, K, M
4A	F	ETR	WD	PNT	3'-0"		8'-0"	ETR	WD	PNT	ETR	FSK-02	B, F, G
4B	F1	ETR	WD	PNT	2'-0"	2'-0"	8'-0"	ETR	WD	PNT	--	FSK-05	B, F, J
5	N	ETR	WD	PNT	3'-0"		7'-0"	ETR	HM / WD	PNT	TG	FSK-04	B, F, G, I
5A	F	ETR	WD	PNT	3'-0"		8'-0"	ETR	WD	PNT	ETR	FSK-02	B, F, G
5B	F1	ETR	WD	PNT	2'-0"	2'-0"	8'-0"	ETR	WD	PNT	--	FSK-05	B, F, J
10	G	ETR	WD	PNT	3'-0"		7'-0"	ETR	WD	PNT	ETR	FSK-01	B, F, G
10A	G	ETR	WD	PNT	2'-6"		6'-6"	ETR	WD	PNT	ETR	FSK-03	B, F, G
10B	F2	ETR	WD	PNT	2'-0"	2'-0"	7'-0"	ETR	WD	PNT	--	FSK-05	B, F, G
11	G	ETR	WD	PNT	3'-0"		7'-0"	ETR	WD	PNT	ETR	FSK-01	B, F, G
11B	G	ETR	WD	PNT	2'-8"		7'-0"	ETR	WD	PNT	TG	FSK-02	B, F, G, I
SECOND FLOOR													
12	G1	ETR	WD	PNT	3'-0"		8'-0"	ETR	WD	PNT	ETR	FSK-01	B, F, G
12A	F	ETR	WD	PNT	3'-0"		8'-0"	ETR	WD	PNT	ETR	FSK-02	B, F, G
12B	F1	ETR	WD	PNT	2'-0"	2'-0"	8'-0"	ETR	WD	PNT	--	FSK-05	B, F, J
13	G2	ETR	WD	PNT	3'-0"		8'-0"	ETR	WD	PNT	ETR	FSK-01	B, F, G
13A	F	ETR	WD	PNT	3'-0"		8'-0"	ETR	WD	PNT	ETR	FSK-02	B, F, G
13B	F1	ETR	WD	PNT	2'-0"	2'-0"	8'-0"	ETR	WD	PNT	--	FSK-05	B, F, J
16	G2	ETR	WD	PNT	3'-0"		8'-0"	ETR	WD	PNT	ETR	FSK-04	B, F, G
16A	F	ETR	WD	PNT	3'-0"		8'-0"	ETR	WD	PNT	ETR	FSK-02	B, F, G
16B	F1	ETR	WD	PNT	2'-0"	2'-0"	8'-0"	ETR	WD	PNT	--	FSK-05	B, F, J
18A	G1	ETR	WD	PNT	3'-0"		8'-0"	ETR	WD	PNT	ETR	FSK-01	B, F, G
18B	G1	ETR	WD	PNT	3'-0"		7'-0"	ETR	WD	PNT	ETR	FSK-01	B, F, G
18C	F	ETR	WD	PNT	3'-0"		8'-0"	ETR	WD	PNT	ETR	FSK-02	B, F, G
18D	F1	ETR	WD	PNT	2'-0"	2'-0"	8'-0"	ETR	WD	PNT	--	FSK-05	B, F, J
19	G	ETR	WD	PNT	3'-0"		7'-0"	ETR	WD	PNT	ETR	FSK-01	B, F, G
20	G	ETR	WD	PNT	3'-0"		7'-0"	ETR	WD	PNT	ETR	FSK-01	B, F, G
21	G	ETR	WD	PNT	3'-0"		7'-0"	ETR	WD	PNT	ETR	FSK-01	B, F, G
21A	F2	ETR	WD	PNT	2'-0"	2'-0"	7'-0"	ETR	WD	PNT	--	FSK-05	B, F, G

BUILT-IN CABINET DOOR SCHEDULE			
OPENING NUMBER	INFILL	HARDWARE SET	REMARKS
18E	TG	A	B, F, G, I, L
18F	TG	A	B, F, G, I, L
19A	TG	A	B, F, G, I, L
20A	TG	A	B, F, G, I, L

DOOR & BUILT-IN CABINET SCHEDULE NOTES:		
SCHEDULE REMARKS:	GENERAL NOTES:	ABBREVIATIONS:
A. EXISTING DOOR, FRAME AND HARDWARE TO REMAIN.	1. REFER TO GENERAL PROJECT ALTERATION NOTES ON SHEET CS-2 FOR ADDITIONAL INFORMATION.	ETR EXISTING TO REMAIN
B. PROVIDE NEW HARDWARE TO EXISTING DOOR AND FRAME.	2. FINAL CORINGS AND KEYINGS SHALL BE APPROVED BY THE OWNER'S REPRESENTATIVE.	ALUM ALUMINUM
C. PROVIDE NEW DOOR AND HARDWARE TO EXISTING FRAME.	3. WHERE INDICATED, PROVIDE 3/4" MDF INFILL PANEL IN EXISTING FRAME. RELOCATE AND RESQUARE FRAME STOPS AS REQUIRED TO ACCOMMODATE NEW MATERIAL. PAINT MDF PANEL TO MATCH FRAME COLOR AS INDICATED ON FINISH SCHEDULE.	STL STEEL
D. PROVIDE NEW DOOR TO EXISTING FRAME. REINSTALL EXISTING HARDWARE INTO NEW DOOR.	4. CONTRACTOR SHALL NOT REMOVE ANY COMPONENTS OF DOOR OR HARDWARE UNTIL ALL COMPONENTS OF NEW ASSEMBLY ARE PHYSICALLY ON SITE, INCLUDING CORES.	WD WOOD
E. PROVIDE NEW DOOR, FRAME AND HARDWARE.	5. WHERE FINISH IS SCHEDULED, REFER TO FINISH SCHEDULE FOR COLOR SELECTION.	HM HOLLOW METAL
F. CLEAN AND PATCH ALL SURFACES OF EXISTING DOOR, FRAME AND/OR HARDWARE TO LIKE NEW CONDITION.	6. DOORS SHALL BE SHAVED DOWN AS REQUIRED TO ACCEPT NEW HARDWARE AND/OR ALLOW FOR UNOBSTRUCTED.	IG TG INSULATED GLASS TEMPERED GLASS
G. REFINISH DOOR AND/OR FRAME AS SCHEDULED ON BOTH SIDES OF ASSEMBLY.		RG RATED GLASS PER UL
H. REFINISH DOOR AND/OR FRAME AS SCHEDULED ON INTERIOR FACE (OR CLASSROOM SIDE) OF ASSEMBLY ONLY.		MDF MEDIUM DENSITY FIBERBOARD
I. REMOVE EXISTING GLAZING AND REPLACE WITH NEW MATERIAL AS SCHEDULED. WHERE TACKBOARD IS SCHEDULED, PROVIDE MDF BACKER AND TACKBOARD INFILL, TYPICAL, 1/2" QUARTERROUND WOOD TRIM, CONTINUOUS, AROUND PERIMETER OF ALL TACKBOARD INFILLS.		TB TACKBOARD
J. REFINISH DOOR AND/OR FRAME AS SCHEDULED ON EXTERIOR FACE (OR ALCOVE SIDE) OF ASSEMBLY ONLY.		WB WIRE SCREEN (MATCH EXIST)
K. EXISTING MOSAIC AND/OR ART TO REMAIN. CONTRACTOR TO PROTECT DURING CONSTRUCTION.		PNT PAINT
L. REFER TO I4 SERIES DRAWINGS FOR ADDITIONAL INFORMATION.		STN STAIN
M. REPLACE BROKEN TRANSMISSION GLAZING WITH NEW TEMPERED GLAZING AS REQUIRED.		CLN CLEAN ONLY

DOOR TYPES
 ** - RECOMMENDED MOUNTING HEIGHT FROM FINISHED FLOOR TO CENTER LINE OF FIRE EXIT DEVICE
 ** - COORDINATE WITH DOOR MANUFACTURE REQUIREMENTS





ARCHITECT

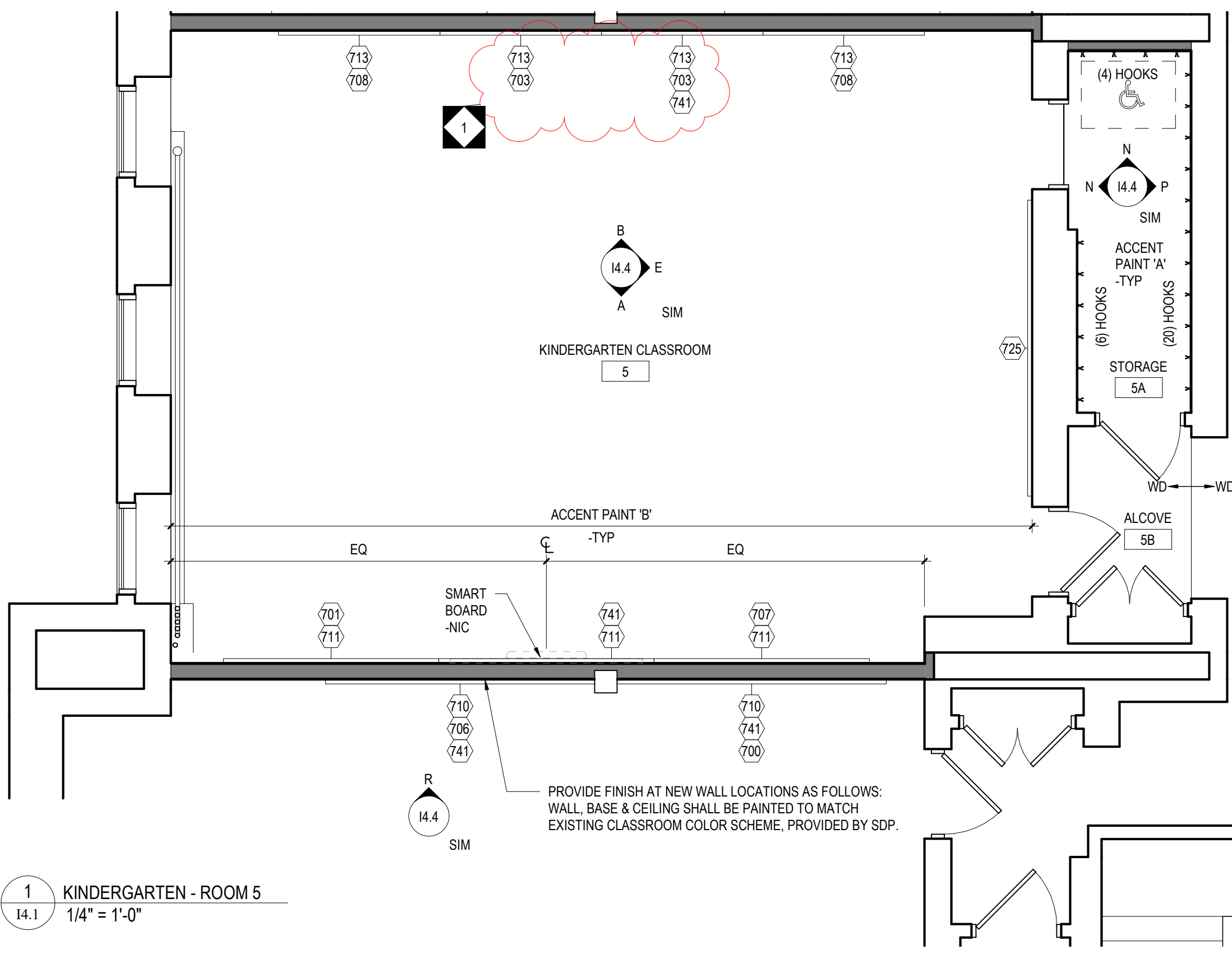
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AIn: Jessie Harder

M/E/P ENGINEERS

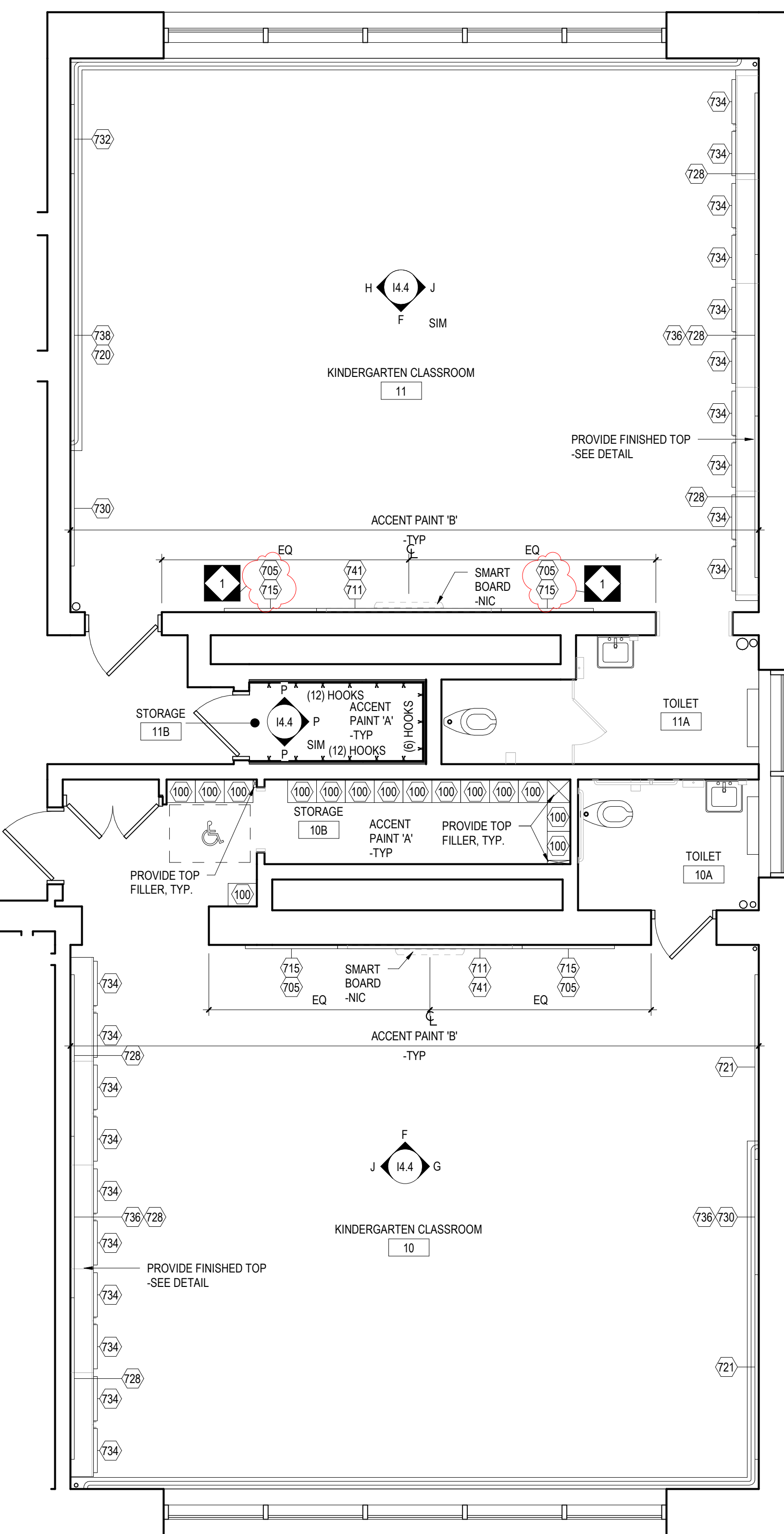
SETTY
One South Street, Suite 1130
Baltimore, MD 21202
Phone: 443-309-6036

Email: deepak@cssetty.com
AIn: Deepak Ajmani



1 KINDERGARTEN - ROOM 5
14.1 1/4" = 1'-0"

3 SINGLE STUDENT LOCKER ELEVATION - TYPICAL
14.1 1/2" = 1'-0"



2 KINDERGARTEN - ROOM 10 & 11
14.1 1/4" = 1'-0"

PRE-K & KINDERGARTEN MOUNTING HEIGHT SCHEDULE

MARKER BOARD	2'-0" AFF TO BOTTOM EDGE
TACK BOARD	2'-0" AFF TO BOTTOM EDGE
BASE CABINETS	2'-2" AFF TO TOP OF COUNTERTOP
WALL CABINETS	SEE TYPICAL SECTION DETAIL
SMART-BOARD	CENTERED ON THE WALL

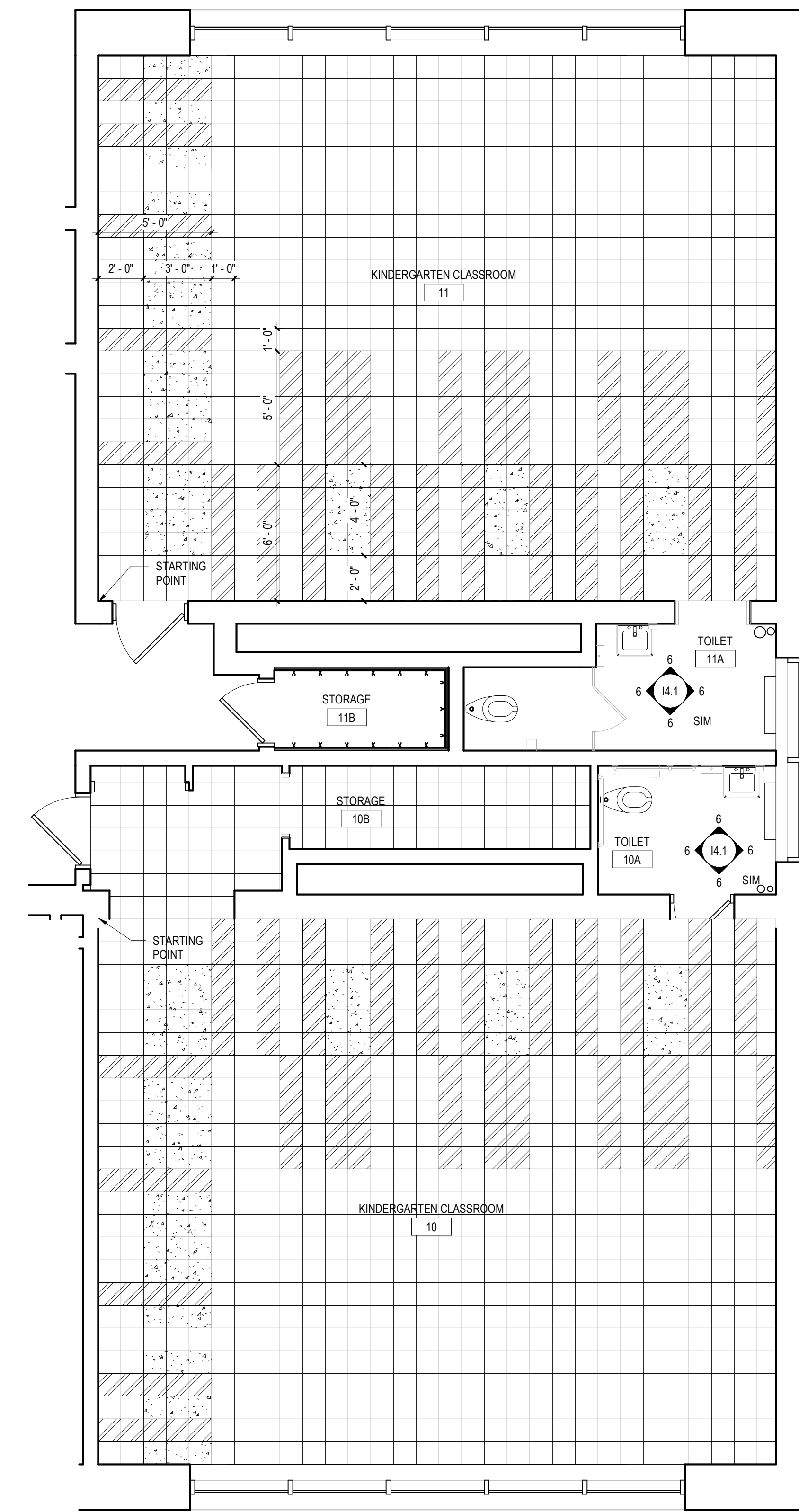
NOTE: WHERE NEW MARKER BOARD OR TACK BOARD IS BEING MOUNTED NEXT TO OR ON THE SAME WALL AS AN EXISTING TACK BOARD OR MARKER BOARD MATCH EXISTING HEIGHT.

GENERAL NOTES TO APPLY TO ALL 14 DRAWINGS

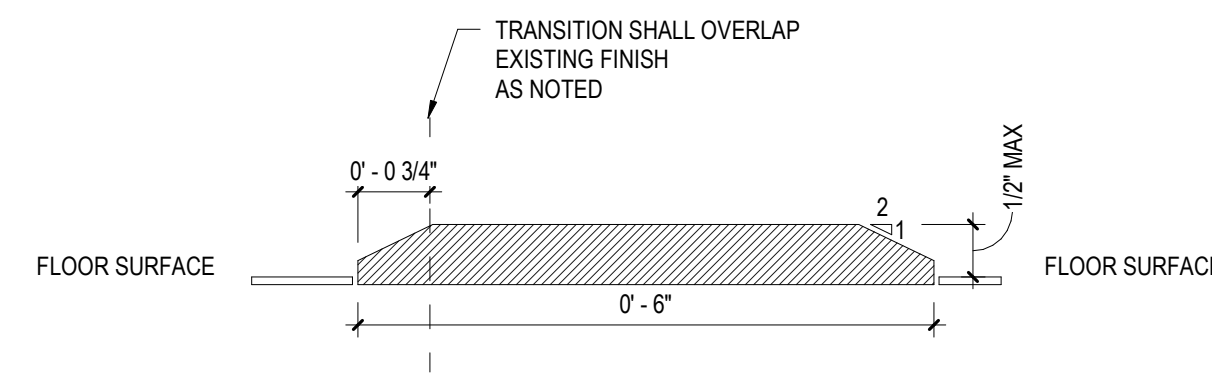
- MOUNTING HEIGHT SCHEDULE IS APPLICABLE TO MOST ROOMS. IN INSTANCE WHERE NOTE/DETAILS ON DRAWINGS DO NOT COINCIDE WITH THE SCHEDULE, THE DRAWINGS TAKE PRECEDENCE.
- ALL BASE CABINETS SHALL RECEIVE A CONTINUOUS 1-1/8" THICK SIMULATED STONE COUNTERTOP WITH A 4" H BACKSPLASH UNLESS NOTED OTHERWISE. THE DEPTH OF THE COUNTERTOP SHALL EXTEND 3/4" PAST THE DEPTH OF THE BASE CABINET.
- COUNTERTOPS THAT RETURN INTO A WALL(S) SHALL RECEIVE BACKSPLASH THAT WRAPS CORNER ALONG WALL(S).
- WHERE COLUMNS, WINDOWS OR OTHER BUILDING COMPONENTS CONFLICT WITH CASEWORK DIMENSIONAL REQUIREMENTS, FIELD VERIFY DIMENSIONS AND PROVIDE CUSTOM UNIT TO ALLOW PROPER FITTING.
- ALL EXPOSED ENDS OF CASEWORK SHALL RECEIVE FINISHED END PANELS.
- COLOR FOR INTERIOR OF OPEN CABINETS SHALL MATCH EXTERIOR COLOR.
- ALL VISUAL DISPLAY AREAS (MARKER BOARDS AND/OR TACK BOARDS) 10'-0" OR LONGER SHALL RECEIVE 2" MAP RAIL THAT SPANS FROM VERTICAL EDGE TO VERTICAL EDGE.
- PROVIDE WOOD BLOCKING IN METAL STUD WALLS, PER MANUFACTURER'S RECOMMENDATIONS, TO RECEIVE THE SMART BOARD WALL BRACKET.
- IN ROOMS RECEIVING RESILIENT BASE, ADHERE TO ALL WALLS, BASE CABINET TOE KICKS, AND EXPOSED END PANELS. REFER TO SPECIFICATIONS FOR LOCATION OF 4" AND 6" BASE. SEE REFLECTED CEILING PLANS FOR LOCATION OF WINDOW TREATMENTS.
- STAINLESS STEEL SINKS, FAUCETS, AND BUBBLERS SHALL BE PROVIDED AND INSTALLED BY PLUMBING CONTRACTOR.
- TELEPHONE UNITS AND SYSTEMS ARE NOT IN CONTRACT.
- COORDINATE ALL LARGE SCALE PLANS WITH MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS.
- NIC = NOT IN CONTRACT
- WHEN DESCRIPTION AND MODEL NUMBER IN CASEWORK AND EQUIPMENT SCHEDULE CONFLICT, THE DESCRIPTION TAKES PRECEDENCE.
- OPP = OPPOSITE HAND.
- COORDINATE ALL CASEWORK LAYOUTS AND VISUAL DISPLAY LAYOUTS WITH INTERIOR ELEVATIONS. IN INSTANCE WHERE FLOOR PLAN/ELEVATIONS DO NOT COINCIDE, FLOOR PLAN LAYOUT TAKES PRECEDENCE.
- VISUAL DISPLAY BOARD LAYOUT AND DIMENSIONS VARY - VERIFY IN FIELD ALL DIMENSIONS AND LAYOUTS PRIOR TO FABRICATION OR INSTALLATION.
- OWNER PROVIDED, CONTRACTOR INSTALLED VISUAL DISPLAY BOARDS SHALL ALL BE VERIFIED IN FIELD, PRIOR TO FABRICATION & INSTALLATION.

14.1 - GENERAL CASEWORK AND EQUIPMENT SCHEDULE

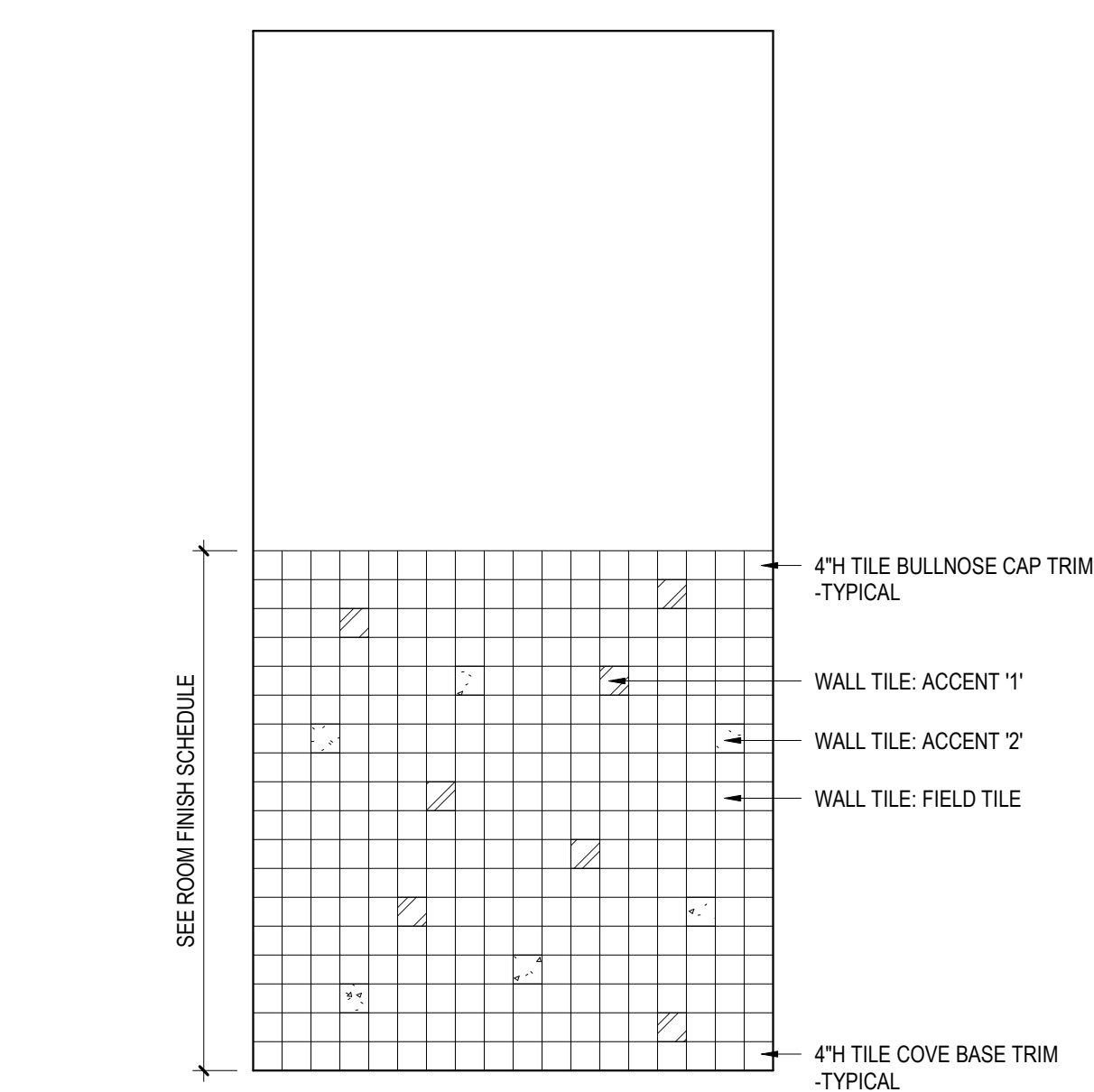
NO	DESCRIPTION	MANUFACTURER	MODEL	DIMENSIONS
100	OPEN STUDENT WARDROBE W/(1) DOUBLE HOOK & (2) SINGLE HOOKS EACH. MODIFIED TO INCLUDE (2) FIXED SHELVES. SEE CUBBIE DETAIL.	SEE SPECIFICATIONS	--	15"W x 12"D x 54"H
700	MARKERBOARD W/ALUMINUM FRAME	OWNER SUPPLIED, GC INSTALLED	SEE SPECIFICATIONS	10'-0"W x 4'-0"H
701	MARKERBOARD W/ALUMINUM FRAME	OWNER SUPPLIED, GC INSTALLED	SEE SPECIFICATIONS	8'-0"W x 4'-0"H
703	MARKERBOARD W/ALUMINUM FRAME	OWNER SUPPLIED, GC INSTALLED	SEE SPECIFICATIONS	6'-0"W x 4'-0"H
705	MARKERBOARD W/ALUMINUM FRAME	OWNER SUPPLIED, GC INSTALLED	SEE SPECIFICATIONS	4'-0"W x 4'-0"H
706	TACK BOARD W/ALUMINUM FRAME	OWNER SUPPLIED, GC INSTALLED	SEE SPECIFICATIONS	10'-0"W x 4'-0"H
707	TACK BOARD W/ALUMINUM FRAME	OWNER SUPPLIED, GC INSTALLED	SEE SPECIFICATIONS	8'-0"W x 4'-0"H
708	TACK BOARD W/ALUMINUM FRAME	OWNER SUPPLIED, GC INSTALLED	SEE SPECIFICATIONS	6'-0"W x 4'-0"H
710	TACK BOARD W/ALUMINUM FRAME	OWNER SUPPLIED, GC INSTALLED	SEE SPECIFICATIONS	10'-0"W x 1'-0"H
711	TACK BOARD W/ALUMINUM FRAME	OWNER SUPPLIED, GC INSTALLED	SEE SPECIFICATIONS	8'-0"W x 1'-0"H
713	TACK BOARD W/ALUMINUM FRAME	OWNER SUPPLIED, GC INSTALLED	SEE SPECIFICATIONS	6'-0"W x 1'-0"H
715	TACK BOARD W/ALUMINUM FRAME	OWNER SUPPLIED, GC INSTALLED	SEE SPECIFICATIONS	4'-0"W x 1'-0"H
720	FRAMELESS MARKERBOARD INFILL	SEE SPECIFICATIONS	SEE SPECIFICATIONS	12'-0"W (VIF) x 4'-0"H (VIF)
721	FRAMELESS MARKERBOARD INFILL	SEE SPECIFICATIONS	SEE SPECIFICATIONS	8'-0"W (VIF) x 4'-0"H (VIF)
725	FRAMELESS TACK BOARD INFILL	SEE SPECIFICATIONS	SEE SPECIFICATIONS	11'-0"W (VIF) x 4'-0"H (VIF)
728	FRAMELESS TACK BOARD INFILL	SEE SPECIFICATIONS	SEE SPECIFICATIONS	7'-0"W (VIF) x 4'-0"H (VIF)
730	FRAMELESS TACK BOARD INFILL	SEE SPECIFICATIONS	SEE SPECIFICATIONS	5'-0"W (VIF) x 4'-0"H (VIF)
732	FRAMELESS TACK BOARD INFILL	SEE SPECIFICATIONS	SEE SPECIFICATIONS	3'-0"W (VIF) x 4'-0"H (VIF)
734	FRAMELESS TACK BOARD INFILL	SEE SPECIFICATIONS	SEE SPECIFICATIONS	1'-11"W (VIF) x 2'-8"H (VIF)
736	FRAMELESS TACK BOARD INFILL	SEE SPECIFICATIONS	SEE SPECIFICATIONS	21'-0"W (VIF) x 1'-0"H (VIF)
738	FRAMELESS TACK BOARD INFILL	SEE SPECIFICATIONS	SEE SPECIFICATIONS	20'-0"W (VIF) x 1'-0"H (VIF)
741	TACK STRIP	OWNER SUPPLIED, GC INSTALLED	SEE SPECIFICATIONS	WIDTH TO FIT x 2"H



4 KINDERGARTEN - ROOM 10 & 11 - VCT FLOOR PATTERN PLANS
14.1 1/4" = 1'-0"



5 WOOD & MARBLE TRANSITION DETAILS - TYPICAL
14.1 6" = 1'-0"



6 TOILET ROOM WAINSCOT PATTERN ELEVATION - TYPICAL
14.1 1/2" = 1'-0"

GENERAL NOTE IN REFERENCE TO ALL FLOOR PATTERN DWG

- DRAWING IS FOR FLOOR PATTERN USE ONLY.
- CONTRACTOR SHALL PROVIDE TRANSITION STRIPS BETWEEN MATERIALS AS OUTLINED IN DRAWINGS.
- PROVIDE FLASH PATCHING FOR CONTINUOUS TRANSITION OF ADJOINING MATERIAL.

FLOOR PATTERN LEGEND

- [Pattern] = FIELD:
- [Pattern] = ACCENT 1:
- [Pattern] = ACCENT 2:

FLOOR TRANSITION SCHEDULE

VCT TO WD	JOHNSONITE NO. SSR-XX-B (1/8")
PT TO VCT	MARBLE
PT TO WD	MARBLE

SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.

EXISTING FLOOR TRANSITION SCHEDULE (WHERE OCCURS)

CT TO WD	MARBLE
CT TO VCT	MARBLE
WD TO VCT	WOOD
WD TO SCONC	WOOD
VCT TO VAT	JOHNSONITE NO. SSR-XX-B (1/8")
VCT TO WD	JOHNSONITE NO. SSR-XX-B (1/8")
VCT TO SCONC	JOHNSONITE NO. SSR-XX-B (1/8")

SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.

100% DESIGN SUBMISSION
1/22/2020

NO.	DATE	REVISION
1	2/20/2020	ADDENDUM # 1

SCHOOL & LOCATION
FRANCIS SCOTT KEY ELEMENTARY SCHOOL
MAILING ADDRESS: 2230 S 8TH STREET, PHILADELPHIA, PA 19148
DEED ADDRESS: 2226-50 S 8TH STREET, PHILADELPHIA, PA 19148-310

PROJECT TITLE
CLASSROOM MODERNIZATION

DRAWING TITLE
LARGE SCALE LAYOUTS - KINDERGARTEN

LOCATION NO.	FILE NO.
DRAWN BY	CHECKED BY

B-001C	OF	2019 / 20
B-003C	OF	2019 / 20

DRAWING NO.
14.1

SEAL:



J. JEFFREY STRAUB
STATE AND LICENSE NO: RA03652

ARCHITECT

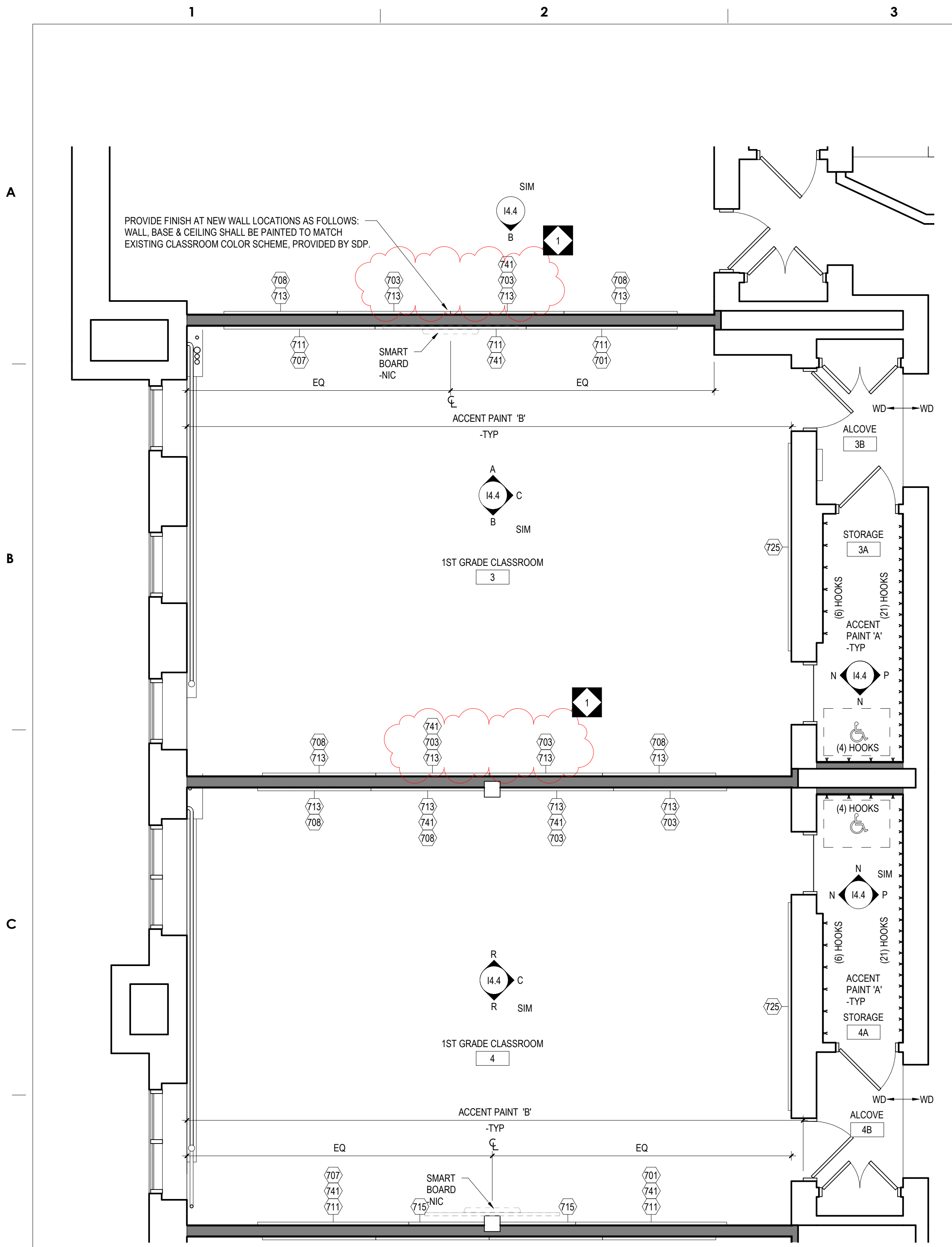
CRABTREE, ROHRBAUGH & ASSOCIATES
401 E. Winding Hill Road
Mechanicsburg, PA 17055
Phone: 717-458-0272

Email: jraider@cro-architects.com
Attn: Jessie Harter

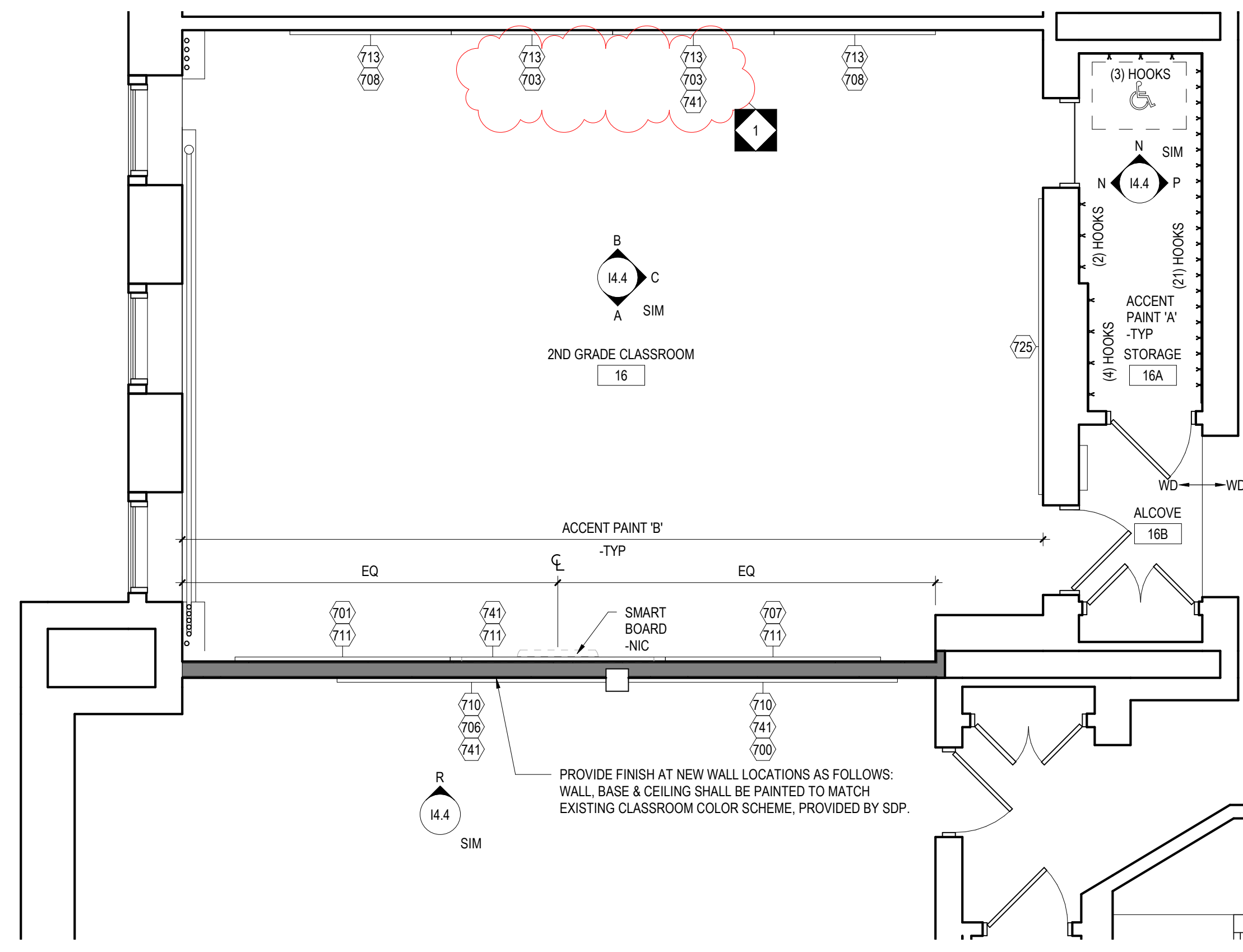
M/E/P ENGINEERS

SEITY
One South Street, Suite 1130
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Phone: 443-309-6036

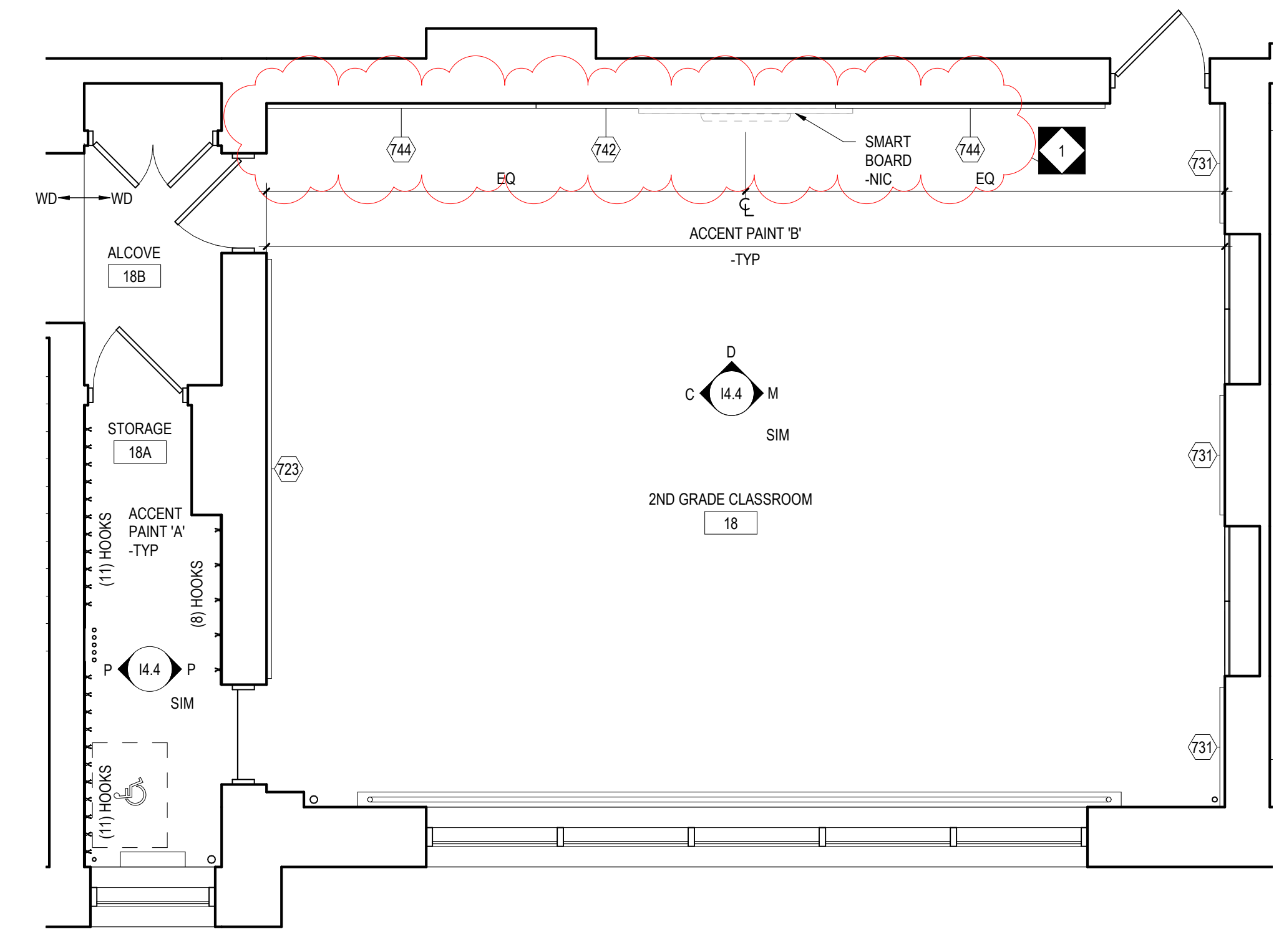
Email: deepak.ch@seity.com
Attn: Deepak Ajmani



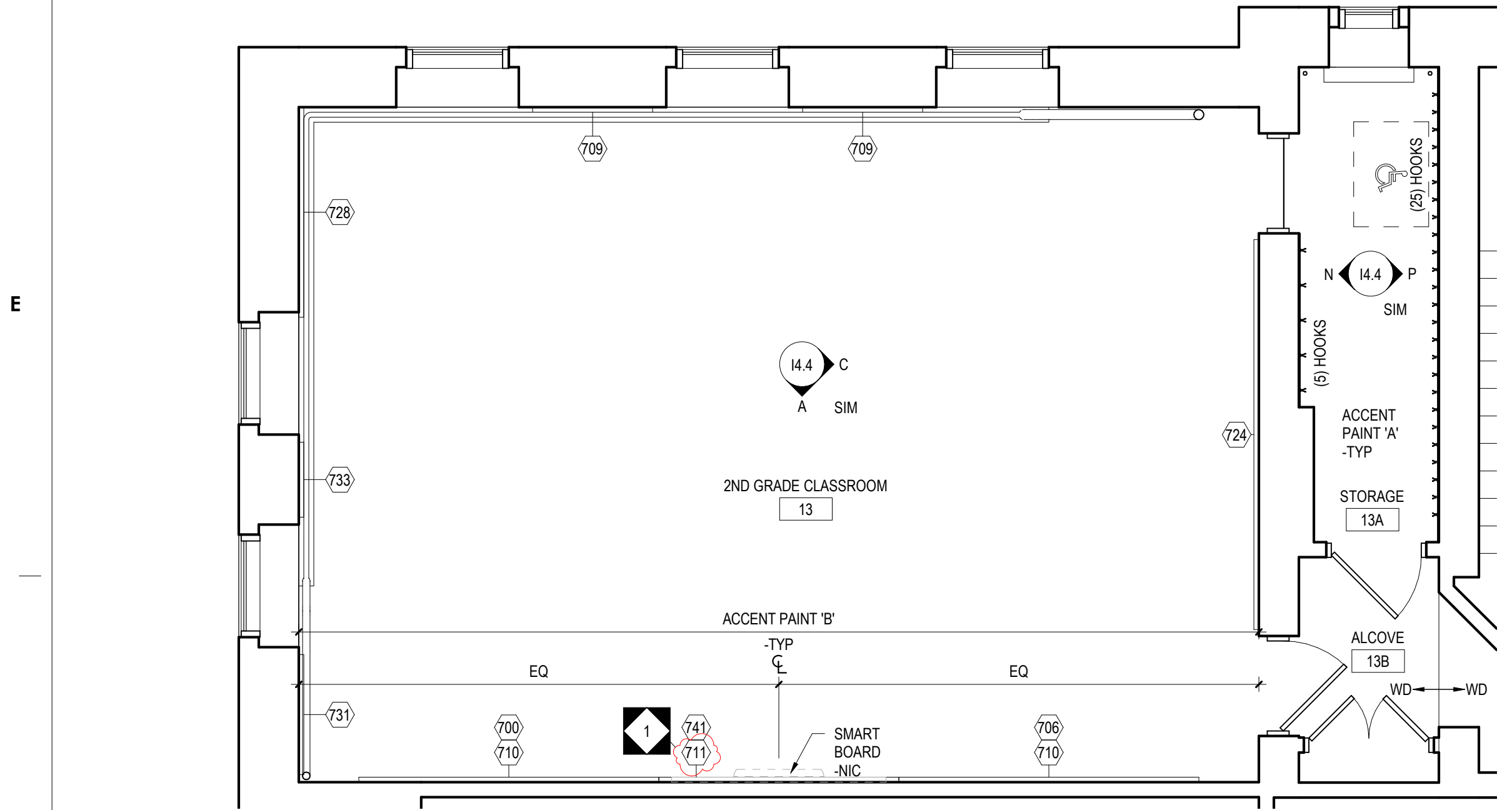
1 FIRST GRADE - ROOM 3 & 4
1/4" = 1'-0"



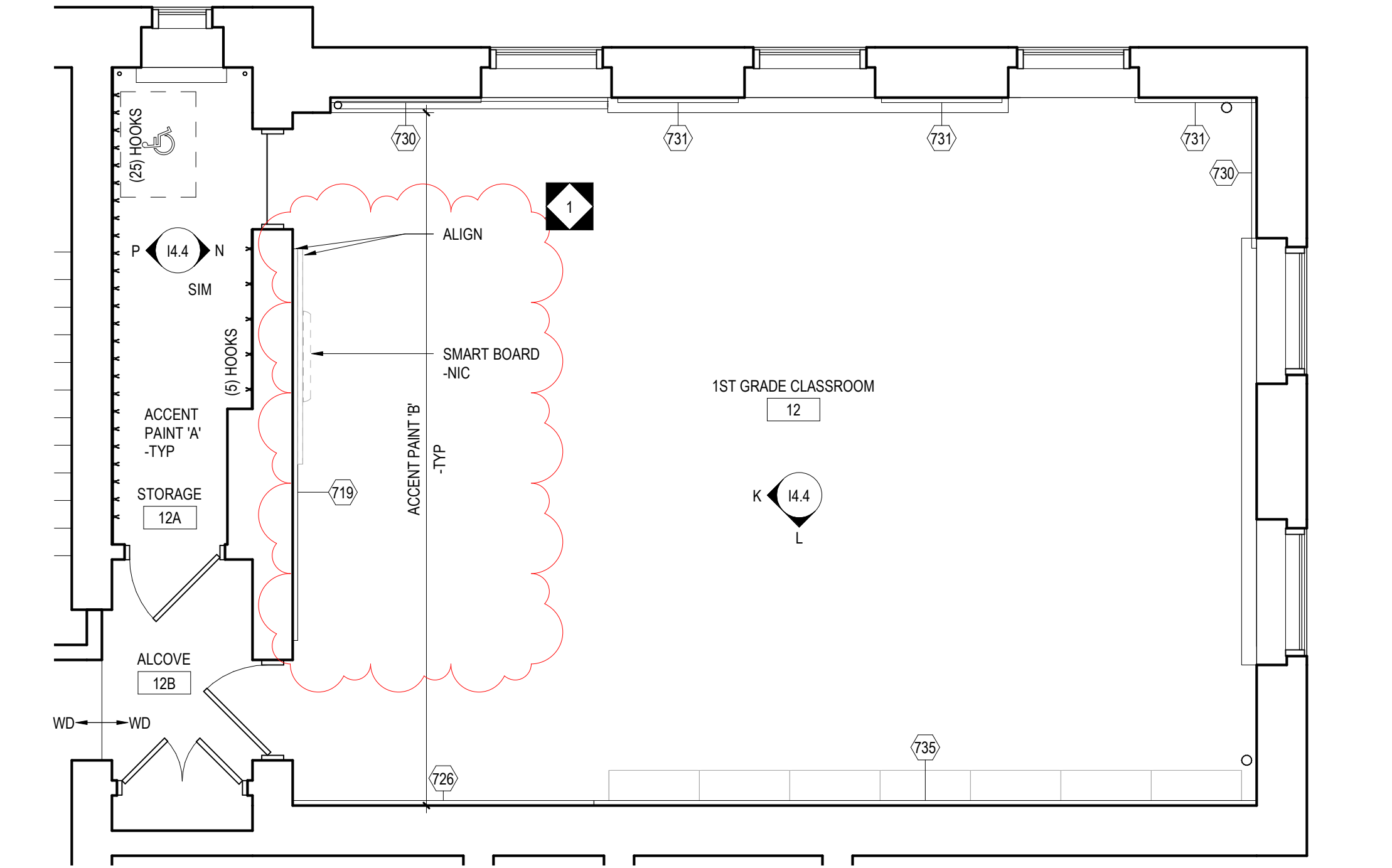
3 SECOND GRADE - ROOM 16
1/4" = 1'-0"



5 SECOND GRADE - ROOM 18
1/4" = 1'-0"



2 SECOND GRADE - ROOM 13
1/4" = 1'-0"



4 FIRST GRADE - ROOM 12
1/4" = 1'-0"

GRADE 1-3 MOUNTING HEIGHT SCHEDULE	
MARKER BOARD	2'-6" AFF TO BOTTOM EDGE
TACK BOARD	2'-6" AFF TO BOTTOM EDGE
WALL CABINETS	SEE TYPICAL SECTION DETAIL
SMART-BOARD	CENTERED ON THE WALL

NOTE: WHERE NEW MARKER BOARD OR TACK BOARD IS BEING MOUNTED NEXT TO OR ON THE SAME WALL AS AN EXISTING TACK BOARD OR MARKER BOARD MATCH EXISTING HEIGHT.

14.2 - GENERAL CASEWORK AND EQUIPMENT SCHEDULE				
NO	DESCRIPTION	MANUFACTURER	MODEL	DIMENSIONS
700	MARKERBOARD W/ALUMINUM FRAME	OWNER SUPPLIED, GC INSTALLED	SEE SPECIFICATIONS	10'-0"W x 4'-0"H
701	MARKERBOARD W/ALUMINUM FRAME	OWNER SUPPLIED, GC INSTALLED	SEE SPECIFICATIONS	8'-0"W x 4'-0"H
703	MARKERBOARD W/ALUMINUM FRAME	OWNER SUPPLIED, GC INSTALLED	SEE SPECIFICATIONS	6'-0"W x 4'-0"H
706	TACK BOARD W/ALUMINUM FRAME	OWNER SUPPLIED, GC INSTALLED	SEE SPECIFICATIONS	10'-0"W x 4'-0"H
707	TACK BOARD W/ALUMINUM FRAME	OWNER SUPPLIED, GC INSTALLED	SEE SPECIFICATIONS	8'-0"W x 4'-0"H
708	TACK BOARD W/ALUMINUM FRAME	OWNER SUPPLIED, GC INSTALLED	SEE SPECIFICATIONS	6'-0"W x 4'-0"H
709	TACK BOARD W/ALUMINUM FRAME	OWNER SUPPLIED, GC INSTALLED	SEE SPECIFICATIONS	4'-0"W x 4'-0"H
710	TACK BOARD W/ALUMINUM FRAME	OWNER SUPPLIED, GC INSTALLED	SEE SPECIFICATIONS	10'-0"W x 1'-0"H
711	TACK BOARD W/ALUMINUM FRAME	OWNER SUPPLIED, GC INSTALLED	SEE SPECIFICATIONS	8'-0"W x 1'-0"H
713	TACK BOARD W/ALUMINUM FRAME	OWNER SUPPLIED, GC INSTALLED	SEE SPECIFICATIONS	6'-0"W x 1'-0"H
715	TACK BOARD W/ALUMINUM FRAME	OWNER SUPPLIED, GC INSTALLED	SEE SPECIFICATIONS	4'-0"W x 1'-0"H
719	FRAMELESS MARKERBOARD INFILL	SEE SPECIFICATIONS	SEE SPECIFICATIONS	13'-0"W (VIF) x 4'-0"H (VIF)
723	FRAMELESS TACK BOARD INFILL	SEE SPECIFICATIONS	SEE SPECIFICATIONS	14'-0"W (VIF) x 4'-0"H (VIF)
724	FRAMELESS TACK BOARD INFILL	SEE SPECIFICATIONS	SEE SPECIFICATIONS	13'-0"W (VIF) x 4'-0"H (VIF)
725	FRAMELESS TACK BOARD INFILL	SEE SPECIFICATIONS	SEE SPECIFICATIONS	11'-0"W (VIF) x 4'-0"H (VIF)
726	FRAMELESS TACK BOARD INFILL	SEE SPECIFICATIONS	SEE SPECIFICATIONS	10'-0"W (VIF) x 4'-0"H (VIF)
728	FRAMELESS TACK BOARD INFILL	SEE SPECIFICATIONS	SEE SPECIFICATIONS	7'-0"W (VIF) x 4'-0"H (VIF)
730	FRAMELESS TACK BOARD INFILL	SEE SPECIFICATIONS	SEE SPECIFICATIONS	5'-0"W (VIF) x 4'-0"H (VIF)
731	FRAMELESS TACK BOARD INFILL	SEE SPECIFICATIONS	SEE SPECIFICATIONS	4'-0"W (VIF) x 4'-0"H (VIF)
733	FRAMELESS TACK BOARD INFILL	SEE SPECIFICATIONS	SEE SPECIFICATIONS	2'-6"W (VIF) x 4'-0"H (VIF)
735	FRAMELESS TACK BOARD INFILL	SEE SPECIFICATIONS	SEE SPECIFICATIONS	22'-0"W (VIF) x 1'-0"H (VIF)
741	TACK STRIP	OWNER SUPPLIED, GC INSTALLED	SEE SPECIFICATIONS	WIDTH TO FIT x 2"H
742	FRAMELESS MARKERBOARD INFILL	SEE SPECIFICATIONS	SEE SPECIFICATIONS	10'-0"W (VIF) x 4'-0"H (VIF)
744	FRAMELESS TACK BOARD INFILL	SEE SPECIFICATIONS	SEE SPECIFICATIONS	9'-0"W (VIF) x 4'-0"H (VIF)

100% DESIGN SUBMISSION
1/22/2020

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1	2/20/2020		
NO.	DATE	ADDENDUM # 1	REVISION

SCHOOL & LOCATION
FRANCIS SCOTT KEY ELEMENTARY SCHOOL
MAILING ADDRESS: 2230 S 8TH STREET, PHILADELPHIA, PA 19148
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PROJECT TITLE
CLASSROOM MODERNIZATION

DRAWING TITLE
LARGE SCALE LAYOUTS - FIRST & SECOND GRADE

LOCATION NO.	FILE NO.
DRAWN BY	CHECKED BY

B-001C OF 2019 / 20
B-003C OF 2019 / 20

DRAWING NO.
14.2



ARCHITECT

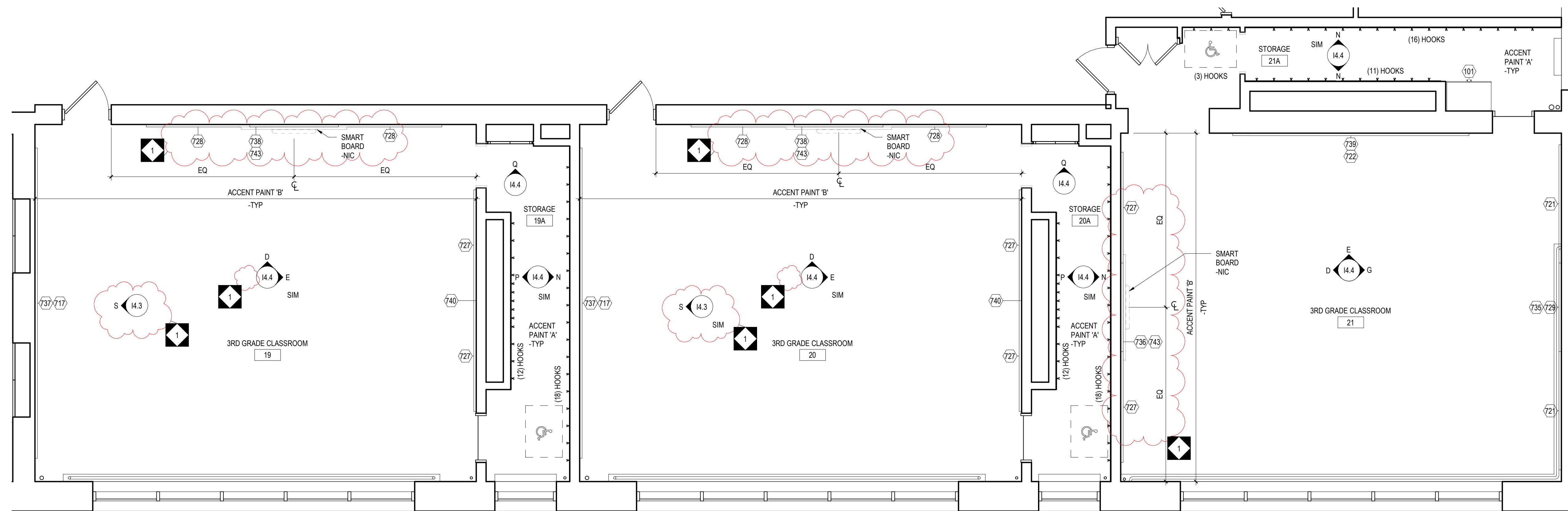
CRABTREE, ROHRBAUGH & ASSOCIATES
401 E. Winding Hill Road
Mechanicsburg, PA 17055
Phone: 717-458-0272

Email: jrauber@cro-architects.com
Attn: Jessie Harder

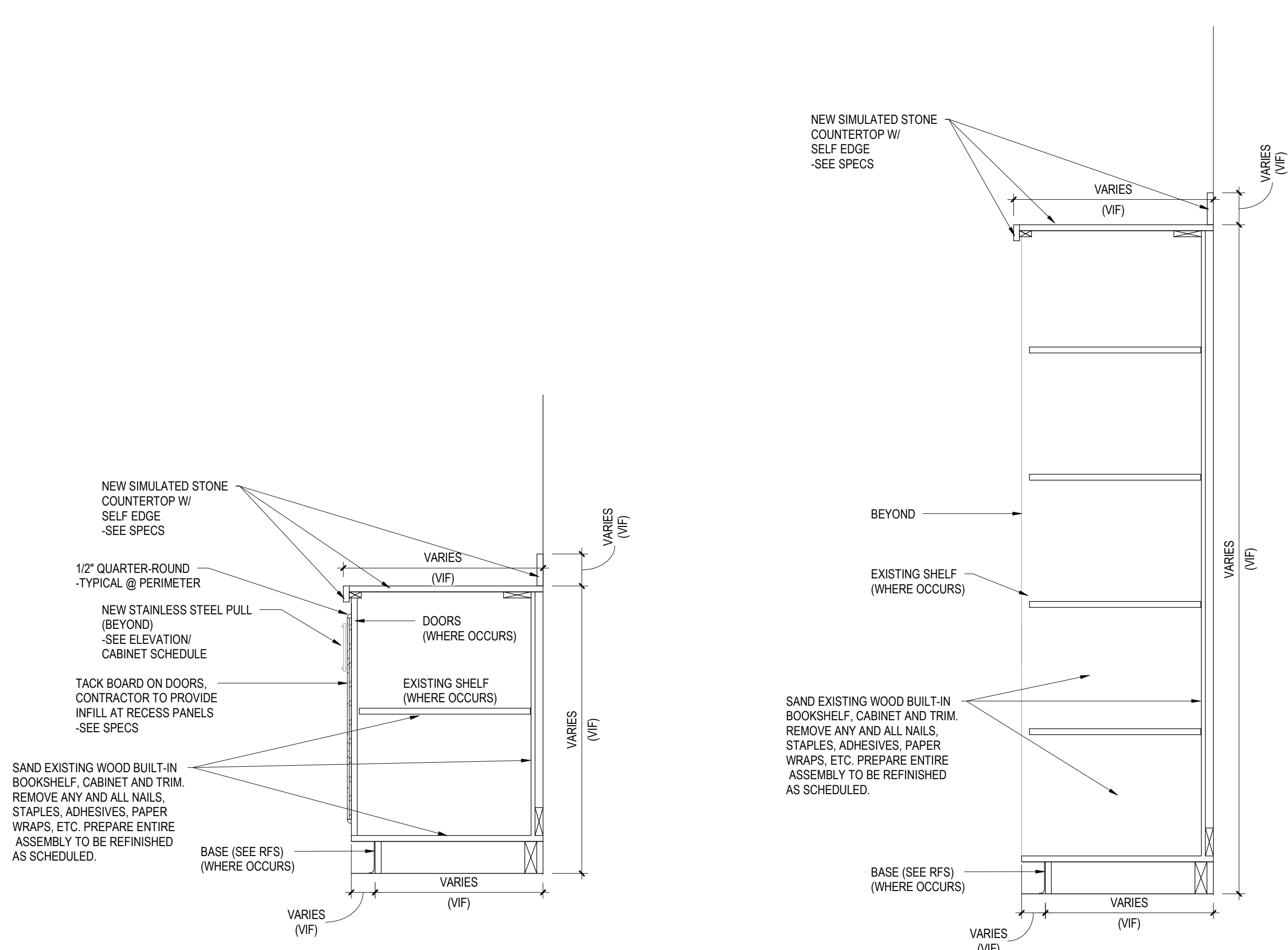
MEP ENGINEERS

SETTY
One South Street, Suite 1130
Baltimore, MD 21202
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Email: deepak@setty.com
Attn: Deepak Ajmani



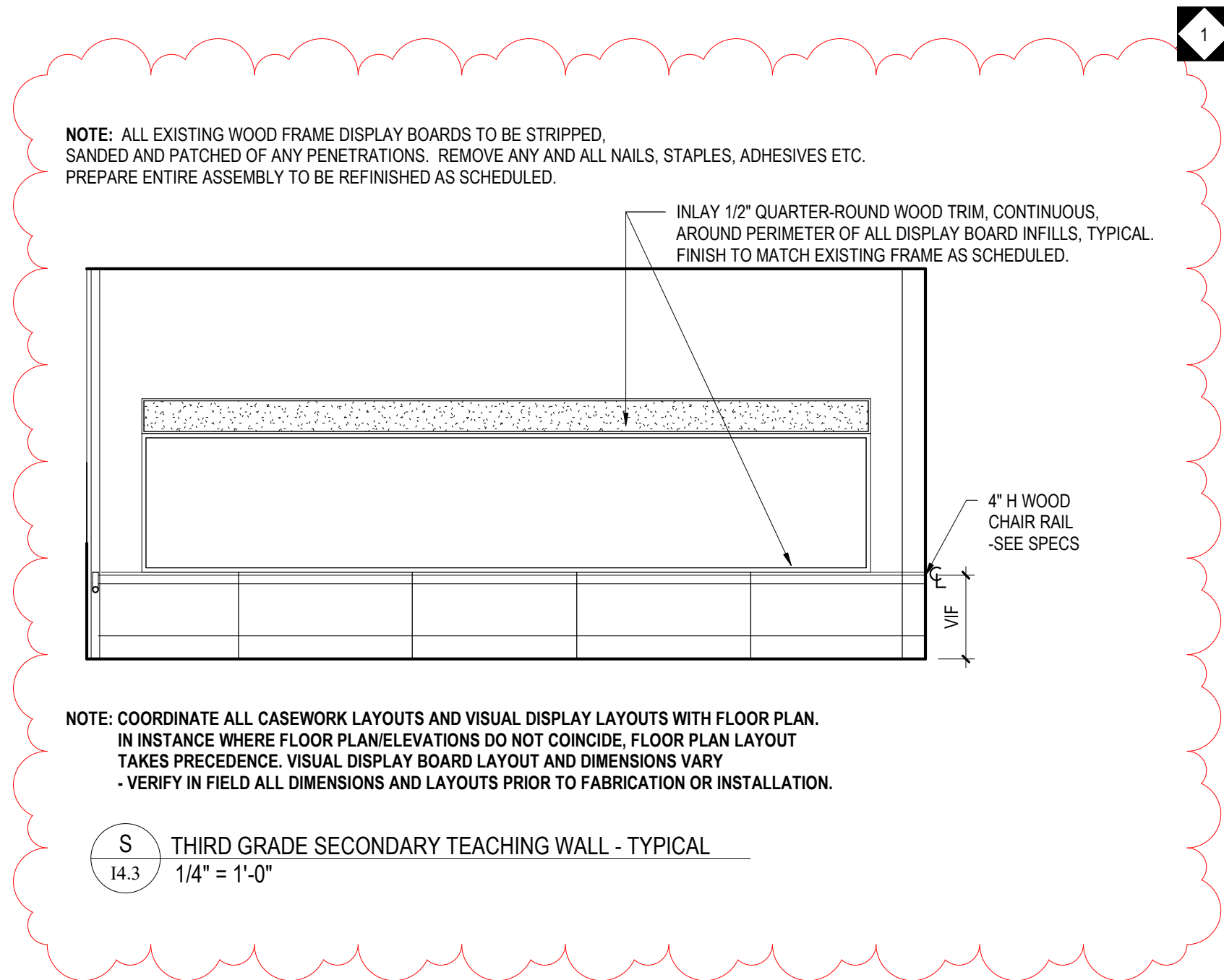
1 THIRD GRADE
14.3 1/4" = 1'-0"



2 EXISTING WOOD 2-DOOR BASE CABINET W/ TACKBOARDS DETAIL
14.3 1" = 1'-0"

3 EXISTING WOOD OPEN SHELVING CABINET DETAIL
14.3 1" = 1'-0"

4 NEW COAT HOOK LAYOUT 'B' - DETAIL
14.3 1" = 1'-0"



S THIRD GRADE SECONDARY TEACHING WALL - TYPICAL
14.3 1/4" = 1'-0"

GRADE 1-3 MOUNTING HEIGHT SCHEDULE	
MARKER BOARD	2'-6" AFF TO BOTTOM EDGE
TACK BOARD	2'-6" AFF TO BOTTOM EDGE
WALL CABINETS	SEE TYPICAL SECTION DETAIL
SMART-BOARD	CENTERED ON THE WALL

NOTE: WHERE NEW MARKER BOARD OR TACK BOARD IS BEING MOUNTED NEXT TO OR ON THE SAME WALL AS AN EXISTING TACK BOARD OR MARKER BOARD MATCH EXISTING HEIGHT.

14.3 - GENERAL CASEWORK AND EQUIPMENT SCHEDULE				
NO	DESCRIPTION	MANUFACTURER	MODEL	DIMENSIONS
101	2-DOOR TEACHER'S WARDROBE - FIXED SHELF, ROD, PIN TRAY & MIRROR. MODIFIED TO INCLUDE LOCK, (3) FILE DRAWERS, & (2) ADJ. SHELVES	SEE SPECIFICATIONS	--	36"W x 24"D x 84"H
717	FRAMELESS MARKERBOARD INFILL	SEE SPECIFICATIONS	SEE SPECIFICATIONS	21'-0"W (VIF) x 4'-0"H (VIF)
721	FRAMELESS MARKERBOARD INFILL	SEE SPECIFICATIONS	SEE SPECIFICATIONS	8'-0"W (VIF) x 4'-0"H (VIF)
722	FRAMELESS TACK BOARD INFILL	SEE SPECIFICATIONS	SEE SPECIFICATIONS	16'-0"W (VIF) x 4'-0"H (VIF)
727	FRAMELESS TACK BOARD INFILL	SEE SPECIFICATIONS	SEE SPECIFICATIONS	7'-6"W (VIF) x 4'-0"H (VIF)
728	FRAMELESS TACK BOARD INFILL	SEE SPECIFICATIONS	SEE SPECIFICATIONS	7'-0"W (VIF) x 4'-0"H (VIF)
729	FRAMELESS TACK BOARD INFILL	SEE SPECIFICATIONS	SEE SPECIFICATIONS	6'-0"W (VIF) x 4'-0"H (VIF)
735	FRAMELESS TACK BOARD INFILL	SEE SPECIFICATIONS	SEE SPECIFICATIONS	22'-0"W (VIF) x 1'-0"H (VIF)
736	FRAMELESS TACK BOARD INFILL	SEE SPECIFICATIONS	SEE SPECIFICATIONS	21'-0"W (VIF) x 1'-0"H (VIF)
737	FRAMELESS TACK BOARD INFILL	SEE SPECIFICATIONS	SEE SPECIFICATIONS	21'-0"W (VIF) x 1'-0"H (VIF)
738	FRAMELESS TACK BOARD INFILL	SEE SPECIFICATIONS	SEE SPECIFICATIONS	20'-0"W (VIF) x 1'-0"H (VIF)
739	FRAMELESS TACK BOARD INFILL	SEE SPECIFICATIONS	SEE SPECIFICATIONS	16'-0"W (VIF) x 1'-0"H (VIF)
740	FRAMELESS TACK BOARD INFILL	SEE SPECIFICATIONS	SEE SPECIFICATIONS	15'-0"W (VIF) x 1'-0"H (VIF)
743	FRAMELESS MARKERBOARD INFILL	SEE SPECIFICATIONS	SEE SPECIFICATIONS	6'-0"W (VIF) x 4'-0"H (VIF)

100% DESIGN SUBMISSION
1/22/2020

NO.	DATE	REVISION
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1	2/20/2020	ADDENDUM # 1

SCHOOL & LOCATION
FRANCIS SCOTT KEY ELEMENTARY SCHOOL
MAILING ADDRESS: 2230 S 8TH STREET, PHILADELPHIA, PA 19148
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PROJECT TITLE
CLASSROOM MODERNIZATION

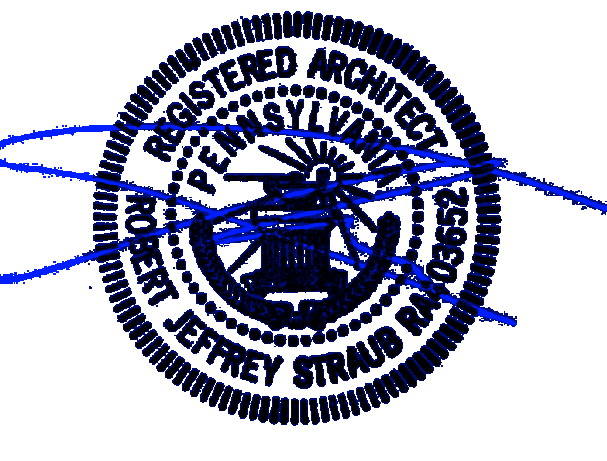
DRAWING TITLE
LARGE SCALE LAYOUTS - THIRD GRADE & CASEWORK DETAILS

LOCATION NO.	FILE NO.

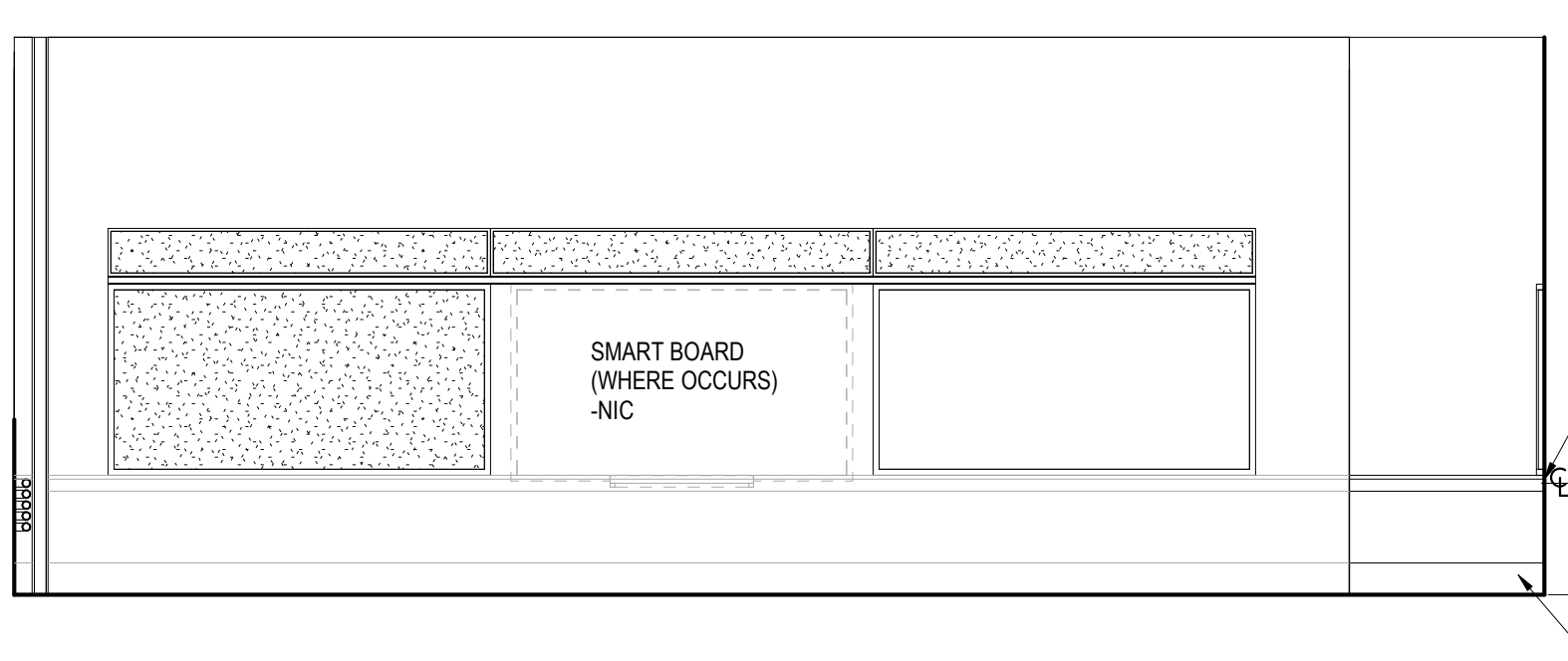
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DRAWING NO.
14.3

PRE-K & KINDERGARTEN MOUNTING HEIGHT SCHEDULE	
MARKER BOARD	2'-0" AFF TO BOTTOM EDGE
TACK BOARD	2'-0" AFF TO BOTTOM EDGE
BASE CABINETS	2'-2" AFF TO TOP OF COUNTERTOP
WALL CABINETS	SEE TYPICAL SECTION DETAIL
SMART-BOARD	CENTERED ON THE WALL
NOTE: WHERE NEW MARKER BOARD OR TACK BOARD IS BEING MOUNTED NEXT TO OR ON THE SAME WALL AS AN EXISTING TACK BOARD OR MARKER BOARD MATCH EXISTING HEIGHT.	
GRADE 1-3 MOUNTING HEIGHT SCHEDULE	
MARKER BOARD	2'-6" AFF TO BOTTOM EDGE
TACK BOARD	2'-6" AFF TO BOTTOM EDGE
WALL CABINETS	SEE TYPICAL SECTION DETAIL
SMART-BOARD	CENTERED ON THE WALL
NOTE: WHERE NEW MARKER BOARD OR TACK BOARD IS BEING MOUNTED NEXT TO OR ON THE SAME WALL AS AN EXISTING TACK BOARD OR MARKER BOARD MATCH EXISTING HEIGHT.	



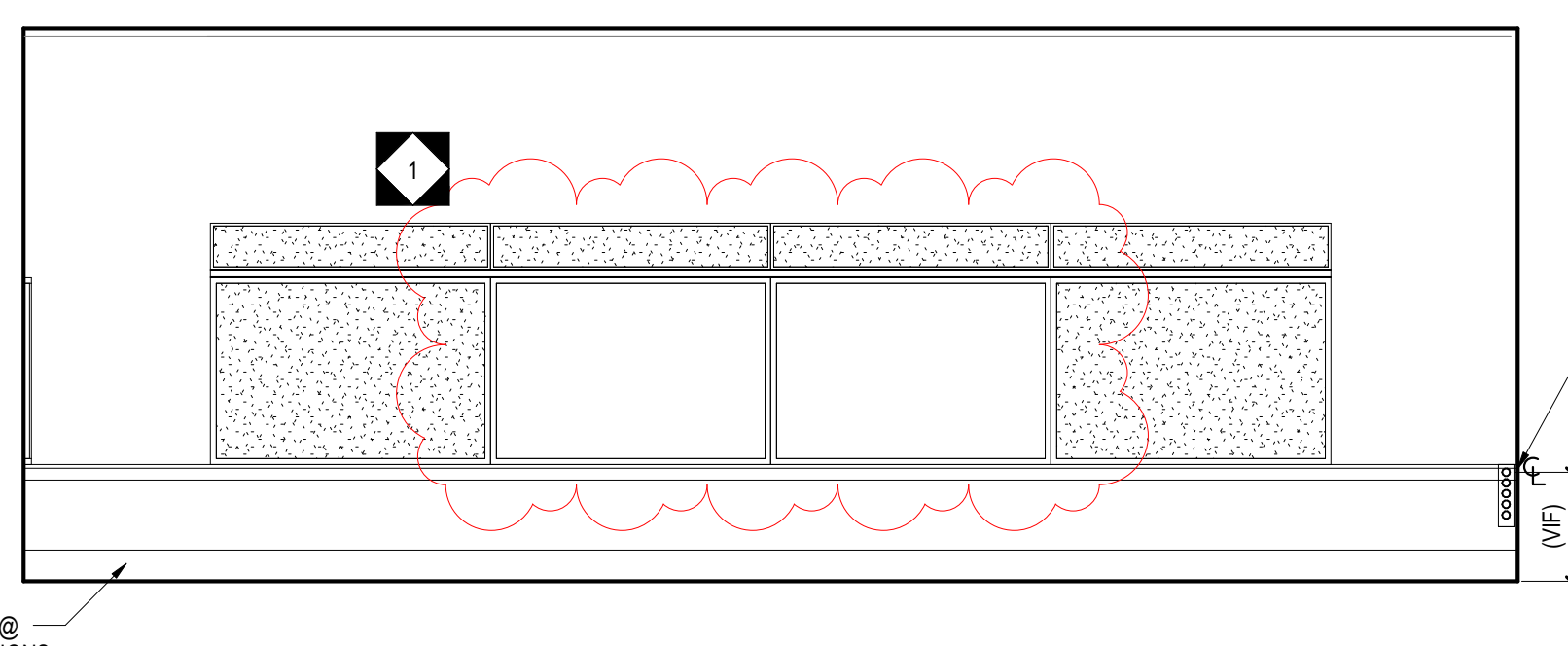
NOTE: ALL EXISTING WOOD FRAME DISPLAY BOARDS TO BE STRIPPED, SANDED AND PATCHED OF ANY PENETRATIONS. REMOVE ANY AND ALL NAILS, STAPLES, ADHESIVES ETC. PREPARE ENTIRE ASSEMBLY TO BE REFINISHED AS SCHEDULED.



NOTE: COORDINATE ALL CASEWORK LAYOUTS AND VISUAL DISPLAY LAYOUTS WITH FLOOR PLAN. IN INSTANCE WHERE FLOOR PLANELEVATIONS DO NOT CONCLUDE, FLOOR PLAN LAYOUT TAKES PRECEDENCE. VISUAL DISPLAY BOARD LAYOUT AND DIMENSIONS VARY. - VERIFY IN FIELD ALL DIMENSIONS AND LAYOUTS PRIOR TO FABRICATION OR INSTALLATION.

A PRIMARY TEACHING WALL 'A' - TYPICAL
1/4" = 1'-0"

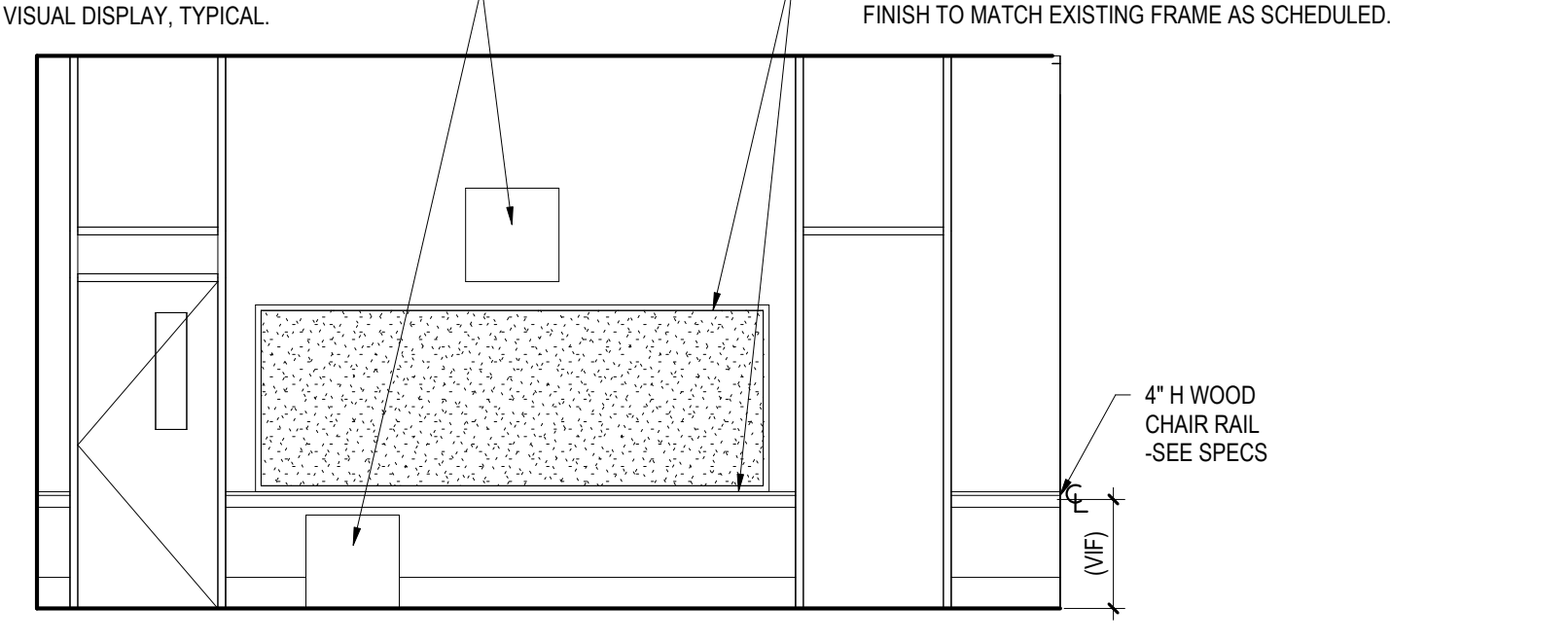
NOTE: ALL EXISTING WOOD FRAME DISPLAY BOARDS TO BE STRIPPED, SANDED AND PATCHED OF ANY PENETRATIONS. REMOVE ANY AND ALL NAILS, STAPLES, ADHESIVES ETC. PREPARE ENTIRE ASSEMBLY TO BE REFINISHED AS SCHEDULED.



NOTE: COORDINATE ALL CASEWORK LAYOUTS AND VISUAL DISPLAY LAYOUTS WITH FLOOR PLAN. IN INSTANCE WHERE FLOOR PLANELEVATIONS DO NOT CONCLUDE, FLOOR PLAN LAYOUT TAKES PRECEDENCE. VISUAL DISPLAY BOARD LAYOUT AND DIMENSIONS VARY. - VERIFY IN FIELD ALL DIMENSIONS AND LAYOUTS PRIOR TO FABRICATION OR INSTALLATION.

B SECONDARY TEACHING WALL 'A' - TYPICAL
1/4" = 1'-0"

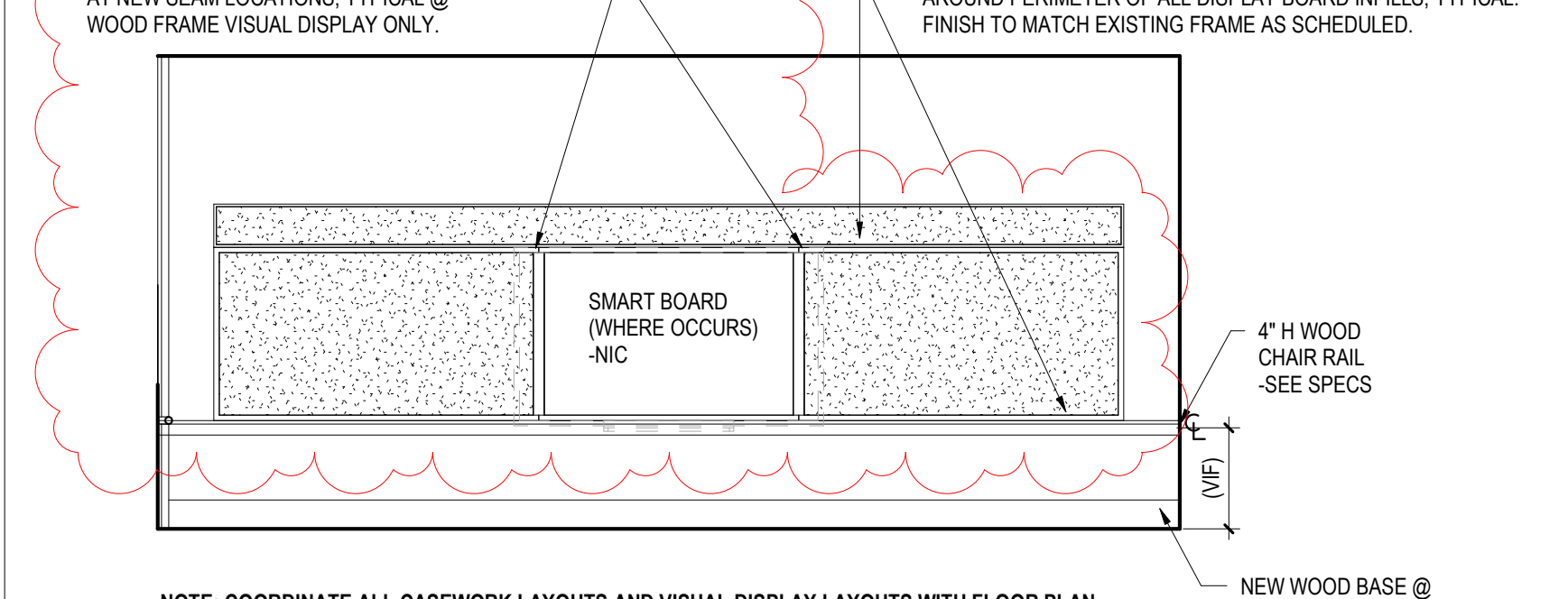
NOTE: ALL EXISTING WOOD FRAME DISPLAY BOARDS TO BE STRIPPED, SANDED AND PATCHED OF ANY PENETRATIONS. REMOVE ANY AND ALL NAILS, STAPLES, ADHESIVES ETC. PREPARE ENTIRE ASSEMBLY TO BE REFINISHED AS SCHEDULED.



NOTE: COORDINATE ALL CASEWORK LAYOUTS AND VISUAL DISPLAY LAYOUTS WITH FLOOR PLAN. IN INSTANCE WHERE FLOOR PLANELEVATIONS DO NOT CONCLUDE, FLOOR PLAN LAYOUT TAKES PRECEDENCE. VISUAL DISPLAY BOARD LAYOUT AND DIMENSIONS VARY. - VERIFY IN FIELD ALL DIMENSIONS AND LAYOUTS PRIOR TO FABRICATION OR INSTALLATION.

C PRIMARY DISPLAY WALL 'A' - TYPICAL
1/4" = 1'-0"

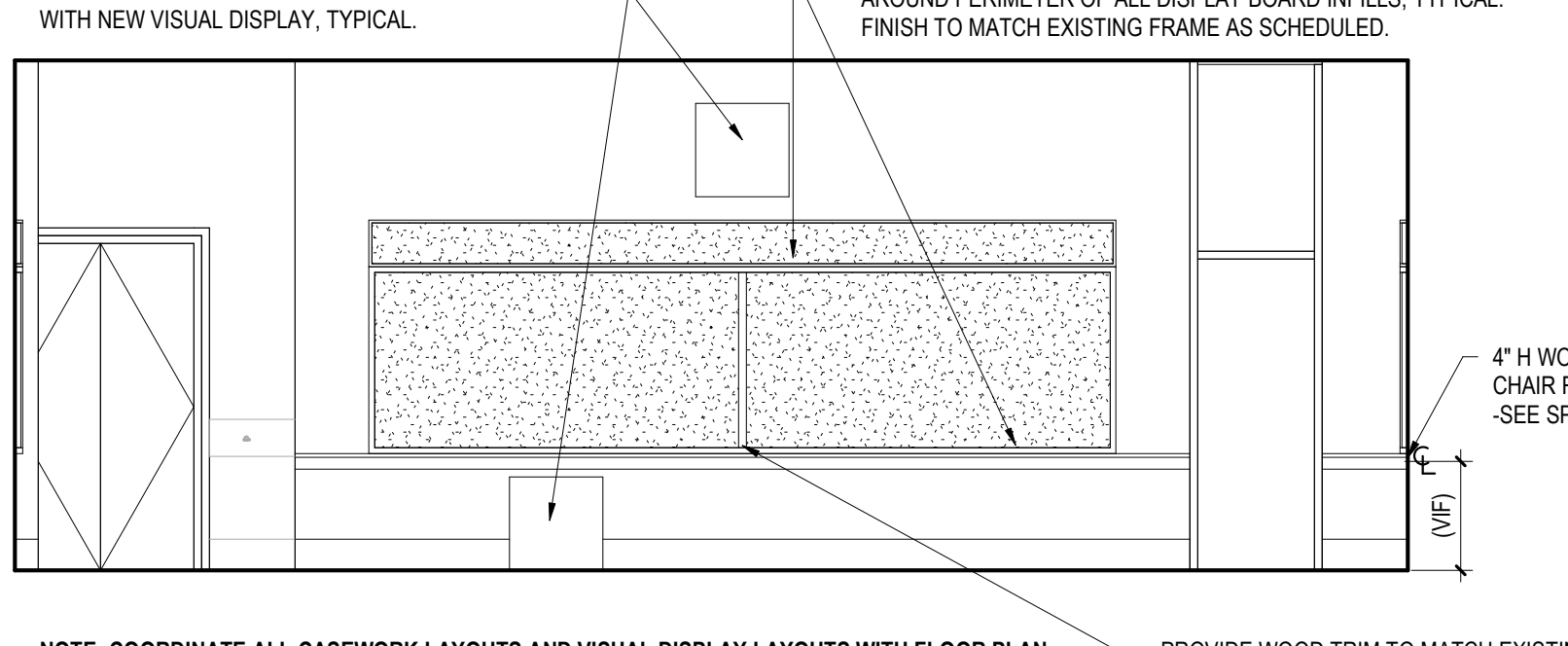
NOTE: ALL EXISTING WOOD FRAME DISPLAY BOARDS TO BE STRIPPED, SANDED AND PATCHED OF ANY PENETRATIONS. REMOVE ANY AND ALL NAILS, STAPLES, ADHESIVES ETC. PREPARE ENTIRE ASSEMBLY TO BE REFINISHED AS SCHEDULED.



NOTE: COORDINATE ALL CASEWORK LAYOUTS AND VISUAL DISPLAY LAYOUTS WITH FLOOR PLAN. IN INSTANCE WHERE FLOOR PLANELEVATIONS DO NOT CONCLUDE, FLOOR PLAN LAYOUT TAKES PRECEDENCE. VISUAL DISPLAY BOARD LAYOUT AND DIMENSIONS VARY. - VERIFY IN FIELD ALL DIMENSIONS AND LAYOUTS PRIOR TO FABRICATION OR INSTALLATION.

D PRIMARY TEACHING WALL 'B' - TYPICAL
1/4" = 1'-0"

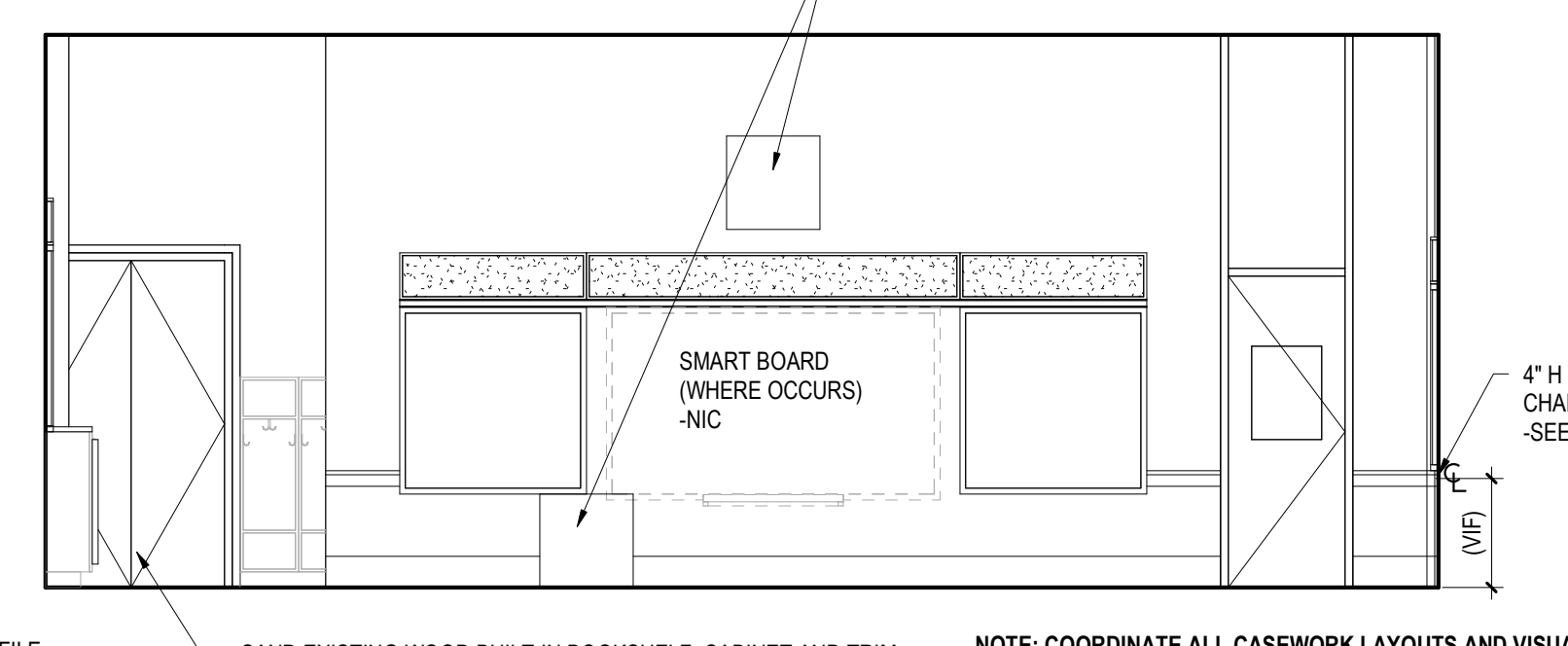
NOTE: ALL EXISTING WOOD FRAME DISPLAY BOARDS TO BE STRIPPED, SANDED AND PATCHED OF ANY PENETRATIONS. REMOVE ANY AND ALL NAILS, STAPLES, ADHESIVES ETC. PREPARE ENTIRE ASSEMBLY TO BE REFINISHED AS SCHEDULED.



NOTE: COORDINATE ALL CASEWORK LAYOUTS AND VISUAL DISPLAY LAYOUTS WITH FLOOR PLAN. IN INSTANCE WHERE FLOOR PLANELEVATIONS DO NOT CONCLUDE, FLOOR PLAN LAYOUT TAKES PRECEDENCE. VISUAL DISPLAY BOARD LAYOUT AND DIMENSIONS VARY. - VERIFY IN FIELD ALL DIMENSIONS AND LAYOUTS PRIOR TO FABRICATION OR INSTALLATION.

E PRIMARY DISPLAY WALL 'B' - TYPICAL
1/4" = 1'-0"

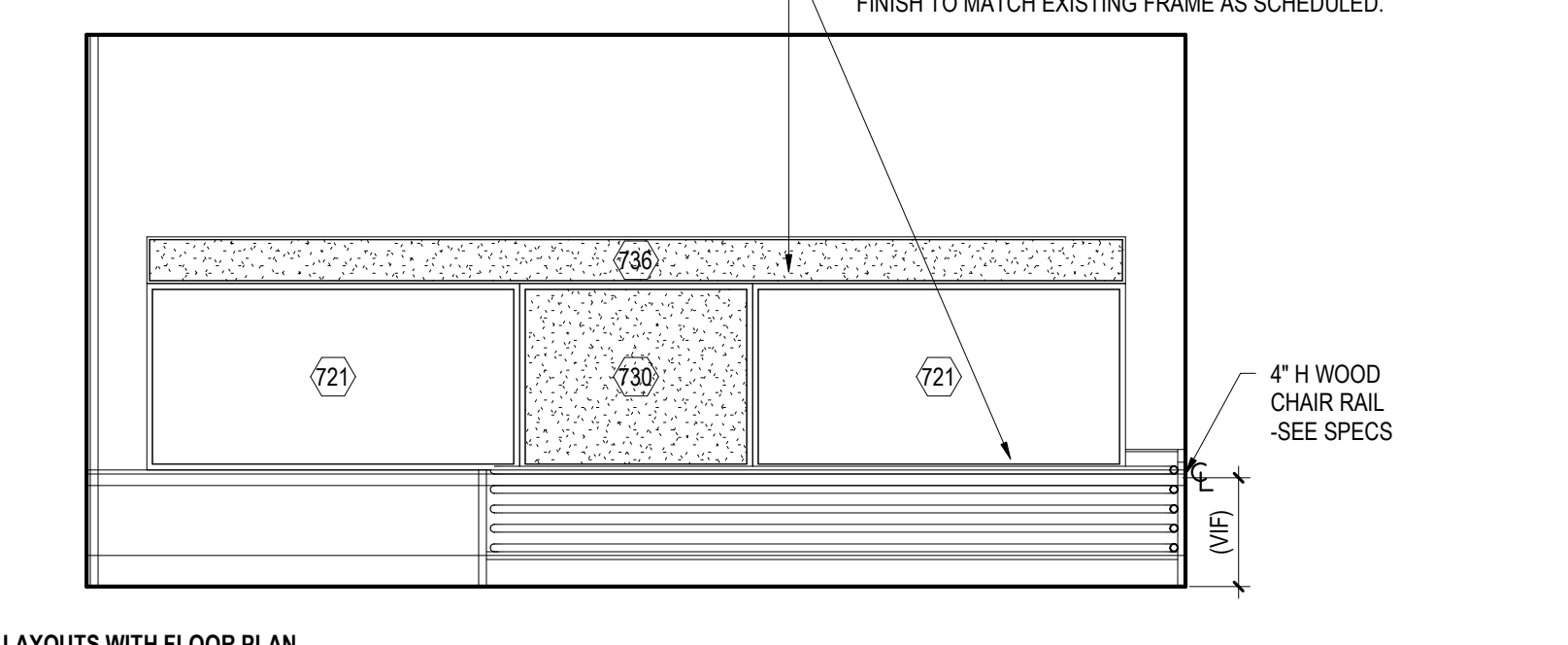
NOTE: ALL EXISTING WOOD FRAME DISPLAY BOARDS TO BE STRIPPED, SANDED AND PATCHED OF ANY PENETRATIONS. REMOVE ANY AND ALL NAILS, STAPLES, ADHESIVES ETC. PREPARE ENTIRE ASSEMBLY TO BE REFINISHED AS SCHEDULED.



NOTE: COORDINATE ALL CASEWORK LAYOUTS AND VISUAL DISPLAY LAYOUTS WITH FLOOR PLAN. IN INSTANCE WHERE FLOOR PLANELEVATIONS DO NOT CONCLUDE, FLOOR PLAN LAYOUT TAKES PRECEDENCE. VISUAL DISPLAY BOARD LAYOUT AND DIMENSIONS VARY. - VERIFY IN FIELD ALL DIMENSIONS AND LAYOUTS PRIOR TO FABRICATION OR INSTALLATION.

F KINDERGARTEN PRIMARY TEACHING WALL
1/4" = 1'-0"

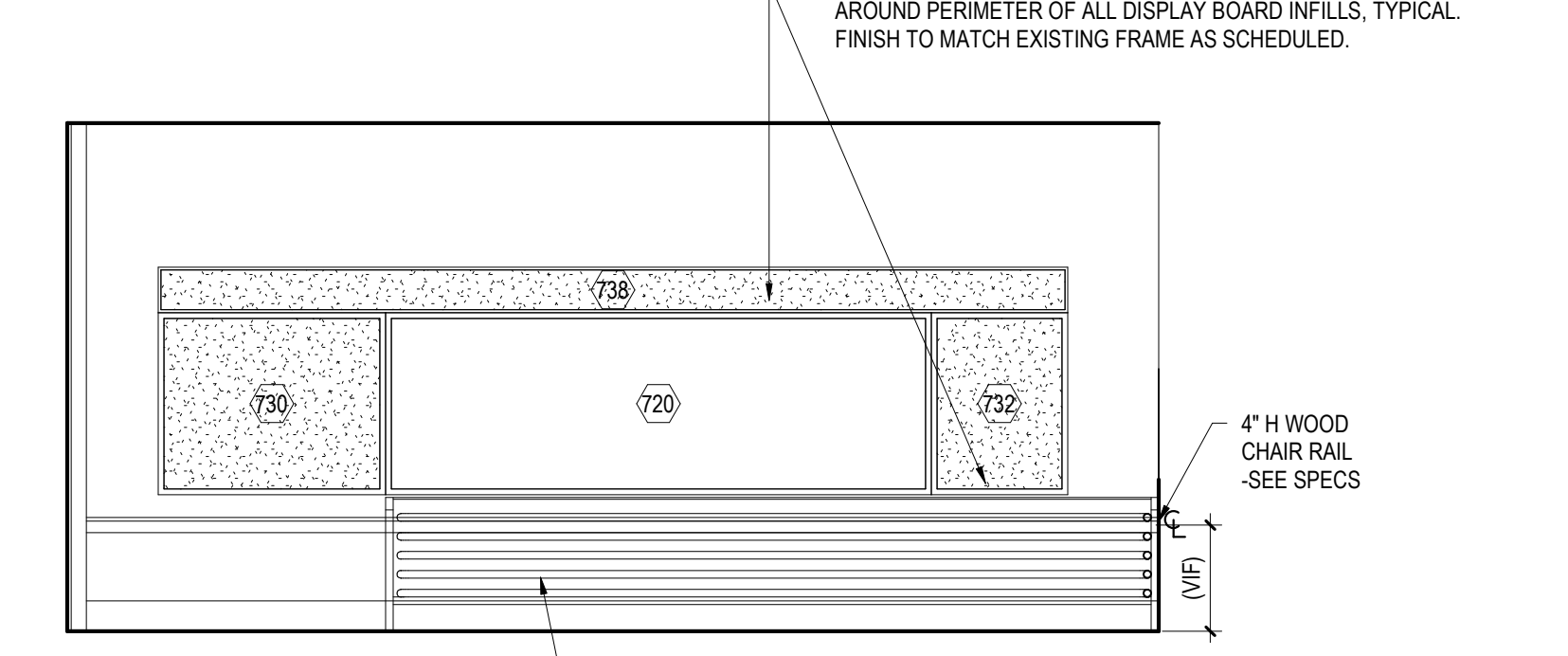
NOTE: ALL EXISTING WOOD FRAME DISPLAY BOARDS TO BE STRIPPED, SANDED AND PATCHED OF ANY PENETRATIONS. REMOVE ANY AND ALL NAILS, STAPLES, ADHESIVES ETC. PREPARE ENTIRE ASSEMBLY TO BE REFINISHED AS SCHEDULED.



NOTE: COORDINATE ALL CASEWORK LAYOUTS AND VISUAL DISPLAY LAYOUTS WITH FLOOR PLAN. IN INSTANCE WHERE FLOOR PLANELEVATIONS DO NOT CONCLUDE, FLOOR PLAN LAYOUT TAKES PRECEDENCE. VISUAL DISPLAY BOARD LAYOUT AND DIMENSIONS VARY. - VERIFY IN FIELD ALL DIMENSIONS AND LAYOUTS PRIOR TO FABRICATION OR INSTALLATION.

G KINDERGARTEN SECONDARY TEACHING WALL - ROOM 10
1/4" = 1'-0"

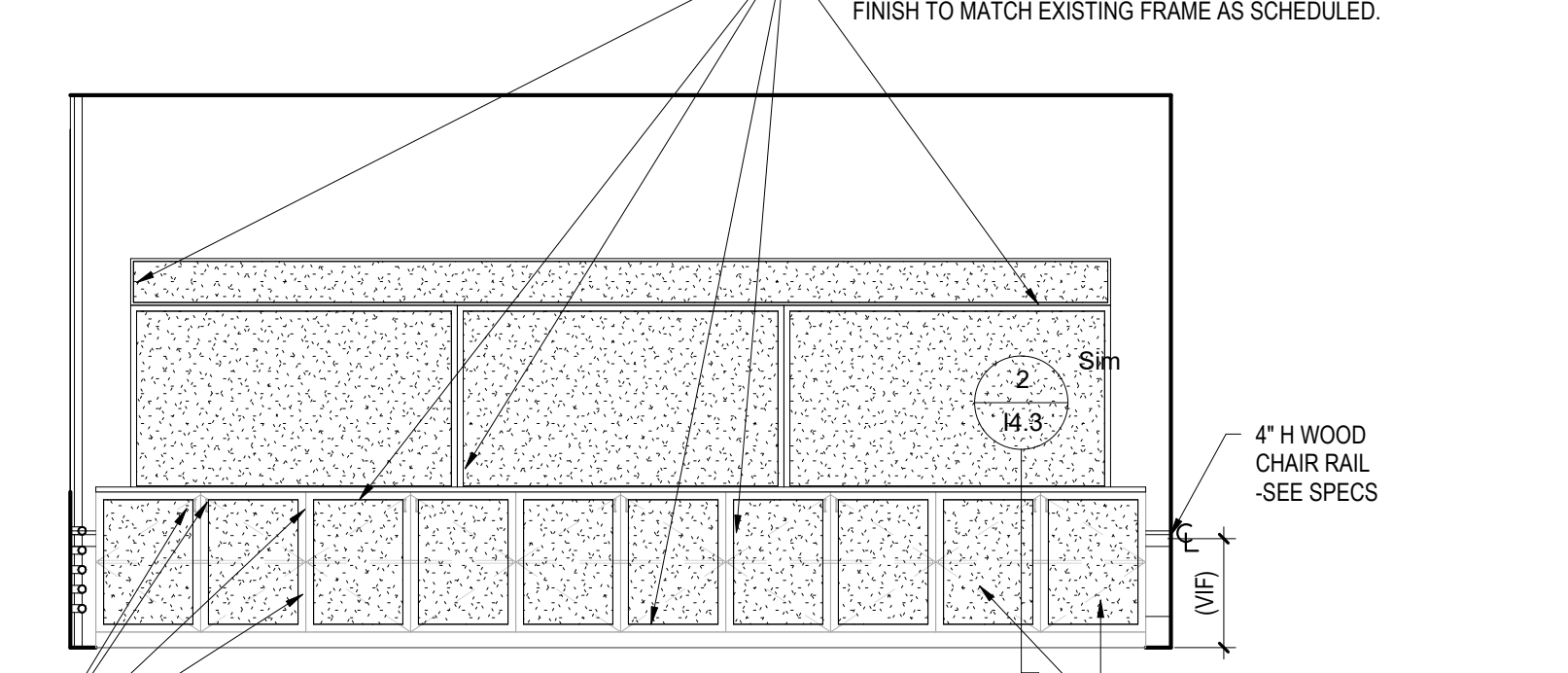
NOTE: ALL EXISTING WOOD FRAME DISPLAY BOARDS TO BE STRIPPED, SANDED AND PATCHED OF ANY PENETRATIONS. REMOVE ANY AND ALL NAILS, STAPLES, ADHESIVES ETC. PREPARE ENTIRE ASSEMBLY TO BE REFINISHED AS SCHEDULED.



NOTE: COORDINATE ALL CASEWORK LAYOUTS AND VISUAL DISPLAY LAYOUTS WITH FLOOR PLAN. IN INSTANCE WHERE FLOOR PLANELEVATIONS DO NOT CONCLUDE, FLOOR PLAN LAYOUT TAKES PRECEDENCE. VISUAL DISPLAY BOARD LAYOUT AND DIMENSIONS VARY. - VERIFY IN FIELD ALL DIMENSIONS AND LAYOUTS PRIOR TO FABRICATION OR INSTALLATION.

H KINDERGARTEN SECONDARY TEACHING WALL - ROOM 11
1/4" = 1'-0"

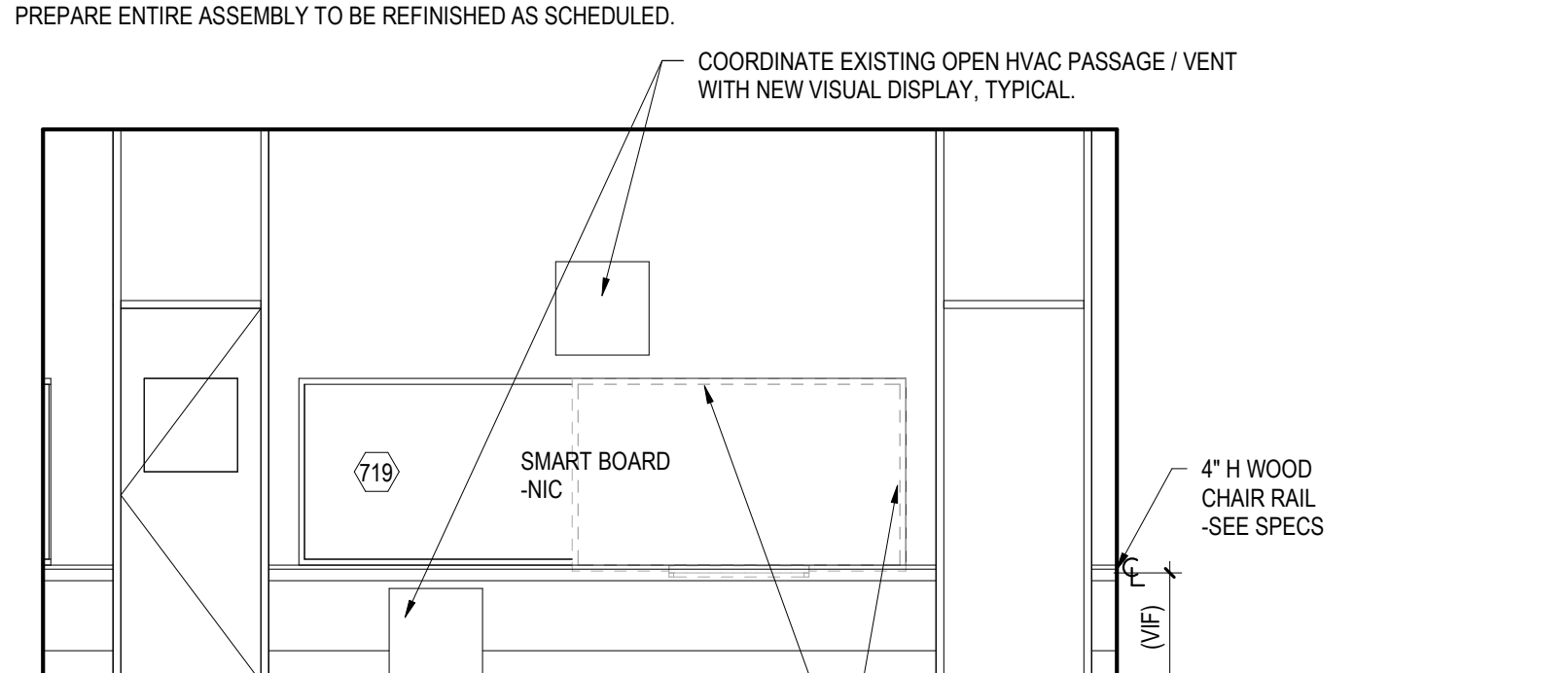
NOTE: ALL EXISTING WOOD FRAME DISPLAY BOARDS TO BE STRIPPED, SANDED AND PATCHED OF ANY PENETRATIONS. REMOVE ANY AND ALL NAILS, STAPLES, ADHESIVES ETC. PREPARE ENTIRE ASSEMBLY TO BE REFINISHED AS SCHEDULED.



NOTE: COORDINATE ALL CASEWORK LAYOUTS AND VISUAL DISPLAY LAYOUTS WITH FLOOR PLAN. IN INSTANCE WHERE FLOOR PLANELEVATIONS DO NOT CONCLUDE, FLOOR PLAN LAYOUT TAKES PRECEDENCE. VISUAL DISPLAY BOARD LAYOUT AND DIMENSIONS VARY. - VERIFY IN FIELD ALL DIMENSIONS AND LAYOUTS PRIOR TO FABRICATION OR INSTALLATION.

J KINDERGARTEN BUILT-IN/DISPLAY WALL - TYPICAL
1/4" = 1'-0"

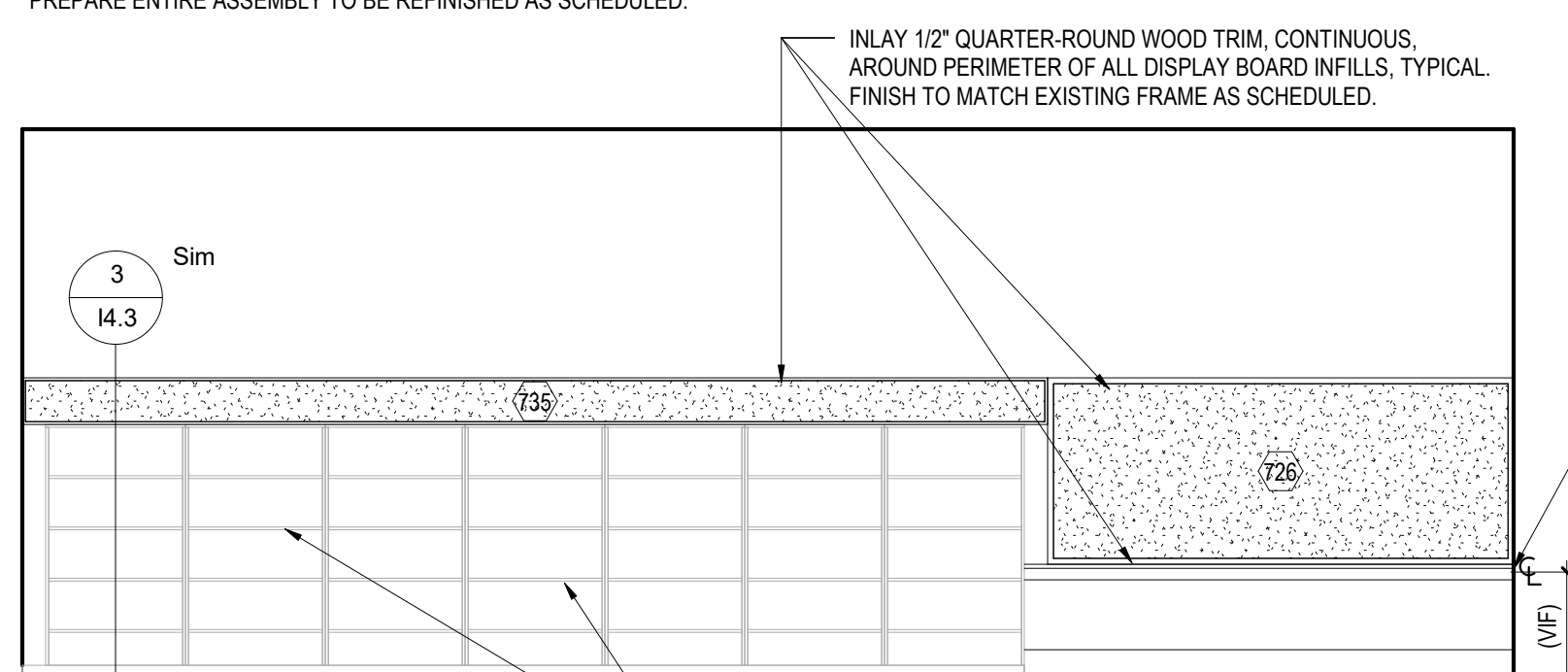
NOTE: ALL EXISTING WOOD FRAME DISPLAY BOARDS TO BE STRIPPED, SANDED AND PATCHED OF ANY PENETRATIONS. REMOVE ANY AND ALL NAILS, STAPLES, ADHESIVES ETC. PREPARE ENTIRE ASSEMBLY TO BE REFINISHED AS SCHEDULED.



NOTE: COORDINATE ALL CASEWORK LAYOUTS AND VISUAL DISPLAY LAYOUTS WITH FLOOR PLAN. IN INSTANCE WHERE FLOOR PLANELEVATIONS DO NOT CONCLUDE, FLOOR PLAN LAYOUT TAKES PRECEDENCE. VISUAL DISPLAY BOARD LAYOUT AND DIMENSIONS VARY. - VERIFY IN FIELD ALL DIMENSIONS AND LAYOUTS PRIOR TO FABRICATION OR INSTALLATION.

K EXISTING PRIMARY TEACHING WALL - ROOM 12
1/4" = 1'-0"

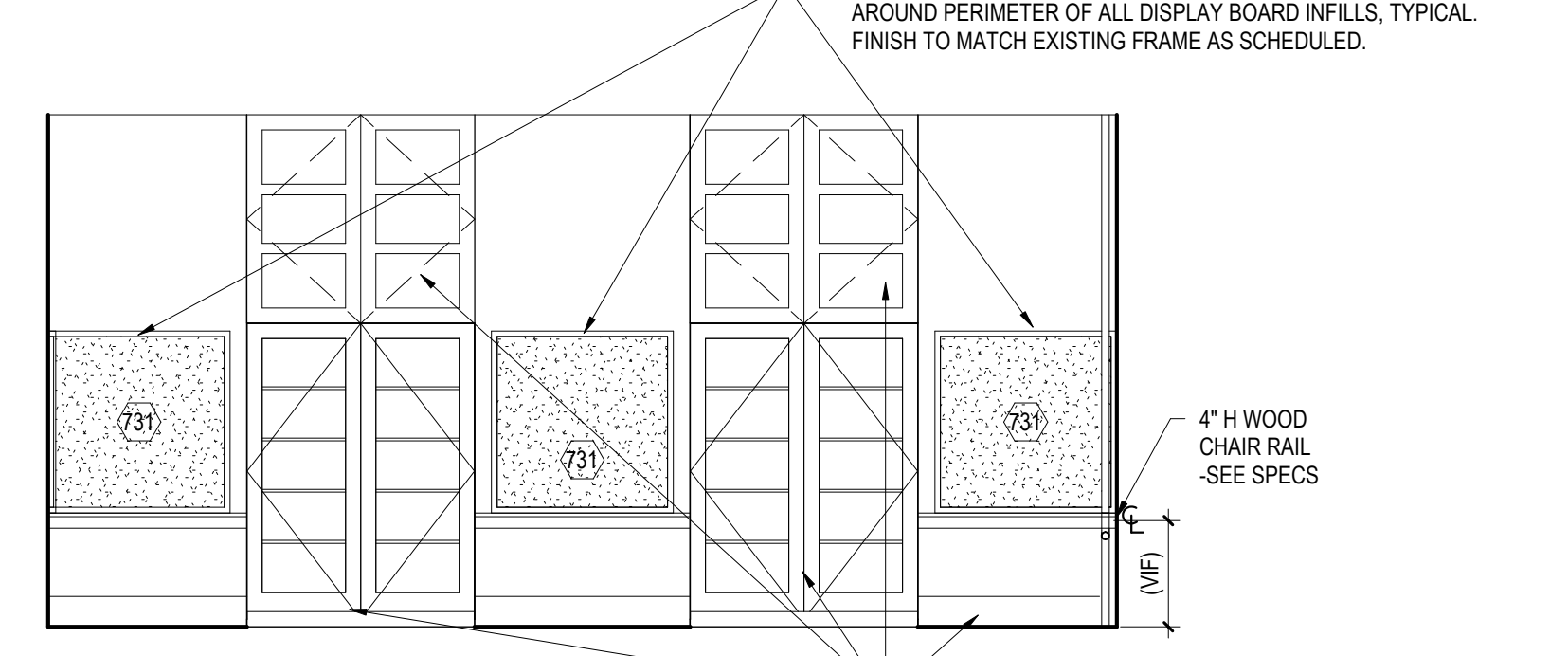
NOTE: ALL EXISTING WOOD FRAME DISPLAY BOARDS TO BE STRIPPED, SANDED AND PATCHED OF ANY PENETRATIONS. REMOVE ANY AND ALL NAILS, STAPLES, ADHESIVES ETC. PREPARE ENTIRE ASSEMBLY TO BE REFINISHED AS SCHEDULED.



NOTE: COORDINATE ALL CASEWORK LAYOUTS AND VISUAL DISPLAY LAYOUTS WITH FLOOR PLAN. IN INSTANCE WHERE FLOOR PLANELEVATIONS DO NOT CONCLUDE, FLOOR PLAN LAYOUT TAKES PRECEDENCE. VISUAL DISPLAY BOARD LAYOUT AND DIMENSIONS VARY. - VERIFY IN FIELD ALL DIMENSIONS AND LAYOUTS PRIOR TO FABRICATION OR INSTALLATION.

L EXISTING CASEWORK/DISPLAY WALL - ROOM 12
1/4" = 1'-0"

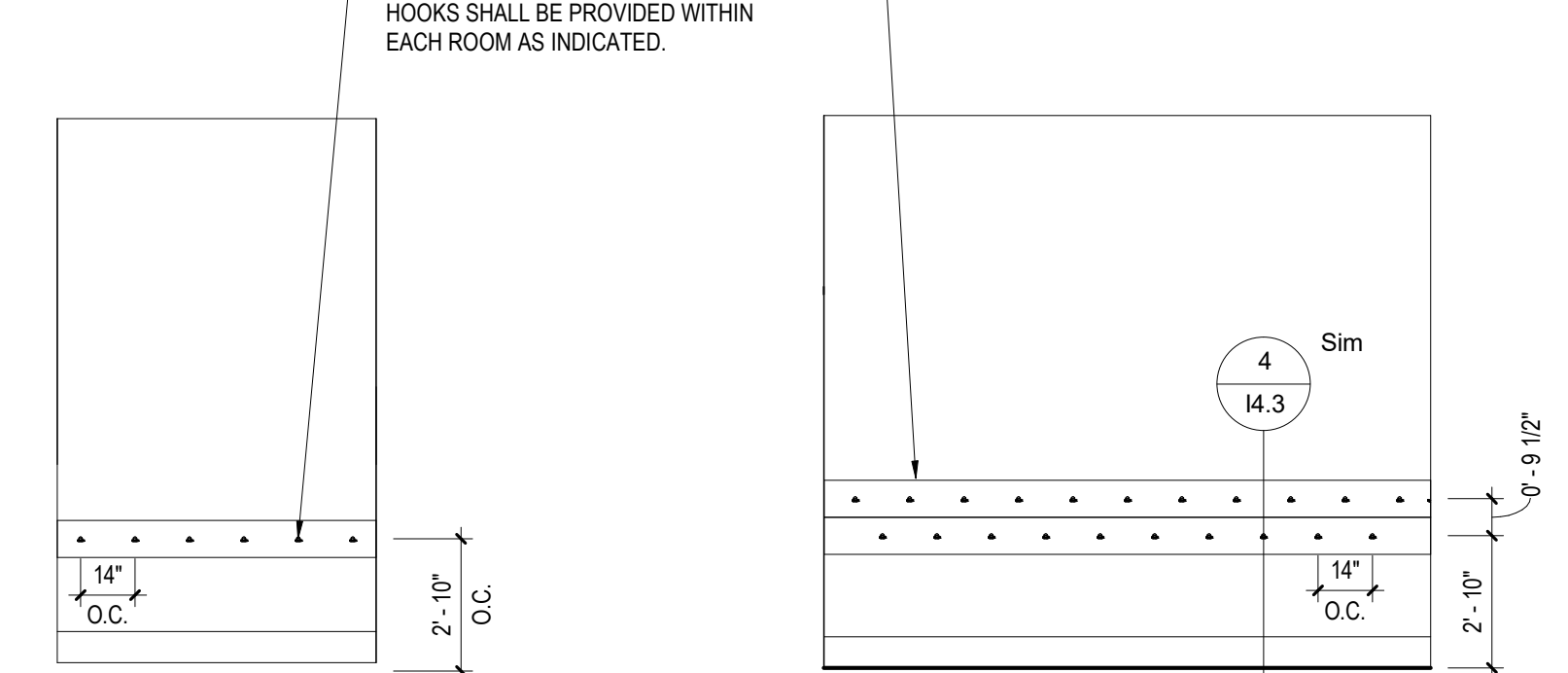
NOTE: ALL EXISTING WOOD FRAME DISPLAY BOARDS TO BE STRIPPED, SANDED AND PATCHED OF ANY PENETRATIONS. REMOVE ANY AND ALL NAILS, STAPLES, ADHESIVES ETC. PREPARE ENTIRE ASSEMBLY TO BE REFINISHED AS SCHEDULED.



NOTE: COORDINATE ALL CASEWORK LAYOUTS AND VISUAL DISPLAY LAYOUTS WITH FLOOR PLAN. IN INSTANCE WHERE FLOOR PLANELEVATIONS DO NOT CONCLUDE, FLOOR PLAN LAYOUT TAKES PRECEDENCE. VISUAL DISPLAY BOARD LAYOUT AND DIMENSIONS VARY. - VERIFY IN FIELD ALL DIMENSIONS AND LAYOUTS PRIOR TO FABRICATION OR INSTALLATION.

M EXISTING CASEWORK/DISPLAY WALL - ROOM 18
1/4" = 1'-0"

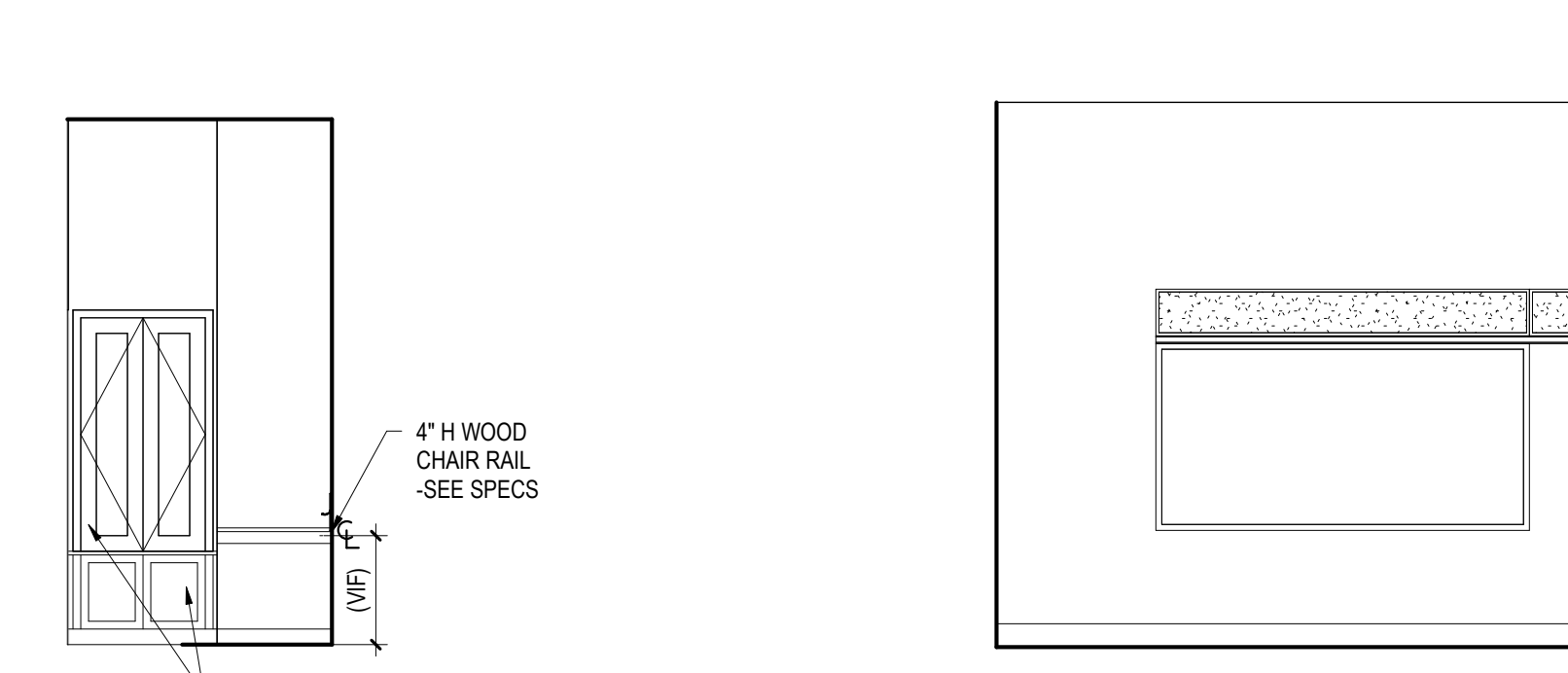
(30) HEAVY DUTY DOUBLE WARDROBE COAT HOOKS SHALL BE PROVIDED WITHIN EACH ROOM AS INDICATED.



NOTE: COORDINATE ALL CASEWORK LAYOUTS AND VISUAL DISPLAY LAYOUTS WITH FLOOR PLAN. IN INSTANCE WHERE FLOOR PLANELEVATIONS DO NOT CONCLUDE, FLOOR PLAN LAYOUT TAKES PRECEDENCE. VISUAL DISPLAY BOARD LAYOUT AND DIMENSIONS VARY. - VERIFY IN FIELD ALL DIMENSIONS AND LAYOUTS PRIOR TO FABRICATION OR INSTALLATION.

N COAT HOOK LAYOUT 'A' - TYPICAL
1/4" = 1'-0"

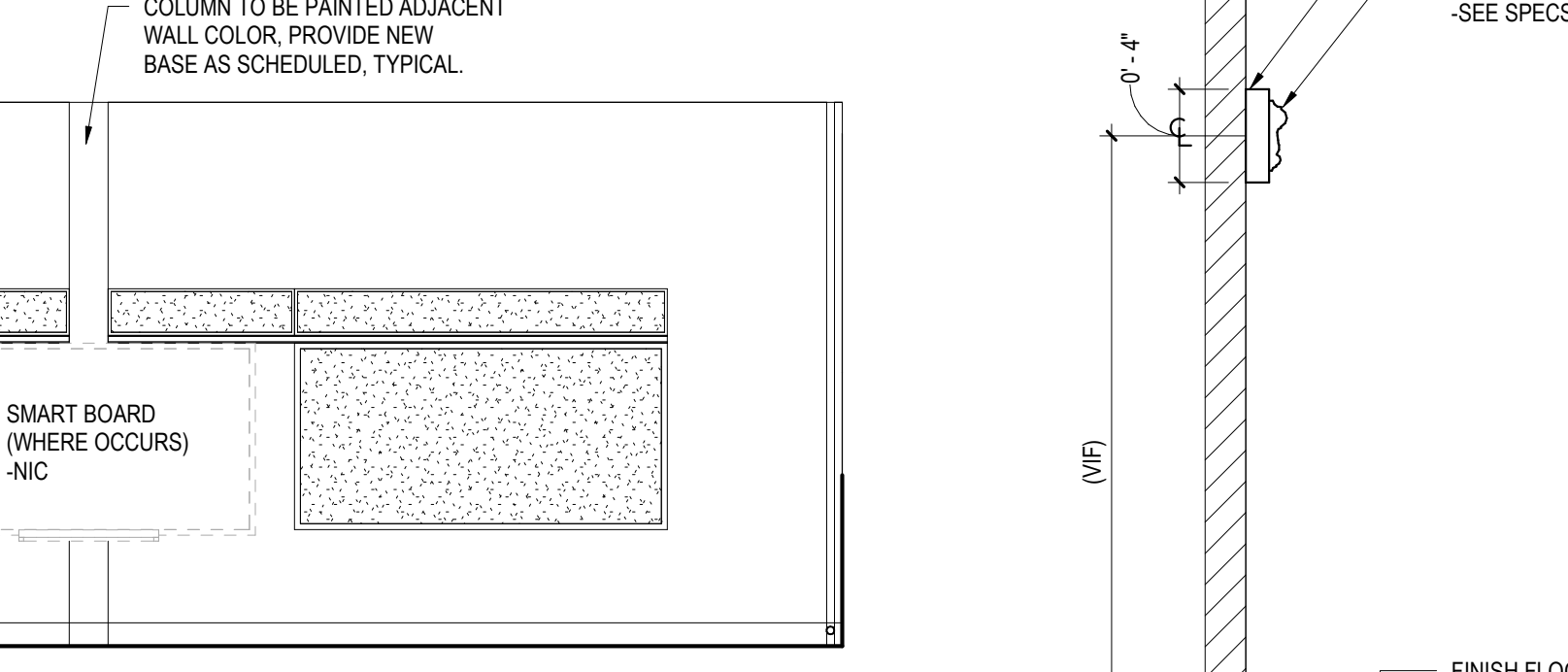
SAND EXISTING WOOD BUILT-IN BOOKSHELF, CABINET AND TRIM. REMOVE ANY AND ALL NAILS, STAPLES, ADHESIVES, PAPER WRAPS, ETC. PREPARE ENTIRE ASSEMBLY TO BE REFINISHED AS SCHEDULED.



NOTE: COORDINATE ALL CASEWORK LAYOUTS AND VISUAL DISPLAY LAYOUTS WITH FLOOR PLAN. IN INSTANCE WHERE FLOOR PLANELEVATIONS DO NOT CONCLUDE, FLOOR PLAN LAYOUT TAKES PRECEDENCE. VISUAL DISPLAY BOARD LAYOUT AND DIMENSIONS VARY. - VERIFY IN FIELD ALL DIMENSIONS AND LAYOUTS PRIOR TO FABRICATION OR INSTALLATION.

P COAT HOOK LAYOUT 'B' - TYPICAL
1/4" = 1'-0"

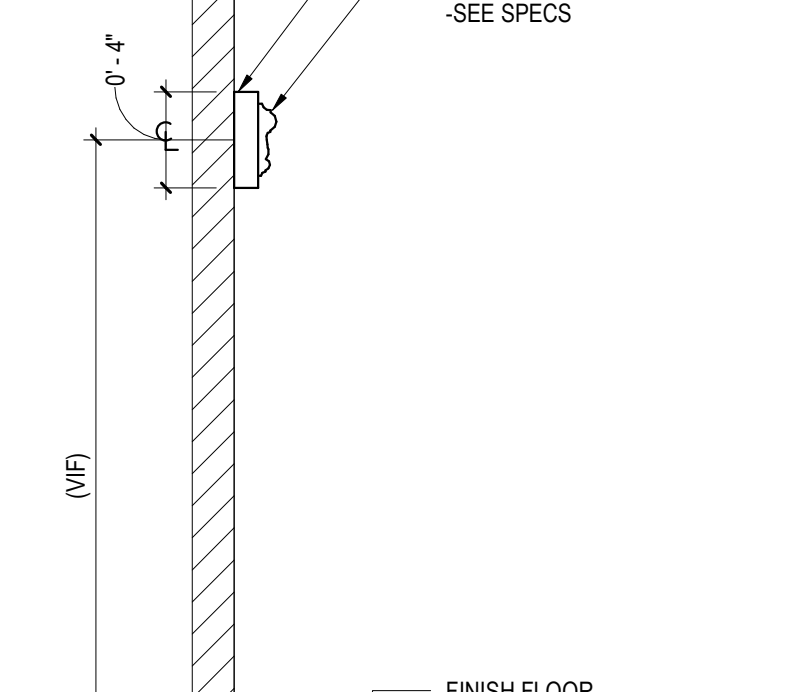
NOTE: COORDINATE ALL CASEWORK LAYOUTS AND VISUAL DISPLAY LAYOUTS WITH FLOOR PLAN. IN INSTANCE WHERE FLOOR PLANELEVATIONS DO NOT CONCLUDE, FLOOR PLAN LAYOUT TAKES PRECEDENCE. VISUAL DISPLAY BOARD LAYOUT AND DIMENSIONS VARY. - VERIFY IN FIELD ALL DIMENSIONS AND LAYOUTS PRIOR TO FABRICATION OR INSTALLATION.



NOTE: COORDINATE ALL CASEWORK LAYOUTS AND VISUAL DISPLAY LAYOUTS WITH FLOOR PLAN. IN INSTANCE WHERE FLOOR PLANELEVATIONS DO NOT CONCLUDE, FLOOR PLAN LAYOUT TAKES PRECEDENCE. VISUAL DISPLAY BOARD LAYOUT AND DIMENSIONS VARY. - VERIFY IN FIELD ALL DIMENSIONS AND LAYOUTS PRIOR TO FABRICATION OR INSTALLATION.

Q STORAGE CLOSET BUILT-IN - TYPICAL
1/4" = 1'-0"

NOTE: COORDINATE ALL CASEWORK LAYOUTS AND VISUAL DISPLAY LAYOUTS WITH FLOOR PLAN. IN INSTANCE WHERE FLOOR PLANELEVATIONS DO NOT CONCLUDE, FLOOR PLAN LAYOUT TAKES PRECEDENCE. VISUAL DISPLAY BOARD LAYOUT AND DIMENSIONS VARY. - VERIFY IN FIELD ALL DIMENSIONS AND LAYOUTS PRIOR TO FABRICATION OR INSTALLATION.



NOTE: COORDINATE ALL CASEWORK LAYOUTS AND VISUAL DISPLAY LAYOUTS WITH FLOOR PLAN. IN INSTANCE WHERE FLOOR PLANELEVATIONS DO NOT CONCLUDE, FLOOR PLAN LAYOUT TAKES PRECEDENCE. VISUAL DISPLAY BOARD LAYOUT AND DIMENSIONS VARY. - VERIFY IN FIELD ALL DIMENSIONS AND LAYOUTS PRIOR TO FABRICATION OR INSTALLATION.

R PRIMARY SECONDARY TEACHING WALL W/ COLUMN - TYPICAL
1/4" = 1'-0"

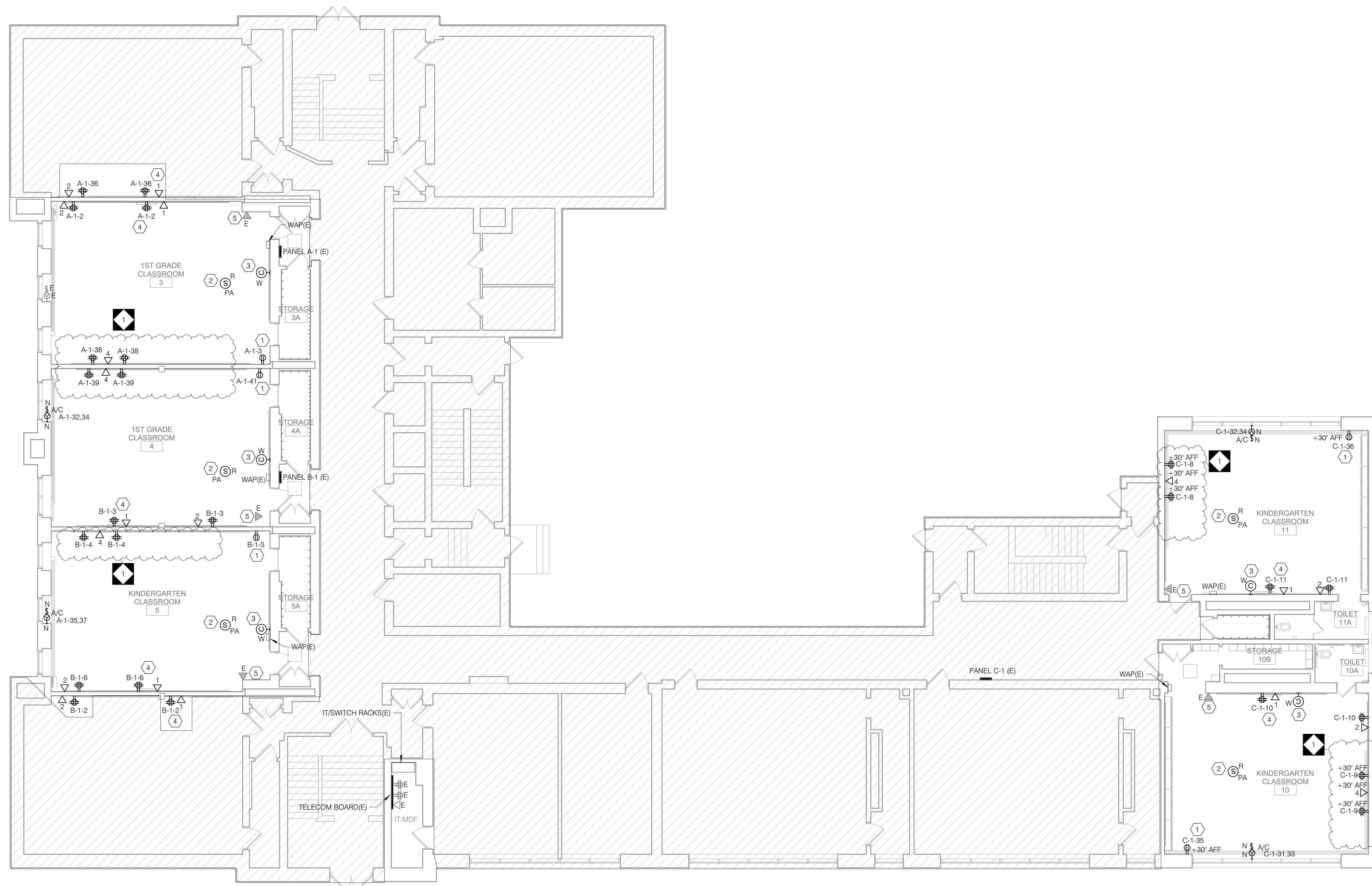
100% DESIGN SUBMISSION
1/22/2020

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1	2/20/2020	ADDENDUM # 1

SCHOOL & LOCATION
FRANCIS SCOTT KEY ELEMENTARY SCHOOL
MAILING ADDRESS: 2230 S 8TH STREET, PHILADELPHIA, PA 19148
DEED ADDRESS: 2226-50 S 8TH STREET, PHILADELPHIA, PA 19148-310

PROJECT TITLE
CLASSROOM MODERNIZATION
DRAWING TITLE
INTERIOR ELEVATIONS

LOCATION NO.	FILE NO.
DRAWN BY	CHECKED BY
B-001C OF 2019 / 20	B-003C OF 2019 / 20
DRAWING NO. 14.4	



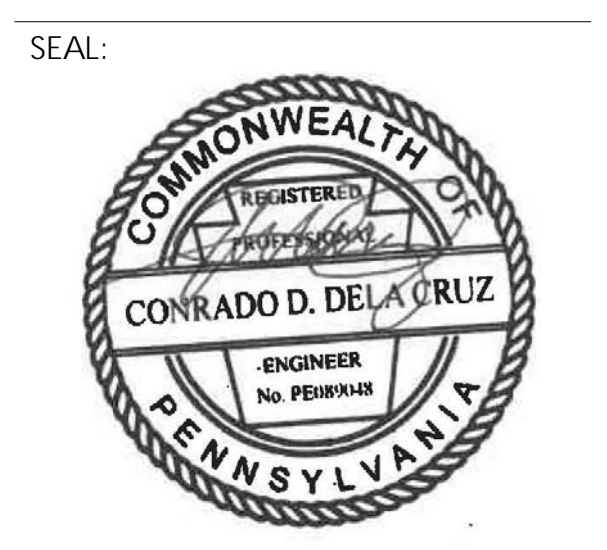
1 ELECTRICAL FIRST FLOOR POWER PLAN
E2.1 1/8" = 1'-0"

GENERAL SHEET NOTES

- REFER TO DRAWING E0.1 FOR ELECTRICAL GENERAL NOTES, LEGEND AND ABBREVIATIONS.
- REFER TO ARCHITECTURAL DRAWINGS, ELEVATION & DETAILS FOR EXACT LOCATION OF ELECTRICAL DEVICES.
- ALL RECEPTACLES, TELE/DATA OUTLETS WITH ASSOCIATED WIRING, CONDUIT, RACEWAYS, ETC SHALL BE SURFACE MOUNTED ON EXISTING WALLS AND FLUSH MOUNTED ON NEW WALLS. REFER TO ARCHITECTURAL DRAWINGS FOR WALL TYPES.
- ALL THE RECEPTACLES AND DATA OUTLETS WITHIN THE SCOPE OF WORK AREAS THAT ARE EXISTING TO REMAIN SHALL BE PROVIDED WITH NEW DEVICES.
- ALL NEW 15- AND 20-AMPERE, 125- AND 250-VOLT, NON-LOCKING TYPE RECEPTACLES SHALL BE TAMPER RESISTANT AS PER NEC 406.12.
- ELECTRICAL CONTRACTOR TO RUN ALL NEW SURFACE MOUNTED CONDUITS AND RACEWAYS IN CORNERS OF EACH CLASSROOM TO AVOID CONFLICT WITH DISPLAY BOARDS AND OTHER CLASSROOM FURNISHINGS.

KEYED SHEET NOTES

- PROVIDE NEW TAMPER RESISTANT DEDICATED DUPLEX RECEPTACLE FOR LAPTOP CART CHARGING STATION.
- NEW LOCATION OF RELOCATED PA SPEAKER. COORDINATE IN FIELD FOR EXACT LOCATION.
- PROVIDE NEW BATTERY OPERATED WIRELESS CLOCK. COORDINATE WITH ARCHITECT FOR EXACT MOUNTING HEIGHT.
- CONTRACTOR TO COORDINATE IN FIELD FOR EXACT LOCATION OF RECEPTACLE AND DATA OUTLET SERVING THE INTERACTIVE SMARTBOARD TO AVOID CONFLICT WITH BASE PLATE. REFER TO ARCHITECTURAL DRAWING AS 1 DETAIL #1 AND #2 FOR EXACT LOCATION AND MOUNTING HEIGHT.
- CONTRACTOR TO FIELD TEST FUNCTIONALITY OF EXISTING PUBLIC ADDRESS SPEAKER. REPLACE IF NEEDED. COORDINATE WITH SDP FOR EXACT SPECIFICATIONS.



CONRAD DELACRUZ
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100% DESIGN SUBMISSION
1/22/2020

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1	02/20/2020	ADDENDUM #1
NO.	DATE	REVISION

SCHOOL & LOCATION
**FRANCIS SCOTT KEY
ELEMENTARY SCHOOL**

2230 S 8TH STREET, PHILADELPHIA,
PA 19148

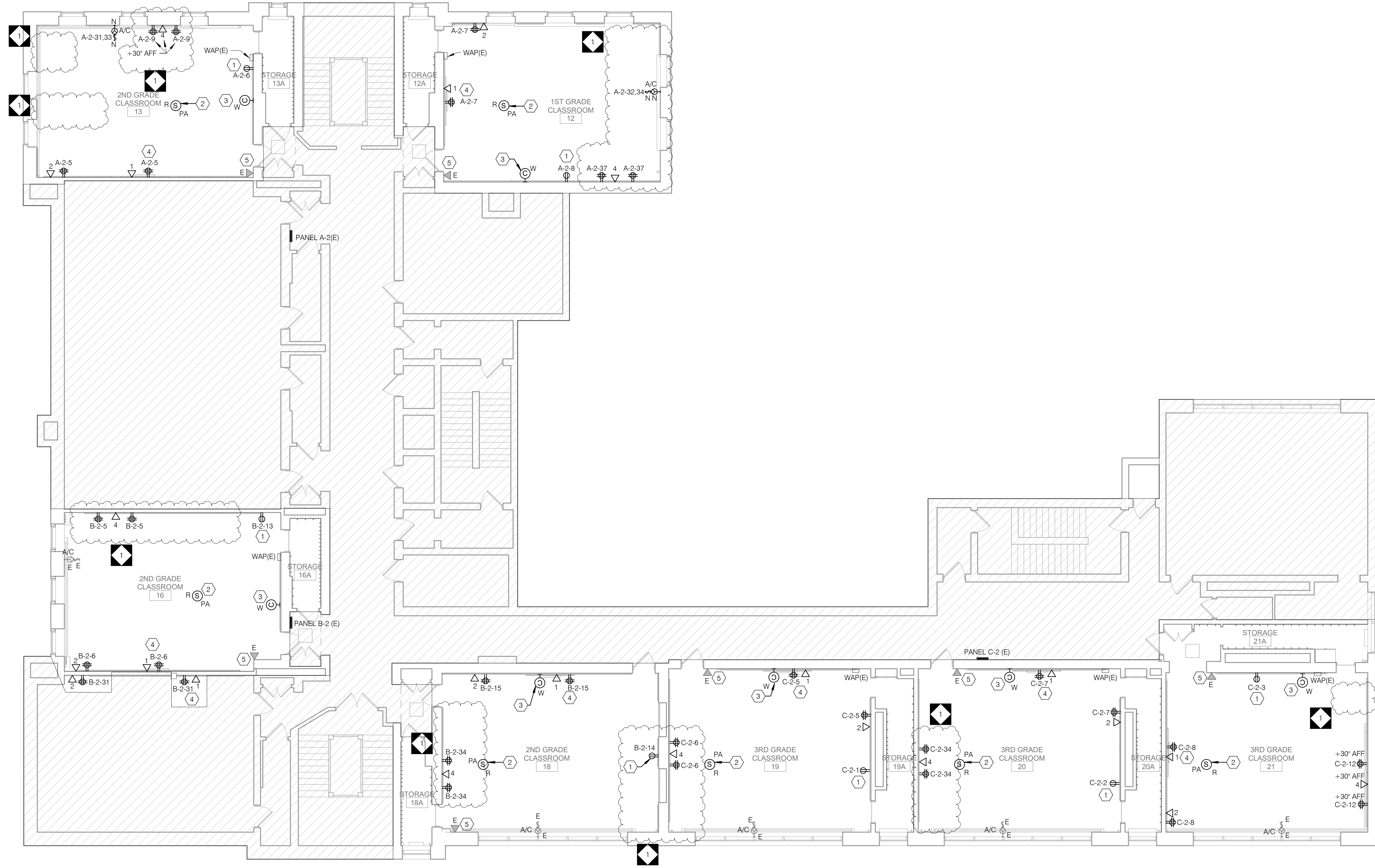
PROJECT TITLE
**CLASSROOM
MODERNIZATION**

DRAWING TITLE

**ELECTRICAL FIRST FLOOR
POWER AND TECHNOLOGY
PLAN**

LOCATION NO.	FILE NO.
DRAWN BY	CHECKED BY
NBS	DAT
B-039C OF 2018 / 19	B-040C OF 2018 / 19

DRAWING NO.
E2.1



1 ELECTRICAL SECOND FLOOR POWER PLAN
E2.2
1/8" = 1'-0"

- GENERAL SHEET NOTES**
- REFER TO DRAWING E0-1 FOR ELECTRICAL GENERAL NOTES, LEGEND AND ABBREVIATIONS.
 - REFER TO ARCHITECTURAL DRAWINGS, ELEVATION & DETAILS FOR EXACT LOCATION OF ELECTRICAL DEVICES.
 - REFER TO MECHANICAL AND PLUMBING DRAWINGS FOR EXACT MECHANICAL AND PLUMBING EQUIPMENT LOCATIONS.
 - ALL RECEPTACLES, TELE/DATA OUTLETS WITH ASSOCIATED WIRING SHALL BE FLUSH MOUNTED. SURFACE MOUNTED OUTLETS, CONDUIT, RACEWAYS, ETC TO BE APPROVED BY ARCHITECT PRIOR TO INSTALLATION.
 - ALL NEW 15- AND 20- AMPERE, 125- AND 250- VOLT NON-LOCKING TYPE RECEPTACLES SHALL BE TAMPER RESISTANT AS PER NEG-406-12.
 - ELECTRICAL CONTRACTOR TO RUN ALL NEW SURFACE MOUNTED CONDUITS AND RACEWAYS IN CORNERS OF EACH CLASSROOM TO AVOID CONFLICT WITH DISPLAY BOARDS AND OTHER CLASSROOM FURNISHINGS.

- KEYED SHEET NOTES**
- PROVIDE NEW TAMPER RESISTANT DEDICATED DUPLEX RECEPTACLE FOR LAPTOP CART CHARGING STATION.
 - NEW LOCATION OF RELOCATED PA SPEAKER. COORDINATE IN FIELD FOR EXACT LOCATION.
 - PROVIDE NEW BATTERY OPERATED WIRELESS CLOCK. COORDINATE WITH ARCHITECT FOR EXACT MOUNTING HEIGHT.
 - CONTRACTOR TO COORDINATE IN FIELD FOR EXACT LOCATION OF RECEPTACLE AND DATA OUTLET SERVING THE INTERACTIVE SMARTBOARD TO AVOID CONFLICT WITH BASE PLATE. REFER TO ARCHITECTURAL DRAWING AS: DETAIL #1 AND #2 FOR EXACT LOCATION AND MOUNTING HEIGHT.
 - CONTRACTOR TO FIELD TEST FUNCTIONALITY OF EXISTING PUBLIC ADDRESS SPEAKER. REPLACE IF NEEDED. COORDINATE WITH SDP FOR EXACT SPECIFICATIONS.



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Attn: Deepak Ajmane

100% DESIGN SUBMISSION
1/22/2020

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1	02/20/2020 ADDENDUM #1	
NO.	DATE	REVISION

SCHOOL & LOCATION
**FRANCIS SCOTT KEY
ELEMENTARY SCHOOL**

2230 S 8TH STREET, PHILADELPHIA,
PA 19148

PROJECT TITLE
**CLASSROOM
MODERNIZATION**

DRAWING TITLE
**ELECTRICAL SECOND
FLOOR POWER AND
TECHNOLOGY PLAN**

LOCATION NO.	FILE NO.
DRAWN BY	CHECKED BY
NBS	DAT
B-039C	OF 2018 / 19
B-040C	OF 2018 / 19

DRAWING NO.
E2.2

PANELBOARD: C-1(E)
 LOCATION: 1ST FLOOR CORRIDOR VOLTAGE: 208Y/120 V, 3 ø 4 W.
 MOUNTING: Surface Type 1 A.I.C. RATING: 10K
 MAIN DEVICE: 250 A, MLO SPECIAL:
 BUS AMPS:

LOAD DESCRIPTION	BKR	P	CKT	PHASE A kVA	PHASE B kVA	PHASE C kVA	CKT	P	BKR	LOAD DESCRIPTION	
ROOM 8 LIGHTS (E)	20 A	1	1	0.6	0.6		2	1	20 A	ROOM 8 LIGHTS (E)	
ROOM 9 LIGHTS (E)	20 A	1	3		0.6	0.6		4	1	20 A	ROOM 9 LIGHTS (E)
ROOM 10 LIGHTS (E)	20 A	1	5		0.6	0.6		6	1	20 A	ROOM 10 LIGHTS (E)
LTG ROOM 10, 10A, 10B, 11	20 A	1	7	0.0	0.7		8	1	20 A	REC ROOM 12 (**)	
REC RM 10 (**)	20 A	1	9		0.7	0.7		10	1	20 A	REC ROOM 10 (**)
REC ROOM 11 (**)	20 A	1	11		0.7	0.0		12	1	20 A	SPARE
EXISTING LOAD	20 A	1	13	0.6	0.6		14	1	20 A	WATER COOLER (E)	
HALL REC (E)	20 A	1	15		0.6	0.6		16	1	20 A	EXISTING LOAD
EXISTING LOAD	20 A	1	17		0.6	0.6		18	1	20 A	EXISTING LOAD
EXISTING LOAD	20 A	1	19	0.6	0.6		20	1	20 A	EXISTING LOAD	
EXISTING LOAD	20 A	1	21		0.6	0.6		22	1	20 A	EXISTING LOAD
EXISTING LOAD	20 A	1	23		0.6	0.6		24	1	20 A	EXISTING LOAD
EXISTING LOAD	20 A	1	25	0.6	0.6		26	1	20 A	EXISTING LOAD	
EXISTING LOAD	20 A	1	27		0.6	0.6		28	1	20 A	EXISTING LOAD
EXISTING LOAD	20 A	1	29		0.6	0.6		30	1	20 A	EXISTING LOAD
A/C RM 10 (*)	20 A	2	31	1.2	1.2		32	2	20 A	A/C RM 11 (*)	
LAPTOP CHARGING RM 1...	20 A	1	35		0.2	0.2		36	1	20 A	LAPTOP CHARGING RM 11...
SPARE	20 A	1	37	0.0	0.0		38	--	--	--	BUSSED SPACE
BUSSED SPACE	--	--	39		0.0	0.0		40	--	--	BUSSED SPACE
BUSSED SPACE	--	--	41		0.0	0.0		42	--	--	BUSSED SPACE
TOTAL LOAD:				8 kVA	9 kVA	8 kVA					
TOTAL AMPS:				70 A	76 A	49 A					
LOAD CLASSIFICATION											
CONNECTED											
DEMAND											
ESTIMATED											
PANEL TOTALS											
CONNECTED LOAD: 22632 VA											
ESTIMATED DEMAND: 22632 VA											
CONNECTED CURRENT: 63 A											
EST. DEMAND CURRENT: 63 A											

NOTES:
 (*) NEW CIRCUIT BREAKER TO BE PROVIDED. (**) SPARE CIRCUIT MADE AVAILABLE AFTER DEMOLITION.

PANELBOARD: B-1(E)
 LOCATION: 1ST FLOOR CORRIDOR VOLTAGE: 208Y/120 V, 3 ø 4 W.
 MOUNTING: Surface Type 1 A.I.C. RATING: 10K
 MAIN DEVICE: 250 A, MLO SPECIAL:
 BUS AMPS:

LOAD DESCRIPTION	BKR	P	CKT	PHASE A kVA	PHASE B kVA	PHASE C kVA	CKT	P	BKR	LOAD DESCRIPTION	
SPARE	20 A	1	1	0.0	0.7		2	1	20 A	REC RM 6 (*)	
REC LAPTOP CHARGING...	20 A	1	5		0.2	0.7		6	1	20 A	REC ROOM 5 (*)
ROOM 6 LIGHTS (E)	20 A	1	7	0.6	0.6		8	1	20 A	ROOM 6 LIGHTS (E)	
REC RM 6 (E)	20 A	1	9		0.0	0.6		10	1	20 A	BATH - STORAGE LIGHTS (E)
HALL LIGHTS (E)	20 A	1	11		0.6	0.6		12	1	20 A	HALL LIGHTS (E)
OFFICE REC (E)	20 A	1	13	0.6	0.6		14	1	20 A	OFFICE LIGHTS (E)	
CLOCK SYSTEM (E)	20 A	1	15		0.6	0.6		16	1	20 A	OFFICE LIGHTS (E)
OFFICE REC - WATER...	20 A	1	17		0.6	0.6		18	1	20 A	OFFICE REC SECURITY...
OFFICE REC (E)	20 A	1	19	0.6	0.6		20	1	20 A	OFFICE REC (E)	
OFFICE POWER POLE (E)	20 A	1	21		0.6	0.6		22	1	20 A	HALL CLOCK (E)
EXISTING LOAD	20 A	1	23		0.6	0.6		24	1	20 A	EXISTING LOAD
EXISTING LOAD	20 A	1	25	0.6	0.6		26	1	20 A	EXISTING LOAD	
EXISTING LOAD	20 A	1	27		0.6	0.6		28	1	20 A	EXISTING LOAD
EXISTING LOAD	20 A	1	29		0.6	0.6		30	1	20 A	EXISTING LOAD
EXISTING LOAD	20 A	1	31	0.6	0.6		32	1	20 A	EXISTING LOAD	
EXISTING LOAD	20 A	1	33		0.6	0.6		34	1	20 A	EXISTING LOAD
A/C REC. RM 6 (E)	20 A	2	35		1.2	1.8		36	2	30 A	A/C REC. (E)
A/C REC. OFFICE (E)	30 A	2	41		1.8	1.8		42	2	30 A	A/C REC. OFFICE (E)
TOTAL LOAD:				10 kVA	10 kVA	12 kVA					
TOTAL AMPS:				81 A	88 A	103 A					
LOAD CLASSIFICATION											
CONNECTED											
DEMAND											
ESTIMATED											
PANEL TOTALS											
CONNECTED LOAD: 32460 VA											
ESTIMATED DEMAND: 32460 VA											
CONNECTED CURRENT: 90 A											
EST. DEMAND CURRENT: 90 A											

NOTES:
 (*) SPARE CIRCUIT MADE AVAILABLE AFTER DEMOLITION.

PANELBOARD: A-1(E)
 LOCATION: 1ST FLOOR CORRIDOR VOLTAGE: 208Y/120 V, 3 ø 4 W.
 MOUNTING: Surface Type 1 A.I.C. RATING: 10K
 MAIN DEVICE: 250 A, MLO SPECIAL:
 BUS AMPS:

LOAD DESCRIPTION	BKR	P	CKT	PHASE A kVA	PHASE B kVA	PHASE C kVA	CKT	P	BKR	LOAD DESCRIPTION	
LTG ROOM 3-4,5	20 A	1	1	0.0	0.7		2	1	20 A	REC ROOM 3	
REC LAPTOP CHARGING...	20 A	1	3		0.2	0.6		4	1	20 A	ROOM 2 LIGHTS (E)
ROOM 2 LIGHTS (E)	20 A	1	5		0.6	0.6		6	1	20 A	ROOM 2 REC. (E)
ROOM 1 LIGHTS (E)	20 A	1	7	0.6	0.6		8	1	20 A	ROOM 1 LIGHTS (E)	
ROOM 1 REC. (E)	20 A	1	9		0.6	0.6		10	1	20 A	COUNSELOR OFFICE...
COUNSELORS OFFICE...	20 A	1	11		0.6	0.6		12	1	20 A	HALL REC. (E)
WATER COOLER (E)	20 A	1	13	0.6	0.6		14	1	20 A	A/C OUTLET COUNSELOR...	
A/C RM 3 (E)	20 A	2	15		1.2	0.6		16	1	20 A	A/C OUTLET COUNSELOR...
EXISTING LOAD	20 A	1	19	0.6	0.6		20	1	20 A	EXISTING LOAD	
EXISTING LOAD	20 A	1	21		0.6	0.6		22	1	20 A	EXISTING LOAD
EXISTING LOAD	20 A	1	23		0.6	0.6		24	1	20 A	EXISTING LOAD
EXISTING LOAD	20 A	1	25	0.6	0.6		26	1	20 A	EXISTING LOAD	
EXISTING LOAD	20 A	1	27		0.6	0.6		28	1	20 A	EXISTING LOAD
EXISTING LOAD	20 A	1	29		0.6	0.6		30	1	20 A	EXISTING LOAD
A/C RM 1 (E)	20 A	2	31	1.2	1.2		32	2	20 A	A/C RM 4 (*)	
A/C RM 5 (*)	20 A	2	35		1.2	0.7		36	1	20 A	REC ROOM 2 (*)
REC ROOM 3 (*)	20 A	1	39		0.7	0.0		40	1	20 A	SPARE
REC LAPTOP CHARGING...	20 A	1	41		0.2	0.6		42	--	--	SPARE
TOTAL LOAD:				10 kVA	9 kVA	9 kVA					
TOTAL AMPS:				84 A	78 A	73 A					
LOAD CLASSIFICATION											
CONNECTED											
DEMAND											
ESTIMATED											
PANEL TOTALS											
CONNECTED LOAD: 28032 VA											
ESTIMATED DEMAND: 28032 VA											
CONNECTED CURRENT: 78 A											
EST. DEMAND CURRENT: 78 A											

NOTES:
 (*) NEW CIRCUIT BREAKER TO BE PROVIDED.

PANELBOARD: C-2(E)
 LOCATION: 2ND FLOOR CORRIDOR VOLTAGE: 208Y/120 V, 3 ø 4 W.
 MOUNTING: Surface Type 1 A.I.C. RATING: 10K
 MAIN DEVICE: 250 A, MLO SPECIAL:
 BUS AMPS:

LOAD DESCRIPTION	BKR	P	CKT	PHASE A kVA	PHASE B kVA	PHASE C kVA	CKT	P	BKR	LOAD DESCRIPTION	
LAPTOP CHARGING RM 1...	20 A	1	1	0.2	0.2		2	1	20 A	LAPTOP CHARGING RM 20...	
LAPTOP CHARGING RM 2...	20 A	1	3		0.2	0.0		4	1	20 A	LTG ROOM 19, 20, 21, 21A (**)
REC ROOM 19 (**)	20 A	1	5		0.7	0.7		6	1	20 A	REC ROOM 19 (**)
REC ROOM 20 (**)	20 A	1	7	0.7	0.7		8	1	20 A	REC ROOM 21 (**)	
ROOM 22 REC (E)	20 A	1	9		0.6	0.6		10	1	20 A	COMPUTER ROOM LIGHTS...
COMPUTER RM. LIGHTS (E)	20 A	1	11		0.6	0.7		12	1	20 A	REC ROOM 21
HALL REC (E)	20 A	1	13	0.6	0.6		14	1	20 A	COMPUTER REC (E)	
RM 22 REC (E)	20 A	1	15		0.6	0.6		16	1	20 A	COMPUTER REC (E)
EXISTING LOAD	20 A	1	17		0.6	0.6		18	1	20 A	EXISTING LOAD
EXISTING LOAD	20 A	1	19	0.6	1.2		20	2	20 A	A/C OUTLET RM 22 (E)	
A/C OUTLET RM 19 (E)	20 A	2	23		1.2	1.2		24	2	20 A	A/C OUTLET RM 22 (E)
EXISTING LOAD	20 A	1	25	0.6	1.2		26	1	20 A	RM #19 REC. (E)	
EXISTING LOAD	20 A	1	27		0.6	0.6		28	1	20 A	EXISTING LOAD
EXISTING LOAD	20 A	1	29		0.6	0.6		30	1	20 A	EXISTING LOAD
A/C OUTLET RM 21 (E)	20 A	2	31	1.2	0.0		32	1	20 A	SPARE	
A/C OUTLET RM 20 (E)	20 A	2	33		1.2	0.7		34	1	20 A	REC RM 20 (*)
SPACE	--	--	35		1.2	0.0		36	1	20 A	SPARE
SPACE	--	--	37	1.2	0.0		38	--	--	--	SPACE
SPACE	--	--	39		0.0	0.0		40	--	--	SPACE
SPACE	--	--	41		0.0	0.0		42	--	--	SPACE
TOTAL LOAD:				9 kVA	8 kVA	9 kVA					
TOTAL AMPS:				76 A	68 A	74 A					
LOAD CLASSIFICATION											
CONNECTED											
DEMAND											
ESTIMATED											
PANEL TOTALS											
CONNECTED LOAD: 25680 VA											
ESTIMATED DEMAND: 25680 VA											
CONNECTED CURRENT: 72 A											
EST. DEMAND CURRENT: 72 A											

NOTES:
 (*) NEW CIRCUIT BREAKER TO BE PROVIDED. (**) SPARE CIRCUIT MADE AVAILABLE AFTER DEMOLITION.

PANELBOARD: B-2(E)
 LOCATION: 2ND FLOOR CORRIDOR VOLTAGE: 208Y/120 V, 3 ø 4 W.
 MOUNTING: Surface Type 1 A.I.C. RATING: 10K
 MAIN DEVICE: 250 A, MLO SPECIAL:
 BUS AMPS:

LOAD DESCRIPTION	BKR	P	CKT	PHASE A kVA	PHASE B kVA	PHASE C kVA	CKT	P	BKR	LOAD DESCRIPTION	
EXISTING LOAD	20 A	1	1	0.6	0.6		2	1	20 A	EXISTING LOAD	
EXISTING LOAD	20 A	1	3		0.6	0.0		4	1	20 A	LTG ROOM 16, 18 (**)
REC ROOM 16 (**)	20 A	1	5		0.7	0.7		6	1	20 A	REC ROOM 16 (**)
ROOM 17 LIGHTS (E)	20 A	1	7	0.6	0.6		8	1	20 A	ROOM 17 LIGHTS (E)	
ROOM 17 REC (E)	20 A	1	9		0.6	0.6		10	1	20 A	BATHROOM STORAGE...
HALL LIGHTS (E)	20 A	1	11		0.6	0.6		12	1	20 A	HALL LIGHTS (E)
LAPTOP CHARGING RM 1...	20 A	1	13	0.2	0.2		14	1	20 A	LAPTOP CHARGING RM 18...	
REC ROOM 18 (**)	20 A	1	15		0.7	0.6		16	1	20 A	EXISTING LOAD
ROOM 18 A/C (E)	20 A	2	17		1.2	0.6		18	1	20 A	EXISTING LOAD
EXISTING LOAD	20 A	1	19	1.2	0.6		20	1	20 A	EXISTING LOAD	
ROOM 18 A/C (E)	20 A	2	21		1.2	0.6		24	1	20 A	EXISTING LOAD
EXISTING LOAD	20 A	1	25	0.6	0.6		26	1	20 A	EXISTING LOAD	
EXISTING LOAD	20 A	2	27		1.2	0.6		28	1	20 A	EXISTING LOAD
EXISTING LOAD	20 A	2	29		1.2	0.6		30	1	20 A	EXISTING LOAD
REC RM 17 (*)	20 A	1	31	0.7	0.0		32	1	20 A	SPARE	
SPARE	20 A	1	33		0.0	0.7		34	1	20 A	REC RM 18 (*)
BUSSED SPACE	--	--	35		0.0	0.0		36	--	--	BUSSED SPACE
BUSSED SPACE	--	--	37	0.0	0.0		38	--	--	--	BUSSED SPACE
BUSSED SPACE	--	--	39		0.0	0.0		40	--	--	BUSSED SPACE
BUSSED SPACE	--	--	41		0.0	0.0		42	--	--	BUSSED SPACE
TOTAL LOAD:				6 kVA	7 kVA	8 kVA					
TOTAL AMPS:				54 A	63 A	68 A					
LOAD CLASSIFICATION											
CONNECTED											
DEMAND											
ESTIMATED											
PANEL TOTALS											
CONNECTED LOAD: 21960 VA											
ESTIMATED DEMAND: 21960 VA											
CONNECTED CURRENT: 61 A											
EST. DEMAND CURRENT: 61 A											

NOTES:
 (*) NEW CIRCUIT BREAKER TO BE PROVIDED. (**) SPARE CIRCUIT MADE AVAILABLE AFTER DEMOLITION.

PANELBOARD: A-2(E)
 LOCATION: 2ND FLOOR CORRIDOR VOLTAGE: 208Y/120 V, 3 ø 4 W.
 MOUNTING: Surface Type 1 A.I.C. RATING: 10K
 MAIN DEVICE: 250 A, MLO SPECIAL:
 BUS AMPS:

LOAD DESCRIPTION	BKR	P	CKT	PHASE A kVA	PHASE B kVA	PHASE C kVA	CKT	P	BKR	LOAD DESCRIPTION	
LIBRARY LIGHTS (E)	20 A	1	1	0.6	0.6		2	1	20 A	LIBRARY LIGHTS (E)	
LIBRARY LIGHTS (E)	20 A	1	3		0.6	0.0		4	1	20 A	LTG ROOM 12, 13 (**)
REC ROOM 13 (**)	20 A	1	5		0.7	0.2		6	1	20 A	LAPTOP CHARGING RM 13...
REC ROOM 12 (**)	20 A	1	7	0.7	0.2		8	1	20 A	LAPTOP CHARGING RM 12...	
REC ROOM 13 (**)	20 A	1	9		0.7	6.0		10	1	20 A	NURSE OFFICE LIGHTS (E)
NURSE OFFICE REC (E)	20 A	1	11		0.6	0.6		12	1	20 A	HALL REC (E)
WATER FOUNTAIN (E)	20 A	1	13	0.6	0.6		14	1	20 A	LIBRARY - FRONT REC (E)	
LIBRARY (E)	20 A	1	15		0.6	0.6		16	1	20 A	LIBRARY - REAR REC (E)
A/C OUTLET LIBRARY (E)	30 A	2	17		1.8	1.2		18	2	20 A	A/C OUTLET LIBRARY (E)

TABLE – Page 1
Francis Scott Key Elementary School – List of Asbestos Containing Materials
Classroom Modernization IN SCOPE Work

Location	Description	Type (Code 1)	Amount		Condition (Code 2)	Action (Code 3)
			Square	Linear		
Class Room# 3(above suspended ceiling)	Pipe Insulations and fittings	FRI		20	ND	REM
Class Room #10	12x12 Blue/White Floor tile mastic	NF1	60		ND	REM
Class Room #10	9x9 Blue tile	NF1	640		ND	REM
Class Room #10	9x9 Blue tile mastic	NF1	640		ND	REM
Class Room# 3	Black Board Glue Dots (Assumed)	NF1	150		ND	REM
Class Room# 4 & 5 (100SF each)	Black Board Glue Dots (Assumed)	NF1	200		ND	REM
Class Room# 10,11, 12, 13, 16 & 18 (200 SF Each)	Black Board Glue Dots (Assumed)	NF1	1200		ND	REM
Class Room# 19, 20, 21 (300 SF each)	Black Board Glue Dots (Assumed)	NF1	900		ND	REM

TABLE – Page 2
Francis Scott Key Elementary School – List of Asbestos Containing Materials
Classroom Modernization OUT OF SCOPE Work

Location	Description	Type (Code 1)	Amount		Condition (Code 2)	Action (Code 3)
			Square	Linear		
Boy's Restroom outside of Cafeteria	Pipe Insulation 2-6 inch	Fri		90	ND	REM
Boy's Restroom outside of Cafeteria	Pipe Fitting Insulation	Fri		25	ND	REM
Store Room 6	Pipe Fitting Insulation	Fri		1	ND	REM
Cafeteria	Pipe Insulation 2-6 inch	Fri		73	ND	REM
Cafeteria	Pipe Fitting Insulation	Fri		24	ND	REM
Mechanical Room/Building Engineers Office next to Old Boiler Room	Pipe Insulation > 6 inch	Fri		30	ND	REM
Mechanical Room/Building Engineers Office next to Old Boiler Room	Pipe Insulation 2-6 inch	Fri		7	ND	REM
Mechanical Room/Building Engineers Office next to Old Boiler Room	Pipe Fitting Insulation	Fri		3	ND	REM
Old Boiler Room - Inactive Boilers	Pipe Insulation > 6 inch	Fri		90	ND	REM
Old Boiler Room - Inactive Boilers	Pipe Insulation 2-6 inch	Fri		50	ND	REM
Old Boiler Room - Inactive Boilers	Pipe Fitting Insulation	Fri		22	ND	REM
Basement Custodial Break Room beside Girls Restroom	Pipe Insulation 2-6 inch	Fri		10	ND	REM
Basement Custodial Break Room beside Girls Restroom	Pipe Fitting Insulation	Fri		8	ND	REM
Girl's Restroom	Pipe Insulation 2-6 inch	Fri		95	ND	REM
Girl's Restroom	Pipe Fitting Insulation	Fri		32	ND	REM
Classroom 23	Pipe Insulation 2-6 inch	Fri		7	ND	REM
Store Room 7	Pipe Insulation 2-6 inch	Fri		16	ND	REM
Store Room 7	Pipe Fitting Insulation	Fri		9	ND	REM
Store Room 2	Pipe Insulation 2-6 inch	Fri		15	ND	REM
Store Room 2	Pipe Fitting Insulation	Fri		1	ND	REM
Store Room 5	Pipe Insulation 2-6 inch	Fri		8	ND	REM
Store Room 5	Pipe Fitting Insulation	Fri		2	ND	REM
Storage Room across from Girl's Restroom entrance	Pipe Fitting Insulation	Fri		8	ND	REM

TABLE – Page 3
Francis Scott Key Elementary School – List of Asbestos Containing Materials
Classroom Modernization OUT OF SCOPE Work

Location	Description	Type (Code 1)	Amount		Condition (Code 2)	Action (Code 3)
			Square	Linear		
Store Room 1 (Fan Room across from Cafeteria) - Rear of Fan Unit	Pipe Insulation > 6 inch	Fri		26	ND	REM
Store Room 1 (Fan Room across from Cafeteria) - Rear of Fan Unit	Pipe Insulation 2-6 inch	Fri		32	ND	REM
Store Room 1 (Fan Room across from Cafeteria) - Rear of Fan Unit	Pipe Fitting Insulation	Fri		23	ND	REM
Hallway from Store Room 1 to the Girl's Restroom	Pipe Insulation > 6 inch	Fri		60	ND	REM
Hallway from Store Room 1 to the Girl's Restroom	Pipe Insulation 2-6 inch	Fri		140	ND	REM
Hallway from Store Room 1 to the Girl's Restroom	Pipe Fitting Insulation	Fri		40	ND	REM
Hallway next to Cafeteria	Pipe Insulation > 6 inch	Fri		80	ND	REM
Hallway next to Cafeteria	Pipe Insulation 2-6 inch	Fri		45	ND	REM
Hallway next to Cafeteria	Pipe Fitting Insulation	Fri		30	ND	REM
Hallway outside Classrooms 2 -6	Pipe Fitting Insulation	Fri		5	ND	REM
Hallway outside Classrooms 8 -11	Pipe Fitting Insulation	Fri		3	ND	REM

Westchester Environmental, LLC

1248 Wrights Lane; West Chester, PA 19380
610-431-7545, fax: 610-431-7543

Print date:
02/27/20

Asbestos Abatement Specification for Francis Scott Key Elementary School
2230 S 8th Street; Philadelphia. PA 19148

SPECIFICATIONS

FOR

REMOVAL OF ASBESTOS CONTAINING MATERIALS

CLASSROOM MODERNISATION

CAPITAL PROJECTS

FRANCIS SCOTT KEY ELEMENTARY SCHOOL

2230 S 8TH Street;
PHILADELPHIA, PA 19148

PREPARED FOR:

**SCHOOL DISTRICT OF PHILADELPHIA
OFFICE OF ENVIRONMENTAL MANAGEMENT
440 N BROAD STREET
PHILADELPHIA, PA 19130**

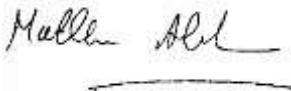
WORK SITE:

**CLASS ROOMS 1ST & 2ND FLOOR
FRANCIS SCOTT KEY ELEMENTARY SCHOOL
2230 S 8TH ST;
PHILADELPHIA; PENNSYLVANIA 19148**

PREPARED BY:

**WESTCHESTER ENVIRONMENTAL LLC
1248 WRIGHTS LANE
WEST CHESTER, PA 19380**

DECEMBER 2019



Matthew Abraham
Certified Pennsylvania Asbestos Project Designer
Cert#010199

Asbestos Abatement Specification for Francis Scott Key Elementary School
2230 S 8th Street; Philadelphia. PA 19148

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REMOVAL SPECIFICATIONS FOR THE ABATEMENT OF
ASBESTOS CONTAINING MATERIALS

PART 1 – GENERAL

1. **INTRODUCTION**

The removal specifications details the procedures that need to be followed for the removal of assumed asbestos containing chalk board glue dots in the classrooms of Cayuga Elementary School of the School District of Philadelphia, Pennsylvania.

2. **STIPULATIONS**

The procedures specified herein are guidelines for minimum performance. The Contractor is responsible for his own methods of operations and conformance to regulatory codes, rules and guidelines. The Contractor is *required to obtain all permits- licenses and approvals to perform the work*, including any rights to use patented systems.

3. **SCOPE OF WORK**

A. The scope of work for this project covers the supplying of all labor, tools, material, equipment, services and appurtenances to accomplish the work specified and indicated on the contract drawing. The work shall be performed to the complete satisfaction of the **Owner (School District of Philadelphia)** in accordance with the current City of Philadelphia, EPA and OSHA regulations, State Labor and Industry regulations and any other applicable State, Local and Government regulations.

B. Contractor shall submit an Action Plan which describes specifically how abatement work is to be completed for each abatement phase. At a minimum the work Plan shall address work area preparation, work practices, decon location, estimated completion dates, respiratory protection and disposal; approval of the Action Plan must be obtained through the Owner prior to the start of work. Procedures outlined in the Action Plan must be followed throughout the abatement phase. Any changes in Action Plan must obtain prior approval from the Owner.

Asbestos Abatement Specification for Francis Scott Key Elementary School
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C. The work under this project includes but is not limited to the following:

Francis Scott Key Elementary School: Quantities and locations of ACM to be removed as indicated in the table below and in Appendix 1

Location	Description	Type (Code 1)	Amount		Condition (Code 2)	Action (Code 3)
			Square	Linear		
Class Room# 3(above suspended ceiling)	<u>Pipe Insulations and fittings</u>	FRI		20	ND	REM
Class Room #10	12x12 Blue/White Floor tile mastic	NF1	60		ND	REM
Class Room #10	<u>9x9 Blue tile</u>	NF1	640		ND	REM
Class Room #10	<u>9x9 Blue tile mastic</u>	NF1	640		ND	REM
Class Room# 3	<u>Black Board Glue Dots (Assumed)</u>	NF1	150		ND	REM
Class Room# 4 & 5 (100SF each)	<u>Black Board Glue Dots (Assumed)</u>	NF1	200		ND	REM
Class Room# 10,11, 12, 13, 16 & 18 (200SF each)	<u>Black Board Glue Dots (Assumed)</u>	NF1	1200		ND	REM
Class Room# 19, 20, 21(300SF each)	<u>Black Board Glue Dots (Assumed)</u>	NF1	900		ND	REM

4. CONTROL OF WORK

- A. All work which does not conform to the requirements of the contract, plans and specifications will be considered unacceptable.
- B. Unacceptable work, whether the result of poor workmanship, use of defective materials, damage through carelessness, or any other cause found to exist prior to the final acceptance of the work, shall be corrected immediately and replaced in an acceptable manner.
- D. If the Owner finds the materials furnished, work performed or the finished product not within reasonably close conformity with the plans and specifications and have resulted in an unacceptable finished product, the affected work or material shall be removed and replaced or otherwise corrected by and at the expense of the Contractor.

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- E. The term "reasonably close conformity" shall not be construed as waiving the Contractor's responsibility to complete the work in accordance with the plans, contract and specifications. The term shall not be construed as waiving the Owner's right to insist on strict compliance with the requirements of the contract, plans and specifications during the Contractor's prosecution of the work, when in the Owner's opinion and judgment such compliance is essential to provide an acceptable finished work.

5. QUALITY ASSURANCE

A. Consultant:

- 1) The Owner shall contract for a Quality Assurance Consultant Project Monitor hereafter referred to as 'Consulting Firm" which specializes in performing air sampling, project monitoring and inspections on asbestos abatement projects. The testing laboratory shall as a minimum be accredited by the City of Philadelphia Air Management Services; NIOSH PAT Program (Proficiency Analytical Testing) for PCM asbestos air analysis and NVLAP for asbestos bulk analysis.
- 2) The Consulting Firm will be responsible for certifying the project was completed in accordance with all federal, state, and City asbestos standards and regulations.
- 3) The Consulting Firm shall review the Contractors Action Plan which describes specifically how work is to be completed for each abatement phase. Approval of the Action Plan must be obtained through the Owner prior to the start of work.

B. Contractor Experience:

- 1) The Asbestos Abatement Contractor shall have a minimum of three (3) years' experience in the asbestos abatement business. He shall have successfully completed three (3) projects of similar or larger size and dollar value to this project and shall not have defaulted on an asbestos abatement project within the last three (3) years. The Contractor shall be certified by the City of Philadelphia & Pennsylvania Department of Labor and Industry and employ asbestos workers certified to work in the Commonwealth of Pennsylvania.

C. Worker Certification:

- 1) The Contractor shall furnish proof that his employees have had instruction on the dangers of asbestos exposure on respirator use,

Asbestos Abatement Specification for Francis Scott Key Elementary School

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decontamination and current OSHA and EPA regulations.

- 2) Documentation of workers medical exams, consist of x-rays and pulmonary function shall be submitted and as may be required by current OSHA and EPA regulations and any applicable State and Local Government regulations.
- 3) There must be on site at all times, an EPA Certified Asbestos Abatement Supervisor. The Asbestos Abatement Supervisor shall have successfully completed a 5-day EPA Certified Practices and Procedures Course as per 40 CFR. Part 763, Subpart E. Appendix C-EPA Model Accreditation Plan (must provide a copy of certificate from EPA approved course). All asbestos workers shall have successfully completed a 4-day EPA Certified Practices and Procedures Course as per 40 CFR, Part 763. Subpart E. Appendix C-EPA Model Accreditation Plan. The Contractor must provide copies of certificates from Pennsylvania Department of Labor and Industry for all workers, and supervisors as required by regulation.
- 4) When required by the Pennsylvania Department of Labor and Industry (PDL&I) the Contractor, Abatement Supervisor and Abatement Workers shall be licensed by PDL&I. Each worker/supervisor shall have a current photo identification issued by PDL&I available on request by the Owner when required.
- 5) The Philadelphia Federation of Teacher's (PFT) Environmental Consultant shall have the option to conduct side by side final clearance air samples within 24 hours of notice of work area completion with the API. Samples will be collected, analyzed, and addressed, in accordance with all applicable, Federal, State, and local regulations.
 - a. For Major Projects, samples shall be collected and analyzed via TEM. Result shall be evaluated in accordance with the ACR and AHERA.
 - b. Acceptable airborne fiber concentrations for individual "outside the work area" air samples shall be < 0.010 f/cc for PCM and < 0.010 s/cc for TEM.
- 6) All work and disposal shall be performed in compliance with all applicable Federal, State, and local regulations including, but not limited to:
 - a. 29 CFR 1926.1101 (OSHA);
 - b. 29 CFR 1926.501 (OSHA);
 - c. 40 CFR Part 61 (NESHAP);
 - d. 40 CFR Part 763 (AHERA);
 - e. 40 CFR 761 (PCB Regulations);
 - f. Resource Conservation and Recovery Act (RCRA);

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- g.** 40 CFR 300-399, EPA Comprehensive Environmental Response Compensation & Liability Act
- h.** 40 CFR 745, EPA Toxic Substances Control Act; LBP Poisoning Prevention
- i.** EPA Renovation, Repair, and Painting (RRP) rule under the Toxic Substances Control Act
- j.** 49 CFR 171-180, DOT Hazardous Material Regulations
- k.** 42 CFR Part 84 & 30 CFR Part 11 (NIOSH/DHHS respirator standards);
- l.** the Asbestos Control Regulation (Philadelphia Department of Public Health);
- m.** Act 194 & Act 161 (Pennsylvania Department of Labor and Industry);
- n.** Section F-315.8 (R) of the Philadelphia Fire Prevention Code;
- o.** NADCA ACR 2006 (HVAC System cleaning standards);
- p.** this Specification.

6. POSTING OF REGULATIONS

- A.** The Contractor will have at all times in his possession at his office one (1) copy and in view at the job site one (1) copy of the Asbestos Control Regulations of the City of Philadelphia, current OSHA Regulations 29 CFR 1926.1101 _ Asbestos and current Environmental Protection Agency 40 CFR Part 61. Subpart M: National Emission Standard for Hazardous Air Pollutants as related to asbestos stripping, emissions, notification work practices and disposal of asbestos waste.

7. ASBESTOS ABATEMENT CONTRACTOR'S (AAC) RESPONSIBILITIES

- 1.** The Contractor is required to notify the building occupants and the following agencies in writing ten (10) days prior to starting work for notification and instructions concerning proper disposal of asbestos waste material.
 - 1)** United States Environmental Protection Agency - Region III
Asbestos - NESHAP Coordinator (3AT33)
841 Chestnut Building
Philadelphia. PA 19106
 - 2)** Pennsylvania Department of Environmental Protection
Bureau of Air Quality Control
Regional Manager
 - 3)** Pennsylvania Department of Labor and Industry
Asbestos Occupation Accreditations & Certification

Asbestos Abatement Specification for Francis Scott Key Elementary School

2230 S 8th Street; Philadelphia. PA 19148

Bureau of Occupational and Industrial Safety
Room 155E Labor and Industry Building
Seventh & Forster Streets
Harrisburg. Pennsylvania 17120

- 4) City of Philadelphia, appropriate notification must also be made. Obtain permits as required by local regulations.
 - 5) EPA - DEP approved asbestos landfill proposed to be used by the Contractor for RACM. Submit completed WSR for RACM at projects end (see 3.07. F).
2. The AAC is responsible for visiting the site and verifying quantities of asbestos containing materials, locations of utilities, and waste out routes prior to submitting a bid.
 - a. No work shall be performed if the AAC believes the work to be performed is a change and/or addition to the work scope outlined in these construction documents without first obtaining a Notice to Proceed (NTP) from the Owner.
 - b. The Owner shall not be responsible for compensating the AAC for work performed that is considered a change and/or addition to the construction documents without the issuance of a NTP and/or a written work directive.
 3. The AAC will provide a schedule for the work to be completed.
 4. The AAC shall provide all labor, tools, materials and scaffold necessary to complete the project safely, in a timely fashion, and in accordance with the specification and all applicable regulations.
 5. The AAC shall be responsible for pre-cleaning & the removal of all furniture and educational materials (labeled with the Room Numbers or Areas in which they originated from prior to relocation) in all scheduled abatement work areas listed. This is to be done in coordination with the Owner to establish temporary storage locations for movable items removed from the abatement work areas
 6. The Owner shall be responsible to remove all computers, monitors, printers, all other computer related components and/or items deemed too valuable or sensitive to be handled by the AAC.
 7. Returning items back to the work area rooms shall be the responsibility of the AAC.
 8. The AAC shall supply, at their own expense, all construction materials, supplies, and all electrical, water, and waste connections, tie-ins, or extensions. Temporary

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service lines shall be installed to prevent tripping, slipping or falling. The AAC must utilize a licensed electrician to provide a separate temporary electric panel, receptacles, and lights, all with ground fault interruption and current-overload protection. All temporary electrical set-ups shall be in accordance with OSHA regulation and NEMA standards.

9. The temporary electrical panel and the building's electrical supply source shall be enclosed, concealing all potential contact points in order to avoid electrocution hazard and potential arcing to nearby or passing conductor materials.
10. Installation of the temporary electric panel shall occur within the ten (10) day waiting period prior to the start of this asbestos abatement project, after submission of the Asbestos Abatement Notification to the EPA, DEP, and Philadelphia Air Management Services.
11. All water connections utilized throughout the performance of this asbestos abatement project shall be disconnected at the source before leaving the site AFTER ALL shifts, and all hoses shall be drained to prevent unexpected water leaks after the AAC and API are offsite.
12. When temporary service lines are no longer required, they shall be removed by the AACs licensed electrician.
13. Any parts of the permanent service lines, grounds and buildings, disturbed or damaged by the installation and/or removal of the temporary service lines, shall be restored to their original condition by the AAC as approved by the Owner.
14. The AAC shall maintain current copies of certifications for workers on-site, and shall keep copies of all pertinent specifications and regulations on-site. The API retains the right to prohibit work by employees without current certifications.
15. The AAC shall maintain a detailed sign-in/sign-out log, which must be filled out by every person entering the work area. All entries shall be complete and legible.
16. The AAC shall be responsible for security of the work site, fire/smoke detection, and maintenance of existing utility systems as it relates to the performance of this project.
17. The AAC shall provide fire protection in accordance with all State and Local codes. This includes, but is not limited to:
 - a. Providing a written fire prevention and emergency action plan.
 - b. Providing multi-purpose ABC rated fire extinguishers, insuring that on-site personnel are aware of the location and proper use of all fire extinguishers and other safety equipment.
 - c. Performing a fire watch of the overall work area.
 - d. Designating a safety coordinator to implement the above actions. The AACs safety coordinator shall be responsible for:

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1. Fire/life safety entries shall be entered into the AACs log daily and shall be submitted with the AAC's final report.
2. Daily entries shall include names, dates, duration, problems & corrective actions taken by the fire watch - must be signed by the safety coordinator.

18. The AAC shall submit to the API the number of AFDs projected to obtain a negative pressure differential sufficient to provide a minimum of four (4) air changes of the work area per hour for all Major Projects along with the calculations used to determine this. The AAC shall install a manometer to confirm the differential, which should read minimum of -0.02 inches of water column.
 - a. Manometer(s) shall be installed by the AAC around the work area before the start of the performance of asbestos abatement activities until the receipt of acceptable clearance air sample results to record and verify adequate negative pressure differential is maintained throughout the project.
19. Assure protection of AFD exhaust ducts from damage during asbestos abatement activities.
20. The AAC Supervisor and API shall perform a visual inspection of the entire floor immediately below all active abatement work areas at the end of each 8 hour shift to verify that no water leaks, fallen material, or any other type of damage has occurred.
 - a. If water leaks, fallen material, or any other type of damage has occurred:
 1. all asbestos abatement work shall be halted;
 2. the API shall immediately notify the Project Manager and Owner for direction and input;
 3. the source of the leak or damage shall be determined;
 4. the containment breach issue shall be rectified before any asbestos abatement work will be permitted to continue.
21. As required by the Asbestos Control Regulation, the AAC shall provide a minimum 18" square transparent viewing window consisting of shatterproof material greater than or equal to 1/8" in thickness located at a height appropriate for accessible viewing and in such a manner as to maximize visibility of the abatement work area.

8. AIR TESTING AND MONITORING

- A. Air sampling of the work areas and surrounding environment will be conducted during the performance of this contract by the Consulting Firm so as to ensure abatement procedures are in compliance with all codes, regulations, ordinances and this specification.
- B. The Contractor shall fully cooperate with the Consulting Firm and all others responsible for testing and inspecting the work.

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- C. Air testing and analyses shall be in accordance with City of Philadelphia Asbestos Control Regulations, current EPA and requirements of Section 29 CFR 1926.1101 of the current OSHA Regulations, as a minimum. Analysis shall be performed by Phase Contrast Microscopy per NIOSH 7400 Method and/or Transmission Electron Microscopy (TEM) per EPA Level I analytical procedures.
- D. Air tests taken prior to start of work (background) and at completion (pre-clearance) will be analyzed by PCM-Phase Contrast Microscopy. Final (clearance) testing shall be by TEM-Transmission Electron Microscopy.
- E. The Consulting Firm shall give verbal notification to the Owner of the results of each test within twenty-four (24) hours of the time the samples were delivered to the laboratory. The Consulting Firm shall confirm the results in writing within three (3) days thereafter.
- F. Prompt reports are necessary so that, if required, modifications to work methods and/or practices may be implemented as soon as possible.
- G. Representatives of the Consulting Firm shall have access to the work area at all times. The Contractor shall provide facilities for such access in order that the Consulting Firm may properly perform its function.
- H. Sampling equipment and personnel will be provided by the Consulting Firm.
- I. Air sampling shall be performed in each work area prior to commencement of the work at that location. The highest fiber count reading during pre-clearance cleanup monitoring shall be lower than the background readings established by pre-job monitoring or 0.01 f/cc, whichever is lower.

SCHEDULE NOTES:

1. Consecutive daily air samples will be collected during abatement to yield a minimum of eight (8) hours of sampling time for each active work area.

2. Exterior work area(s) samples shall be collected daily at decon clean room entrance, load out exit, discharge of HEPA exhaust units, and area(s) adjacent to work area(s) that are occupied or will be re-occupied.

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3. Aggressive air sampling must be conducted when work area is prepared as a negative pressure enclosure.
- K. Work area clearance testing shall be completed before work site protective barriers are removed.
- L. The Contractor is responsible for performing the thirty (30) minute excursion air sampling per OSHA regulations.
- M. The Contractor is responsible for performing 8 hour TWA personal air samples in the employees breathing zone per OSHA regulations.

9. AIR FILTERING - (FOR GUIDELINE PURPOSES ONLY)

- A. An approved negative pressure machine may be used in the active work area using HEPA equipped air movement units.
- B. Air may be drawn from clean areas through the decontamination and active work areas. HEPA filtered and exhausted through air movement units to the containment exterior. Replace filters in accordance with manufacturer's instructions and to meet the needs of this specification.
- C. Air movement should be sufficient quantity to ensure a minimum of four (4) air changes per hour.

Example: Active work area = 50' x 50' x 20' H = 50,000 cu. ft.

For four air changes per hour = 4 AC/HR x 50,000 CF/AC = 200,000 cu.ft./hr.

In cubic feet per minute = 200,000 CF/HR: 60 min. 1 hr. = 3,333 cu. ft/minute

This active work area would require a combination of air movement/HEPA units, i.e. 2,500 CFM and 1,500 CFM

- D. The exhaust system must be sufficient to maintain a minimum pressure differential of -0.02 inches of water relative to unsealed, adjacent area.
- E. The exhaust system(s) will run twenty-four (24) hours/day until final clearance is obtained and will be maintained in accordance with ANSI Z9.2 and the manufacturer's directions.

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- F. To ensure continuous operation, the Contractor shall have a spare negative exhaust unit available.

- G. Other approved air filtering methods may be utilized at the Contractor's discretion, with the stipulation that designated regulatory agencies provide documented approval to the Owner. It shall be the responsibility of the Contractor to submit all documentation required to the appropriate regulatory agency for their review and approval.

10. PLACEMENT OF WARNING SIGNS AND LABELS

- A. The Contractor shall furnish and place warning signs at all approaches to asbestos control areas containing concentrations of airborne asbestos fibers. Locate warning signs at such a distance that personnel may read the warning sign and take the necessary protective action required before entering the area. Warning signs shall be in place for the duration of the work. The Contractor shall furnish and attach caution labels to all disposal containers holding asbestos materials, scrap waste_ debris and other products contaminated with asbestos.

- B. Warning Signs: Provide warning signs conforming to 29 CFR 1926.1101 with the following legend:

**DANGER
ASBESTOS
CANCER AND LUNG DISEASE HAZARD
AUTHORIZED PERSONNEL ONLY
RESPIRATORS AND PROTECTIVE CLOTHING ARE
REQUIRED IN THIS AREA**

- C. Caution Labels: Attach label to the outside of all disposal bags and containers which hold asbestos contaminated materials and are to be removed from the site. Caution labels shall be printed in letters of sufficient size and contrast so as to be readily visible and legible and shall display the following legend:

**DANGER
CONTAINS ASBESTOS FIBERS
AVOID CREATING DUST
CANCER AND LUNG DISEASE HAZARD**

- D. Identification Labels: Attach label to the outside of all disposal bags and containers which hold asbestos contaminated materials and are to be

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transported off facility site. Identification labels shall display the following legend:

Waste Generator Name: _____ Fill
Out _____
Generator Location: _____ Fill
Out _____

- E. Transportation marking shall conform to 49 CFR 171 and 172 and shall be provided on all containers with more than one pound of friable asbestos. Transportation marking shall display the following legend:

R Q HAZARDOUS SUBSTANCE
SOLID, NOS
ORM-E, NA 9188
(ASBESTOS)

END OF SECTION

PART 2 - PRODUCTS

1. EQUIPMENT AND MATERIALS

- A. The list of required materials will include, but is not necessarily limited to the following:

- 1) Respirators: Provide respiratory protection in accordance with OSHA Regulation 29 CFR 1926.1101 and appendices ANSI 288.2-1980. Respiratory protection regardless of negative exposure assessments. There shall be NO EXCEPTION to this requirement. As minimum protection, negative pressure air purifying respirators shall be worn. Contractor shall select the appropriate respirator based on an initial exposure assessment or exposure monitoring results. No employee or visitor shall enter any area without this protection until clearance has been obtained. Employees or visitors shall wear a respirator. Respirators shall be NIOSH approved. Ensure proper filters are worn using a HEPA as a minimum.
- 2) Protective Clothing:
 - a) Disposable Clothing - such as "Tyvek" by DuPont. Clothing shall consist of coverall head cover and foot cover. Gloves will be worn for hand cover as needed.

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- 3) Wetting Agents - The asbestos material will be sprayed with water containing an additive to enhance penetration. The additive or wetting agent will be polyoxyethylene at a concentration of one (1) ounce per five (5) gallons of water or as otherwise specified by manufacturer. A fine spray of this solution must be applied to prevent fiber disturbance preceding the removal of the asbestos material. The asbestos will be sufficiently saturated to prevent emission of airborne fibers in excess of the exposure limits prescribed in the current OSHA standards referenced in these specifications. DRY REMOVAL WILL NOT BE ALLOWED EXCEPT WITH WRITTEN APPROVAL FROM EPA or BECAUSE OF FREEZING WORK AREA TEMPERATURES.
- 4) Polyethylene sheeting: Six (6) mils. for protection of floors, walls, doors, windows, fixed equipment, HVAC supply and return openings, and critical barriers.
- 5) Clear Polyethylene bags (with warning labels) six (6) mils minimum for disposal. All asbestos that is removed shall be double bagged.
- 6) Tape: High quality vinyl or fabric duct tape. Paper masking tape will not be permitted.
- 7) Negative Pressure Filtration Equipment: Air movement and filtering equipment equipped with HEPA filters rated at 99.97% removal down to 0.3 microns, and of sufficient capacity to provide a minimum of four (4) air changes per hour for each active work area.
- 8) Airless Spray Equipment: Electric airless spray equipment for saturating and mist fiber control. Low pressure (500 psi) equipment must be available on-site and utilized as required.
- 9) Vacuum: HEPA rated for surface cleaning and house-keeping. Hand operated and power tools such as, but not limited to, saws, corers, abrasive wheels and drills should be provided with local exhaust ventilation systems with HEPA filters.
- 10) Hand Tools: Brooms, plastic shovels, scrapers, brushes, etc., in sufficient quantity to ensure the appropriate level of housekeeping.
- 11) Water Filtration System: Shower and contaminated water filtration system.

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- 12) GFI Equipment: All electrical connections in the work area must be through "ground fault" protected outlets/circuits.
 - 13) Penetrating Encapsulant: Penetrating encapsulants to be used on this project are International Cellulose Corporation SK-13 Asbestos Encapsulant, International Protective Coatings Corporation Serpiflex Shield, Fiberlock Technology ABC Asbestos Binding Compound Concentrate, and others listed as acceptable in the Environmental Protection Agency - Battelle Laboratory Encapsulant Study. or approved equal.
 - 14) Bridging Encapsulant: Bridging encapsulants to be used on this project are American Coatings Corporation Cable Coating 2B, Decadex Laboratories Firecheck, Fiberlock Technology ABC Asbestos Binding Compound Concentrate, or approved equal.
- B. The Contractor will have at all times in his possession at the job site Material Safety Data Sheets (MSDS) for wetting agents, encapsulants, solvents, strippers, and an other potentially hazardous materials.

2 PERSONNEL PROTECTIONS

- A. Personnel protection is required for laborers, mechanics, supervision and visitors at the work site during the set-up and abatement operations.
- B. Each worker shall be supplied with a minimum of two (2) complete protective work clothes and respirator filter changes per day for the complete duration of the project. Hard hats should be available as appropriate which meet ANSI Z-89.1 standards. Safety toe footwear is to be worn underneath the disposable shoe covers and must meet the requirements and specifications in ANSI Z-41.1. Eye wear and face protection must meet the standards and specifications of ANSI 287.1.
- C. In addition to sets of protective work clothes for workers, the Contractor shall have on hand two (2) additional sets of disposable work clothes, per day and respirators for personnel who are authorized to inspect the work site. Hard hats should be available as appropriate which meet ANSI Z-41.1. Eye wear and face protection must meet the standards and specifications of ANSI Z-87.1.
- D. Respirators approved for asbestos use and protective work clothes will be worn by laborers and mechanics as a minimum during set-up operations (plastic draping, light-fixture dropping or removal, etc.).

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- E. Appropriate respirators will be worn by all personnel in the active work area.
- F. Upon leaving the active work area, filters will be discarded, cartridges removed and respirators cleaned in disinfectant solution and clean water rinse.
- G. Clean respirators will be stored in plastic bags when not in use.
- H. Respirators will be inspected daily for broken, missing, or deteriorated parts.

END OF SECTION

PART 3 - EXECUTION

1 AREA PREPARATION

- A. Movable furniture blinds and equipment will be removed from area of work by the Using Agency.
- B. Heating and ventilating system servicing the areas of work must be shut down prior to starting any work. Notify the Institution prior to starting any work in order that they may arrange to have the heating and ventilating system shut down.
- C. The Contractor shall isolate the work area for the duration of the work by installing critical barriers completely sealing off all openings in the work area, including, but not limited to, heating, ventilation ducts, doorways, corridors, windows, roof ventilator openings, and wall vents, with plastic sheeting taped securely in place with six (6) mils plastic sheeting.
- D. The Contractor shall build decontamination chamber(s) if required to be connected to each active work area for entrance to or exit from the active work area. When required a separate material load out unit shall be constructed.
- E. The Contractor shall cover all fixtures, fixed demountable partitions, lighting, fixed items and equipment in the work area with plastic sheeting

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taped securely in place.

- F. Duct tape, staples, wood strips and other methods will be used appropriately to attach vertical plastic barriers to walls and to floors. All edges of plastic material shall overlap the adjoining sheet a minimum of twelve inches. All joints (vertical and horizontal) to be continuously sealed with duct tape.
- G. Upon completion of area isolation, the Contractor shall remove, where practical, all detachable electrical heating and ventilation equipment, Wipe and vacuum, clean and remove from active work area.

3.02 METHOD OF REMOVAL

- A. Remove and dispose of all asbestos-containing materials (ACM) in accordance with the methods and procedures outlined in the City of Philadelphia Asbestos Control regulations, United States Department of Labor, Occupational Safety and Health Administration (OSHA) Asbestos Regulations, Codes of Federal Regulations Title 29. Part 1926. Section 1926.1101.
- B. Dry removal will not be allowed.
- C. Work of this section shall be performed in the following manner:
 - 1) Eliminate air flow into containment area by isolating all supply and return air ducts from mechanical system. Turn off electrical power.
 - 2) Install six (6) mil polyethylene critical barriers over all doors, wall openings, ceiling openings, electrical outlets, etc. Secure with duct tape on all sides.
 - 3) Connect required number of negative air units in the work area.
 - 4) All air from negative air units shall be exhausted outside the building.
 - 5) Isolation barriers separating occupied areas and work areas shall be framed and covered with 1/2 inch plywood and two (2) layers of six (6) mil polyethylene.
 - 6) Duct HEPA filter unit through door. Locate unit to prevent dead air pockets.

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- 7) Install triple air curtain, six (6) mil polyethylene (typical), over door opening into decontamination unit or load out unit.

3.03 HOUSEKEEPING

- A. Throughout the work period, the Contractor shall maintain the building and site in a standard of cleanliness as specified throughout these specifications.
- B. Contaminated disposable clothing, respirator filters and other debris will be bagged_ properly labeled and sealed at the end of each work day.
- C. All asbestos generated by removal, encapsulation or repair will be bagged, properly labeled, and sealed at the end of each work day.
- D. Respirators will be thoroughly cleaned at the end of each work day and stored for the next day's use.
- E. Retain all stored items in an orderly arrangement allowing maximum access, not impeding traffic, and providing the required protection of materials.
- F. Do not allow the accumulation of scrap, debris, waste material, and other items not required for completion of this work.
- G. At least weekly, and more often if necessary, completely remove all scrap, debris and waste material from the job site.
- H. Unless otherwise noted or directed, materials resulting from demolition operations shall be the property of the Contractor, shall not be used in the work and shall be promptly removed from the site.
- I. Daily and more often if necessary, inspect the work areas and adjoining spaces, and pick up all scrap, debris and waste material. Remove all such items to the place designated for their storage.
- J. Provide adequate storage for all items awaiting removal from the job site, observing all requirements for fire protection and protection of the ecology.
- K. Maintain the site in a neat and orderly condition at all times.
- L. Compressed air is not to be used for cleaning purposes.

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3.04 FINAL DECONTAMINATION OF WORK AREA

- A. Following careful double bagging of all removed asbestos material by the Contractor, he shall label bags as required.
- B. Bags shall be wiped with clean damp cloths prior to transportation to approved disposal site.
- C. With critical barriers in place, the negative pressure system operating, the Contractor shall carry out the first cleaning. Use each surface of a cleaning cloth one time and then dispose of as contaminated waste.
- D. Continue this cleaning until there is no visible debris from removed material or residue on plastic sheeting.
- E. Pressure washing techniques of any kind are strictly prohibited.
- F. Pre-Encapsulation Inspection of substrate is performed by Consulting Firm to ensure removal and cleaning of the substrate is adequate. The Contractor may accompany this inspection. If during the inspection, the Substrate or plastic sheeting isn't cleaned to the satisfaction of the Consulting Firm; additional recleaning will be required to meet the satisfaction of the Consulting Firm.
- G. Encapsulate substrate and all remaining plastic sheeting within the work area. A colored encapsulant may be used on non-finished surfaces.
- H. NOTE: Final barriers are not to be removed until work is completed.
- I. With critical barriers in place, negative pressure system operating, and immovable objects covered with plastic sheeting, perform a second cleaning as was done in the first cleaning. Wet mop any hard floor surfaces. HEPA vacuum carpeted area surfaces. Hard surfaced flooring such as concrete, terrazzo, VAT and ceramic tile, shall be wet mopped, allowed to dry, and damp mopped a second time with clean mop heads. All mop heads and cleaning cloths are to be discarded in the same manner as asbestos waste.
- J. All surfaces are to be left visually clean.
- K. Perform visual inspection of work area.
- L. If pre-clearance criteria are met, proceed with air testing for final clearance by PCM or Transmission Electron Microscopy (TEM).

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- M. If pre-clearance criteria are not met, repeat final cleaning until acceptable levels have been achieved before proceeding with final clearance testing by TEM. Costs associated with additional cleaning and testing shall be borne by the Contractor.
- N. After air testing clearance criteria has been met, critical barriers and negative air pressure system can be removed.

3.05 DISPOSAL OF ASBESTOS WASTE

- A. All RACM and miscellaneous ACM debris will be transported to the predesignated disposal site in accordance with the guidelines of the U.S. Environmental Protection Agency Title 40 Part 61 Subpart M and all local agencies' regulations. Ensure all waste bags/leak tight container have facilities name address, and contact person as required by NESHAP. Drums are to be used to transport bagged ACM's as required by regulation(s).
- B. EPA NESHAP Category I & II nonfriable ACM may be disposed of as C&D waste as allowed by regulation. If nonfriable materials become friable they must then be disposed of as regulated ACM waste in an approved landfill.
- C. Workers loading/unloading the asbestos materials and machinery operators will wear respirators and disposable work clothing when handling material at the project and disposal site. Asbestos warning signs shall be posted on vehicle as required by regulation.
- D. The bags may be dumped from the drums into the burial site. If drums are used to transport the ACM bags, the bags may be dumped from the drums into the burial site. The drums may be reused. However, if a bag is broken or damaged, the entire drum should be buried.
- E. The landfill area used for dumping shall be certified to receive and buy materials contaminated by asbestos.
- F. Obtain completed Waste Shipment Record (WSR) for all RACM. WSR must also indicate amount of waste in cubic yards. Submit signed WSR with final report/Project Close-out.

3.06 INSPECTIONS

- A. All work procedures detailed in this specification will be strictly adhered

Westchester Environmental, LLC

1248 Wrights Lane; West Chester, PA 19380
610-431-7545, fax: 610-431-7543

Print date:
02/27/20

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to and meet or exceed all current City of Philadelphia, EPA, OSHA, DEP and PDL&I regulations.

- B. All work shall meet with the approval of the Owner. Work which does not meet with the approval shall be determined to be unsatisfactory.

END OF SECTION

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APPENDIX 1

TABLE OF LOCATIONS AND QUANTITIES OF ASBESTOS CONTAINING MATERIALS CLASSROOM MODERNISATION PROJECT FRANCIS SCOTT KEY ELEMENTARY SCHOOL

Location	Description	Type (Code 1)	Amount		Condition (Code 2)	Action (Code 3)
			Square	Linear		
Class Room# 3(above suspended ceiling)	<u>Pipe Insulations and fittings</u>	FRI		20	ND	REM
Class Room #10	12x12 Blue/White Floor tile mastic	NF1	60		ND	REM
Class Room #10	<u>9x9 Blue tile</u>	NF1	640		ND	REM
Class Room #10	<u>9x9 Blue tile mastic</u>	NF1	640		ND	REM
Class Room# 3	<u>Black Board Glue Dots (Assumed)</u>	NF1	150		ND	REM
Class Room# 4 & 5 (100SF each)	<u>Black Board Glue Dots (Assumed)</u>	NF1	200		ND	REM
Class Room# 10,11, 12, 13, 16 & 18 (200SF each)	<u>Black Board Glue Dots (Assumed)</u>	NF1	1200		ND	REM
Class Room# 19, 20, 21(300SF each)	<u>Black Board Glue Dots (Assumed)</u>	NF1	900		ND	REM



City of Philadelphia - Department of Public Health
Public Health Services - Air Management Services
Asbestos Control Unit - 321 University Av., 19104

Office Use Only

Date Received L&I:

Date Received AMS:

Date Inspected:

Inspector #

Asbestos Inspection Report

School District of Philadelphia projects ONLY

1. Name of Building: Francis Scott Key Elementary School Phone #: 215-400-8250

2. Name of Building Owner: School District of Philadelphia Phone #: 215-400-4750
440 North Broad Street, Philadelphia, PA 19130

3. Name of Licensed Investigator: Philip A Conteh License #: AIC-0586 Phone #: 610-431-7545

4. Name of Certified Lab: EMSL Analytical, Inc. License #: 137 Phone #: 856-858-4800

5. Scope of Work: (include all locations) Classroom Modernization Project. -CLASS ROOMS -3,3A,3B; 4;4A;4B;5;5A;5B;10;10A;10B;11;11A;11B; 12; 12A;12B; 13;13A;13B;16;16A;16B;18;18A;18B; 19;19A; 20;20A; 21;21A

A review of the SDP Design Drawings was performed Yes (List Information Below) No -Schedule a meeting with OEMS

Reviewed 100% Drawings.

Asbestos Containing Material Present? Yes (List Below) No

6. List Asbestos Containing Material (ACM) located in the planned renovation/demolition area(s). Damaged ACM must be listed and then repaired or removed prior to renovation. You (Investigator) must label all ACM that may be left in the work area. Page 1 of 1

Location	Description	Type (Code 1)	Amount		Condition (Code 2)	Action (Code 3)
			Square	Linear		
Class Room# 3(above suspended ceiling)	Pipe Insulations and fittings	FRI		20	ND	REM
Class Room #10	12x12 Blue/White Floor tile mastic	NF1	60		ND	REM
Class Room #10	9x9 Blue tile	NF1	640		ND	REM
Class Room #10	9x9 Blue tile mastic	NF1	640		ND	REM
Class Room# 3	Black Board Glue Dots (Assumed)	NF1	150		ND	REM
Class Room# 4 & 5 (100SF each)	Black Board Glue Dots (Assumed)	NF1	200		ND	REM
Class Room# 10,11, 12, 13, 16 & 18 (200SF each)	Black Board Glue Dots (Assumed)	NF1	1200		ND	REM
Class Room# 19, 20, 21(300SF each)	Black Board Glue Dots (Assumed)	NF1	900		ND	REM

Code 1

FRI - Friable
NF1 - Non-Friable, Cat. 1
NF2 - Non-Friable, Cat. 2

Code 2

DD - Deteriorated or Delaminated
ND - Non-Damaged

Code 3

REM - Removal necessary prior to Demo/Reno
NRN - No removal necessary, label ACM
REP - Repair & Label ACM, removal not necessary

I hereby certify that the foregoing statements are true and the information contained in this report is true. This certification is made subject to the penalties set forth in 18 PA. C.S. S4904 relating to unsworn falsification to authorities. Furthermore I certify that the inspection, sampling, and labeling requirements of section X of the Asbestos Control Regulation (ACR) have been met. The building owner has been notified of the ACR requirements and given a copy of this report. If the inspection has revealed ACM which will be disturbed by the proposed work or if it has revealed ACM in bad condition, the building owner has been notified to remove or repair the ACM in accordance with the ACR prior to renovation or demolition activity.

Signature of Licensed Asbestos Investigator:

Date:

01/20/2020

Signature of Building Owner:

Date:



Page 2 of 2 Project Name: Francis Scott Key Elementary School Project No. _____

7. List all locations inspected that do **NOT** have asbestos containing material present:

Location	Location	Location	Location
None			

8. List all homogeneous materials present in this school:

ASBESTOS CONTAINING MATERIALS	NON-ASBESTOS MATERIALS
Exterior Boiler Insulation	Cement Floor
Floor Tile VAT 9" x 9"	Concrete Block Wall
Pipe Fitting Insulation	Plaster Ceiling
Pipe Insulation > 6 inch	Fiberglass Pipe Insulation
Pipe Insulation 2-6 inch	Wood Floor
Sheetrock Ceiling	Plaster Walls
Transite Stalls	Tin Ceiling
Floor Tile VAT 12" x 12"	Fiberglass Pipe Insulation
Ceiling Tile 2' x 4'	Spline Ceiling Tile Glue Dots
Blackboard Glue Dots	Brick Wall
Sink Undercoat Mastic	Concrete Ceiling
Seam Caulking	Metal Wall
Vibration Damper Cloth	Ceiling Tile 2' x 4'
Sectional Boiler	Carpet
Exterior Boiler Insulation	Linoleum(class rooms 5, 16,18,19, 21)
Sheetrock Wall	Wood Ceiling
Attic	Wood Walls
Crawl Space	

9. Caution labels affixed to all ACM? Yes No

All contractors' employees involved in the demolition or renovation activity must receive a copy or have access to this Asbestos Inspection Report.

Signature _____

Date 01/20/2020

Francis Scott Key Elementary School				School District of Philadelphia							
2230 S 8th Street, Philadelphia, PA 19148				Asbestos Investigation Report							
Prepared By: Philip Conteh				Project name: Class Room Modernization							
Certification No. AIC-0586				Date: 1/20/2020							
				Red= Confirmed (Contact OEMS prior to the disturbance of any of the following materials and report damage)							
				Yellow= Assumed (Contact OEMS for assessment and sampling prior to the disturbance of these materials and report damage)							
<i>I e m</i>	<i>I o o</i>	<i>Space No.on F.Plan</i>	<i>On Site Room Name</i>	<i>Material Description</i>	<i>Type</i>	<i>Assumed, NAD, Non</i>	<i>Amount of Material</i>	<i>SF LF EA</i>	<i>Amount of Damage</i>	<i>Action</i>	<i>Comments</i>
1	1	3	Classroom 3	Pipe insulation and fittings		Confirmed	20	LF	0	REM	
1	1	3	Classroom 3	Blackboard Glue Dots	NF1	Assumed	150	SF	0	REM	
1	1	4	Classroom 4	Blackboard Glue Dots	NF1	Assumed	100	SF	0	REM	
1	1	5	Classroom 5	Blackboard Glue Dots	NF1	Assumed	100	SF	0	REM	
1	1	10	Classroom 10	Floor Tile VAT 9" x 9"	NF1	Confirmed	700	SF	2	REM	
1	1	10	Classroom 10	Floor Tile VAT 12" x 12"	NF1	Assumed	60	SF	0	REM	
1	1	10	Classroom 10	Blackboard Glue Dots	NF1	Assumed	200	SF	0	REM	
1	1	11	Classroom 11	Floor Tile VAT 9" x 9"	NF1	Confirmed	700	SF	2	REM	
1	1	11	Classroom 11	Blackboard Glue Dots	NF1	Assumed	200	SF	0	REM	
1	2	12	Classroom 12	Blackboard Glue Dots	NF1	Assumed	200	SF	0	REM	
1	2	13	Classroom 13	Blackboard Glue Dots	NF1	Assumed	200	SF	0	REM	
1	2	16	Classroom 16	Blackboard Glue Dots	NF1	Assumed	200	SF	0	REM	
1	2	18	Classroom 18	Blackboard Glue Dots	NF1	Assumed	200	SF	0	REM	
1	2	19	Classroom 19	Blackboard Glue Dots	NF1	Assumed	300	SF	0	REM	
1	2	20	Classroom 20	Blackboard Glue Dots	NF1	Assumed	300	SF	0	REM	
1	2	21	Classroom 21	Blackboard Glue Dots	NF1	Assumed	300	SF	0	REM	

School District of Philadelphia			AHERA Three-Year Reinspection 2018-2019								
Francis Scott Key Elementary School			Room by Room Location Log Report								
2230 S. 8th Street, Philadelphia, PA 19148			Red= Confirmed (Contact OEMS prior to the disturbance of any of the following materials and report damage)								
ULCS# 2540			Yellow= Assumed (Contact OEMS for assessment and sampling prior to the disturbance of these materials and report damage)								
Year Built: 1889			materials have been sampled and Laboratory Analysis has indicated NO Asbestos present or NO ASBESTOS DETECTED or these materials are not typically known to contain Asbestos)								
<i>E l e m e n t</i>	<i>F l o o r</i>	<i>Space No.on F.Plan</i>	<i>On Site Room Name</i>	<i>Material Description</i>	<i>Confirmed, Assumed, NAD, Non Suspect ACM</i>	<i>Amount of Material</i>	<i>SF LF EA</i>	<i>Amount of Damage</i>	<i>Conditio n Code</i>	<i>Action Code</i>	<i>Comments/Description/Notes</i>
1	B	1	Store Room 8 - Fan Room next to Cafeteria (Fan Room # 1)	Cement Floor	Non Suspect ACM	1500	SF	0			
1	B	1	Store Room 8 - Fan Room next to Cafeteria (Fan Room # 1)	Concrete Block Wall	Non Suspect ACM	4500	SF	0			No VDC observed; No Seam Packing observed
1	B	106	Store Room 8 - Fan Room next to Cafeteria (Fan Room # 1)	Plaster Ceiling	NAD	1500	SF	0			sampled NAD April 1991
1	B	1	Store Room 8 - Fan Room next to Cafeteria (Fan Room # 1)	Fiberglass Pipe Insulation	Non Suspect ACM	4	LF	0			
1	1	1	Gym	Wood Floor	Non Suspect ACM	800	SF	0			
1	1	1	Gym	Plaster Walls	NAD	2400	SF	0			Sampled NAD April 1991
1	1	1	Gym	Tin Ceiling	Non Suspect ACM	800	SF	0			
1	1	1	Gym	Sheetrock Ceiling	Non Suspect ACM	200	SF	0			Perimeter Soffit
1	1	1	Gym	Fiberglass Pipe Insulation	Non Suspect ACM	24	LF	0			
1	B	2	Boy's Restroom outside of Cafeteria	Cement Floor	Non Suspect ACM	600	SF	0			
1	B		Boy's Restroom outside of Cafeteria	Concrete Block Wall	Non Suspect ACM	1800	SF	0			
1	B		Boy's Restroom outside of Cafeteria	Plaster Ceiling	NAD	600	SF	0			sampled NAD April 1991
1	B		Boy's Restroom outside of Cafeteria	Fiberglass Pipe Insulation	Non Suspect ACM	55	LF	0			
1	B		Boy's Restroom outside of Cafeteria	Pipe Insulation 2-6 inch	Confirmed	90	LF	0			
1	B		Boy's Restroom outside of Cafeteria	Pipe Fitting Insulation	Confirmed	25	EA	0			
1	B		Boy's Restroom outside of Cafeteria	Transite Stalls	Assumed	20	SF	0			Painted
1	1		Classroom 2	Floor Tile VAT 12" x 12"	Assumed	800	SF	0			
1	1		Classroom 2	Plaster Walls	NAD	2400	SF	0			Sampled NAD April 1991
1	1		Classroom 2	Ceiling Tile 2' x 4'	Assumed	800	SF	0			
1	1	2	Classroom 2	Fiberglass Pipe Insulation	Non Suspect ACM	16	LF	0			
1	1	2	Classroom 2	Blackboard Glue Dots	Assumed	150	SF	0			
1	B	2	Store Room 6	Cement Floor	Non Suspect ACM	300	SF	0			
1	B	2	Store Room 6	Concrete Block Wall	Non Suspect ACM	900	SF	0			
1	B	3	Store Room 6	Plaster Ceiling	NAD	300	SF	0			sampled NAD April 1991
1	B	3	Store Room 6	Fiberglass Pipe Insulation	Non Suspect ACM	14	LF	0			
1	B	3	Store Room 6	Pipe Fitting Insulation	Confirmed	1	EA	0			
1	B	3	Store Room 6	Brick Incinerator	Assumed	1	EA	0			
1	1	3	Classroom 3	Pipe Insulation 2-6 inch	Confirmed	20	LF	0			
1	1	3	Classroom 3	Pipe Fitting Insulation	Confirmed	8	EA	0			
1	1	3	Classroom 3	Wood Floor	Non Suspect ACM	700	SF	0			
1	1	3	Classroom 3	Plaster Walls	NAD	2100	SF	0			Sampled NAD April 1991
1	1	3	Classroom 3	Ceiling Tile	NAD	700	SF	0			
1	1	3	Classroom 3	Fiberglass Pipe Insulation	Non Suspect ACM	24	LF	0			
1	1	3	Classroom 3	Blackboard Glue Dots	Assumed	150	SF	0			

1	B	4	Cafeteria	Floor Tile VAT 12" x 12"	Assumed	2100	SF	0			
1	B	4	Cafeteria	Concrete Block Wall	Non Suspect ACM	6300	SF	0			
1	B	4	Cafeteria	Ceiling Tile 1' x 1'	NAD	2100	SF	0			Sampled NAD October 1988
1	B	4	Cafeteria	Dots	NAD	210	SF	0			Sampled NAD October 2012
1	B	4	Cafeteria	Sink Undercoat Mastic	Assumed	6	SF	0			1 Sink - 6 SF
1	B	4	Cafeteria	Fiberglass Pipe Insulation	Non Suspect ACM	265	LF	150			
1	B	4	Cafeteria	Pipe Insulation 2-6 inch	Confirmed	73	LF	0			
1	B	4	Cafeteria	Pipe Fitting Insulation	Confirmed	24	EA	0			
1	1	4	Classroom 4	Wood Floor	Non Suspect ACM	700	SF	0			
1	1	4	Classroom 4	Plaster Walls	NAD	2100	SF	0			Sampled NAD April 1991
1	1	4	Classroom 4	Ceiling Tile 1' x 1'	NAD	700	SF	0			
1	1	4	Classroom 4	Fiberglass Pipe Insulation	Non Suspect ACM	12	LF	0			
1	1	4	Classroom 4	Blackboard Glue Dots	Assumed	100	SF	0			
1	B	5	Store Room 1 (Fan Room across from Cafeteria)	Cement Floor	Non Suspect ACM	900	SF	0			
1	B	5	Store Room 1 (Fan Room across from Cafeteria)	Concrete Block Wall	Non Suspect ACM	2700	SF	0			
1	B	5	Store Room 1 (Fan Room across from Cafeteria)	Plaster Ceiling	NAD	900	SF	0			sampled NAD April 1991
1	B	5	Store Room 1 (Fan Room across from Cafeteria)	Fiberglass Pipe Insulation	Non Suspect ACM	30	LF	0			
1	B	5	Store Room 1 (Fan Room across from Cafeteria)	Seam Caulking	Assumed	30	LF	0			unit's secondary heating chamber
1	B	5	Store Room 1 (Fan Room across from Cafeteria)	Vibration Damper Cloth	Assumed	8	SF	0			
1	1	5	Classroom 5	Wood Floor	Non Suspect ACM	700	SF	0			
1	1	5	Classroom 5	Linoleum	NAD	8	SF	0			Sampled NAD 1/13/20
1	1	5	Classroom 5	Plaster Walls	NAD	2100	SF	0			Sampled NAD April 1991
1	1	5	Classroom 5	Ceiling Tile 1' x 1'	NAD	700	SF	0			
1	1	5	Classroom 5	Blackboard Glue Dots	Assumed	100	SF	0			
1	B	6	Room	Cement Floor	Non Suspect ACM	480	SF	0			
1	B	6	Room	Brick Wall	Non Suspect ACM	1440	SF	0			
1	B	6	Room	Concrete Ceiling	Non Suspect ACM	480	SF	0			
1	B	6	Room	Pipe Insulation > 6 inch	Confirmed	30	LF	1			WO# 1698409
1	B	6	Room	Pipe Insulation 2-6 inch	Confirmed	7	LF	0			
1	B	6	Room	Pipe Fitting Insulation	Confirmed	3	EA	0			
1	1	6	Classroom 6	Wood Floor	Non Suspect ACM	700	SF	0			
1	1	6	Classroom 6	Plaster Walls	NAD	2100	SF	0			Sampled NAD April 1991
1	1	6	Classroom 6	Ceiling Tile 2' x 4'	Assumed	700	SF	0			
1	1	6	Classroom 6	Fiberglass Pipe Insulation	Non Suspect ACM	10	LF	0			
1	1	6	Classroom 6	Blackboard Glue Dots	Assumed	200	SF	0			
1	B	7	Old Boiler Room - Inactive Boilers	Brick Floor	NAD	1000	SF	0			sampled NAD March 20, 1992
1	B	7	Old Boiler Room - Inactive Boilers	Concrete Block Wall	Non Suspect ACM	3000	SF	0			2 Active Steam Leaks
1	B	7	Old Boiler Room - Inactive Boilers	Concrete Ceiling	Non Suspect ACM	1000	SF	0			
1	B	7	Old Boiler Room - Inactive Boilers	Sectional Boiler	Assumed	3	EA	0			
1	B	7	Old Boiler Room - Inactive Boilers	Exterior Boiler Insulation	Confirmed	750	SF	2			250 SF x 3 Boilers = 750 SF/WO# 1698407
1	B	7	Old Boiler Room - Inactive Boilers	Pipe Insulation > 6 inch	Confirmed	90	LF	0			
1	B	7	Old Boiler Room - Inactive Boilers	Pipe Insulation 2-6 inch	Confirmed	50	LF	0			
1	B	7	Old Boiler Room - Inactive Boilers	Pipe Fitting Insulation	Confirmed	22	EA	1			WO# 1698407
1	B	7	Old Boiler Room - Inactive Boilers	Fiberglass Pipe Insulation	Non Suspect ACM	150	LF	0			
1	B	7	Old Boiler Room - Inactive Boilers	Breeching	NAD	UK	SF	UK			Boiler #1 was sampled NAD 10/16/1992
1	1	7	Counselor's Office - Front Area	Wood Floor	Non Suspect ACM	200	SF	0			
1	1	7	Counselor's Office - Front Area	Plaster Walls	NAD	600	SF	0			Sampled NAD April 1991
1	1	7	Counselor's Office - Front Area	Sheetrock Wall	Non Suspect ACM	200	SF	0			
1	1	7	Counselor's Office - Front Area	Ceiling Tile 2' x 4'	Assumed	200	SF	0			
1	1	7	Counselor's Office - Front Area	Fiberglass Pipe Insulation	Non Suspect ACM	24	LF	0			
1	1	7	Counselor's Office - Front Area	Blackboard Glue Dots	Assumed	50	SF	0			
1	B	8	Boiler Room - Active Boilers	Cement Floor	Non Suspect ACM	600	SF	0			

1	B	8	Boiler Room - Active Boilers	Concrete Block Wall	Non Suspect ACM	1800	SF	0		
1	B	8	Boiler Room - Active Boilers	Concrete Ceiling	Non Suspect ACM	600	SF	0		
1	B	8	Boiler Room - Active Boilers	Sectional Boiler	Assumed	2	EA	0		
1	B	8	Boiler Room - Active Boilers	Fiberglass Pipe Insulation	Non Suspect ACM	200	LF	0		
1	1	8	Classroom 8	Wood Floor	Non Suspect ACM	700	SF	0		
1	1	8	Classroom 8	Plaster Walls	NAD	2100	SF	0		Sampled NAD April 1991
1	1	8	Classroom 8	Ceiling Tile 2' x 4'	Assumed	700	SF	0		
1	1	8	Classroom 8	Fiberglass Pipe Insulation	Non Suspect ACM	12	LF	0		
1	1	8	Classroom 8	Blackboard Glue Dots	Assumed	200	SF	0		
1	B	9	Basement Custodial Break Room beside Girls Restroom	Cement Floor	Non Suspect ACM	200	SF	0		
1	B	9	Basement Custodial Break Room beside Girls Restroom	Concrete Block Wall	Non Suspect ACM	600	SF	0		
1	B	9	Basement Custodial Break Room beside Girls Restroom	Concrete Ceiling	Non Suspect ACM	200	SF	0		
1	B	9	Basement Custodial Break Room beside Girls Restroom	Pipe Insulation 2-6 inch	Confirmed	10	LF	0		
1	B	9	Basement Custodial Break Room beside Girls Restroom	Pipe Fitting Insulation	Confirmed	8	EA	0		
1	B	9	Basement Custodial Break Room beside Girls Restroom	Fiberglass Pipe Insulation	Non Suspect ACM	40	LF	0		
1	1	9	Music Classroom 9	Floor Tile VAT 12" x 12"	Assumed	700	SF	20		12x12s beginning to lift due to a steam leak
1	1	9	Music Classroom 9	Plaster Walls	NAD	2100	SF	0		Sampled NAD April 1991
1	1	9	Music Classroom 9	Ceiling Tile 2' x 4'	Assumed	700	SF	0		
1	1	9	Music Classroom 9	Fiberglass Pipe Insulation	Non Suspect ACM	12	LF	0		
1	1	9	Music Classroom 9	Blackboard Glue Dots	Assumed	300	SF	0		
1	B	10	Girl's Restroom	Cement Floor	Non Suspect ACM	600	SF	0		
1	B	10	Girl's Restroom	Concrete Block Wall	Non Suspect ACM	1800	SF	0		
1	B	10	Girl's Restroom	Concrete Ceiling	Non Suspect ACM	600	SF	0		
1	B	10	Girl's Restroom	Pipe Insulation 2-6 inch	Confirmed	95	LF	0		
1	B	10	Girl's Restroom	Pipe Fitting Insulation	Confirmed	32	EA	0		
1	B	10	Girl's Restroom	Fiberglass Pipe Insulation	Non Suspect ACM	40	LF	0		
1	1	10	Classroom 10	Floor Tile VAT 9" x 9"	Confirmed	640	SF	2		2 tiles with holes; 4 missing tiles
1	1	10	Classroom 10	Floor Tile VAT 12" x 12"	NAD	60	SF	0		Sampled NAD January 2020
1	1	10	Classroom 10	Mastic	Confirmed	60	SF	0		Sampled NAD January 2020
1	1	10	Classroom 10	Plaster Walls	NAD	2100	SF	0		Sampled NAD April 1991
1	1	10	Classroom 10	Ceiling Tile 1' x 1'	NAD	700	SF	0		
1	1	10	Classroom 10	Fiberglass Pipe Insulation	Non Suspect ACM	3	LF	0		
1	1	10	Classroom 10	Blackboard Glue Dots	Assumed	200	SF	0		
1	1	11	Classroom 11	Floor Tile VAT 9" x 9"	Confirmed	700	SF	2		
1	1	11	Classroom 11	Plaster Walls	NAD	2100	SF	0		Sampled NAD April 1991
1	1	11	Classroom 11	Ceiling Tile 1' x 1'	NAD	700	SF	0		
1	1	11	Classroom 11	Blackboard Glue Dots	Assumed	200	SF	0		
1	1	12	Main Office	Floor Tile VAT 12" x 12"	Assumed	500	SF	0		
1	1	12	Main Office	Plaster Walls	NAD	1200	SF	0		Sampled NAD April 1991
1	1	12	Main Office	Metal Wall	Non Suspect ACM	300	SF	0		Separating Main Office from Principal's Office
1	1	12	Main Office	Ceiling Tile 2' x 4'	Assumed	500	SF	0		
1	1	12	Main Office	Blackboard Glue Dots	Assumed	125	SF	0		
1	2	12	Classroom 12	Wood Floor	Non Suspect ACM	800	SF	0		
1	2	12	Classroom 12	Plaster Walls	NAD	2400	SF	0		Sampled NAD April 1991
1	2	12	Classroom 12	Ceiling Tile 2' x 4'	NAD	800	SF	0		Sampled NAD October 1988
1	2	12	Classroom 12	Fiberglass Pipe Insulation	Non Suspect ACM	24	LF	0		
1	2	12	Classroom 12	Blackboard Glue Dots	Assumed	200	SF	0		
1	2	13	Classroom 13	Wood Floor	Non Suspect ACM	800	SF	0		
1	2	13	Classroom 13	Plaster Walls	NAD	2400	SF	0		Sampled NAD April 1991
1	2	13	Classroom 13	Ceiling Tile 2' x 4'	NAD	800	SF	0		Sampled NAD October 1988
1	2	13	Classroom 13	Fiberglass Pipe Insulation	Non Suspect ACM	20	LF	0		
1	2	13	Classroom 13	Blackboard Glue Dots	Assumed	200	SF	0		

1	2	14	Library	Carpet	Non Suspect ACM	1400	SF	0		Carpet Tiles
1	2	14	Library	Plaster Walls	NAD	4200	SF	0		Sampled NAD April 1991
1	2	14	Library	Ceiling Tile 2' x 4'	NAD	1400	SF	0		Sampled NAD October 1988
1	2	14	Library	Fiberglass Pipe Insulation	Non Suspect ACM	24	LF	0		
1	2	15	Nurse's Office	Floor Tile VAT 12" x 12"	Assumed	500	SF	0		
1	2	15	Nurse's Office	Plaster Walls	NAD	1500	SF	0		Sampled NAD April 1991
1	2	15	Nurse's Office	Ceiling Tile 2' x 4'	NAD	500	SF	0		Sampled NAD October 1988
1	2	15	Nurse's Office	Fiberglass Pipe Insulation	Non Suspect ACM	24	LF	0		
1	2	15	Nurse's Office	Blackboard Glue Dots	Assumed	25	SF	0		
1	2	16	Classroom 16	Wood Floor	Non Suspect ACM	800	SF	0		
1	2	16	Classroom 16	Linoleum	NAD	8	SF	0		7/6/2018
1	2	16	Classroom 16	Plaster Walls	NAD	2400	SF	0		Sampled NAD April 1991
1	2	16	Classroom 16	Ceiling Tile 2' x 4'	NAD	800	SF	0		Sampled NAD October 1988
1	2	16	Classroom 16	Blackboard Glue Dots	Assumed	200	SF	0		
1	2	17	Classroom 17	Wood Floor	Non Suspect ACM	800	SF	0		
1	2	17	Classroom 17	Plaster Walls	NAD	2400	SF	0		Sampled NAD April 1991
1	2	17	Classroom 17	Ceiling Tile 2' x 4'	NAD	800	SF	0		Sampled NAD October 1988
1	2	17	Classroom 17	Fiberglass Pipe Insulation	Non Suspect ACM	24	LF	0		
1	2	17	Classroom 17	Blackboard Glue Dots	Assumed	100	SF	0		
1	2	18	Classroom 18	Wood Floor	Non Suspect ACM	800	SF	0		
1	2	18	Classroom 18	Linoleum	NAD	8	SF	0		7/6/2018
1	2	18	Classroom 18	Plaster Walls	NAD	2400	SF	0		Sampled NAD April 1991
1	2	18	Classroom 18	Ceiling Tile 2' x 4'	NAD	800	SF	0		Sampled NAD October 1988
1	2	18	Classroom 18	Fiberglass Pipe Insulation	Non Suspect ACM	12	LF	0		
1	2	18	Classroom 18	Blackboard Glue Dots	Assumed	200	SF	0		
1	2	19	Classroom 19	Wood Floor	Non Suspect ACM	700	SF	0		
1	2	19	Classroom 19	Linoleum	NAD	8	SF	0		7/6/2018
1	2	19	Classroom 19	Plaster Walls	NAD	2100	SF	0		Sampled NAD April 1991
1	2	19	Classroom 19	Ceiling Tile 2' x 4'	NAD	700	SF	0		Sampled NAD October 1988
1	2	19	Classroom 19	Blackboard Glue Dots	Assumed	300	SF	0		
1	2	20	Classroom 20	Wood Floor	Non Suspect ACM	700	SF	0		
1	2	20	Classroom 20	Linoleum	NAD	8	SF	0		7/6/2018
1	2	20	Classroom 20	Plaster Walls	NAD	2100	SF	0		Sampled NAD April 1991
1	2	20	Classroom 20	Ceiling Tile 2' x 4'	NAD	700	SF	0		Sampled NAD October 1988
1	2	20	Classroom 20	Blackboard Glue Dots	Assumed	300	SF	0		
1	2	21	Classroom 21	Wood Floor	Non Suspect ACM	700	SF	0		
1	2	21	Classroom 21	Linoleum	NAD	8	SF	0		7/6/2018
1	2	21	Classroom 21	Plaster Walls	NAD	2100	SF	0		Sampled NAD April 1991
1	2	21	Classroom 21	Ceiling Tile 2' x 4'	NAD	700	SF	0		Sampled NAD October 1988
1	2	21	Classroom 21	Blackboard Glue Dots	Assumed	300	SF	0		
1	2	22	Classroom 22	Wood Floor	Non Suspect ACM	700	SF	0		
1	2	22	Classroom 22	Plaster Walls	NAD	2100	SF	0		Sampled NAD April 1991
1	2	22	Classroom 22	Ceiling Tile 2' x 4'	NAD	700	SF	0		tile
1	2	22	Classroom 22	Blackboard Glue Dots	Assumed	300	SF	0		
1	3	23	Classroom 23	Wood Floor	Non Suspect ACM	800	SF	0		
1	3	23	Classroom 23	Plaster Walls	NAD	2400	SF	0		Sampled NAD April 1991
1	3	23	Classroom 23	Ceiling Tile 2' x 4'	Assumed	800	SF	0		
1	3	23	Classroom 23	Pipe Insulation 2-6 inch	Assumed	7	LF	0		
1	3	23	Classroom 23	Blackboard Glue Dots	Assumed	200	SF	0		
1	3	24	Classroom 24	Wood Floor	Non Suspect ACM	800	SF	0		
1	3	24	Classroom 24	Plaster Walls	NAD	2400	SF	0		Sampled NAD April 1991
1	3	24	Classroom 24	Ceiling Tile 2' x 4'	Assumed	800	SF	0		

1	3	24	Classroom 24	Blackboard Glue Dots	Assumed	150	SF	0			
1	3	25	Faculty Lounge next to Classroom 23	Wood Floor	Non Suspect ACM	360	SF	0			
1	3	25	Faculty Lounge next to Classroom 23	Plaster Walls	NAD	1080	SF	0			Sampled NAD April 1991
1	3	25	Faculty Lounge next to Classroom 23	Ceiling Tile 2' x 4'	Assumed	360	SF	0			
1	3	25	Faculty Lounge next to Classroom 23	Fiberglass Pipe Insulation	Non Suspect ACM	12	LF	0			
1	3	25	Faculty Lounge next to Classroom 23	Floor Tile VAT 12" x 12"	Assumed	32	SF	0			
1	3	26	Classroom 25/26	Wood Floor	Non Suspect ACM	1400	SF	0			
1	3	26	Classroom 25/26	Plaster Walls	NAD	4200	SF	0			Sampled NAD April 1991
1	3	26	Classroom 25/26	Ceiling Tile 2' x 4'	Assumed	1400	SF	0			
1	3	26	Classroom 25/26	Blackboard Glue Dots	Assumed	200	SF	0			
1	3	26	Classroom 25/26	Fiberglass Pipe Insulation	Non Suspect ACM	12	LF	0			
1	3	27	Classroom 27	Wood Floor	Non Suspect ACM	700	SF	0			
1	3	27	Classroom 27	Plaster Walls	NAD	2100	SF	0			Sampled NAD April 1991
1	3	27	Classroom 27	Ceiling Tile 2' x 4'	Assumed	700	SF	0			
1	3	27	Classroom 27	Blackboard Glue Dots	Assumed	150	SF	0			
1	3	28	Classroom 28	Wood Floor	Non Suspect ACM	700	SF	0			
1	3	28	Classroom 28	Plaster Walls	NAD	2100	SF	0			Sampled NAD April 1991
1	3	28	Classroom 28	Ceiling Tile 2' x 4'	Assumed	700	SF	0			
1	3	28	Classroom 28	Blackboard Glue Dots	Assumed	150	SF	0			
1	3	29	Art Classroom 29	Floor Tile VAT 12" x 12"	Assumed	350	SF	0			Small holes in 2 tiles
1	3	29	Art Classroom 29	Floor Tile VAT 12" x 12"	Assumed	350	SF	0			Small holes in 2 tiles
1	3	29	Art Classroom 29	Plaster Walls	NAD	2100	SF	0			Sampled NAD April 1991
1	3	29	Art Classroom 29	Ceiling Tile 2' x 4'	Assumed	700	SF	0			
1	3	29	Art Classroom 29	Blackboard Glue Dots	Assumed	200	SF	0			
1	3	29	Art Classroom 29	Sink Undercoat Mastic	Assumed	16	SF	0			1 Large Sink - 16 SF
1	3	30	Classroom 30	Wood Floor	Non Suspect ACM	700	SF	0			
1	3	30	Classroom 30	Plaster Walls	NAD	2100	SF	0			Sampled NAD April 1991
1	3	30	Classroom 30	Ceiling Tile 2' x 4'	Assumed	700	SF	0			
1	3	30	Classroom 30	Blackboard Glue Dots	Assumed	300	SF	0			
1	3	31	Classroom 31	Wood Floor	Non Suspect ACM	700	SF	0			
1	3	31	Classroom 31	Plaster Walls	NAD	2100	SF	0			Sampled NAD April 1991
1	3	31	Classroom 31	Ceiling Tile 2' x 4'	Assumed	700	SF	0			
1	3	31	Classroom 31	Blackboard Glue Dots	Assumed	300	SF	0			
1	3	32	Classroom 32	Wood Floor	Non Suspect ACM	700	SF	0			
1	3	32	Classroom 32	Plaster Walls	NAD	2100	SF	0			Sampled NAD April 1991
1	3	32	Classroom 32	Ceiling Tile 2' x 4'	Assumed	700	SF	0			
1	3	32	Classroom 32	Blackboard Glue Dots	Assumed	300	SF	0			
1	3	33	Classroom 33	Wood Floor	Non Suspect ACM	700	SF	0			
1	3	33	Classroom 33	Plaster Walls	NAD	2100	SF	0			Sampled NAD April 1991
1	3	33	Classroom 33	Ceiling Tile 2' x 4'	Assumed	700	SF	0			
1	3	33	Classroom 33	Blackboard Glue Dots	Assumed	300	SF	0			
1	B	001A	Store Room 7	Cement Floor	Non Suspect ACM	40	SF	0			
1	B	001A	Store Room 7	Concrete Block Wall	Non Suspect ACM	120	SF	0			10/15/2012
1	B	001A	Store Room 7	Concrete Ceiling	Non Suspect ACM	40	SF	0			
1	B	001A	Store Room 7	Pipe Insulation 2-6 inch	Confirmed	16	LF	0			
1	B	001A	Store Room 7	Pipe Fitting Insulation	Confirmed	9	EA	0			
1	B	001B	Food Storage Room next to Cafeteria (labeled Elec MDP)	Cement Floor	Non Suspect ACM	150	SF	0			
1	B	001B	Food Storage Room next to Cafeteria (labeled Elec MDP)	Concrete Block Wall	Non Suspect ACM	450	SF	0			
1	B	001B	Food Storage Room next to Cafeteria (labeled Elec MDP)	Plaster Ceiling	NAD	150	SF	0			sampled NAD April 1991
1	B	001C	Storage Area below Stairwell next to Boy's Restroom	Cement Floor	Non Suspect ACM	150	SF	0			
1	B	001C	Storage Area below Stairwell next to Boy's Restroom	Concrete Block Wall	Non Suspect ACM	450	SF	0			
1	B	001C	Storage Area below Stairwell next to Boy's Restroom	Wood Ceiling	Non Suspect ACM	150	SF	0			

1	B	001C	Storage Area below Stairwell next to Boy's Restroom	Fiberglass Pipe Insulation	Non Suspect ACM	12	LF	0		
1	B	003B	Staff Restroom next to Store Room 2	Cement Floor	Non Suspect ACM	120	SF	0		
1	B	003B	Staff Restroom next to Store Room 2	Concrete Block Wall	Non Suspect ACM	360	SF	0		
1	B	003B	Staff Restroom next to Store Room 2	Plaster Ceiling	NAD	120	SF	0		sampled NAD April 1991
1	B	003B	Staff Restroom next to Store Room 2	Fiberglass Pipe Insulation	Non Suspect ACM	60	LF	0		
1	B	003C	Store Room 2	Cement Floor	Non Suspect ACM	60	SF	0		
1	B	003C	Store Room 2	Concrete Block Wall	Non Suspect ACM	180	SF	0		
1	B	003C	Store Room 2	Concrete Ceiling	Non Suspect ACM	60	SF	0		
1	B	003C	Store Room 2	Pipe Insulation 2-6 inch	Confirmed	15	LF	0		
1	B	003C	Store Room 2	Pipe Fitting Insulation	Confirmed	1	EA	0		
1	B	003D	Store Room 3	Cement Floor	Non Suspect ACM	100	SF	0		
1	B	003D	Store Room 3	Concrete Block Wall	Non Suspect ACM	300	SF	0		
1	B	003D	Store Room 3	Concrete Ceiling	Non Suspect ACM	100	SF	0		
1	B	003E	Store Room 4	Cement Floor	Non Suspect ACM	75	SF	0		
1	B	003E	Store Room 4	Concrete Block Wall	Non Suspect ACM	225	SF	0		
1	B	003E	Store Room 4	Concrete Ceiling	Non Suspect ACM	75	SF	0		
1	B	003F	Store Room 5	Cement Floor	Non Suspect ACM	75	SF	0		
1	B	003F	Store Room 5	Concrete Block Wall	Non Suspect ACM	225	SF	0		
1	B	003F	Store Room 5	Concrete Ceiling	Non Suspect ACM	75	SF	0		
1	B	003F	Store Room 5	Pipe Insulation 2-6 inch	Confirmed	8	LF	0		
1	B	003F	Store Room 5	Pipe Fitting Insulation	Confirmed	2	EA	0		
1	B	004A	Storage Room next to Cafeteria	Cement Floor	Non Suspect ACM	150	SF	0		
1	B	004A	Storage Room next to Cafeteria	Concrete Block Wall	Non Suspect ACM	450	SF	0		
1	B	004A	Storage Room next to Cafeteria	Plaster Ceiling	NAD	150	SF	0		sampled NAD April 1991
1	B	004B	Gas Main/Storage Room next to Cafeteria	Cement Floor	Non Suspect ACM	60	SF	0		
1	B	004B	Gas Main/Storage Room next to Cafeteria	Concrete Block Wall	Non Suspect ACM	180	SF	0		
1	B	004B	Gas Main/Storage Room next to Cafeteria	Plaster Ceiling	NAD	60	SF	0		sampled NAD April 1991
1	B	010A	Storage Room across from Girl's Restroom entrance	Cement Floor	Non Suspect ACM	100	SF	0		
1	B	010A	Storage Room across from Girl's Restroom entrance	Concrete Block Wall	Non Suspect ACM	300	SF	0		
1	B	010A	Storage Room across from Girl's Restroom entrance	Concrete Ceiling	Non Suspect ACM	100	SF	0		
1	B	010A	Storage Room across from Girl's Restroom entrance	Pipe Fitting Insulation	Confirmed	8	EA	0		Limited Access due to Stored Items
1	B	010A	Storage Room across from Girl's Restroom entrance	Fiberglass Pipe Insulation	Non Suspect ACM	22	LF	0		
1	B	010B	Storage Closet outside of Girl's Restroom	Cement Floor	Non Suspect ACM	25	SF	0		
1	B	010B	Storage Closet outside of Girl's Restroom	Concrete Block Wall	Non Suspect ACM	100	SF	0		
1	B	010B	Storage Closet outside of Girl's Restroom	Concrete Ceiling	Non Suspect ACM	25	SF	0		
1	B	010C	Domestic Hot Water Heater Closet outside of Girl's Restroom	Cement Floor	Non Suspect ACM	75	SF	0		
1	B	010C	Domestic Hot Water Heater Closet outside of Girl's Restroom	Concrete Block Wall	Non Suspect ACM	225	SF	0		
1	B	010C	Domestic Hot Water Heater Closet outside of Girl's Restroom	Concrete Ceiling	Non Suspect ACM	75	SF	0		
1	B	010C	Domestic Hot Water Heater Closet outside of Girl's Restroom	Fiberglass Pipe Insulation	Non Suspect ACM	12	LF	0		
1	1	10A	Classroom 10 Restroom	Cement Floor	Non Suspect ACM	40	SF	0		
1	1	10A	Classroom 10 Restroom	Plaster Walls	NAD	120	SF	0		Sampled NAD April 1991
1	1	10A	Classroom 10 Restroom	Ceiling Tile 2' x 4'	Assumed	40	SF	0		1 - stained ceiling tile
1	1	10A	Classroom 10 Restroom	Fiberglass Pipe Insulation	Non Suspect ACM	20	LF	0		
1	1	10B	Classroom 10 Storage Closet	Wood Floor	Non Suspect ACM	20	SF	0		
1	1	10B	Classroom 10 Storage Closet	Plaster Walls	NAD	100	SF	0		Sampled NAD April 1991
1	1	10B	Classroom 10 Storage Closet	Ceiling Tile 2' x 4'	NAD	20	SF	0		
1	1	11A	Classroom 11 Restroom	Wood Floor	Non Suspect ACM	40	SF	0		
1	1	11A	Classroom 11 Restroom	Plaster Walls	NAD	120	SF	0		Sampled NAD April 1991
1	1	11A	Classroom 11 Restroom	Ceiling Tile 2' x 4'	Assumed	40	SF	0		
1	1	11A	Classroom 11 Restroom	Fiberglass Pipe Insulation	Non Suspect ACM	12	LF	0		
1	1	11C	Classroom 11 Storage Closet	Wood Floor	Non Suspect ACM	20	SF	0		
1	1	11C	Classroom 11 Storage Closet	Plaster Walls	NAD	100	SF	0		Sampled NAD April 1991

1	1	11C	Classroom 11 Storage Closet	Ceiling Tile 2' x 4'	NAD	20	SF	0			
1	1	12A	Principal's Office	Floor Tile VAT 12" x 12"	Assumed	150	SF	0			
1	1	12A	Principal's Office	Floor Tile VAT 12" x 12"	Assumed	150	SF	0			
1	1	12A	Principal's Office	Plaster Walls	NAD	600	SF	0			Sampled NAD April 1991
1	1	12A	Principal's Office	Metal Wall	Non Suspect ACM	300	SF	0			Separating Main Office from Principal's Office
1	1	12A	Principal's Office	Ceiling Tile 2' x 4'	Assumed	300	SF	0			
1	1	12A	Principal's Office	Blackboard Glue Dots	Assumed	25	SF	0			
1	2	12A	Classroom 12 Storage Closet	Wood Floor	Non Suspect ACM	60	SF	0			
1	2	12A	Classroom 12 Storage Closet	Brick Wall	Non Suspect ACM	180	SF	0			
1	2	12A	Classroom 12 Storage Closet	Ceiling Tile 2' x 4'	NAD	60	SF	0			Sampled NAD October 1988
1	1	12B	Main Office Storage Closet	Wood Floor	Non Suspect ACM	60	SF	0			
1	1	12B	Main Office Storage Closet	Brick Wall	Non Suspect ACM	180	SF	0			
1	1	12B	Main Office Storage Closet	Ceiling Tile 2' x 4'	Assumed	60	SF	0			
1	2	13A	Classroom 13 Storage Closet	Wood Floor	Non Suspect ACM	60	SF	0			
1	2	13A	Classroom 13 Storage Closet	Brick Wall	Non Suspect ACM	180	SF	0			
1	2	13A	Classroom 13 Storage Closet	Ceiling Tile 2' x 4'	NAD	60	SF	0			Sampled NAD October 1988
1	2	14A	Library Office	Floor Tile VAT 12" x 12"	NAD	220	SF	0			Sampled NAD 2/9/2004
1	2	14A	Library Office	Metal Wall	Non Suspect ACM	330	SF	0			
1	2	14A	Library Office	Plaster Walls	NAD	330	SF	0			Sampled NAD April 1991
1	2	14A	Library Office	Ceiling Tile 2' x 4'	NAD	220	SF	0			Sampled NAD October 1988
1	2	14A	Library Office	Fiberglass Pipe Insulation	Non Suspect ACM	12	LF	0			
1	2	14A	Library Office	Sink Undercoat Mastic	Assumed	6	SF	0			
1	2	14B	Library Storage Closet	Floor Tile VAT 9" x 9"	Confirmed	170	SF	0			
1	2	14B	Library Storage Closet	Brick Wall	Non Suspect ACM	510	SF	0			
1	2	14B	Library Storage Closet	Ceiling Tile 2' x 4'	NAD	170	SF	0			Sampled NAD October 1988
1	2	15A	Custodial Closet next to Nurse's Office	Wood Floor	Non Suspect ACM	25	SF	0			
1	2	15A	Custodial Closet next to Nurse's Office	Brick Wall	Non Suspect ACM	100	SF	0			
1	2	15A	Custodial Closet next to Nurse's Office	Plaster Ceiling	NAD	25	SF	0			sampled NAD April 1991
1	2	15B	Classroom 16	Wood Floor	Non Suspect ACM	25	SF	0			
1	2	15B	Classroom 16	Brick Wall	Non Suspect ACM	100	SF	0			
1	2	15B	Classroom 16	Plaster Ceiling	NAD	25	SF	0			sampled NAD April 1991
1	2	15C	Staff Restroom across from Classroom 16	Floor Tile VAT 9" x 9"	Confirmed	125	SF	0			
1	2	15C	Staff Restroom across from Classroom 16	Floor Tile VAT 12" x 12"	Assumed	25	SF	0			
1	2	15C	Staff Restroom across from Classroom 16	Plaster Walls	NAD	450	SF	0			Sampled NAD April 1991
1	2	15C	Staff Restroom across from Classroom 16	Ceiling Tile 2' x 4'	NAD	150	SF	0			Sampled NAD October 1988
1	2	15C	Staff Restroom across from Classroom 16	Fiberglass Pipe Insulation	Non Suspect ACM	24	LF	0			
1	2	16A	Classroom 16 Storage Closet	Wood Floor	Non Suspect ACM	60	SF	0			
1	2	16A	Classroom 16 Storage Closet	Brick Wall	Non Suspect ACM	180	SF	0			
1	2	16A	Classroom 16 Storage Closet	Ceiling Tile 2' x 4'	NAD	60	SF	0			Sampled NAD October 1988
1	2	17A	Classroom 17 Storage Closet	Wood Floor	Non Suspect ACM	60	SF	0			
1	2	17A	Classroom 17 Storage Closet	Brick Wall	Non Suspect ACM	180	SF	0			
1	2	17A	Classroom 17 Storage Closet	Ceiling Tile 2' x 4'	NAD	60	SF	0			Sampled NAD October 1988
1	2	18A	Classroom 18 Storage Closet	Wood Floor	Non Suspect ACM	60	SF	0			
1	2	18A	Classroom 18 Storage Closet	Brick Wall	Non Suspect ACM	180	SF	0			
1	2	18A	Classroom 18 Storage Closet	Ceiling Tile 2' x 4'	NAD	60	SF	0			Sampled NAD October 1988
1	2	19A	Classroom 19 Storage Closet	Wood Floor	Non Suspect ACM	100	SF	0			
1	2	19A	Classroom 19 Storage Closet	Plaster Walls	NAD	300	SF	0			Sampled NAD April 1991
1	2	19A	Classroom 19 Storage Closet	Ceiling Tile 2' x 4'	NAD	100	SF	0			Sampled NAD October 1988
1	1	1A	Gym Storage Closet	Wood Floor	Non Suspect ACM	60	SF	0			
1	1	1A	Gym Storage Closet	Brick Wall	Non Suspect ACM	180	SF	0			
1	1	1A	Gym Storage Closet	Ceiling Tile 2' x 4'	Assumed	60	SF	0			
1	2	20A	Classroom 20 Storage Closet	Wood Floor	Non Suspect ACM	100	SF	0			

1	2	20A	Classroom 20 Storage Closet	Plaster Walls	NAD	300	SF	0		Sampled NAD April 1991
1	2	20A	Classroom 20 Storage Closet	Ceiling Tile 2' x 4'	NAD	100	SF	0		tiles
1	2	20A	Classroom 20 Storage Closet	Fiberglass Pipe Insulation	Non Suspect ACM	17	LF	0		
1	2	21A	Classroom 21 Storage Closet	Wood Floor	Non Suspect ACM	100	SF	0		
1	2	21A	Classroom 21 Storage Closet	Plaster Walls	NAD	300	SF	0		Sampled NAD April 1991
1	2	21A	Classroom 21 Storage Closet	Ceiling Tile 2' x 4'	NAD	100	SF	0		tiles
1	2	21A	Classroom 21 Storage Closet	Fiberglass Pipe Insulation	Non Suspect ACM	14	LF	0		
1	2	22A	Classroom 22 Storage Closet	Wood Floor	Non Suspect ACM	100	SF	0		
1	2	22A	Classroom 22 Storage Closet	Plaster Walls	NAD	300	SF	0		Sampled NAD April 1991
1	2	22A	Classroom 22 Storage Closet	Ceiling Tile 2' x 4'	NAD	100	SF	0		
1	2	22A	Classroom 22 Storage Closet	Fiberglass Pipe Insulation	Non Suspect ACM	14	LF	0		
1	3	23A	Classroom 23 Storage Closet	Wood Floor	Non Suspect ACM	60	SF	0		
1	3	23A	Classroom 23 Storage Closet	Brick Wall	Non Suspect ACM	180	SF	0		
1	3	23A	Classroom 23 Storage Closet	Ceiling Tile 2' x 4'	Assumed	60	SF	0		
1	3	24A	Classroom 24 Storage Closet	Wood Floor	Non Suspect ACM	60	SF	0		
1	3	24A	Classroom 24 Storage Closet	Brick Wall	Non Suspect ACM	180	SF	0		
1	3	24A	Classroom 24 Storage Closet	Plaster Ceiling	NAD	60	SF	0		sampled NAD April 1991
1	3	25A	Custodial Closet next to Faculty Lounge	Wood Floor	Non Suspect ACM	25	SF	0		
1	3	25A	Custodial Closet next to Faculty Lounge	Brick Wall	Non Suspect ACM	100	SF	0		
1	3	25A	Custodial Closet next to Faculty Lounge	Plaster Ceiling	NAD	25	SF	0		sampled NAD April 1991
1	3	25B	Classroom 27	Wood Floor	Non Suspect ACM	25	SF	0		
1	3	25B	Classroom 27	Brick Wall	Non Suspect ACM	100	SF	0		
1	3	25B	Classroom 27	Plaster Ceiling	NAD	25	SF	0		sampled NAD April 1991
1	3	25C	Staff Restroom across from Classroom 27	Floor Tile VAT 9" x 9"	Confirmed	125	SF	0		20 missing 9x9s below toilets
1	3	25C	Staff Restroom across from Classroom 27	Plaster Walls	NAD	375	SF	0		Sampled NAD April 1991
1	3	25C	Staff Restroom across from Classroom 27	Ceiling Tile 2' x 4'	Assumed	125	SF	0		
1	3	25C	Staff Restroom across from Classroom 27	Fiberglass Pipe Insulation	Non Suspect ACM	12	LF	0		
1	3	26A	Classroom 26 Storage Closet (left)	Wood Floor	Non Suspect ACM	60	SF	0		
1	3	26A	Classroom 26 Storage Closet (left)	Brick Wall	Non Suspect ACM	180	SF	0		
1	3	26A	Classroom 26 Storage Closet (left)	Ceiling Tile 2' x 4'	Assumed	60	SF	0		
1	3	26B	Classroom 26 Storage Closet (right)	Wood Floor	Non Suspect ACM	60	SF	0		
1	3	26B	Classroom 26 Storage Closet (right)	Brick Wall	Non Suspect ACM	180	SF	0		
1	3	26B	Classroom 26 Storage Closet (right)	Ceiling Tile 2' x 4'	Assumed	60	SF	0		
1	3	27A	Classroom 27 Storage Closet	Wood Floor	Non Suspect ACM	60	SF	0		
1	3	27A	Classroom 27 Storage Closet	Brick Wall	Non Suspect ACM	180	SF	0		
1	3	27A	Classroom 27 Storage Closet	Ceiling Tile 2' x 4'	Assumed	60	SF	0		
1	3	28A	Classroom 28 Storage Closet	Wood Floor	Non Suspect ACM	60	SF	0		
1	3	28A	Classroom 28 Storage Closet	Brick Wall	Non Suspect ACM	180	SF	0		
1	3	28A	Classroom 28 Storage Closet	Ceiling Tile 2' x 4'	Assumed	60	SF	0		2 - Stained ceiling tiles
1	1	2A	Classroom 2 Storage Closet	Wood Floor	Non Suspect ACM	60	SF	0		
1	1	2A	Classroom 2 Storage Closet	Brick Wall	Non Suspect ACM	180	SF	0		
1	1	2A	Classroom 2 Storage Closet	Plaster Ceiling	NAD	60	SF	0		sampled NAD April 1991
1	3	30A	Classroom 30 Storage Closet	Wood Floor	Non Suspect ACM	100	SF	0		
1	3	30A	Classroom 30 Storage Closet	Plaster Walls	NAD	300	SF	0		Sampled NAD April 1991
1	3	30A	Classroom 30 Storage Closet	Ceiling Tile 2' x 4'	Assumed	100	SF	0		
1	3	31A	Classroom 31 Storage Closet	Wood Floor	Non Suspect ACM	100	SF	0		
1	3	31A	Classroom 31 Storage Closet	Plaster Walls	NAD	300	SF	0		Sampled NAD April 1991
1	3	31A	Classroom 31 Storage Closet	Ceiling Tile 2' x 4'	Assumed	100	SF	0		1 - stained ceiling tile
1	3	31A	Classroom 31 Storage Closet	Fiberglass Pipe Insulation	Non Suspect ACM	12	LF	0		
1	3	32A	Classroom 32 Storage Closet	Wood Floor	Non Suspect ACM	100	SF	0		
1	3	32A	Classroom 32 Storage Closet	Plaster Walls	NAD	300	SF	0		Sampled NAD April 1991
1	3	32A	Classroom 32 Storage Closet	Ceiling Tile 2' x 4'	Assumed	100	SF	0		

1	3	33A	Classroom 33 Storage Closet	Wood Floor	Non Suspect ACM	100	SF	0			
1	3	33A	Classroom 33 Storage Closet	Plaster Walls	NAD	300	SF	0			Sampled NAD April 1991
1	3	33A	Classroom 33 Storage Closet	Ceiling Tile 2' x 4'	Assumed	100	SF	0			
1	1	3A	Classroom 3 Storage Closet	Wood Floor	Non Suspect ACM	60	SF	0			
1	1	3A	Classroom 3 Storage Closet	Brick Wall	Non Suspect ACM	180	SF	0			
1	1	3A	Classroom 3 Storage Closet	Ceiling Tile 2' x 4'	NAD	60	SF	0			
1	1	4A	Classroom 4 Storage Closet	Wood Floor	Non Suspect ACM	60	SF	0			
1	1	4A	Classroom 4 Storage Closet	Brick Wall	Non Suspect ACM	180	SF	0			
1	1	4A	Classroom 4 Storage Closet	Ceiling Tile 2' x 4'	NAD	60	SF	0			
1	1	5A	Classroom 5 Storage Closet	Wood Floor	Non Suspect ACM	60	SF	0			
1	1	5A	Classroom 5 Storage Closet	Brick Wall	Non Suspect ACM	180	SF	0			
1	1	5A	Classroom 5 Storage Closet	Ceiling Tile 2' x 4'	NAD	60	SF	0			
1	B	5B	Unit	Cement Floor	Non Suspect ACM	250	SF	0			
1	B	5B	Unit	Concrete Block Wall	Non Suspect ACM	750	SF	0			Metal Fire Door - Wood Core Interior
1	B	5B	Unit	Plaster Ceiling	NAD	100	SF	100			Severely Damaged and Falling
1	B	5B	Unit	Concrete Ceiling	Non Suspect ACM	150	SF	0			2 Active Steam Leaks
1	B	5B	Unit	Pipe Insulation > 6 inch	Confirmed	26	LF	0			
1	B	5B	Unit	Pipe Insulation 2-6 inch	Confirmed	32	LF	0			
1	B	5B	Unit	Pipe Fitting Insulation	Confirmed	23	EA	0			
1	1	6A	Classroom 6 Storage Closet	Wood Floor	Non Suspect ACM	60	SF	0			
1	1	6A	Classroom 6 Storage Closet	Brick Wall	Non Suspect ACM	180	SF	0			
1	1	6A	Classroom 6 Storage Closet	Ceiling Tile 2' x 4'	Assumed	60	SF	0			
1	1	7A	Counselor's Office - Left Rear Room	Wood Floor	Non Suspect ACM	80	SF	0			
1	1	7A	Counselor's Office - Left Rear Room	Plaster Walls	NAD	160	SF	0			Sampled NAD April 1991
1	1	7A	Counselor's Office - Left Rear Room	Sheetrock Wall	Non Suspect ACM	160	SF	0			
1	1	7A	Counselor's Office - Left Rear Room	Ceiling Tile 2' x 4'	Assumed	80	SF	0			
1	1	7B	Counselor's Office - Right Rear Room	Wood Floor	Non Suspect ACM	80	SF	0			
1	1	7B	Counselor's Office - Right Rear Room	Plaster Walls	NAD	160	SF	0			Sampled NAD April 1991
1	1	7B	Counselor's Office - Right Rear Room	Sheetrock Wall	Non Suspect ACM	160	SF	0			
1	1	7B	Counselor's Office - Right Rear Room	Ceiling Tile 2' x 4'	Assumed	80	SF	0			
1	1	7C	Staff Restroom across from Classroom 5	Floor Tile VAT 12" x 12"	Assumed	150	SF	0			
1	1	7C	Staff Restroom across from Classroom 5	Plaster Walls	NAD	450	SF	0			Sampled NAD April 1991
1	1	7C	Staff Restroom across from Classroom 5	Ceiling Tile 2' x 4'	Assumed	150	SF	0			
1	1	7C	Staff Restroom across from Classroom 5	Fiberglass Pipe Insulation	Non Suspect ACM	24	LF	0			
1	1	7D	Custodial Closet next to Counselor's Office	Wood Floor	Non Suspect ACM	25	SF	0			
1	1	7D	Custodial Closet next to Counselor's Office	Brick Wall	Non Suspect ACM	100	SF	0			
1	1	7D	Custodial Closet next to Counselor's Office	Plaster Ceiling	NAD	25	SF	0			sampled NAD April 1991
1	1	7E	Closet next to Staff Restroom across from Classroom 5	Wood Floor	Non Suspect ACM	25	SF	0			
1	1	7E	Closet next to Staff Restroom across from Classroom 5	Brick Wall	Non Suspect ACM	100	SF	0			
1	1	7E	Closet next to Staff Restroom across from Classroom 5	Plaster Ceiling	NAD	25	SF	0			sampled NAD April 1991
1	1	8A	Classroom 8 Storage Closet	Wood Floor	Non Suspect ACM	100	SF	0			
1	1	8A	Classroom 8 Storage Closet	Plaster Walls	NAD	300	SF	0			Sampled NAD April 1991
1	1	8A	Classroom 8 Storage Closet	Ceiling Tile 2' x 4'	Assumed	100	SF	0			
1	1	8A	Classroom 8 Storage Closet	Fiberglass Pipe Insulation	Non Suspect ACM	12	LF	0			
1	1	9A	Music Classroom 9 Storage Closet	Floor Tile VAT 12" x 12"	Assumed	100	SF	1			12x12s beginning to lift due to a steam leak
1	1	9A	Music Classroom 9 Storage Closet	Plaster Walls	NAD	300	SF	0			Sampled NAD April 1991
1	1	9A	Music Classroom 9 Storage Closet	Ceiling Tile 2' x 4'	Assumed	100	SF	0			
1	1	9A	Music Classroom 9 Storage Closet	Fiberglass Pipe Insulation	Non Suspect ACM	12	LF	0			
1	AT	AT	Attic - Stairwell above 3rd Floor	X	X	X	X	X		X	NAD 2/18/1994
1	CS	CS	Crawl Space - None	X	X	X	X	X		X	None Exists
1	1	FT1	Fire Tower # 1	Cement Floor	Non Suspect ACM	150	SF	0			
1	1	FT1	Fire Tower # 1	Brick Wall	Non Suspect ACM	450	SF	0			

1	1	FT1	Fire Tower # 1	Concrete Ceiling	Non Suspect ACM	150	SF	0		
1	2	FT1	Fire Tower # 1	Cement Floor	Non Suspect ACM	150	SF	0		
1	2	FT1	Fire Tower # 1	Brick Wall	Non Suspect ACM	450	SF	0		
1	2	FT1	Fire Tower # 1	Concrete Ceiling	Non Suspect ACM	150	SF	0		
1	3	FT1	Fire Tower # 1	Cement Floor	Non Suspect ACM	150	SF	0		
1	3	FT1	Fire Tower # 1	Brick Wall	Non Suspect ACM	450	SF	0		
1	3	FT1	Fire Tower # 1	Concrete Ceiling	Non Suspect ACM	150	SF	0		
1	1	FT2	Fire Tower # 2	Cement Floor	Non Suspect ACM	150	SF	0		
1	1	FT2	Fire Tower # 2	Brick Wall	Non Suspect ACM	450	SF	0		
1	1	FT2	Fire Tower # 2	Concrete Ceiling	Non Suspect ACM	150	SF	0		
1	2	FT2	Fire Tower # 2	Cement Floor	Non Suspect ACM	150	SF	0		
1	2	FT2	Fire Tower # 2	Brick Wall	Non Suspect ACM	450	SF	0		
1	2	FT2	Fire Tower # 2	Concrete Ceiling	Non Suspect ACM	150	SF	0		
1	3	FT2	Fire Tower # 2	Cement Floor	Non Suspect ACM	150	SF	0		
1	3	FT2	Fire Tower # 2	Brick Wall	Non Suspect ACM	450	SF	0		
1	3	FT2	Fire Tower # 2	Concrete Ceiling	Non Suspect ACM	150	SF	0		
1	1	FT3	Fire Tower # 3	Cement Floor	Non Suspect ACM	150	SF	0		
1	1	FT3	Fire Tower # 3	Brick Wall	Non Suspect ACM	450	SF	0		
1	1	FT3	Fire Tower # 3	Concrete Ceiling	Non Suspect ACM	150	SF	0		
1	2	FT3	Fire Tower # 3	Cement Floor	Non Suspect ACM	150	SF	0		
1	2	FT3	Fire Tower # 3	Brick Wall	Non Suspect ACM	450	SF	0		
1	2	FT3	Fire Tower # 3	Concrete Ceiling	Non Suspect ACM	150	SF	0		
1	3	FT3	Fire Tower # 3	Cement Floor	Non Suspect ACM	150	SF	0		
1	3	FT3	Fire Tower # 3	Brick Wall	Non Suspect ACM	450	SF	0		
1	3	FT3	Fire Tower # 3	Concrete Ceiling	Non Suspect ACM	150	SF	0		
1	1	FT4	Fire Tower # 4	Cement Floor	Non Suspect ACM	150	SF	0		
1	1	FT4	Fire Tower # 4	Brick Wall	Non Suspect ACM	450	SF	0		
1	1	FT4	Fire Tower # 4	Concrete Ceiling	Non Suspect ACM	150	SF	0		
1	2	FT4	Fire Tower # 4	Cement Floor	Non Suspect ACM	150	SF	0		
1	2	FT4	Fire Tower # 4	Brick Wall	Non Suspect ACM	450	SF	0		
1	2	FT4	Fire Tower # 4	Concrete Ceiling	Non Suspect ACM	150	SF	0		
1	3	FT4	Fire Tower # 4	Cement Floor	Non Suspect ACM	150	SF	0		
1	3	FT4	Fire Tower # 4	Brick Wall	Non Suspect ACM	450	SF	0		
1	3	FT4	Fire Tower # 4	Concrete Ceiling	Non Suspect ACM	150	SF	0		
1	B	H01	Hallway from Store Room 1 to the Girl's Restroom	Cement Floor	Non Suspect ACM	1100	SF	0		
1	B	H01	Hallway from Store Room 1 to the Girl's Restroom	Concrete Block Wall	Non Suspect ACM	3300	SF	0		10/15/2012
1	B	H01	Hallway from Store Room 1 to the Girl's Restroom	Plaster Ceiling	NAD	1100	SF	0		sampled NAD April 1991
1	B	H01	Hallway from Store Room 1 to the Girl's Restroom	Pipe Insulation > 6 inch	Confirmed	60	LF	0		
1	B	H01	Hallway from Store Room 1 to the Girl's Restroom	Pipe Insulation 2-6 inch	Confirmed	140	LF	0		
1	B	H01	Hallway from Store Room 1 to the Girl's Restroom	Pipe Fitting Insulation	Confirmed	40	EA	1		Imminent Hazard DDC submitted on
1	B	H01	Hallway from Store Room 1 to the Girl's Restroom	Fiberglass Pipe Insulation	Non Suspect ACM	300	LF	0		
1	B	H01	Hallway from Store Room 1 to the Girl's Restroom	Brick Incinerator	Assumed	1	EA	0		Restroom
1	B	H02	Hallway next to Cafeteria	Cement Floor	Non Suspect ACM	800	SF	0		
1	B	H02	Hallway next to Cafeteria	Concrete Block Wall	Non Suspect ACM	2400	SF	0		10/15/2012
1	B	H02	Hallway next to Cafeteria	Plaster Ceiling	NAD	800	SF	0		sampled NAD April 1991
1	B	H02	Hallway next to Cafeteria	Pipe Insulation > 6 inch	Confirmed	80	LF	0		
1	B	H02	Hallway next to Cafeteria	Pipe Insulation 2-6 inch	Confirmed	45	LF	0		
1	B	H02	Hallway next to Cafeteria	Pipe Fitting Insulation	Confirmed	30	EA	0		
1	B	H02	Hallway next to Cafeteria	Fiberglass Pipe Insulation	Non Suspect ACM	125	LF	0		
1	1	H13	Hallway outside Classrooms 2 -6	Wood Floor	Non Suspect ACM	800	SF	0		
1	1	H13	Hallway outside Classrooms 2 -6	Plaster Walls	NAD	2400	SF	0		Sampled NAD April 1991
1	1	H13	Hallway outside Classrooms 2 -6	Ceiling Tile 2' x 4'	Assumed	800	SF	0		4/29/1998

1	1	H13	Hallway outside Classrooms 2 -6	Floor Tile VAT 12" x 12"	Assumed	57	SF	0			
1	1	H13	Hallway outside Classrooms 2 -6	Floor Tile VAT 12" x 12"	Assumed	50	SF	0			At Main Office Vestibule
1	1	H13	Hallway outside Classrooms 2 -6	Wood Walls	Non Suspect ACM	400	SF	0			Dividing Hallway from 2 Stairwells
1	1	H13	Hallway outside Classrooms 2 -6	Pipe Fitting Insulation	Confirmed	5	EA	0			outside Teacher's Lounge
1	1	H13	Hallway outside Classrooms 2 -6	Fiberglass Pipe Insulation	Non Suspect ACM	100	LF	0			
1	1	H13	Hallway outside Classrooms 2 -6	Blackboard Glue Dots	Assumed	60	SF	0			
1	1	H14	Hallway outside Classrooms 8 -11	Wood Floor	Non Suspect ACM	1100	SF	0			
1	1	H14	Hallway outside Classrooms 8 -11	Plaster Walls	NAD	3300	SF	0			Sampled NAD April 1991
1	1	H14	Hallway outside Classrooms 8 -11	Ceiling Tile 2' x 4'	Assumed	1100	SF	0			4/29/1998
1	1	H14	Hallway outside Classrooms 8 -11	Pipe Fitting Insulation	Confirmed	3	EA	0			At Water Fountain
1	1	H14	Hallway outside Classrooms 8 -11	Fiberglass Pipe Insulation	Non Suspect ACM	75	LF	0			
1	1	H14	Hallway outside Classrooms 8 -11	Blackboard Glue Dots	Assumed	50	SF	0			
1	1	H15	Vestibule to Exterior across from Music Classroom 9	Cement Floor	Non Suspect ACM	60	SF	0			
1	1	H15	Vestibule to Exterior across from Music Classroom 9	Brick Wall	Non Suspect ACM	180	SF	0			
1	1	H15	Vestibule to Exterior across from Music Classroom 9	Concrete Ceiling	Non Suspect ACM	60	SF	0			
1	2	H23	Hallway outside Classrooms 12 - 17	Wood Floor	Non Suspect ACM	800	SF	0			
1	2	H23	Hallway outside Classrooms 12 - 17	Plaster Walls	NAD	2400	SF	0			Sampled NAD April 1991
1	2	H23	Hallway outside Classrooms 12 - 17	Ceiling Tile 2' x 4'	NAD	800	SF	0			Hallways sampled NAD 4/29/1998
1	2	H23	Hallway outside Classrooms 12 - 17	Floor Tile VAT 9" x 9"	Confirmed	100	SF	10			damaged tile in the Library Vestibule Entrance
1	2	H23	Hallway outside Classrooms 12 - 17	Floor Tile VAT 12" x 12"	NAD	30	SF	10			Confirmed NAD (Synertech Project # 010-
1	2	H23	Hallway outside Classrooms 12 - 17	Wood Walls	Non Suspect ACM	400	SF	0			Dividing Hallway from 2 Stairwells
1	2	H23	Hallway outside Classrooms 12 - 17	Blackboard Glue Dots	Assumed	75	SF	0			
1	2	H24	Hallway outside Classrooms 18 - 22	Wood Floor	Non Suspect ACM	1100	SF	0			
1	2	H24	Hallway outside Classrooms 18 - 22	Plaster Walls	NAD	3300	SF	0			Sampled NAD April 1991
1	2	H24	Hallway outside Classrooms 18 - 22	Ceiling Tile 2' x 4'	NAD	1100	SF	0			Hallways sampled NAD 4/29/1998
1	2	H24	Hallway outside Classrooms 18 - 22	Fiberglass Pipe Insulation	Non Suspect ACM	72	LF	0			
1	2	H24	Hallway outside Classrooms 18 - 22	Blackboard Glue Dots	Assumed	50	SF	0			
1	3	H37	Hallway outside Classrooms 29 - 33	Wood Floor	Non Suspect ACM	1100	SF	0			
1	3	H37	Hallway outside Classrooms 29 - 33	Plaster Walls	NAD	3300	SF	0			Sampled NAD April 1991
1	3	H37	Hallway outside Classrooms 29 - 33	Ceiling Tile 2' x 4'	Assumed	1100	SF	0			4/29/1998; 1 - stained ceiling tile
1	3	H37	Hallway outside Classrooms 29 - 33	Floor Tile VAT 12" x 12"	Assumed	20	SF	0			
1	3	H37	Hallway outside Classrooms 29 - 33	Floor Tile VAT 12" x 12"	Assumed	25	SF	0			
1	3	H37	Hallway outside Classrooms 29 - 33	Floor Tile VAT 12" x 12"	Assumed	25	SF	0			
1	3	H37	Hallway outside Classrooms 29 - 33	Fiberglass Pipe Insulation	Non Suspect ACM	12	LF	0			
1	3	H37	Hallway outside Classrooms 29 - 33	Blackboard Glue Dots	Assumed	50	SF	0			
1	3	H38	Hallway outside Classrooms 23 - 28	Wood Floor	Non Suspect ACM	800	SF	0			
1	3	H38	Hallway outside Classrooms 23 - 28	Plaster Walls	NAD	2400	SF	0			Sampled NAD April 1991
1	3	H38	Hallway outside Classrooms 23 - 28	Ceiling Tile 2' x 4'	Assumed	800	SF	0			4/29/1998
1	3	H38	Hallway outside Classrooms 23 - 28	Floor Tile VAT 12" x 12"	Assumed	50	SF	0			
1	3	H38	Hallway outside Classrooms 23 - 28	Wood Walls	Non Suspect ACM	400	SF	0			
1	3	H38	Hallway outside Classrooms 23 - 28	Fiberglass Pipe Insulation	Non Suspect ACM	24	LF	0			
1	3	H38	Hallway outside Classrooms 23 - 28	Blackboard Glue Dots	Assumed	75	SF	0			
1	B	S01	Stairwell next to Boy's Restroom	Wood Floor	Non Suspect ACM	50	SF	0			
1	B	S01	Stairwell next to Boy's Restroom	Concrete Block Wall	Non Suspect ACM	150	SF	0			
1	B	S01	Stairwell next to Boy's Restroom	Plaster Ceiling	NAD	50	SF	0			sampled NAD April 1991
1	B	S02	Stairwell next to Cafeteria	Wood Floor	Non Suspect ACM	50	SF	0			
1	B	S02	Stairwell next to Cafeteria	Concrete Block Wall	Non Suspect ACM	150	SF	0			
1	B	S02	Stairwell next to Cafeteria	Plaster Ceiling	NAD	50	SF	0			sampled NAD April 1991
1	B	S03	Stairwell next to Girl's Restroom	Cement Floor	Non Suspect ACM	75	SF	0			
1	B	S03	Stairwell next to Girl's Restroom	Brick Wall	Non Suspect ACM	225	SF	0			
1	B	S03	Stairwell next to Girl's Restroom	Concrete Ceiling	Non Suspect ACM	75	SF	0			
1	1	S11	Stairwell next to Gym	Wood Floor	Non Suspect ACM	240	SF	0			

1	1	S11	Stairwell next to Gym	Plaster Walls	NAD	720	SF	0		Sampled NAD April 1991
1	1	S11	Stairwell next to Gym	Wood Walls	Non Suspect ACM	200	SF	0		
1	1	S11	Stairwell next to Gym	Plaster Ceiling	NAD	240	SF	0		sampled NAD April 1991
1	1	S12	Stairwell next to Main Office	Wood Floor	Non Suspect ACM	240	SF	0		
1	1	S12	Stairwell next to Main Office	Plaster Walls	NAD	720	SF	0		Sampled NAD April 1991
1	1	S12	Stairwell next to Main Office	Wood Walls	Non Suspect ACM	200	SF	0		
1	1	S12	Stairwell next to Main Office	Plaster Ceiling	NAD	240	SF	0		sampled NAD April 1991
1	2	S21	Stairwell next to Classroom 12	Wood Floor	Non Suspect ACM	240	SF	0		
1	2	S21	Stairwell next to Classroom 12	Plaster Walls	NAD	720	SF	0		Sampled NAD April 1991
1	2	S21	Stairwell next to Classroom 12	Wood Walls	Non Suspect ACM	200	SF	0		
1	2	S21	Stairwell next to Classroom 12	Plaster Ceiling	NAD	240	SF	0		sampled NAD April 1991
1	2	S22	Stairwell next to Classroom 18	Wood Floor	Non Suspect ACM	240	SF	0		
1	2	S22	Stairwell next to Classroom 18	Plaster Walls	NAD	720	SF	0		Sampled NAD April 1991
1	2	S22	Stairwell next to Classroom 18	Wood Walls	Non Suspect ACM	200	SF	0		
1	2	S22	Stairwell next to Classroom 18	Plaster Ceiling	NAD	240	SF	0		sampled NAD April 1991
1	3	S31	Stairwell next to Classroom 23	Wood Floor	Non Suspect ACM	240	SF	0		
1	3	S31	Stairwell next to Classroom 23	Plaster Walls	NAD	720	SF	0		Sampled NAD April 1991
1	3	S31	Stairwell next to Classroom 23	Wood Walls	Non Suspect ACM	200	SF	0		
1	3	S31	Stairwell next to Classroom 23	Plaster Ceiling	NAD	240	SF	0		sampled NAD April 1991
1	3	S32	Stairwell next to Classroom 29	Wood Floor	Non Suspect ACM	240	SF	0		
1	3	S32	Stairwell next to Classroom 29	Plaster Walls	NAD	720	SF	0		Sampled NAD April 1991
1	3	S32	Stairwell next to Classroom 29	Wood Walls	Non Suspect ACM	200	SF	0		
1	3	S32	Stairwell next to Classroom 29	Plaster Ceiling	NAD	240	SF	0		sampled NAD April 1991



EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Asbestos Chain of Custody

EMSL Order Number (Lab Use Only):

042000904

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CINNAMINSON, NJ

PHONE:
FAX:

2020 JAN 13 P 10:34

Company Name: Westchester Environmental, LLC		EMSL Customer ID: WEEN 50	
Street: 1248 Wrights Lane		City: West Chester	State/Province: PA
Zip/Postal Code: 19380	Country: United States	Telephone #: 610-431-7545	Fax #: 610-431-7543
Report To (Name): Philip A Conteh		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email	
Email Address: info@westchesterenvironmental.com		Purchase Order:	
Project Name/Number: SD-Franco Scott Key		EMSL Project ID (Internal Use Only):	
U.S. State Samples Taken: PA		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

EMSL-Bill to: Same Different - If Bill to is Different note instructions in Comments**
Third Party Billing requires written authorization from third party

Turnaround Time (TAT) Options* - Please Check

- 3 Hour 6 Hour 24 Hour 48 Hour 72 Hour 96 Hour 1 Week 2 Week

*For TEM Air 3 hr through 6 hr, please call ahead to schedule. *There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.

<p>PCM - Air <input type="checkbox"/> Check if samples are from NY</p> <p><input type="checkbox"/> NIOSH 7400</p> <p><input type="checkbox"/> w/ OSHA 8hr. TWA</p> <p>PLM - Bulk (reporting limit)</p> <p><input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%)</p> <p><input type="checkbox"/> PLM EPA NOB (<1%)</p> <p>Point Count</p> <p><input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)</p> <p>Point Count w/Gravimetric</p> <p><input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)</p> <p><input type="checkbox"/> NYS 198.1 (friable in NY)</p> <p><input type="checkbox"/> NYS 198.6 NOB (non-friable-NY)</p> <p><input type="checkbox"/> NYS 198.8 SOF-V</p> <p><input type="checkbox"/> NIOSH 9002 (<1%)</p>	<p>TEM - Air <input type="checkbox"/> 4-4.5hr TAT (AHERA only)</p> <p><input type="checkbox"/> AHERA 40 CFR, Part 763</p> <p><input type="checkbox"/> NIOSH 7402</p> <p><input type="checkbox"/> EPA Level II</p> <p><input type="checkbox"/> ISO 10312</p> <p>TEM - Bulk</p> <p><input type="checkbox"/> TEM EPA NOB</p> <p><input type="checkbox"/> NYS NOB 198.4 (non-friable-NY)</p> <p><input type="checkbox"/> Chatfield SOP</p> <p><input type="checkbox"/> TEM Mass Analysis-EPA 600 sec. 2.5</p> <p>TEM - Water: EPA 100.2</p> <p>Fibers >10µm <input type="checkbox"/> Waste <input type="checkbox"/> Drinking</p> <p>All Fiber Sizes <input type="checkbox"/> Waste <input type="checkbox"/> Drinking</p>	<p>TEM- Dust</p> <p><input type="checkbox"/> Microvac - ASTM D 5755</p> <p><input type="checkbox"/> Wipe - ASTM D6480</p> <p><input type="checkbox"/> Carpet Sonication (EPA 600/J-93/167)</p> <p>Soil/Rock/Vermiculite</p> <p><input type="checkbox"/> PLM EPA 600/R-93/116 with milling prep (<1%)</p> <p><input type="checkbox"/> PLM EPA 600/R-93/116 with milling prep (<0.25%)</p> <p><input type="checkbox"/> TEM EPA 600/R-93/116 with milling prep (<0.1%)</p> <p><input type="checkbox"/> TEM Qualitative via Filtration Prep</p> <p><input type="checkbox"/> TEM Qualitative via Drop Mount Prep</p> <p><input type="checkbox"/> Cincinnati Method EPA 600/R-04/004 - PLM/TEM (BC only)</p> <p>Other:</p> <p><input type="checkbox"/></p>
---	--	--

Check For Positive Stop - Clearly Identify Homogenous Group Filter Pore Size (Air Samples): 0.8µm 0.45µm

Samplers Name: NOEL ABRAHAM Samplers Signature: [Signature]

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
K-013-01	linoleum - Green - Rm 5		1/13/2020
K-013-02	12x12 floor Tile - White - Rm 10		
K-013-03	12x12 floor Tile - Grey - Rm 10		
K-013-04	12x12 floor Tile - Blue - Rm 10		
K-013-05	2x4 Ceiling Tile - Rm 5	A	

Client Sample # (s): K-013-01 - K-013-10 Total # of Samples: 10

Relinquished (Client): [Signature] Date: 1/13/2020 Time: 10:23

Received (Lab): [Signature] Date: 1/13/2020 Time: 10:30p

Comments/Special Instructions:



EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077

Tel/Fax: (800) 220-3675 / (856) 786-5974

<http://www.EMSL.com> / cinnaslab@EMSL.com

EMSL Order: 042000904

Customer ID: WEEN50

Customer PO:

Project ID:

Attention: Philip Conteh
West Chester Environmental
1248 Wrights Lane
West Chester, PA 19380

Phone: (610) 431-7545

Fax: (610) 431-7543

Received Date: 01/13/2020 10:30 PM

Analysis Date: 01/15/2020

Collected Date:

Project: SD - Francis Scott Key

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
K-0113-01-Linoleum <small>042000904-0001</small>	Room 5 - Linoleum Green	Green Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
K-0113-01-Mastic <small>042000904-0001A</small>	Room 5 - Mastic	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
K-0113-02-Floor Tile <small>042000904-0002</small>	Room 10 - 12x12 Floor Tile White	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
K-0113-02-Mastic <small>042000904-0002A</small>	Room 10 - Mastic	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
K-0113-03 <small>042000904-0003</small>	Room 10 - 12x12 Floor Tile Grey	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
K-0113-04-Floor Tile <small>042000904-0004</small>	Room 10 - 12x12 Floor Tile Blue	Blue Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
K-0113-04-Mastic <small>042000904-0004A</small>	Room 10 - Mastic	Black Non-Fibrous Homogeneous		98% Non-fibrous (Other)	2% Chrysotile
K-0113-05 <small>042000904-0005</small>	Room 5 - 2x4 Ceiling Tile	White/Yellow Fibrous Homogeneous	60% Glass	40% Non-fibrous (Other)	None Detected
			HA: A		
K-0113-06 <small>042000904-0006</small>	Room 4 - 2x4 Ceiling Tile	White/Yellow Fibrous Homogeneous	60% Glass	40% Non-fibrous (Other)	None Detected
			HA: A		
K-0113-07 <small>042000904-0007</small>	Room 3 - 2x4 Ceiling Tile	White/Yellow Fibrous Homogeneous	80% Glass	20% Non-fibrous (Other)	None Detected
			HA: A		
K-0113-08 <small>042000904-0008</small>	Room 20 - 2x4 Ceiling Tile	White/Yellow Fibrous Homogeneous	60% Glass	40% Non-fibrous (Other)	None Detected
			HA: B		
K-0113-09 <small>042000904-0009</small>	Room 18 - 2x4 Ceiling Tile	White/Yellow Fibrous Homogeneous	60% Glass	40% Non-fibrous (Other)	None Detected
			HA: B		
K-0113-10 <small>042000904-0010</small>	Room 21 - 2x4 Ceiling Tile	White/Yellow Fibrous Homogeneous	80% Glass	20% Non-fibrous (Other)	None Detected
			HA: B		

Initial report from: 01/15/2020 08:49:23



EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077

Tel/Fax: (800) 220-3675 / (856) 786-5974

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EMSL Order: 042000904

Customer ID: WEEN50

Customer PO:

Project ID:

Analyst(s)

Christina Maiorana (2)

Sarah Kleinbrahm (11)

Samantha Rundstrom, Laboratory Manager
or Other Approved Signatory

EMSL maintains liability limited to cost of analysis. The above analyses were performed in general compliance with Appendix E to Subpart E of 40 CFR (previously EPA 600/M4-82-020 "Interim Method"), but augmented with procedures outlined in the 1993 ("final") version of the method. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. All samples received in acceptable condition unless otherwise noted. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. EMSL recommends gravimetric reduction for all non-friable organically bound materials prior to analysis. Estimation of uncertainty is available on request.

Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ NVLAP Lab Code 101048-0, AIHA-LAP, LLC-IHLAP Lab 100194, NYS ELAP 10872, NJ DEP 03036, PA ID# 68-00367, LA #04127

Initial report from: 01/15/2020 08:49:23