

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. 002

Subject: 2021 Classroom Modernizations
SDP Contract Numbers: B-014 C of 20/21 & B-015 C of 20/21

Location: William Cramp Elementary School
3449 North Mascher Street, Philadelphia PA 19140

This Addendum, dated February 18, 2021, 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.

GENERAL

- 1. Paint applied to CMU Block walls-** Specification 01 1135 Abatement Technical Specification section 1.03, a., identifies the rooms where paint applied to CMU walls tested positive for asbestos content. These rooms shall be abated in their entirety for this material. The Abatement contractor is required to follow all requirements noted in the specification as well as all local and state requirements for this scope of work.
- 2. Please use attached Bid Bond form for all Prime Contracts.**

SPECIFICATION

SECTION 064000 – INTERIOR ARCHITECTURAL WOODWORK

- 1. REPLACE** Section 064000 Interior Architectural Woodwork with the attached section.

SECTION 090190 – MAINTENANCE PAINTING

- 1. ADD** the attached specification section.

SECTION 09290- PLASTER PATCHING AND REPAIR

- 1. ADD** the attached specification section.

SECTION 101115 – WINDOW FILMS

- 2. ADD** the attached specification Section 101115 Window Films.

SECTION 113013 – RESIDENTIAL APPLIANCES

1. ADD the attached specification Section 113013 Residential Appliances.

SECTION 123553- WOOD CASEWORK

1. REPLACE Section 123553 Wood Casework with the attached section.

SECTION 123661 – SIMULATED STONE FABRICATIONS

1. REPLACE Section 123661 Simulated Stone Fabrications with the attached section.

SECTION 284621.11 – FIRE ALARM & EMERGENCY VOICE SYSTEM

1. ADD this section to the project specifications.

ARCHITECTURAL DRAWINGS

DRAWING D1.1 – OVERALL FIRST FLOOR DEMOLITION PLAN

1. Revised demolition note 1D as indicated on drawings.
2. Revised demolition note 1J as indicated on drawings.

DRAWING D1.2 – OVERALL SECOND FLOOR DEMOLITION PLAN

1. Revised demolition note 1D as indicated on drawings.
2. Revised demolition note 1J as indicated on drawings.

DRAWING A1.1 – OVERALL FIRST FLOOR PLAN

1. Revised plan 1/A1.1 to include additional new work scope as indicated on drawings.
2. Revised large scale plan 2/A1.1 to include additional new work scope as indicated on drawings.
3. Revised large scale plan 3/A1.1 to include additional new work scope as indicated on drawings.
4. Revised large scale plan 5/A1.1 to include additional new work scope as indicated on drawings.
5. Added large scale plan 10/A1.1a s indicated on drawings.

DRAWING A1.2 – OVERALL SECOND FLOOR PLAN

1. Added detail 5/A1.2 as indicated on drawings.

DRAWING A6.2 – ROOM FINISH SCHEDULE

1. Added Solid Surface panel color to General Notes on the Color Scheme Schedule.

INTERIOR DRAWINGS

DRAWING I4.1 - LARGE SCALE LAYOUTS - PRE-KINDERGARTEN & KINDERGARTEN

1. Added simulated stone wall panel behind hydration station and deleted one base cabinet from casework run to allow for simulated stone wall panel at hydration station.

DRAWING I4.2 - LARGE SCALE LAYOUTS - KINDERGARTEN & SPECIAL EDUCATION

1. Added simulated stone wall panel behind hydration station and shifted visual display in detail 2/I4.2 to be centered between hydration station and wall, see corresponding interior elevation for location.

2. Detail 1/14.2, added simulated stone wall panel behind hydration station and to be aligned with corner of wall, see corresponding interior elevation for location.

DRAWING I4.3 - INTERIOR ELEVATIONS - PRE-K, KINDER & SPECIAL EDUCATION

1. Updated details A/14.3 and S/14.3 to show simulated stone wall panel behind hydration station. Simulated stone wall panels shall be centered or aligned as noted on corresponding interior elevations.

DRAWING I4.4 - INTERIOR ELEVATIONS & DETAILS - PRE-K, KINDER & SPECIAL EDUCATION

1. Added simulated stone wall panel behind hydration station and shifted visual display to be centered between hydration station and wall.
2. Detail 2/14.4, replaced detail in its entirety to show plumbing accessories to be added with field drilled holes in casework. See detail for more information.

DRAWING I4.5 - LARGE SCALE LAYOUTS & ELEVATIONS - FIRST GRADE

1. Added new built-in bench to cover existing concrete curb. Updated corresponding details 1/14.5 and B/14.5.

MECHANICAL DRAWINGS

DRAWING M00 – MECHANICAL INFORMATION SHEET

1. **DELETE:** General Notes #22 & #23.

PLUMBING DRAWINGS

DRAWING P10 – FIRST FLOOR PLAN – DOMESTIC WATER

1. **ADDITION:** Notes by Symbol #3 through #6.
2. **ADDITION:** New hydration station and associated work in KINDERGARDEN CLASSROOM 13A.
3. **ADDITION:** New hydration station and associated work in KINDERGARDEN CLASSROOM 106.
4. **ADDITION:** New hydration station and associated work in KINDERGARDEN CLASSROOM 108.
5. **ADDITION:** New hydration station and associated work in KINDERGARDEN CLASSROOM 110.
6. **ADDITION:** New hydration station and associated work in KINDERGARDEN CLASSROOM 111.
7. **ADDITION:** New hydration station and associated work in KINDERGARDEN CLASSROOM 113.

DRAWING P20 – FIRST FLOOR PLAN – SANITARY

1. **ADDITION:** Notes by Symbol #3 through #6.
2. **ADDITION:** New hydration station and associated work in KINDERGARDEN CLASSROOM 13A.

3. **ADDITION:** New hydration station and associated work in KINDERGARDEN CLASSROOM 106.
4. **ADDITION:** New hydration station and associated work in KINDERGARDEN CLASSROOM 108.
5. **ADDITION:** New hydration station and associated work in KINDERGARDEN CLASSROOM 110.
6. **ADDITION:** New hydration station and associated work in KINDERGARDEN CLASSROOM 111.
7. **ADDITION:** New hydration station and associated work in KINDERGARDEN CLASSROOM 113.

DRAWING P50 – PLUMBING DIAGRAMS & SCHEDULES

1. **ADDITION:** Added HS1 To Plumbing Equipment Schedule.

ELECTRICAL DRAWINGS

DRAWING E00 – ELECTRICAL INFORMATION SHEET

1. **REVISION:** Changed fire alarm devices from “AUDIO” to “SPEAKER”.
2. **ADDITION:** New note for “GENERAL FIRE ALARM INSTALLATION NOTE”
3. **REVISION:** Lighting fixture schedule to add mounting heights and catalog number

DRAWING ED11 – SECOND FLOOR PLAN – DEMOLITION – LIGHTING

1. **ADDITION:** Location of emergency lighting and text note “ETR”

DRAWING ED20 – FIRST FLOOR PLAN – DEMOLITION – POWER

1. **ADDITION:** Text note for mechanical units “ETR”
2. **ADDITION:** Location of fire control panel
3. **ADDITION:** Location of IT rack

DRAWING ED21 – SECOND FLOOR PLAN – DEMOLITION – POWER

1. **ADDITION:** Text note for mechanical units “ETR”

DRAWING E10 – FIRST FLOOR PLAN – LIGHTING

1. **REVISION:** Notes by Symbol #2
2. **ADDITION:** Occupancy sensors in classrooms
3. **ADDITION:** Daylight sensors in classrooms
4. **REVISION:** Occupancy sensors locations moved
5. **ADDITION:** Light fixture ‘A’ added to room 111
6. **REVISION:** Light switches revised location in room 13B

DRAWING E11 – SECOND FLOOR PLAN – LIGHTING

1. **REVISION:** Notes by Symbol #2

2. **ADDITION:** Occupancy sensors in classrooms
3. **REVISION:** Occupancy sensors locations moved
4. **ADDITION:** Existing emergency lighting and text note "ETR"

DRAWING E20 – FIRST FLOOR PLAN – POWER

1. **ADDITION:** Location of fire control panel
2. **ADDITION:** Location of IT rack
3. **ADDITION:** Hydration station receptacles and circuiting
4. **REVISION:** Notes by Symbol #4
5. **REVISION/ADDITION:** Fire alarm control panel text note
6. **ADDITION:** Fire alarm remote annunciator note

DRAWING E21 – SECOND FLOOR PLAN – POWER

1. **REVISION:** Notes by Symbol #4

DRAWING E40 – ELECTRICAL SCHEDULES & DETAILS

1. **REVISION:** Added note to "TYPICAL CLASSROOM LIGHTING CONTROLS"
2. **REVISION:** Revised panel schedule

BIDDER'S QUESTIONS AND RESPONSES ARE AS FOLLOWS:

Question 1: Please provide the Fire Alarm Vendor.

Answer 1: See specification SECTION 284621.11 – FIRE ALARM & EMERGENCY VOICE SYSTEM

Question 2: The second-floor classrooms have a 10" round light fixture near the center of the rooms. These fixtures are not shown on the drawings. Are these fixtures included in the demolition scope?

Answer 2: These lights are emergency lighting and are existing to remain.

Questions 3: Are we able to walk subcontractors through the building before bidding?

Answer: 3: The Project Manager will follow up with this request to see if a date and time can be coordinated.

Question 4: The specifications for the Fire Alarm system were not provide in the bid package. Will the specification be provided before the bid date?

Answer 4: See specification SECTION 284621.11 – FIRE ALARM & EMERGENCY VOICE SYSTEM

Question 5: The specifications for Wall speaker replacements were not provided. Will a Spec for speakers be provided before the bid date?

Answer 5: See keynote #4, on revised drawing E20 for speaker requirement.

Question 6: Please identify the room or location of the MDF or IDF in the Carnell School

Answer 6: See location of IT rack designated in revised drawing E20.

Question 7: Due to the limited scope of work on this project, can the MBE/WBE Ranges be reduced?

Answer 7: The ranges for this project will not be reduced.

Question 8: We have been made aware that the casework manufacturer in the spec will not be bidding or producing any casework for these projects. Please advise?

Answer 8: See revised specification 12 3553 "Wood Casework, 2.01 Manufacturers" for new manufacturers.

ATTACHMENTS

SPECIFICATIONS

SECTION 064000	INTERIOR ARCHITECTURAL WOODWORK
SECTION 101115	WINDOW FILMS
SECTION 113013	RESIDENTIAL APPLIANCES
SECTION 123661	SIMULATED STONE FABRICATIONS
SECTION 284621.11	FIRE ALARM & EMERGENCY VOICE SYSTEM

DRAWINGS

DRAWING D1.1	OVERALL FIRST FLOOR DEMOLITION PLAN
DRAWING D1.2	OVERALL SECOND FLOOR DEMOLITION PLAN
DRAWING A1.1	OVERALL FIRST FLOOR PLAN
DRAWING A1.2	OVERALL SECOND FLOOR PLAN
DRAWING A6.2	ROOM FINISH SCHEDULE
DRAWING I4.1	LARGE SCALE LAYOUTS - PRE-KINDERGARTEN & KINDERGARTEN
DRAWING I4.2	LARGE SCALE LAYOUTS - KINDERGARTEN & SPECIAL EDUCATION
DRAWING I4.3	INTERIOR ELEVATIONS - PRE-K, KINDER & SPECIAL EDUCATION
DRAWING I4.4	INTERIOR ELEVATIONS & DETAILS - PRE-K, KINDER & SPECIAL EDUCATION
DRAWING I4.5	LARGE SCALE LAYOUTS & ELEVATIONS - FIRST GRADE
DRAWING M00	MECHANICAL INFORMATION SHEET
DRAWING P10	FIRST FLOOR PLAN – DOMESTIC WATER
DRAWING P20	FIRST FLOOR PLAN – SANITARY
DRAWING P50	PLUMBING DIAGRAMS & SCHEDULES
DRAWING E00	ELECTRICAL INFORMATION SHEET
DRAWING ED11	SECOND FLOOR PLAN – DEMOLITION – LIGHTING
DRAWING ED20	FIRST FLOOR PLAN – DEMOLITION – POWER
DRAWING ED21	SECOND FLOOR PLAN – DEMOLITION – POWER
DRAWING E10	FIRST FLOOR PLAN – LIGHTING
DRAWING E11	SECOND FLOOR PLAN – LIGHTING
DRAWING E20	FIRST FLOOR PLAN – POWER
DRAWING E21	SECOND FLOOR PLAN – POWER
DRAWING E40	ELECTRICAL SCHEDULES & DETAILS

END OF ADDENDUM #002

BID BOND

THE SCHOOL DISTRICT OF PHILADELPHIA
BOARD OF EDUCATION

Know all Men by these Presents **THAT WE,** _____
_____, Principal and _____
_____, a corporation existing under the laws of the State
of _____, Surety, are jointly and severally held and firmly bound
unto THE SCHOOL DISTRICT OF PHILADELPHIA in the sum of _____
_____ Dollars or ten (10%) percent of the total Bid (Base Bid plus additive
Alternates Proposal amounts), lawful money of the United States of America, for the payment
of which sum to the said School District, its successors and assigns, will and truly to be
made, we do bind ourselves, our heirs, executors, administrators, successors and assigns,
jointly and severally firmly by these presents.

Sealed with our seals and dated the _____ day of _____, in the year
of our Lord, two thousand and _____ (20__).

WHEREAS, the Principal proposes to do and perform all work and to furnish the
articles, supplies, equipment and material in exact accordance with Contract
No. _____ of THE SCHOOL DISTRICT
OF PHILADELPHIA, at the price or prices bid by the said Principal.

NOW THE CONDITION OF THIS OBLIGATION IS SUCH, that if the proposal of the
Principal as set forth in the aforementioned contract is accepted by THE SCHOOL DISTRICT OF
PHILADELPHIA, the Principal will, within five (5) calendar days after notice to the Principal
of the award, enter into a written contract with THE SCHOOL DISTRICT OF PHILADELPHIA to
perform all work and to furnish all articles, supplies, equipment and material, at the price
or prices offered in the said proposal, in exact accordance with the aforesaid contract and
will give a performance bond and a labor and materialmen's bond both executed by acceptable
surety, each in an amount equal to the contract price, the Principal and Surety bind
themselves, their heirs, executors, administrators, successors and assigns jointly and
severally, to pay to THE SCHOOL DISTRICT OF PHILADELPHIA in the event that the Principal
shall not enter into such contract and/or give the required bonds within five (5) calendar
days after notice of award of contract, the difference in money between the amount of the
Bid of the Principal and the amount for which THE SCHOOL DISTRICT OF PHILADELPHIA either
contracts with another party to perform said work and furnish said articles, supplies,
equipment and material under the terms of the contract, or the amount which said School
District pays out of its own funds in performance of said work and in obtaining said
articles, supplies, equipment and material, if either last mentioned amount be in excess of
the amount of said Bid, it being understood and agreed that in the event of any of the
aforementioned defaults by the Principal, THE SCHOOL DISTRICT OF PHILADELPHIA shall have
full power and authority to purchase such articles, supplies, material, equipment, tools
and machinery and to employ such workers as in its opinion may be required; if payment is
made as aforesaid by the Principal and the Surety, then this obligation to be void, otherwise
to remain in full force and effect.

And we do, for ourselves and each of us, our and each of our heirs, executors, administrators, successors and assigns, hereby authorize the General Counsel of The School District of Philadelphia, or any other attorney, to appear for us, or either of us, in any suit or suits brought upon the above obligation, and, in our name or in the name of either of us, to confess judgment in favor of the said School District in the sum named in this bond, with full authority in such General Counsel and/or other attorney, to sign an agreement for entering, in any competent court, an amicable action or actions and to confess judgment therein. Judgment may be entered as above provided upon a copy of this obligation and warrant of attorney, certified by the Secretary of the School Reform Commission to be a true and correct copy, without the necessity of filing the original, any rule of court, custom or practice, to the contrary notwithstanding and each judgment entered under the authority hereby conferred shall be a final judgment, without right of appeal, certiorari, writ of error, exception or objection to the same, or the right to file a motion or rule to strike off, or open or stay execution of the same. We, acting for ourselves and each of us, and as stated at head of this paragraph, hereby waive all errors and imperfections whatsoever in the entering of said judgment or judgments, or in any process therein, it being understood, however, that said School District on any default, shall restrict its assessment of damages to those stated in the above condition of this obligation.

If Contractor is an individual proprietorship or is a partnership, sign here:

(Trade Name of Firm)

By: _____

By: _____
(Witness)

By: _____
Name: _____
Title: _____

If Contractor is a corporation, sign here:

(Name of Corporation)

ATTEST:

By: _____
(Secretary or Treasurer)

By: _____ (SEAL)
(President or Vice President)

(CORPORATE SEAL)
Surety to sign below:

(Name of Surety)

By: _____
(Witness as to Surety)

By: _____ (SEAL)
Name: _____
Title: _____

(CORPORATE SEAL)

SECTION 064000 – INTERIOR ARCHITECTURAL WOODWORK

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Standing and running trim.
 - 2. Custom plastic laminate casework.
- B. Related Sections include the following:
 - 1. Division 6 Section "Rough Carpentry" for wood furring, blocking, shims, and hanging strips required for installing woodwork and concealed within other construction before woodwork installation.
 - 2. Division 9 Section "Painting" for field-finishing requirements of standing and running trim, including stains and transparent finishes.

1.3 DEFINITIONS

- A. The scope of interior architectural woodwork includes wood furring, blocking, shims, and hanging strips for installing woodwork items unless concealed within other construction before woodwork installation.

1.4 SUBMITTALS

- A. Product Data: For each type of product indicated, including high-pressure decorative laminates, cabinet and millwork hardware and accessories, and finishing materials and processes.
- B. Shop Drawings: Show location of each item, dimensioned plans and elevations, large-scale details, attachment devices, and other components.
 - 1. Show large scale details, full size.
 - 2. Show locations and sizes of furring, blocking, and hanging strips, including concealed blocking and reinforcement specified in other Sections.
 - 3. **Show locations and sizes of cutouts and holes installed in architectural woodwork.**
ADDENDUM #2 – 2-12-2021
- C. Samples for Verification:
 - 1. Lumber with transparent finish, not less than 50 sq. in., for each species and cut, finished on 1 side and 1 edge; include edge banding, where applicable.
 - a. Provide for each building per drawings.

2. Millwork Profiles to match exiting.
3. Plastic laminates, 3-inches by 5-inches for each type, color, pattern, and surface finish.

1.5 QUALITY ASSURANCE

- A. Fabricator Qualifications: A shop that produces premium grade woodwork, and that meets the standards of AWI's Quality Certification Program, and that employs skilled workers who custom-fabricate products similar to those required for this Project and whose products have a record of successful in-service performance. AWI labeling and certification for fabrication is not required.
- B. Installer Qualifications: Skilled workers that meet the standards of AWI's Quality Certification Program.
- C. Quality Standard: AWI labeling and certification for fabrication is not required; however, as a standard of quality the Fabricator and Installer shall comply with AWI's "Architectural Woodwork Quality Standards" for grades of interior architectural woodwork indicated for construction, finishes, installation, and other requirements.
- D. Source Limitations: Engage a qualified woodworking firm to assume undivided responsibility for production of interior architectural woodwork with sequence-matched wood veneers.
- E. Quality Standard: Unless otherwise indicated, comply with AWI's "Architectural Woodwork Quality Standards" for grades of interior architectural woodwork indicated for construction, finishes, installation, and other requirements.
- F. Mockups: Build mockups to verify selections made under sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution.
 1. Approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Do not deliver woodwork until painting and similar operations that could damage woodwork have been completed in installation areas. If woodwork must be stored in other than installation areas, store only in areas where environmental conditions comply with requirements specified in "Project Conditions" Article.

1.7 PROJECT CONDITIONS

- A. Environmental Limitations: Do not deliver or install woodwork until building is enclosed, wet work is complete, and HVAC system is operating and maintaining temperature and relative humidity at occupancy levels during the remainder of the construction period.
- B. Field Measurements: Where woodwork is indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication, and indicate measurements on Shop Drawings. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
 1. Locate concealed framing, blocking, and reinforcements that support woodwork by field measurements before being enclosed, and indicate measurements on Shop Drawings.

2. Established Dimensions: Where field measurements cannot be made without delaying the Work, establish dimensions and proceed with fabricating woodwork without field measurements. Provide allowance for trimming at site, and coordinate construction to ensure that actual dimensions correspond to established dimensions.

1.8 COORDINATION

- A. Coordinate sizes and locations of framing, blocking, furring, reinforcements, and other related units of Work specified in other Sections to ensure that interior architectural woodwork can be supported and installed as indicated.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. General: Provide materials that comply with requirements of AWI's quality standard for each type of woodwork and quality grade specified, unless otherwise indicated.
- B. Wood Species and Cut for Transparent Finish: Red Oak
- C. Wood Species and Cut for Finish: Poplar
- D. Wood Products: Comply with the following:
 1. Hardwood Plywood: HPVA HP-1
 2. Particleboard: ANSI A208.1, Grade M-2
- D. Thermoset Decorative Overlay: Particleboard complying with ANSI A208.1, Grade M-2, or medium-density fiberboard complying with ANSI A208.2, Grade MD, with surface of thermally fused, melamine-impregnated decorative paper complying with LMA SAT-1.
- E. High-Pressure Decorative Laminate: NEMA LD 3, grades as indicated or, if not indicated, as required by woodwork quality standard.
 3. Available Manufacturers: Subject to compliance with requirements, manufacturers offering high-pressure decorative laminates that may be incorporated into the Work include, but are not limited to, the following:
 - a. Pionite | Panolam Surface Systems

2.2 INTERIOR STANDING AND RUNNING TRIM FOR TRANSPARENT FINISH

- A. Grade: Custom.
 1. Wood Species and Cut: Red Oak, plain-sawn.
 2. Profiles:
 - a. Wood Threshold:
 - i. Location:
 - 1) Laura H. Carnell Elementary per drawings.
 - 2) Sheridian Elementary per drawings.

- b. Color: Stain to match existing color per individual school. Provide sample for Owner/Architect approval.
- 3. Wood Species and Cut: Red Oak, plain-sawn.
- 4. Profiles:
 - a. Chair Rail: Custom Buildup at chair rail
 - i. Location:
 - 1) Laura H. Carnell Elementary per drawings.
 - b. Base: Match existing profiles.
 - i. Location:
 - 1) Laura H. Carnell Elementary per drawings.
 - c. Crown Molding: Match existing profiles.
 - i. Location:
 - 1) Laura H. Carnell Elementary per drawings
 - d. Shelving: Match existing.
 - i. Location:
 - 1) Laura H. Carnell Elementary per drawings
 - e. ½" Wood Quarter Round Trim
 - i. Location:
 - 1) Laura H. Carnell Elementary per drawings
 - f. Color: Stain to match existing color per individual school. Provide sample for Owner/Architect approval.

- B. Wood Moisture Content: 5 to 10 percent.

2.3 INTERIOR STANDING AND RUNNING TRIM FOR OPAQUE FINISH

- A. Grade: Custom.
 - 1. Wood Species and Cut: Poplar
 - 2. Profiles:
 - a. Chair Rail: Custom Buildup at chair rail.
 - i. Location:
 - 1) Sheridian Elementary per drawings.
 - b. Base: Match existing profiles.
 - i. Location:
 - 1) Sheridian Elementary per drawings.
 - c. Crown Molding: Match existing profiles.
 - i. Location:
 - 1) Sheridian Elementary per drawings
 - d. 1x Trim
 - i. Location:

- 1) Sheridian Elementary per drawings.
- 2) William Cramp Elementary per drawings.

- e. 2x Trim
 - i. Location:
 - 1) William Cramp Elementary per drawings.
- .f.. ½" Wood Quarter Round Trim
 - i. Location:
 - 1) Sheridan Elementary per drawings.

- B. Wood Moisture Content: 5 to 10 percent.

2.4 MISCELLANEOUS MATERIALS

- A. Furring, Blocking, Shims, and Hanging Strips: Softwood or hardwood lumber, kiln dried to less than 15 percent moisture content.
- B. Anchors: Select material, type, size, and finish required for each substrate for secure anchorage. Provide nonferrous-metal or hot-dip galvanized anchors and inserts on inside face of exterior walls and elsewhere as required for corrosion resistance. Provide toothed-steel or lead expansion sleeves for drilled-in-place anchors.
- C. Adhesives, General: Adhesives shall not contain urea formaldehyde.
- D. Adhesive for Bonding Plastic Laminate: Resorcinol

2.5 FASTENERS AND ANCHORS

- A. Screws: Select material, type, size, and finish required for each use. Comply with FS FF-S-111 for applicable requirements. For metal framing supports, provide screws as recommended by metal framing manufacturer.
- B. Nails: Select material, type, size, and finish required for each use. Comply with FS FF-N-105 for applicable requirements. Provide any type of non-corrosive nail for exterior woodwork.
- C. **Anchors: Select material, type, size, and finish required by each substrate for secure anchorage. Provide non-ferrous metal or hot-dip galvanized anchors and inserts for exterior installations and elsewhere as required for corrosion-resistance. Provide toothed steel or lead expansion bolt devices for drilled-in-place anchors. Furnish inserts and anchors, as required, to be set into concrete or masonry work for subsequent woodwork anchorage. **ADDENDUM #2 – 2-12-2021****

2.6 FABRICATION, GENERAL

- A. Interior Woodwork Grade: Unless otherwise indicated, provide Premium-grade interior woodwork complying with referenced quality standard.

- B. Wood Moisture Content: Comply with requirements of referenced quality standard for wood moisture content in relation to ambient relative humidity during fabrication and in installation areas.
 - C. Complete fabrication, including assembly, finishing, and hardware application, to maximum extent possible before shipment to Project site. Disassemble components only as necessary for shipment and installation. Where necessary for fitting at site, provide ample allowance for scribing, trimming, and fitting.
 - 1. Notify Architect seven days in advance of the dates and times woodwork fabrication will be complete.
 - 2. **Trial fit assemblies at fabrication shop that cannot be shipped completely assembled. Install dowels, screws, bolted connectors, and other fastening devices that can be removed after trial fitting. Verify that various parts fit as intended and check measurements of assemblies against field measurements indicated on Shop Drawings before disassembling for shipment.**
ADDENDUM #2 – 2-12-2021
 - D. Fabricate woodwork to dimensions, profiles, and details indicated. Ease edges to radius indicated for the following:
 - 1. **Edges of Solid-Wood (Lumber) Members and Rails: 1/16 inch.**
 - 2. **Edges of Rails and Similar Members More Than 3/4 Inch: 1/8 inch.**
 - 3. **Corners of Cabinets and Edges of Solid-Wood (Lumber) Members 3/4 Inch Thick or Less: 1/16 inch.**
 - 4. **Corners of Cabinets and Edges of Solid-Wood (Lumber) Members and Rails: 1/16 inch.**
ADDENDUM #2 – 2-12-2021
- 2.5 PLASTIC-LAMINATE DOORS, FINISHED END PANELS AND CABINETS **ADDENDUM #2 – 2-12-2021**
- A. Grade: Custom
 - B. AWI Type of Cabinet Construction: Flush overlay
 - C. Laminate Cladding for Exposed Surfaces: High-pressure decorative laminate complying with the following requirements:
 - 5. Horizontal Surfaces Other Than Tops: Grade HGS
 - 6. Vertical Surfaces: Grade HGS
 - 7. Edges: Grade HGS
 - D. Materials for Semiexposed Surfaces:
 - 1. Surfaces Other Than Drawer Bodies: High-pressure decorative laminate,
 - a. Edges of Plastic-Laminate Shelves: Grade HGS
 - b. For semiexposed backs of panels with exposed plastic-laminate surfaces, provide surface of high-pressure decorative laminate, Grade VGS
 - 8. **Drawer Sides and Backs: Thermoset decorative panels. ADDENDUM #2 – 2-12-2021**
 - 9. **Drawer Bottoms: Thermoset decorative panels. ADDENDUM #2 – 2-12-2021**

- E. Door **and Drawer** Edging: Provide 3mm PVC edging for all doors on laminate custom cabinets/millwork. Color shall be as follows: **(ADDENDU NO. 2 – February 12, 2021)**
 - 1. Manufacturer: Doelken, Woodtape
 - 2. Color: 6496, Cradle of Liberty

- F. Colors, Patterns, and Finishes: Provide materials and products that result in colors and textures of exposed laminate surfaces complying with the following requirements:
 - 1. Manufacturer: Pionite | Panolam Surface Systems
 - 2. Series: Premier Laminate
 - 3. Color: AB221 Cradle of Liberty with Suede Finish

- G. Core Material at Sinks: Exterior-grade plywood & glue.

- H. Finished End Panel
 - 1. Provide finished end panel with laminate applied to all surfaces.

- I. **Concealed Backs of Panels with Exposed Plastic Laminate Surfaces: High-pressure decorative laminate, Grade BKL. ADDENDUM #2 – 2-12-2021**

- J. **Provide dust panels of 1/4-inch plywood or tempered hardboard above compartments and drawers, unless located directly under tops. ADDENDUM #2 – 2-12-2021**

2.6 CABINET HARDWARE AND ACCESSORIES

- 1. General: Provide cabinet hardware and accessory materials for a complete installation of architectural woodwork, except for items specified in Division 8 Section "Door Hardware."
- 2. Hardware Standard: Comply with BHMA A156.9 for items indicated by referencing BHMA numbers or items referenced to this standard.
- 3. Butt Hinges: 2-3/4-inch, five-knuckle steel hinges made from 0.095-inch thick metal and as follows:
 - a. Semi-concealed Hinges for Flush Overlay Doors: ANSI/BHMA A156.9, B01521.
- 4. Pulls: 4-inch wire drawer pulls. Provide pulls by Doug Mocket as follows: No. DP57B - 4-5/32". Finish: Satin Stainless Steel on all sides.
- 5. Catches: Magnetic, BHMA A156.9, B03141.
- 6. Door Locks: BHMA A156.11, E07121.
- 7. Drawer Locks: BHMA A156.11, E07041.
- 8. Exposed Hardware Finishes: Complying with BHMA A156.18 for BHMA finish number indicated.
 - a. General: Brushed Stainless Steel
- 9. For concealed hardware, provide manufacturer's standard finish that complies with product class requirements in BHMA A156.9.
- 10. **Adjustable Shelf Standards and Supports: BHMA A156.9, B04071; with shelf rests, B04081. ADDENDUM #2 – 2-12-2021**
- 11. **Shelf Rests: BHMA A156.9, B04013; metal. ADDENDUM #2 – 2-12-2021**
- 12. **Drawer Slides: Side-mounted, full-extension, zinc-plated steel drawer slides with steel ball bearings, BHMA A156.9, B05091 and rated for the following loads:**
- 13. **Box Drawer Slides: 100 lbf. ADDENDUM #2 – 2-12-2021**

PART 3 - EXECUTION

3.1 PREPARATION

- A. Before installation, condition woodwork to average prevailing humidity conditions in installation areas.
- B. Before installing architectural woodwork, examine shop-fabricated work for completion and complete work as required, including removal of packing and back-priming.

3.2 INSTALLATION

- A. Grade: Install woodwork to comply with requirements for the same grade specified in Part 2 for fabrication of type of woodwork involved.
- B. Assemble woodwork and complete fabrication at Project site to comply with requirements for fabrication in Part 2, to extent that it was not completed in the shop.
- C. Install woodwork level, plumb, true, and straight. Shim as required with concealed shims. Install level and plumb (including tops) to a tolerance of 1/8 inch in 96 inches.
- D. Scribe and cut woodwork to fit adjoining work, refinish cut surfaces, and repair damaged finish at cuts.
- E. Standing and Running Trim:
 - 1. Install with minimum number of joints possible, using full-length pieces (from maximum length of lumber available) to greatest extent possible.
 - 2. Do not use pieces less than 36 inches long, except where shorter single-length pieces are necessary.
 - 3. Scarf running joints and stagger in adjacent and related members.
 - 4. Fill gaps, if any, between top of base and wall with plastic wood filler, sand smooth, and finish same as wood base if finished.
 - 5. Install standing and running trim with no more variation from a straight line than 1/8 inch in 96 inches.
- F. Cabinets: Install without distortion so doors fit openings properly and are accurately aligned. Adjust hardware to center doors in openings and to provide unencumbered operation. Complete installation of hardware and accessory items as indicated.
 - 1. Install cabinets with no more than 1/8 inch in 96-inch sag, bow, or other variation from a straight line.
- G. Touch up finishing work specified in this Section after installation of woodwork. Fill nail holes with matching filler where exposed.
- H. Refer to Division 9 Sections for final finishing of installed architectural woodwork not indicated to be shop finished.

3.3 ADJUSTING AND CLEANING

- A. Repair damaged and defective woodwork, where possible, to eliminate functional and visual defects; where not possible to repair, replace woodwork. Adjust joinery for uniform appearance.
- B. Clean, lubricate, and adjust hardware.
- C. Clean woodwork on exposed and semi-exposed surfaces. Touch up shop-applied finishes to restore damaged or soiled areas.

END OF SECTION 096513

SECTION 090190 - MAINTENANCE REPAINTING

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 maintenance repainting as follows:
 - 1. Removing existing paint.
 - 2. Patching substrates.
 - 3. Repainting, including staining and varnishing of wood.
- B. Related Requirements:
 - 1. Section 099123 Painting

1.3 DEFINITIONS

- A. Gloss Level 1: Not more than 5 units at 60 degrees and 10 units at 85 degrees, according to ASTM D523.
- B. Gloss Level 2: Not more than 10 units at 60 degrees and 10 to 35 units at 85 degrees, according to ASTM D523.
- C. Gloss Level 3: 10 to 25 units at 60 degrees and 10 to 35 units at 85 degrees, according to ASTM D523.
- D. Gloss Level 4: 20 to 35 units at 60 degrees and not less than 35 units at 85 degrees, according to ASTM D523.
- E. Gloss Level 5: 35 to 70 units at 60 degrees, according to ASTM D523.
- F. Gloss Level 6: 70 to 85 units at 60 degrees, according to ASTM D523.
- G. Gloss Level 7: More than 85 units at 60 degrees, according to ASTM D523.
- H. Low-Pressure Spray: 100 to 400 psi (690 to 2750 kPa); 4 to 6 gpm (0.25 to 0.4 L/s)
- I. Medium-Pressure Spray: 400 to 800 psi (2750 to 5510 kPa); 4 to 6 gpm (0.25 to 0.4 L/s)

1.4 PREINSTALLATION MEETINGS

- A. Preinstallation Conference: Conduct conference at Project site with SDP construction and design team and architect.

1.5 SEQUENCING AND SCHEDULING

- A. Perform maintenance repainting in the following sequence, which includes work specified in this and other Sections:
 1. Dismantle existing surface-mounted objects and hardware except items indicated to remain in place. Tag items with location identification and protect.
 2. Verify that temporary protections have been installed.
 3. Examine condition of surfaces to be painted.
 4. Remove existing paint to the degree required for each substrate and surface condition of existing paint.
 5. Apply paint system.
 6. Reinstall dismantled surface-mounted objects and hardware unless otherwise indicated.

1.6 ACTION SUBMITTALS

- A. Product Data: For each type of product.
 1. Include recommendations for product application and use.
 2. Include test data substantiating that products comply with requirements.
- B. Samples: For each type of paint system and each pattern, color, and gloss; minimum 6 inches (150 mm) long in least dimension, but not less than whole pattern.
 1. Include stepped Samples defining each separate coat, including fillers and primers. Resubmit until each required sheen, color, and texture is achieved.
 2. For each painted color being matched to a standardized color-coding system, include the color chips from the color-coding-system company with Samples.
 3. Include a list of materials for each coat of each Sample.
 4. Label each Sample for location and application.
 5. Sample Size:
 - a. Painted Surfaces: 4-by-8-inch, Samples for each color and material, on hardboard.
 - b. Stained or Natural Wood: 12-by-12-inch, Samples of natural- or stained-wood finish, on representative surfaces.
- C. Product List: For each paint product indicated, include the following:
 1. Cross-reference to paint system and locations of application areas. Use same designations indicated on Drawings and in schedules.
 2. Printout of current "MPI Approved Products List" for each MPI-product category specified in paint systems, with the proposed product highlighted.
 3. VOC content.

1.7 INFORMATIONAL SUBMITTALS

- A. Color Matching Certificate: For computer-matched colors.

- B. Preconstruction Test Reports: For cleaning materials, paint removers, paint coatings and systems.

1.8 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra paint materials, from the same production run, that match products applied and that are packaged with protective covering for storage and identified with labels describing contents, including material, finish, source, and location on building.
 - 1. Quantity: Furnish Owner with an additional 3 percent, but not less than 1 gal. (3.8 L) or one case, as appropriate, of each material and color applied.

1.9 QUALITY ASSURANCE

- A. Mockups: Prepare mockups of maintenance repainting processes for each type of coating system and substrate indicated and each color and finish required to demonstrate aesthetic effects and to set quality standards for materials and execution. Duplicate appearance of approved Sample submittals.
 - 1. Locate mockups on existing surfaces where directed by Architect in locations that enable viewing under same conditions as the completed Work.
 - 2. Surface-Preparation Mockups: On existing surfaces using applicable specified methods of cleaning and other surface preparation, provide mockup sample of at least 100 sq. ft.
 - 3. Coating Mockups: Two surfaces of at least 100 sq. ft. to represent surfaces and conditions for application of each type of coating system under same conditions as the completed Work.
 - 4. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.
 - 5. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.10 PRECONSTRUCTION TESTING

- A. Preconstruction Testing Service: Engage a qualified testing agency to perform preconstruction testing of cleaning materials, paint removers and compatibility of paint coatings and system for each indicated type of painted surface.
 - 1. Use test areas as indicated and representative of proposed materials and existing construction.
 - 2. Propose changes to materials and methods to suit Project.

1.11 DELIVERY, STORAGE, AND HANDLING

- A. Store materials not in use in tightly covered containers in well-ventilated areas with ambient temperatures continuously maintained at not less than 45 deg F (7 deg C).
 - 1. Maintain containers in clean condition, free of foreign materials and residue.
 - 2. Remove rags and waste daily.

1.12 FIELD CONDITIONS

- A. Weather Limitations: Proceed with maintenance repainting only when existing and forecasted weather conditions are within the environmental limits set by each manufacturer's written instructions and specified requirements.
- B. Apply paints only when temperature of surfaces to be painted and ambient air temperatures are between 50 and 95 deg F (10 and 35 deg C).
- C. Do not apply paint in snow, rain, fog, or mist; when relative humidity exceeds 85 percent; at temperatures less than 5 deg F (3 deg C) above the dew point; or to damp or wet surfaces.
 - 1. Painting may continue during inclement weather if surfaces and areas to be painted are enclosed and heated within temperature limits specified by manufacturer for surface preparation and during paint application and drying periods.

PART 2 - PRODUCTS

2.1 PREPARATORY CLEANING MATERIALS

- A. Water: Potable.
- B. Hot Water: Water heated to a temperature of 140 to 160 deg F (60 to 71 deg C).
- C. Detergent Solution: Solution prepared by mixing 2 cups (0.5 L) of tetrasodium pyrophosphate (TSPP), 1/2 cup (125 mL) of laundry detergent that contains no ammonia, 5 quarts (5 L) of 5 percent sodium hypochlorite bleach, and 15 quarts (15 L) of warm water for every 5 gal. (20 L) of solution required.
- D. Mildewcide: Commercial proprietary mildewcide or a job-mixed solution prepared by mixing 1/3 cup (80 mL) of household detergent that contains no ammonia, 1 quart (1 L) of 5 percent sodium hypochlorite bleach, and 3 quarts (3 L) of warm water.
- E. Abrasives for Ferrous Metal Cleaning: Aluminum oxide paper, emery paper, fine steel wool, steel scrapers, and steel-wire brushes of various sizes.
- F. Rust Remover: Manufacturer's standard phosphoric acid-based gel formulation, also called "naval jelly," for removing corrosion from iron and steel.

2.2 PAINT AND STAINS, GENERAL

- A. See Specification Section 09 9123 PAINTING for detail of specific paints and applications.

2.3 PATCHING MATERIALS

- A. Wood-Patching Compound: Two-part, epoxy-resin, wood-patching compound; knife-grade formulation as recommended in writing by manufacturer for type of wood repair indicated, tooling time required for the detail of work, and site conditions. Compound shall be designed for filling

voids in damaged wood materials that have deteriorated from weathering and decay. Compound shall be capable of filling deep holes and spreading to feather edge.

- B. Metal-Patching Compound: Two-part, polyester-resin, metal-patching compound; knife-grade formulation as recommended in writing by manufacturer for type of metal repair indicated, tooling time required for the detail of work, and site conditions. Compound shall be produced for filling metal that has deteriorated from corrosion. Filler shall be capable of filling deep holes and spreading to feather edge.
- C. Cementitious Patching Compounds: Cementitious patching compounds and repair materials specifically manufactured for filling cementitious substrates and for sanding or tooling prior to repainting; formulation as recommended in writing by manufacturer for type of cementitious substrate indicated, exposure to weather and traffic, the detail of work, and site conditions.
- D. Gypsum-Plaster Patching Compound: Finish coat plaster and bonding compound according to ASTM C842 and manufacturer's written instructions.

PART 3 - EXECUTION

3.1 PROTECTION

- A. Comply with each manufacturer's written instructions for protecting building and other surfaces against damage from exposure to its products. Prevent chemical solutions from coming into contact with people, motor vehicles, landscaping, buildings, and other surfaces that could be harmed by such contact.
 - 1. Cover adjacent surfaces with materials that are proven to resist chemical solutions being used unless the solutions will not damage adjacent surfaces. Use protective materials that are UV resistant and waterproof. Apply masking agents to comply with manufacturer's written instructions. Do not apply liquid masking agent to painted or porous surfaces. When no longer needed, promptly remove masking to prevent adhesive staining.
 - 2. Do not apply chemical solutions during winds of sufficient force to spread them to unprotected surfaces.
 - 3. Neutralize and collect alkaline and acid wastes before disposal.
 - 4. Dispose of runoff from operations by legal means and in a manner that prevents soil erosion, undermining of paving and foundations, damage to landscaping, and water penetration into building interiors.

3.2 MAINTENANCE REPAINTING, GENERAL

- A. Maintenance Repainting Appearance Standard: Completed work is to have a uniform appearance as viewed by Architect from building interior at 10 feet (3 m) away from painted surface.
- B. Execution of the Work: In repainting surfaces, disturb them as minimally as possible and as follows:
 - 1. Remove failed coatings and corrosion and repaint.
 - 2. Verify that substrate surface conditions are suitable for repainting.
 - 3. Allow other trades to repair items in place before repainting.

- C. Mechanical Abrasion: Where mechanical abrasion is needed for the work, use gentle methods, such as scraping and lightly hand sanding, that will not abrade softer substrates, reducing clarity of detail.
- D. Heat Processes: Do not use torches, heat guns, or heat plates.

3.3 EXAMINATION

- A. Examine substrates and conditions, with Installer present, for compliance with requirements for maximum moisture content and other conditions affecting performance of painting work. Comply with paint manufacturer's written instructions for inspection.
- B. Maximum Moisture Content of Substrates: Do not begin application of coatings unless moisture content of exposed surface is below the maximum value recommended in writing by paint manufacturer and not greater than the following maximum values when measured with an electronic moisture meter appropriate to the substrate material:
 - 1. Concrete: 12 percent.
 - 2. Gypsum Board: 12 percent.
 - 3. Gypsum Plaster: 12 percent.
 - 4. Masonry (Clay and CMU): 12 percent.
 - 5. Portland Cement Plaster: 12 percent.
 - 6. Wood: 15 percent.
- C. Alkalinity: Do not begin application of coatings unless surface alkalinity is within range recommended in writing by paint manufacturer. Conduct alkali testing with litmus paper on exposed plaster, cementitious, and masonry surfaces.
- D. Verify suitability of substrates, including surface conditions and compatibility with existing finishes and primers.
 - 1. If existing surfaces cannot be prepared to an acceptable condition for proper finishing by using specified surface-preparation methods, notify Architect in writing.
- E. Begin coating application only after unsatisfactory conditions have been corrected and surfaces are dry.
 - 1. Beginning coating application constitutes Contractor's acceptance of substrates and conditions.

3.4 PREPARATORY CLEANING

- A. General: Use the gentlest, appropriate method necessary to clean surfaces in preparation for painting. Clean all surfaces, corners, contours, and interstices.
- B. Detergent Cleaning: Wash surfaces by hand using clean rags, sponges, and bristle brushes. Scrub surface with detergent solution and bristle brush until soil is thoroughly dislodged and can be removed by rinsing. Use small brushes to remove soil from joints and crevices. Dip brush in solution often to ensure that adequate fresh detergent is used and that surface remains wet. Rinse with water applied by clean rags or sponges.
- C. Solvent Cleaning: Use solvent cleaning to remove oil, grease, smoke, tar, and asphalt from painted or unpainted surfaces before other preparation work. Wipe surfaces with solvent using

clean rags and sponges. If necessary, spot-solvent cleaning may be employed just prior to commencement of paint application, provided enough time is allowed for complete evaporation. Use clean solvent and clean rags for the final wash to ensure that all foreign materials have been removed. Do not use solvents, including primer thinner and turpentine, that leave residue.

- D. Mildew: Clean off existing mildew, algae, moss, plant material, loose paint, grease, dirt, and other debris by scrubbing with bristle brush or sponge and detergent solution. Scrub mildewed areas with mildewcide. Rinse with water applied by clean rags or sponges.
- E. Chemical Rust Removal:
 - 1. Remove loose rust scale with specified abrasives for ferrous-metal cleaning.
 - 2. Apply rust remover with brushes or as recommended in writing by manufacturer.
 - 3. Allow rust remover to remain on surface for period recommended in writing by manufacturer or as determined by preconstruction testing. Do not allow extended dwell time.
 - 4. Wipe off residue with mineral spirits and either steel wool or soft rags, or clean with method recommended in writing by manufacturer to remove residue.
 - 5. Dry immediately with clean, soft cloths. Follow direction of grain in metal.
 - 6. Prime immediately to prevent rust. Do not touch cleaned metal surface until primed.
- F. Mechanical Rust Removal:
 - 1. Remove rust with specified abrasives for ferrous-metal cleaning. Clean to bright metal.
 - 2. Wipe off residue with mineral spirits and either steel wool or soft rags.
 - 3. Dry immediately with clean, soft cloths. Follow direction of grain in metal.
 - 4. Prime immediately to prevent rust. Do not touch cleaned metal surface until primed.

3.5 PAINT REMOVAL

- A. General: Remove paint where indicated. Where cleaning methods have been attempted and further removal of the paint is required because of incompatible or unsatisfactory surfaces for repainting, remove paint to extent required by conditions.
 - 1. Application: Apply paint removers according to paint-remover manufacturer's written instructions. Do not allow paint removers to remain on surface for periods longer than those indicated or recommended in writing by manufacturer.
 - a. Apply materials to all surfaces, corners, contours, and interstices, to provide a uniform final appearance without streaks.
 - b. After work is complete, remove protection no longer required. Remove tape and adhesive marks.
 - 2. Brushes: Use brushes that are resistant to chemicals being used.
 - a. Metal Substrates: If using wire brushes on metal, use brushes of same metal composition as metal being treated.
 - b. Wood Substrates: Do not use wire brushes.
 - 3. Spray Equipment: Use spray equipment that provides controlled application at volume and pressure indicated, measured at nozzle. Adjust pressure and volume to ensure that spray methods do not damage surfaces.
 - a. Equip units with pressure gages.

- b. Unless otherwise indicated, hold spray nozzle at least 6 inches (150 mm) from surface and apply material in horizontal, back-and-forth sweeping motion, overlapping previous strokes to produce uniform coverage.
 - c. For chemical spray application, use low-pressure tank or chemical pump suitable for chemical indicated, equipped with nozzle having a cone-shaped spray.
 - d. For water-spray application, use fan-shaped spray tip that disperses water at an angle of 25 to 50 degrees.
 - e. For heated water-spray application, use equipment capable of maintaining temperature between 140 and 160 deg F (60 and 71 deg C) at flow rates indicated.
- B. Paint Removal with Hand Tools: Remove paint manually using hand-held scrapers, wire brushes, sandpaper, and metallic wool as appropriate for the substrate material.
- C. Paint Removal with Alkaline Paste Paint Remover:
- 1. Remove loose and peeling paint using water, scrapers, stiff brushes, or a combination of these. Let surface dry thoroughly.
 - 2. Apply paint remover to dry, painted surface with brushes.
 - 3. Allow paint remover to remain on surface for period recommended in writing by manufacturer or as determined by preconstruction testing.
 - 4. Rinse with cold water applied by low-pressure spray to remove chemicals and paint residue.
 - 5. Use mechanical methods recommended in writing by manufacturer to remove chemicals and paint residue.
 - 6. Repeat process if necessary to remove all paint.
- D. Paint Removal with Covered or Skin-Forming Alkaline Paint Remover:
- 1. Remove loose and peeling paint using water, scrapers, stiff brushes, or a combination of these. Let surface dry thoroughly.
 - 2. Apply paint remover to dry, painted surface with brushes or as recommended in writing by manufacturer.
 - 3. Apply cover according to manufacturer's written instructions.
 - 4. Allow paint remover to remain on surface for period recommended in writing by manufacturer or as determined by preconstruction testing.
 - 5. Scrape off paint and remover.
 - 6. Rinse with cold water applied by low-pressure spray to remove chemicals and paint residue.
 - 7. Use mechanical methods recommended in writing by manufacturer to remove chemicals and paint residue.
 - 8. For spots of remaining paint, apply alkaline paste paint remover according to "Paint Removal with Alkaline Paste Paint Remover" Paragraph.
- E. Paint Removal with Solvent-Type Paste Paint Remover:
- 1. Remove loose and peeling paint using water, scrapers, stiff brushes, or a combination of these. Let surface dry thoroughly.
 - 2. Apply thick coating of paint remover to dry, painted surface with natural-fiber cleaning brush, deep-nap roller, or large paintbrush. Apply in one or two coats according to manufacturer's written instructions.
 - 3. Allow paint remover to remain on surface for period recommended in writing by manufacturer or as determined by preconstruction testing.
 - 4. Rinse with cold water applied by low-pressure spray to remove chemicals and paint residue.
 - 5. Use mechanical methods recommended in writing by manufacturer to remove chemicals and paint residue.

6. Repeat process if necessary to remove all paint.

F. Paint Removal with Covered, Solvent-Type Paste Paint Remover:

1. Remove loose and peeling paint using water, scrapers, stiff brushes, or a combination of these. Let surface dry thoroughly.
2. Apply paint remover to dry, painted surface with natural-fiber cleaning brush, deep-nap roller, or large paint brush or as recommended in writing by manufacturer.
3. Apply cover according to manufacturer's written instructions.
4. Allow paint remover to remain on surface for period recommended in writing by manufacturer or as determined by preconstruction testing.
5. Scrape off paint and remover.
6. Rinse with cold water applied by low-pressure spray to remove chemicals and paint residue.
7. Use mechanical methods recommended in writing by manufacturer to remove remaining chemicals and paint residue.

3.6 SUBSTRATE REPAIR

A. General: Repair substrate surface defects that are inconsistent with the surface appearance of adjacent materials and finishes.

B. Wood Substrate:

1. Repair wood defects including dents and gouges more than 1/8 inch (3 mm) in size and all holes and cracks by filling with wood-patching compound and sanding smooth. Reset or remove protruding fasteners.
2. Where existing paint is allowed to remain, sand irregular buildup of paint, runs, and sags to achieve a uniformly smooth surface.

C. Cementitious Material Substrate:

1. General: Repair defects including dents and chips more than 1/4 inch (6 mm) in size and all holes and cracks by filling with cementitious patching compound and sanding smooth. Remove protruding fasteners.
2. New and Bare Plaster: Neutralize surface of plaster with mild acid solution as recommended in writing by paint manufacturer. In lieu of acid neutralization, follow manufacturer's written instruction for primer or transition coat over alkaline plaster surfaces.
3. Concrete, Cement Plaster, and Other Cementitious Products: Remove efflorescence, chalk, dust, dirt, grease, oils, and release agents. If surfaces are too alkaline to paint, correct this condition before painting.

D. Gypsum-Plaster and Gypsum-Board Substrates:

1. Repair defects including dents and chips more than 1/8 inch (3 mm) in size and all holes and cracks by filling with gypsum-plaster patching compound and sanding smooth. Remove protruding fasteners.
2. Rout out surface cracks to remove loose, unsound material; fill with patching compound and sand smooth.

E. Metal Substrate:

1. Preparation: Treat repair locations by wire-brushing and solvent cleaning. Use mechanical rust removal method to clean off rust.

2. Defects in Metal Surfaces: Repair non-load-bearing defects in existing metal surfaces, including dents and gouges more than 1/16 inch (6 mm) deep or 1/2 inch (13 mm) across and all holes and cracks by filling with metal-patching compound and sanding smooth. Remove burrs and protruding fasteners.
3. Priming: Prime iron and steel surfaces immediately after repair to prevent flash rusting. Stripe paint corners, crevices, bolts, welds, and sharp edges. Apply two coats to surfaces that are inaccessible after completion of the Work.

3.7 PAINT APPLICATION, GENERAL

- A. Comply with manufacturers' written instructions for application methods unless otherwise indicated in this Section.
- B. Prepare surfaces to be painted according to the Surface-Preparation Schedule and with manufacturer's written instructions for each substrate condition.
- C. Apply a transition coat over incompatible existing coatings.
- D. Metal Substrate: Stripe paint corners, crevices, bolts, welds, and sharp edges before applying full coat. Apply two coats to surfaces that are inaccessible after completion of the Work. Tint stripe coat different than the main coating and apply with brush.
- E. Blending Painted Surfaces: When painting new substrates patched into existing surfaces or touching up missing or damaged finishes, apply coating system specified for the specific substrate. Apply final finish coat over entire surface from edge to edge and corner to corner.

3.8 FIELD QUALITY CONTROL

- A. Manufacturer's Field Service: Engage paint-remover manufacturer's factory-authorized service representative for consultation and Project-site inspection and to provide on-site assistance when requested by Architect.
- B. Paint Material Testing: Owner may engage the services of a qualified testing and inspecting agency to inspect and test paint for composition and dry film thickness.
 1. Paint Composition: The following procedure may be performed at any time and as often as Owner deems necessary during the period when paints are being applied:
 - a. Testing agency will sample paint materials being used. Samples of material delivered to Project site will be taken, identified, sealed, and certified in presence of Contractor.
 - b. Testing agency will perform tests for compliance of paint materials with product requirements.
 - c. If test results show materials being used do not comply with product requirements, Contractor shall remove noncomplying-paint materials from Project site, pay for testing, and repaint surfaces painted with rejected materials. Remove rejected materials from previously painted surfaces if, on repainting with complying materials, the two paints are incompatible.
 2. Dry Film Thickness:
 - a. Contractor shall touch up and restore painted surfaces damaged by testing.

- b. If test results show that dry film thickness of applied paint does not comply with paint manufacturer's written instructions, Contractor shall pay for testing and apply additional coats as needed to provide dry film thickness that complies with paint manufacturer's written instructions.

3.9 CLEANING AND PROTECTION

- A. At end of each workday, remove rubbish, empty cans, rags, and other discarded materials from Project site.
- B. After completing paint application, clean spattered surfaces. Remove spattered paints by washing, scraping, or other methods. Do not scratch or damage adjacent finished surfaces.
- C. Protect work of other trades against damage from paint application. Correct damage to work of other trades by cleaning, repairing, replacing, and refinishing, as approved by Architect, and leave in an undamaged condition.
- D. At completion of construction activities of other trades, touch up and restore damaged or defaced painted surfaces.

3.10 SURFACE-PREPARATION SCHEDULE

- A. General: Before painting, prepare surfaces where indicated on Drawings for painting according to applicable requirements specified in this schedule.
 - 1. Examine surfaces to evaluate each surface condition according to paragraphs below.
 - 2. Where existing degree of soiling prevents examination, preclean surface and allow it to dry before making an evaluation.
 - 3. Repair substrate defects according to "Substrate Repair" Article.
- B. Surface Preparation for Level 1 Degree of Surface Degradation:
 - 1. Surface Condition: Existing paint film in good condition and tightly adhered.
 - 2. Paint Removal: Not required.
 - 3. Preparation for Painting: Wash surface by detergent cleaning; use solvent cleaning where needed. Roughen or degloss cleaned surfaces to ensure paint adhesion according to paint manufacturer's written instructions.
- C. Surface Preparation for Level 2 Degree of Surface Degradation:
 - 1. Surface Condition: Paint film cracked or broken but adhered.
 - 2. Paint Removal: Scrape by hand-tool cleaning methods to remove loose paint until only tightly adhered paint remains.
 - 3. Preparation for Painting: Wash surface by detergent cleaning; use other cleaning methods for small areas of bare substrate if required. Roughen, degloss, and sand the cleaned surfaces to ensure paint adhesion and a smooth finish according to paint manufacturer's written instructions.
- D. Surface Preparation for Level 3 Degree of Surface Degradation:
 - 1. Surface Condition: Paint film loose, flaking, or peeling.
 - 2. Paint Removal: Remove loose, flaking, or peeling paint film by hand-tool or chemical paint-removal methods.

3. Preparation for Painting: Wash surface by detergent cleaning; use solvent cleaning where needed. Use other cleaning methods for small areas of bare substrate if required. Sand surfaces to smooth remaining paint film edges. Prepare bare cleaned surface to be painted according to paint manufacturer's written instructions for substrate construction materials.

E. Surface Preparation for Level 4 Degree of Surface Degradation:

1. Surface Condition: Paint film severely deteriorated obscuring fine architectural detail work because of paint-layer buildup and surface indicated to have paint completely removed.
2. Paint Removal: Completely remove paint film by hand-tool or chemical paint-removal methods. Remove rust.
3. Preparation for Painting: Prepare bare cleaned surface according to paint manufacturer's written instructions for substrate construction materials.

F. Surface Preparation for Level 5 Degree of Surface Degradation:

1. Surface Condition: Missing material, small holes and openings, and deteriorated or corroded substrate.
2. Substrate Preparation: Repair, replace, and treat substrate according to "Substrate Repair" Article.
3. Preparation for Painting: Sand substrate surfaces to smooth remaining paint film edges and prepare according to paint manufacturer's written instructions for substrate construction materials. Remove rust.
4. Painting: Paint as required for degree of surface degradation.

END OF SECTION 090190

SECTION 09 0290 – PLASTER PATCHING AND REPAIR

PART 1 – GENERAL

1.1 SUMMARY

A. Section Includes:

1. Metal lath and gypsum plastering for patching and repair of existing plaster finishes, including skim coat over existing plaster surfaces.

B. Scope and extent of plaster patching and repair as indicated on the Drawings, and may include the following:

1. Plaster surfaces within the area of new construction that are cracked, spalled, bubbled or otherwise deteriorated.
2. Plaster surfaces that are damaged during demolition or construction operations.
3. Conditions that are exposed by demolition or construction and will be exposed in the completed Work.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of product.

1.3 QUALITY ASSURANCE

A. Single Source Responsibility: Obtain gypsum lath and gypsum plaster from a single manufacturer.

B. Field Constructed Mockup: Before starting plaster work, prepare a sample application for each type of finish and application required to demonstrate aesthetic effects of application and qualities of materials and execution.

1. Locate mockups on site in location directed by Architect.
2. Erect 4 foot by 4 foot by full thickness mockup in presence of Architect using materials, including lath, indicated for final work.
3. Demonstrate the proposed range of aesthetic effects including texture and workmanship to be expected in completed work.
4. Demonstrate that adhesion to existing surface will be achieved where skim coat over plaster is indicated.
5. Obtain Architect's acceptance of mockups before start of plaster work.
6. Retain and maintain mockups during construction in undisturbed condition as a standard for judging completed plaster work.

1.4 PRODUCT HANDLING

- A. Deliver materials in original packages, containers, or bundles bearing brand name and identification of manufacturer.
- B. Store materials inside, under cover, and in manner to keep them dry, protected from weather, direct sunlight, surface contamination, aging, corrosion, and damage from construction traffic and other causes. Neatly stack gypsum lath flat to prevent deformation.
- C. Protect metal lath, corner beads and trim from being bent or damaged.

1.5 PROJECT CONDITIONS

- A. Environmental Requirements, General: Comply with requirements of referenced plaster application standards and recommendations of plaster manufacturer for environmental conditions before, during, and after application of plaster.
- B. Ventilation: GC to provide temporary mechanical equipment that will assure proper temperature, humidity and ventilation is optimal for plaster curing. Adherence to project schedule and phasing plan will required.
 - a. Ventilate building spaces as required to remove water in excess of that required for hydration of plaster. Begin ventilation immediately after plaster is applied and continue until it sets and cures.
- C. Protect adjacent work from soiling, spattering, moisture deterioration and other harmful effects.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. Gypsum Plaster Materials:
 - a. United States Gypsum Co.
 - b. Gold Bond Building Products Div. National Gypsum Co.
 - 2. Expanded Metal Lath:
 - a. Alabama Metal Industries Corp. (AMICO)

- b. Gold Bond Building Products Div., National Gypsum Co
- c. United States Gypsum Co.
- d. Western Metal Lath Co.

3. Accessories:

- a. Fry Reglet Corp.
- b. Gold Bond Building Products Div., National Gypsum Co.
- c. Keene Corp.
- d. MM Systems Corp.
- e. United States Gypsum Co.

4. POPCRON Ceiling Repairs

- a. Homax Products, I

2.2 EXPANDED-METAL LATH

A. Expanded-Metal Lath: Fabricate from zinc coated (galvanized) steel sheet, ASTM C 847.

- 1. Configuration: Flat
- 2. Weight: 3.4 lbs. Per sq. yd

B. Lath Attachment Devices: Devices of material and type required by referenced standards and recommended by lath manufacturer for secure attachment of lath to substrate and of lath to lath.

2.3 ACCESSORIES

A. General: Comply with material provisions of ASTM C 841; coordinate depth of accessories with thicknesses and number of plaster coats required.

B. Metal Corner Beads: Fabricated from zinc coated (galvanized) steel.

- 1. Type: Small nose with expanded flanges, unless otherwise indicated.

C. Strip Reinforcement: Smooth edge strips of expanded metal lath fabricated from zinc coated (galvanized) steel sheet.

- 1. Cornerite: Strips prebent lengthwise in center for internal plaster angles not otherwise reinforced by metal lath lapped or carried around.
- 2. Stripite: Flat strips for reinforcing joints in gypsum lath, nonmetallic bases, and between dissimilar plaster bases.

D. Control Joints: Prefabricated, of material and type indicated below:

1. Material: Zinc-coated (galvanized) steel.Smallnose cornerbead with perforated flanges; use on curved corners.
2. One-Piece Type: Folded pair of nonperforated screeds in M-shaped configuration, with expanded or perforated flanges.
3. Provide removable protective tape on plaster face of control joints.

2.4 PLASTER MATERIALS

- A. Base Coat Plasters: Gypsum neat plaster, ASTM C 28.
- B. Finish Coat Plasters: Gypsum Keene's cement, ASTM C 61.
- C. Finishing Hydrated Limes: ASTM C 206, Type S, normal double hydrated lime for finishing purposes.
- D. Aggregates for Base Coat Plasters: ASTM C 35, sand aggregate.
- E. Aggregates for Finish Coat Plaster with Floated Finish: ASTM C 35; graded per ASTM C 842, sand aggregate.
- F. Products: Subject to compliance with requirements, provide one of the following:
 1. Gypsum Neat Plasters:
 - a. Red Top Gypsum Plaster; United States Gypsum Co.
 - b. Red Top Two Purpose Plaster; United States Gypsum Co.
 - c. Two Way Hardwall Plaster; Gold Bond Building Products Div., National Gypsum Co.
 2. Gypsum Keene's Cement:
 - a. Red Top Keene's Cement; United States Gypsum Co.
 3. Finishing Hydrated Limes, Type S:
 - a. Ivory Finish Lime; United States Gypsum Co.

2.5 MISCELLANEOUS MATERIALS

- A. Water for Mixing and Finishing Plaster: Drinkable and free of substances capable of affecting plaster set or of damaging plaster, lath, or accessories.
- B. Bonding Agent for Gypsum Plaster: ASTM C 631

2.6 GYPSUM PLASTER MIXES AND COMPOSITIONS

- A. Plaster Base Coat Compositions: Comply with ASTM C 842 and manufacturer's directions for gypsum plaster base coat proportions that correspond to application methods and plaster bases

indicated below:

1. Three Coat Work Over Metal Lath: Base coats as follows:

- a. Scratch Coat: Gypsum neat plaster with job mixed sand.
- b. Brown Coat: Gypsum neat plaster with job mixed sand.

B. Finish Coats: Proportion materials in parts by dry weight for finish coats to comply with the following requirements:

1. Troweled Finish to Match Existing Smooth Finish: Finish coat of Gypsum Keene's Cement; proportion 2 parts plaster to 1 part lime.

2.7 MIXING

A. Mechanically mix cementitious and aggregate materials for plasters to comply with applicable referenced application standard and with recommendations of plaster manufacturer.

2.8 POPCORN CEILING REPAIR

A. Repair as needed and directed with Homax Aerosol Ceiling Texture Professional Match Popcorn, 16 oz., OR EQYAL, carefully following manufacturer's directions for use of this product.

B. Areas of repair must be cleaned and primed before application; and painting must wait 24 hours after application

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

A. Interior Lathing Installation Standard: Install lathing materials indicated for gypsum plaster to comply with ASTM C 841.

B. Isolation: Where lathing abuts building structure horizontally and where partition/wall work abuts overhead structure, isolate the work from structural movement sufficiently to prevent transfer of loading into the work from the building structure. Install slip or cushion type joints to absorb deflections but maintain lateral support.

C. Install expanded metal lath where plaster base coats are required. Provide appropriate type, configuration, and weight of metal lath selected from materials indicated that comply with referenced lathing installation standards.

3.2 INSTALLING ACCESSORIES

A. General: Comply with referenced lathing and furring installation standards for provision and location of plaster accessories of type indicated. Miter or cope accessories at corners; install

with tight joints and in alignment. Attach accessories securely to plaster bases to hold accessories in place and alignment during plastering.

B. Cornerbeads: Install at external corners.

C. Control Joints: Install at locations indicated or, if not indicated, at spacings and locations required by referenced standard, recommended by plaster manufacturer, and approved by Architect.

3.3 PLASTER AND POPCORN APPLICATION

A. General: Prepare monolithic surfaces for bonded base coats and use bonding compound or agent to comply with requirements of referenced plaster application standards for conditioning of monolithic surfaces.

B. Tolerances: Do not deviate more than 1/8 inch in 10 feet from a true plane in finished plaster surfaces, as measured by a 10 foot straightedge placed at any location on surface.

C. Sequence plaster application with the installation and protection of other work so that neither will be damaged by the installation of the other.

D. Apply thicknesses and number of coats of plaster as indicated or as required by referenced standards.

E. Power wash or clean as required for full to adhesion existing plaster surfaces scheduled to receive skim coat plaster.

F. Interior Gypsum Plaster Application Standard: Apply gypsum plaster materials, composition, mixes, and finishes indicated to comply with ASTM C 842.

G. Number of Coats: Apply gypsum plaster, of composition indicated, to comply with the following requirements.

1. Use two coat work where existing plaster base is intact.
2. Use three coat work over metal lath for areas where no intact plaster base remains.

H. Bonding: Apply bonding agent to existing plaster surfaces prior to application of base or finish coats.

I. Finish Coats:

1. Troweled finishes for gypsum finish coat plasters, to match existing plaster finish textures.

J. Popcorn Ceiling Repair

1. Carefully follow manufacturer's directions for the use of this product.
2. Clean and prime repair area before application

3. Wait 24 hours after application before painting

3.4 CUTTING AND PATCHING

A. Cut, patch, point up, and repair plaster as necessary to accommodate other work and to restore cracks, dents, and imperfections. Repair or replace work to eliminate blisters, buckles, excessive crazing and check cracking, dry outs, efflorescence, sweat outs, and similar defects and where bond to the substrate has failed.

B. Sand smooth troweled finishes lightly to remove trowel marks and arrises

3.5 CLEANING AND PROTECTION

A. Remove temporary protection and enclosure of other work. Promptly remove plaster from door frames, windows, and other surfaces that are not to be plastered. Repair floors, walls, and other surfaces that have been stained, marred, or otherwise damaged during the plastering work. When plastering work is completed, remove unused materials, containers, and equipment and clean floors of plaster debris.

B. Provide final protection and maintain conditions, in a manner suitable to Installer that ensure plaster work's being without damage or deterioration at time of Substantial Completion.

END OF SECTION 09 0290

SECTION 101115 – WINDOW FILMS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section Includes:
 - 1. Decorative glazing films, to be applied to interior glazing where indicated.

1.3 REFERENCES

- A. ASTM E 84 – Standard Test Method for Surface Burning Characteristics of Building Materials.
- B. ASTM D 882 (Window Film) - Standard Test Method for Tensile Properties of Thin Plastic Sheeting.
- C. ASTM D 1004 (Window Film) - Standard Test Method for Tear Resistance (Graves Tear) of Plastic Film and Sheeting.
- D. ASTM D 1044 (Window Film) - Standard Method of Test for Resistance of Transparent Plastics to Surface abrasion (Taber Abrader Test).
- E. ASTM D 2582 (Window Film) - Standard Test Method for Puncture-Propagation Tear Resistance of Plastic Film and Thin Sheeting.

1.4 PERFORMANCE REQUIREMENTS

- A. Fire Performance: Surface burning characteristics when tested in accordance ASTM E 84:
 - 1. Window Film: Fire rating: Class A; flame spread: 25, maximum; smoke developed: 450, maximum.
- B. Abrasion Resistance (Window Film): Film must have a surface coating that is resistant to abrasion such that, less than 5 percent increase of transmitted light haze will result in accordance with ASTM D 1044 using 50 cycles, 500 grams weight, and the CS10F Calbrase Wheel.

1.5 SUBMITTALS

- A. Product Data: Manufacturer's data sheets on each product to be used, including:
 - 1. Preparation instructions and recommendations.
 - 2. Storage and handling requirements and recommendations.
 - 3. Installation methods.

- B. Shop Drawings: Full-color replication of graphic designs and layouts indicated. Include overall dimensions and seam locations of graphics, if any, as well as special attachment requirements. Minimum scale shall be no less than 1-1/2 inches per foot.
- C. Samples: For each type of film specified, representing manufacturer's film type, adhesives, colors and patterns for the Project.

1.6 QUALITY ASSURANCE

- A. Manufacturer Qualifications: All primary products specified in this Section will be supplied by a single manufacturer with a minimum of five years experience.
- B. Installer Qualifications: All products listed in this section are to be installed by a single installer with a minimum of five years demonstrated experience in installing products of similar type and scope as specified.
 - 1. Provide documentation that the installer is authorized by the Manufacturer to perform Work specified in this Section.
 - 2. Provide a commercial building reference list of 5 properties where the installer has applied products specified. This list will include the following information:
 - a. Name of building and management contact information.
 - b. Type of substrate.
 - c. Type of product.
 - d. Amount of product installed.
 - e. Date of completion.
- C. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship for each type of product required.
 - 1. Finish areas designated by Architect.
 - 2. Do not proceed with remaining work until workmanship, color, pattern and sheen are approved by Architect.
 - 3. Refinish mock-up area as required to produce acceptable work.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's unopened packaging until ready for installation.
- B. Store and dispose of hazardous materials, and materials contaminated by hazardous materials, in accordance with requirements of local authorities having jurisdiction.

1.8 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

1.9 WARRANTY

- A. At Project close-out, provide to Owner an executed current copy of the manufacturer's standard limited warranty against manufacturing defect, outlining its terms, conditions, and exclusions from coverage.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Basis-of-Design Manufacturer – Window Film: Subject to compliance with requirements, provide decorative window film products manufactured by 3M Company or one of the following:
1. Decolite; Madico, Inc.
 2. Johnson Window Films, Inc.
 3. Llumar Decorative Series Films; Solutia, Inc.
 4. Nexfil USA, Inc.
 5. Orafol Americas, Inc.
 6. Solar Gard; Saint-Gobain Performance Plastics Corporation.

2.2 DECORATIVE WINDOW FILM

- A. General: Multi-layered, polyester-based film, with decorative translucent patterns and graphics indicated, intended to obscure levels of light transmittance and views required for privacy; film shall include pressure-sensitive adhesives for mounting to glass substrates. Films shall block a minimum of 99 percent of UV light.
- B. Basis-of-Design Products: Products shall be equal to the following 3M Company pattern.
1. Pattern: 3M Fasara Glass Finishes “SH2MAML Milky White.”
 - a. Shading Coefficient: 0.75 percent.
 - b. Visible Light Reflectance: 21 percent.
 - c. Visible Light Transmission: 59 percent.
 2. Location: Philip H Sheridan Elementary per drawings.
- C. Window Film Properties:
1. Scratch-Resistance: Manufacturer’s standard abrasion-resistant coating.
 2. Fire Rating: Class A; compliant with ASTM E 84, per NFPA 101.
 3. Physical Characteristics:
 - a. Tensile Strength: ASTM D 882; 25,000 psi, minimum.
 - b. Break Strength: ASTM D 882; 150 lbs., minimum.
 4. Performance Characteristics: Solar, light, shading and similar characteristics vary, depending upon manufacturer, pattern and thickness of product.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. If preparation of surfaces or substrates is the responsibility of another installer, notify Architect in writing of deviations from manufacturer's recommended installation tolerances and conditions.
1. Window film products shall be located on the interior face of the glass of the room that is being obscured from view. Glass surfaces receiving film shall first be examined to verify that they are free from defects and imperfections, which will affect the final appearance.

- B. Do not proceed with installation until surfaces have been properly prepared and deviations from manufacturer's recommended tolerances are corrected. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result under the Project conditions.
- C. Proceed with installation upon acceptable conditions.

3.2 PREPARATION

- A. Clean surfaces thoroughly prior to installation.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the Project conditions.

3.3 WINDOW FILM INSTALLATION

- A. Install window film in accordance with manufacturer's instructions. Use wet installation method as instructed.
- B. Cut film edges neatly and square at a uniform distance of 1/8 inch to 1/16 inch of window sealant. Use new blade tips after 3 to 4 cuts.
- C. Spray the slip solution, composed of one capful of baby shampoo or dishwashing liquid to 1 gallon of water, on window glass and adhesive to facilitate proper positioning of film.
- D. Apply film to glass and lightly spray film with slip solution.
- E. Squeegee from top to bottom of window. Spray slip solution to film and squeegee a second time.
- F. Bump film edge with lint-free towel wrapped around edge of a 5-way tool.
- G. Upon completion of film application, allow 30 days for moisture from film installation to dry thoroughly, and to allow film to dry flat with no moisture dimples when viewed under normal viewing conditions.

3.4 CLEANING AND PROTECTION

- A. Remove left over material and debris from Work area. Use necessary means to protect film before, during, and after installation.
- B. Touch-up, repair or replace damaged products before Substantial Completion.
- C. After application of film, wash film using common window cleaning solutions, including ammonia solutions, 30 days after application. Do not use abrasive type cleaning agents and bristle brushes to avoid scratching film. Use synthetic sponges or soft cloths.

END OF SECTION 101150

SECTION 113013 – RESIDENTIAL APPLIANCES

PART 1 - GENERAL

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. SUMMARY

- A. Section Includes:

- 1. Refrigeration appliances.

1. PREINSTALLATION MEETINGS

- A. Preinstallation Conference: Conduct conference at Project site.

1. ACTION SUBMITTALS

- A. Product Data: For each type of product.

- 1. Include installation details, material descriptions, dimensions of individual components, and finishes for each appliance.
- 2. Include rated capacities, operating characteristics, electrical characteristics, and furnished accessories.

- B. Product Schedule: For appliances as indicated on Drawings.

1.5 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For manufacturer.
- B. Product Certificates: For each type of appliance.
- C. Field quality-control reports.
- D. Warranties: For manufacturers' special warranties.

1.6 CLOSEOUT SUBMITTALS

- A. Operation and Maintenance Data: For each residential appliance to include in operation and maintenance manuals.

1.7 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Maintains a service center capable of providing training, parts,

and emergency maintenance repairs.

1.8 WARRANTY

A. Special Warranties: Manufacturer agrees to repair or replace residential appliances or components that fail in materials or workmanship within specified warranty period.

1. Warranty Period: Manufacturers standard warranty

B. Refrigerator/Freezer for on-site service on the product.

1. Warranty Period for Sealed Refrigeration: Manufacturers standard warranty

2. Warranty Period for other compounds: Manufacturers standard warranty

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Source Limitations: Obtain residential appliances from single source and each type of residential appliance from single manufacturer.

2.2 PERFORMANCE REQUIREMENTS

A. Electrical Appliances: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

B. Accessibility: Where residential appliances are indicated to comply with accessibility requirements, comply with applicable provisions in the DOJ's 2010 ADA Standards for Accessible Design] [the ABA standards of the Federal agency having jurisdiction] [and] [ICC A117.1]

2.3 ADA REFRIGERATOR/FREEZERS

A. Refrigerator/Freezer: As shown on drawings and complying with AHAM HRF-1.

1. GE 19.1 FT. TOP-FREEZER REFRIGERATOR:

a. Model #: GTE19JSNRSS

b. Color: Stainless Steel

2.4 GENERAL FINISH REQUIREMENTS

A. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

B. Appearance of Finished Work: Noticeable variations in same piece are not acceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances, power connections, and other conditions affecting installation and performance of residential appliances.
- B. Examine roughing-in for piping systems to verify actual locations of piping connections before appliance installation.
- C. Examine walls, ceilings, and roofs for suitable conditions where overhead exhaust hoods and ovens with vented exhaust fans will be installed.
- D. Prepare written report, endorsed by Installer, listing conditions detrimental to performance of the Work.
- E. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. Install appliances according to manufacturer's written instructions.
- B. Built-in Equipment: Securely anchor units to supporting cabinets or countertops with concealed fasteners. Verify that clearances are adequate for proper functioning and that rough openings are completely concealed.
- C. Freestanding Equipment: Place units in final locations after finishes have been completed in each area. Verify that clearances are adequate to properly operate equipment.
- D. Range Anti-Tip Device: Install at each range according to manufacturer's written instructions.

3.3 FIELD QUALITY CONTROL

- A. Perform the following tests and inspections with the assistance of a factory-authorized service representative:
 - 1. Perform visual, mechanical, and electrical inspection and testing for each appliance according to manufacturers' written recommendations. Certify compliance with each manufacturer's appliance-performance parameters.
 - 2. Leak Test: After installation, test for leaks. Repair leaks and retest until no leaks exist.
 - 3. Operational Test: After installation, start units to confirm proper operation.
 - 4. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and components.
- B. An appliance will be considered defective if it does not pass tests and inspections.
- C. Prepare test and inspection reports.

3.4 DEMONSTRATION

- A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain residential appliances.

END OF SECTION 113013

SECTION 123553 WOOD CASEWORK

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes supplying wood casework; countertops; casework hardware and service fittings and outlets.
- B. General Contractor shall install all sinks, faucets, strainers, tailpieces, traps, bubblers, gas cocks and valves and trim furnished by the casework supplier; Plumbing Contractor shall provide all labor to interconnect these items and connect these items to building systems.
- C. Electrical Contractor shall install electrical equipment (variable voltage panels, etc.) furnished by the casework supplier as specified. Electrical Contractor shall provide all labor to interconnect these items with the building systems. Electrical boxes, plates and wiring devices shall be provided by the electrical contractor. The casework contractor will provide the appropriate cutouts as noted on the approved shop drawings.
- D. Furnish and place appliances, which are explicitly included in the casework, contract where noted on architectural drawings.
- E. The general contractor and electrical Contractors shall extend building utilities to and connect appliances.
- F. Work shall be conducted in accordance with General Conditions, Supplementary Conditions, Division 1 and the requirements of this Section.
- G. Related Sections:
 - 1. Section 07900 - Joint Sealers.
 - 2. Section 09650 - Resilient Flooring: Base material.
 - 3.

1.02 REFERENCES

- A. American National Standards Institute (ANSI).
- B. Architectural Woodwork Institute (AWI): Architectural Woodwork Quality Standards Illustrated, latest edition.
- C. Composite Panel Association Buyer's & Specifier's Guide

1.03 DESIGN REQUIREMENTS

- A. Manufacturers shall be members of AWI, have established quality control criteria.
- B. Casework shall meet or exceed load tests as outlined in ANSI A161.1.
- C. Manufacturers shall comply, per architect's specification, with special requirements related to the Americans with Disabilities Act, 28 CFR Part 36, ADA Standards for Accessible Design.
- D. Items shall suit space conditions and where equipment is intended to occupy fixed locations, the physical conditions, roughing-in, etc., of the building are to control the absolute sizes and arrangements.
- E. Project Standard:
 - 1. Stock numbers of items of equipment, as indicated on Schedules, have been selected from one manufacturer's catalog for design purposes only. Wood casework manufacturer to provide casework to match the designs indicated in the drawings.
 - 2. Items of equipment by approved manufacturers (other than the Project Standard) need not be identical to the items indicated, however, they must satisfy the same requirements, provide the same facilities (doors, drawers, etc.) and fulfill the same functions as the specified items.
 - 3. Where items of equipment by approved manufacturers (other than Project Standard) are not of the same lengths as the items indicated, adjust equipment layouts as follows:
 - a. Where items of equipment are against the wall and confined by walls at both ends.
 - 1) Add a filler panel, and/or
 - 2) Increase the length of one or more units, and/or
 - 3) Add an additional unit of casework.
 - b. Where items of equipment are freestanding or are not confined by walls at both ends, adjust as above, except that overall length need only be approximate.
 - 4. Materials used by all manufacturers must meet the requirements of these specifications; it is understood that the manufacturers vary in joinery; these specifications describe the construction offered by the first-named manufacturer.
 - 5. It is intended that wood dowels shall secure cabinet body components and glue, but the use of concealed interlocking mechanical fasteners as approved by AWI 1600B-S- 1600B-S-4.A especially designed for use with particleboard shall be acceptable.
 - 6. Where items of equipment by approved manufacturers (other than the Project Standard) necessitate changes in mechanical or electrical services, said changes shall be the Contractor's responsibility and shall be coordinated and accomplished at no additional cost to the Owner.

1.04 SUBMITTALS

- A. Section 01600 - Product Requirements: Submittal requirements.

B. Shop Drawings:

1. Indicate casework locations, large-scale plans, elevations, cross sections, rough in and anchor placement dimensions, tolerances and clearances required.
2. Include utility rough-in dimensions.

C. Product Data:

1. Submit component dimensions, configurations, construction details, joint details, and attachments, utility and service requirements and locations.
2. Include associated components, including grommets, sink, sink fittings, appliances, fume hoods and other items as indicated on drawings.
3. Include manufacturer's literature.

D. Samples

1. Wood samples
2. Finish samples - custom for each school to match architects sample.
3. Edge banding
4. Hinges
5. Pulls
6. Louvers
7. Grommets

E. Sample Unit:

1. When requested by the Architect, submit full-size cabinet, as herein specified.
2. Submitted cabinets may be used in the Project.

F. Coordination Submittals:

1. Copy same submittals to other trades and Contractors who have connecting or adjacent Work for coordination review and for locating their Work connected to or adjacent to the equipment specified herein.

G. Provide test results per ANSI A161.1.

1.05 QUALITY ASSURANCE

A. Qualifications:

1. Manufacturer: Company specializing in manufacturing products specified in this Section with minimum ten years experience.

B. Mockup (per architect's request):

1. Section 01400 - Quality Requirements: Mockup requirements.
2. Construct full size mockup including base and upper cabinet, complete with drawers, door and adjustable shelf.
3. Locate where directed by Architect.
4. Incorporate accepted mockup as part of Work.

1.06 DELIVERY, STORAGE AND HANDLING

- A. Provide warranty for manufactured product.
- B. Accept casework on site; inspect on arrival for damage.
- C. Store and handle casework in manner to prevent damage and deterioration.
- D. Provide packaging such as cardboard or other containers, separators, banding, spreaders and paper wrappings to protect metal items.
- E. Store casework in a protected dry area, provided by the owner, away from direct sunlight, with temperature 70 degrees F (+/- 10) and relative humidity of 25–50%. Casework shall be stored elevated above moisture contact. Storage area must be isolated from outside weather conditions. Casework shall be installed only in areas where temperature and humidity are maintained within the above-stated range. Storage and installations in conditions other than those stated above will void all product warranties.
- F. All cabinets to be complete with hardware attached (or provided loose where not practical to ship attached) with all necessary scribes, fillers and molding; all items to be marked on outside of packaging for identification.
- G. Protect exposed finish surfaces by suitable means.
- H. Coordinate size of access and route to place of installation.

1.07 SEQUENCING AND SCHEDULING

- A. Coordinate casework installation with location and installation of service utilities.
- B. Sequence installation to accommodate required utility connections.

1.08 WARRANTY

- A. The manufacturer shall guarantee the casework against defects in materials and workmanship for a period of one year from date of acceptance.
- B. Warranty shall cover the repair or replacement, at the manufacturer's discretion of defective material.
- C. Non-manufactured components and accessories, such as faucets, fittings and fume hoods, shall be covered by the specific manufacturer's warranty.

PART 2 PRODUCTS

2.01 Manufacturers

- A. Basis of Design: Wood Metal Industries, 100 East Sherman Street, Selinsgrove, PA

17870, (570) 374-1176.

- B. Approved Manufacturer: American Millwork & Cabinetry
<https://www.amcmillwork.com/portfolio/millwork/>
- C. The specifications outline a quality standard necessary for required performance. Only products, which meet or exceed these standards, shall be considered acceptable.
- D. Acceptance of a bid for the required materials does not indicate product acceptance. All manufacturers must meet minimum construction requirements, must submit necessary materials and documentation for approved substitution and must revise their construction as necessary to meet the standards set forth herein.

2.02 Materials

- A. Wood and plywood grains, hues and matching will vary according to species, seasonal harvesting, manufacturing process and geographic origin. Visible surfaces of installed products shall be in conformance with industry-accepted standards.
- B. Maple shall be considered the standard wood species.
- C. Lumber - All lumber used for cabinet and case exteriors and exposed interiors shall be of selected northern grown hardwood, sound and free from checks and harmful case hardening. Lumber for interior construction shall be unselected as to grain and color. Lumber shall be properly air-dried, scientifically kiln dried in manufacturer's own controlled kilns, and then tempered to optimum moisture content (6-8%) prior to fabrication. All lumber on exposed surfaces shall be of the highest grade hardwood selected for grain and color
- D. Plywood (for exposed surfaces)
 - 1. Maple plywood faces shall be plain sliced grade A and shall meet the definition set forth in ANSI/HPVA HP-1-2004.
- E. Plywood (for unexposed surfaces)
 - 1. Plywood for unexposed surfaces shall have sound hardwood veneer face and may have color streaks and variations. Appearance shall be consistent with grade 2.

2.03 Hardware

- A. Hinges (options)
 - 1. Standard hinges for wall cabinets, base cabinets and tall cabinet doors shall be of the heavy-duty, wrap around, institutional type with five knuckles, non-removable pin and rounded ends. Hinges for overlay door construction shall be 2- $\frac{3}{4}$ " high by .095" thick and hinges for lipped radius construction shall be 2- $\frac{1}{2}$ " high by .072 thick. Hinge swing shall be 270 degrees. Hinges shall be finished in

colors selected from the manufacturer's standard colors.

2. Hinge screws shall be concealed when door is closed.
3. Doors less than 40- $\frac{1}{4}$ " high shall have 2 hinges and those 40- $\frac{1}{4}$ " high and over shall have three hinges.
4. The number of hinges shall vary according to the door height as follows: 10- $\frac{1}{2}$ " – 34- $\frac{1}{2}$ " door height: 2 hinges, over 34- $\frac{1}{2}$ " – 52- $\frac{1}{2}$ " door height: 3 hinges, over 52- $\frac{1}{2}$ " – 70- $\frac{1}{2}$ ": 4 hinges, over 70- $\frac{1}{2}$ ": 5 hinges.

B. Pulls

1. Standard pulls shall be satin aluminum bent wire style with 4 inch centers.
2. Sliding doors shall have a brushed steel recessed pull.
3. Optional three-point latching handles shall be available in dull-chrome or black finish. Three-point locking handles, when provided, shall be installed in the field to prevent shipping damage to casework.

C. Drawer Slides

1. Standards slides shall be single extension, bottom-mounted, epoxy powder-coated with positive in stop, out-stop and out keeper, lift-out disconnect, stay-closed design. Slides shall have captive nylon rollers both front and rear, 100 pound load rating and manufacturer's lifetime warranty
2. File and paper storage drawers shall have full extension, 3-part, progressive opening slide, with 100 pound load rating, zinc-coated or epoxy-coated at manufacturer's option.

D. Catches

1. Catches shall be double-action, spring tension, nylon roller catch.
2. On all tall cases, catches shall be heavy-duty nylon roller type.

E. Adjustable Shelf supports

1. Shelf supports shall be twin-pin design with anti-tip up shelf restraints for both $\frac{3}{4}$ " and 1" thick shelves, and provide slot to mechanically fasten shelf to clip. Load rating shall be minimum 300 pounds per shelf support.
2. Provide single-pin, "L" bracket metal shelf support shall be available with vinyl coating.
3. Surface-mounted, steel shelving standards with adjustable shelf support clips shall be available.

F. Locks

1. Locks shall be of a removable core design with 5-disk tumbler. Cabinets to be keyed alike per room, each room keyed differently and master-keyed, unless otherwise noted on drawings.
2. Two keys shall be provided per lock.
3. A maximum of six master keys shall be provided to the owner.

2.04 Miscellaneous Components

- A. Louvers and grills shall be provided as specified on the drawings. Manufacturer's standard grills shall be installed on both sides of door openings to provide a uniform appearance. Punched metal louvers with exposed sharp edges shall not be permitted.
- B. Tote trays shall be tan colored, high-impact, polystyrene with aluminum cardholders.
- C. Grommets with covers shall be provided where shown on drawings.
- D. Base molding is to be provided and installed by the general contractor

2.05 Construction

- A. General Construction
 - 1. This specification is based on an industry-standard maple cabinet construction.
 - 2. Top frames, tops, bottoms, intermediate rails, fixed partitions and fixed shelves where applicable to be glued, doweled and screwed to cabinet sides. Cabinets shall be clamped under pressure to insure joint integrity and unit squareness.
- B. Counter Tops
 - 1. Simulated Stone Countertops, refer to specification section 123661.

2.06 FABRICATION

- A. Base Cabinets:
 - 1. Sides shall be $\frac{3}{4}$ " thick 7-ply hardwood plywood, exposed surfaces faced with maple hardwood veneers and unexposed surfaces with sound hardwood veneer faces. A $\frac{3}{8}$ " maple hardwood nosing shall be applied to the exposed front edge. When adjustable shelves are required, sides to be bored with 5-mm holes on 32-mm centers to accept shelf support clips.
 - 2. Top assembly shall consist of a horizontal frame with pinned mortise and tenon joints and be secured to cabinet sides with multiple 8-mm hardwood dowels, glued and screwed. The front rail shall be $\frac{3}{4}$ " thick x $2\text{-}\frac{3}{4}$ " deep maple with side rails $\frac{3}{4}$ " thick x $1\text{-}\frac{3}{4}$ " deep and a $\frac{3}{4}$ " thick x $1\text{-}\frac{3}{4}$ " deep back rail.
 - 3. Intermediate rails shall be $\frac{3}{4}$ " thick x $2\text{-}\frac{3}{4}$ " deep maple and be secured to cabinet sides with 8-mm hardwood dowels on 32-mm centers, glued and screwed.
 - 4. Security panels, if specified, shall consist of (1) a horizontal frame with mortise and tenon joints and a $\frac{1}{4}$ " thick panel. Front rail shall be $\frac{3}{4}$ " thick x $2\text{-}\frac{3}{4}$ " deep maple with side rails $\frac{3}{4}$ " thick x $1\text{-}\frac{3}{4}$ " deep and a $\frac{3}{4}$ " thick x $1\text{-}\frac{3}{4}$ " deep back rail or (2) [to be used at factory discretion] a $\frac{3}{4}$ " thick 7-ply hardwood plywood panel with hardwood veneer faces. A $\frac{3}{8}$ " maple hardwood nosing shall be applied to the exposed front edge. Both the frame and solid panel to be secured to cabinet sides with multiple 8-mm hardwood dowels glued and screwed.
 - 5. Bottoms shall be $\frac{3}{4}$ " thick 7-ply hardwood plywood, exposed surfaces faced with maple hardwood veneers and unexposed surfaces with sound hardwood veneer faces. A $\frac{3}{8}$ " maple hardwood nosing shall be applied to the exposed front edge. Bottom shall be secured to cabinet sides with multiple 8-mm hardwood dowels,

glued and screwed.

6. Backs shall be 1/4" thick tempered hardboard, trapped inside grooves, secured with mechanical fasteners and sealed with hot melt adhesive.
7. External hanger rails, 1" thick and a minimum of 3" high, shall be mechanically fastened to both sides and top or bottom.
8. Toe space shall be 4" high x 3-1/4" deep with plywood Toe board 3/4" thick x 4" high, secured between cabinet sides with 8-mm hardwood dowels and attached to bottom panel with hot melt adhesive.
9. Provide integral toe kick for all base and tall cabinets.

B. Wall Cabinets:

1. Sides shall be 3/4" thick 7-ply hardwood plywood, exposed surfaces faced with maple hardwood veneers and unexposed surfaces with sound hardwood veneer faces. A 3/8" maple hardwood nosing shall be applied to the exposed front edge and .020 maple veneers applied to the top and bottom edge. When adjustable shelves are required, interiors of side panels shall be drilled with 5 mm holes on 32 mm centers to accept shelf support clips.
2. Top shall be 1" thick 9-ply hardwood plywood. Exposed surfaces faced with maple hardwood veneers and unexposed surfaces with sound hardwood veneer faces. A 3/8" maple hardwood nosing shall be applied to the exposed front edge. Panel to be secured to cabinet sides with multiple 8-mm hardwood dowels, glued and screwed.
3. Bottoms shall be 1" thick 9-ply hardwood plywood. Exposed surfaces faced with maple hardwood veneers and unexposed surfaces with sound hardwood veneer faces. A 3/8" maple hardwood nosing shall be applied to the exposed front edge. Bottom is full depth with rabbet cut into rear edge to conceal back and external hanger rail and is secured to cabinet sides with multiple 8-mm hardwood dowels, glued and screwed. Underside of bottom is considered unexposed and shall be surfaced with sound hardwood veneer faces.
4. Backs shall be 1/4" thick tempered hardboard, trapped inside grooves, secured with mechanical fasteners and sealed with hot melt adhesive.
5. External hanger rails, 1" thick and a minimum of 3" high, shall be mechanically fastened to sides, top and bottom.

C. Tall Cabinets:

1. Sides shall be 3/4" thick 7-ply hardwood plywood. Exposed surfaces faced with maple hardwood veneers and unexposed surfaces with sound hardwood veneer faces. A 3/8" maple hardwood nosing shall be applied to the exposed front edge. When adjustable shelves are required, interiors of side panels shall be drilled with 5mm holes on 32mm centers to accept shelf support clips.
2. Top shall be 1" thick 9-ply hardwood plywood. Exposed surfaces faced with maple hardwood veneers and unexposed surfaces with sound hardwood veneer faces. A 3/8" maple hardwood nosing shall be applied to the exposed front edge. Panel to be secured to cabinet sides with multiple 8-mm hardwood dowels, glued and screwed.
3. Bottoms shall be 3/4" thick 7-ply hardwood plywood, exposed surfaces faced with maple hardwood veneers and unexposed surfaces with sound hardwood veneer faces. A 3/8" maple hardwood nosing shall be applied to the exposed front edge.

Bottom shall be secured to cabinet sides with multiple 8-mm hardwood dowels, glued and screwed.

4. Backs shall be 1/4" thick tempered hardboard, trapped inside grooves, secured with mechanical fasteners and sealed with hot melt adhesive.
5. External hanger rails, 1" thick and a minimum of 3" high, shall be mechanically fastened to both sides, top and bottom.
6. Toe space shall be 4" high x 3-1/4" deep with plywood toe board 3/4" thick x 4" high, secured between cabinet sides with 8mm hardwood dowels and attached to bottom panel with hot melt adhesive.

D. Sink Cabinets:

1. Sink cabinets shall be constructed with a vertical high head rail at both the front and rear of the cabinet. A false drawer head will be applied over the front high head rail.
2. A fixed bottom and removable back shall be provided for all sink cabinets.

E. Special Purpose Cabinet Backs:

1. Optional exposed exterior backs to be 3/4" thick 7-ply hardwood plywood, exposed surfaces faced with maple veneer and unexposed surfaces with sound hardwood veneer faces.
2. Optional removable backs, where specified, shall be 1/4" tempered hardboard and be attached to cleats secured to the cabinet sides and bottom. Back panels shall be secured in place with pan head screws.
3. Optional 1/4" thick hardboard with finished surface of wear-resistant maple reversed grain vinyl is available.

F. Drawers and doors:

1. Drawer head style
 - a. Overlay Radius Edge 3/4" thick maple lumber core cross banded and faced on both sides with oak hardwood veneer. Front edges, (top, bottom and both sides) shall be consistently radius. Grain direction shall be horizontal.
2. Drawer sides, back and fronts shall be 1/2" thick solid maple. Top edges shall be radius and free of rough edges.
3. A separate drawer head (of the style selected) shall be applied to the front of the drawer box.
4. Drawer boxes shall be assembled with glued dovetail construction at all four corners.
5. Drawer bottoms shall be 1/4" thick tempered hardboard and trapped in grooved drawer box.
6. Underside of drawer to be secured with mechanical fasteners and sealed with a continuous bead of hot melt adhesive to enhance drawer integrity.
7. Reinforce drawer bottoms with a hardwood front-to-back intermediate underbody stiffener, hot melt glued and fastened; one above 24" and two at 42" and wider.
8. Provide clip and rail hanging file system for legal or letter size as indicated by manufacturer's model number.

9. Door style (PER DRAWER HEAD SELECTION ABOVE)
 - a. Overlay Radius Edge-Doors shall be particleboard banded on all four edges with solid maple and faced on both sides with maple hardwood veneer. Front edges (top, bottom, both sides) shall have a consistent radius. Grain direction shall be vertical. Nominal finished door thickness for base and wall cabinets shall be $\frac{3}{4}$ ". Nominal door thickness for tall cabinets shall be 1- $\frac{1}{16}$ ".
10. Special Door styles
 - a. Framed doors, for glazed panels or tack board inserts, shall consist of a solid maple frame (nominally 2- $\frac{3}{4}$ " wide) around the perimeter of the door. Glazed panels shall be $\frac{1}{4}$ " thick tempered safety glass. Base and wall cabinet doors shall be nominally $\frac{3}{4}$ " thick. Tall cabinet doors shall be nominally 1- $\frac{1}{16}$ " thick.
11. Adjustable Shelves:
 - a. Shelves less than 30" in width shall be $\frac{3}{4}$ " thick. Shelves 30" and wider shall be 1" thick.
 - b. Exposed shelves shall be hardwood plywood, surfaces faced with maple hardwood veneers.
 - c. Non-exposed shelves shall be hardwood plywood, surfaces faced with sound hardwood veneers.
 - d. A $\frac{3}{8}$ " maple hardwood nosing shall be applied to the exposed front edge.
 - e. Shelves shall be full depth and adjustable on 32-mm centers.
12. Fixed Shelves:
 - a. Exposed shelves shall be hardwood plywood, surfaces faced with maple hardwood veneers.
 - b. Non-exposed shelves shall be hardwood plywood, surfaces faced with sound hardwood veneers.
 - c. A $\frac{3}{8}$ " maple hardwood nosing shall be applied to the exposed front edge.
 - d. All non-supported fixed shelves and exposed shelves shall be 1" thick.
 - e. All supported fixed shelves shall be $\frac{3}{4}$ " thick.
 - f. Shelves shall be full depth and be secured to cabinet sides or partitions with multiple 8-mm hardwood dowels, glued and screwed.

2.07 FINISH AND PERFORMANCE REQUIREMENTS

- A. Finish shall be a synthetic water-white alkyd aminoplast conversion coating specially formulated for commercial applications
- B. All surfaces shall be prepared by a thorough sanding and sealing prior to staining.
- C. A pigmented stain shall be hand wiped on wood components
- D. Finish shall be tested accorded to the chemical tests defined by SEFA.
- E. Test Procedure
 1. Sample substrate will be Maple veneer without stain underneath the coating. Panels to be finished according to finishing supplier's guidelines and in

accordance to casework manufacturer's standard procedures. Obtain one sample panel measuring 14" x 24" (355.6mm x 609.6mm). The received sample to be tested for chemical resistance as described herein. Place panel on a flat surface, clean with soap and water and blot dry. Condition the panel for 48-hours at 73° +/- 3°F (23° +/- 2°C) and 50 +/- 5% relative humidity. Test the panel for chemical resistance using forty-nine different chemical reagents by one of the following methods.

- a. Method A - Test volatile chemicals by placing a cotton ball saturated with reagent in the mouth of a 1-oz. (29.574cc) bottle and inverting the bottle on the surface of the panel.
 - b. Method B - Test non-volatile chemicals by placing five drops of the reagent on the surface of the panel and covering with a 24mm watch glass, concave side down.
2. For both of the above methods, leave the reagents on the panel for a period of one hour. Wash off the panel with water, clean with detergent and naphtha, and rinse with deionized water. Dry with a towel and evaluate after 24-hours at 73° +/- 3°F (23° +/- 2°C) and 50 +/- 5% relative humidity using the following rating system.
- a. Level 0 - No detectable change.
 - b. Level 1 - Slight change in color or gloss.
 - c. Level 2 - Slight surface etching or severe staining.
 - d. Level 3 - Pitting, cratering, swelling, or erosion of coating. Obvious and significant deterioration.
3. Test No. Chemical Reagent Test Method
- 1) Acetate, Amyl A
 - 2) Acetate, Ethyl A
 - 3) Acetic Acid, 98% B
 - 4) Acetone A
 - 5) Acid Dichromate, 5% B
 - 6) Alcohol, Butyl A
 - 7) Alcohol, Ethyl A
 - 8) Alcohol, Methyl A
 - 9) Ammonium Hydroxide, 28% B
 - 10) Benzene A
 - 11) Carbon Tetrachloride A
 - 12) Chloroform A
 - 13) Chromic Acid, 60% B
 - 14) Cresol A
 - 15) Dichlor Acetic Acid A
 - 16) Dimethylformamide A
 - 17) Dioxane A
 - 18) Ethyl Ether A
 - 19) Formaldehyde, 37% A
 - 20) Formic Acid, 90% B
 - 21) Furfural A
 - 22) Gasoline A
 - 23) Hydrochloric Acid, 37% B

- 24) Hydrofluoric Acid, 48% B
- 25) Hydrogen Peroxide, 30% B
- 26) Iodine, Tincture of B
- 27) Methyl Ethyl Ketone A
- 28) Methylene Chloride A
- 29) Mono Chlorobenzene A
- 30) Naphthalene A
- 31) Nitric Acid, 20% B
- 32) Nitric Acid, 30% B
- 33) Nitric Acid, 70% B
- 34) Phenol, 90% A
- 35) Phosphoric Acid, 85% B
- 36) Silver Nitrate, Saturated B
- 37) Sodium Hydroxide, 10% B
- 38) Sodium Hydroxide, 20% B
- 39) Sodium Hydroxide, 40% B
- 40) Sodium Hydroxide, Flake B
- 41) Sodium Sulfide, Saturated B
- 42) Sulfuric Acid, 33% B
- 43) Sulfuric Acid, 77% B
- 44) Sulfuric Acid 96% B
- 45) Sulfuric Acid (77%) and Nitric Acid (70%), equal parts B
- 46) Toluene A
- 47) Trichloroethylene A
- 48) Xylene A
- 49) Zinc Chloride, Saturated B

4. Acceptance Level

- a. Results will vary from manufacturer to manufacturer. Laboratory grade finishes should result in no more than four Level 3 conditions with a cumulative score not to exceed 35. Suitability for a given application is dependent upon the chemicals used in a given laboratory.

2.08 COLORS

- A. Selected by the architect from the manufacturer's standard color selection. Color selection shall include no less than ten standard colors. Provide custom colors

PART 3 EXECUTION

3.01 INSTALLATION

- A. Install casework, components and accessories under manufacturer representative's supervision whenever possible, using skilled labor especially trained for this work. Cabinets are to be installed in a professional and industry-accepted manner, including all scribes, moldings and necessary trim, complete and in operating condition according to outlined plans and specifications.

- B. Set casework items plumb and square, securely anchored to building structure.
- C. Furnish casework complete with trim strips, fillers, backs, etc., as may be required; all cutouts required for trim, sinks, etc., shall be made by the casework supplier.
- D. Unless noted otherwise, furnish all sinks, faucets, bubblers, baskets, tailpieces, traps and gas cocks as shown on approved shop drawings for installation and hook-up by Contractor.
- E. Field touch-up blemishes to original finish as approved and accepted by the Architect.
- F. Discard or remove and replace damaged members.

3.02 ADJUSTING

- A. Adjust doors, drawers, hardware and other moving or operating parts to function smoothly.
- B. Adjustable shelves shall be installed consistent with the shop drawings.

3.03 CLEANING

- A. All packaging material and installation-related debris shall be placed in an owner-provided dumpster on the construction site. The work area shall be left broom clean.
- B. Installer shall remove all pencil marks, adhesive and sawdust resulting from this work.
- C. Plastic laminate casework shall be cleaned inside and out to remove the installation related dust and debris.

3.04 PROTECTION OF INSTALLED CONSTRUCTION

- A. Protection of installed casework shall be the responsibility of the general contractor or owner's representative. The owner's representative shall provide materials and labor.

END OF SECTION

SECTION 123661 - SIMULATED STONE FABRICATIONS

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. Solid-surface material countertops and backsplashes.
2. **Solid-surface material wall panel. ADDENDUM #2 – 2-12-2021**
3. **Solid-surface material benches. ADDENDUM #2 – 2-12-2021**

1.3 SUBMITTALS

- A. Shop drawings: Indicate dimensions, component sizes, fabrication details, attachment, provisions and coordination requirements with adjacent work.
- B. Product data: Indicate product description, fabrication information and compliance with specified performance requirements.
- C. Maintenance data: Submit manufacturer's care and maintenance data, including repair and cleaning instructions. Include in project close-out documents.
- B. Field Measurements: Verify dimensions of countertops by field measurements after base cabinets are installed but before countertop fabrication is complete.

1.4 COORDINATION

- A. Coordinate locations of utilities that will penetrate countertops or backsplashes.

PART 2 - PRODUCTS

2.1 SOLID-SURFACE-MATERIAL FABRICATION

- A. Configuration: Provide countertops with the following front and backsplash style:
 1. Front: Straight, slightly eased at top and bottom.
 2. Backsplash: Straight, slightly eased at top.
- B. Countertops: 1/2-inch- with front edge built up with same material.
 1. Fabrication: Fabricate tops in one piece with shop-applied edges and backsplashes unless otherwise indicated. Comply with solid-surface-material manufacturer's written instructions for adhesives, sealers, fabrication, and finishing.

- a. Fabricate with loose backsplashes for field assembly.
2. Location: All schools per drawings.
- C. Backsplashes: 1/2-inch thick, solid surface material.
 1. Location: All schools per drawings.
- D. **Wall Panel: 1/4-inch thick, solid surface material. ADDENDUM #2 – 2-12-2021**
 1. **Location: All schools per drawings.**
 - a. **Overall Dimensions: 30"W x 60"H.**
 2. **Location: Carnell per drawings.**
 - a. **Overall Dimensions: 36"W x 60"H.**
- E. **Benches: 1/2-inch thick, solid surface material, adhesively joined with inconspicuous seams with built-up edge with slight radius. Refer to drawings for details. ADDENDUM #2 – 2-12-2021**
 1. **Location: William Cramp per drawings.**

2.2 MATERIALS

- A. Plywood: Exterior softwood plywood complying with DOC PS 1, Grade C-C Plugged, touch sanded.
- B. Adhesives: Do not use adhesives that contain urea formaldehyde.
- C. Adhesives: Adhesives shall comply with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."
- D. Solid Surface Material: Homogeneous solid sheets of filled plastic resin complying with ANSI SS1.
 1. Manufacturers: Provide the following:
 - a. Dupont Corian, Color: Deep Caviar
 2. Manufacturers: Provide the following:
 - a. Wilsonart, Color: Desert Ice 9206CE
 - i. Location:
 - 1) Carnell Elementary per drawings.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Install solid-surface-materials level to a tolerance of 1/8 inch in 8 feet

- B. Fasten countertops by screwing through corner blocks of base units into underside of countertop. Pre-drill holes for screws as recommended by manufacturer. Align adjacent surfaces and, using adhesive in color to match countertop, form seams to comply with manufacturer's written instructions. Carefully dress joints smooth, remove surface scratches, and clean entire surface. Refer to drawings for additional details.
 - 1. Seal edges of cutouts in plywood subtops by saturating with varnish.
- C. Install all solid-surface-materials to comply with manufacturer's written instructions for adhesives, sealers, fabrication, and finishing.

END OF SECTION 123661

SECTION 284621.11 – FIRE ALARM & EMERGENCY VOICE COMMUNICATIONS SYSTEM

PART 1 - GENERAL

1.1 RELATED DOCUMENTS:

- A. The General Provisions of Contract, including General and Supplementary Conditions and other General Requirements sections, apply to the work specified in this section.

1.2 WORK DESCRIPTION:

- A. Cramp Elementary School - Expand and modernize the existing Simplex Brand Fire Alarm Controls converting the Master Controller CPU to 4100 ES type in accordance with the attached Construction Bid Drawings and Specifications. It is the intent of these specifications to complete an expansion of the existing Simplex Fire Alarm as shown on the Project Drawings to maintain compatibility and listing with all other existing Simplex Brand Fire Alarm equipment currently installed. All new initiating device circuit work shall use Simplex addressable material and IDNet addressable SLC communications. New Visuals shall be synchronized and Audible Signals shall be Voice Alarm capable. Simplex Brand is sold and supported by Johnson Controls JCI. JCI contact is Mr. Kevin Bowers (215) 347-6500 or kevin.bowers@jci.com.
- B. Carnell Elementary School (School House) - Expand and modernize the existing Simplex Brand Fire Alarm Controls converting the Master Controller CPU to 4100 ES type in accordance with the attached Construction Bid Drawings and Specifications. It is the intent of these specifications to complete an expansion of the existing Simplex Fire Alarm as shown on the Project Drawings to maintain compatibility and listing with all other existing Simplex Brand Fire Alarm equipment currently installed. All new initiating device circuit work shall use Simplex addressable material and IDNet addressable SLC communications. New Visuals shall be synchronized and Audible Signals shall be Voice Alarm capable. Simplex Brand is sold and supported by Johnson Controls JCI. JCI contact is Mr. Kevin Bowers (215) 347-6500 or kevin.bowers@jci.com.
- C. Carnell Elementary School (Main Building) Expand and modernize the existing spec alarm Controls converting the Master Controller CPU to 4100 ES type in accordance with the attached Construction Bid Drawings and Specifications. It is the intent of these specifications to complete an expansion of the existing Spec Alarm as shown on the Project Drawings to maintain compatibility and listing with all other existing Fire Alarm equipment currently installed. All new initiating device circuit work shall use addressable material and IDNet addressable SLC communications. New Visuals shall be synchronized and Audible Signals shall be Voice Alarm capable. Simplex Brand is sold and supported by Johnson Controls JCI. JCI contact is Mr. Kevin Bowers (215) 347-6500 or kevin.bowers@jci.com.

- D. Sheridan Elementary School Expand and modernize the existing spec alarm Controls converting the Master Controller CPU to 4100 ES type in accordance with the attached Construction Bid Drawings and Specifications. It is the intent of these specifications to complete an expansion of the existing Spec Alarm as shown on the Project Drawings to maintain compatibility and listing with all other existing Fire Alarm equipment currently installed. All new initiating device circuit work shall use addressable material and IDNet addressable SLC communications. New Visuals shall be synchronized and Audible Signals shall be Voice Alarm capable. Simplex Brand is sold and supported by Johnson Controls JCI. JCI contact is Mr. Kevin Bowers (215) 347-6500 or kevin.bowers@jci.com.

- B. The system shall include new devices in accordance with the project drawings consisting of new controls, pull stations, smoke/heat/duct sensors, annunciator panel, audio visible units, visible only units and any other appurtenances necessary for complete and operational system.

- C. The complete installation is to conform to the applicable sections of the current IBC, NFPA-72, NFPA-70 (with particular attention to Article 760), and any other locally enforced requirements of the Authority Having Jurisdiction.

1.3 QUALITY ASSURANCE:

- A. Each and all items of the Fire Alarm System shall be listed as a product of a single fire alarm system manufacturer under the UJOZ category by Underwriters Laboratories, Inc. (UL), and shall bear the "U.L." label. Partial listing shall NOT be acceptable.

- B. The catalog numbers specified under this section are those of Simplex Time Recorder and constitute the type, product quality, material, and designed operating features. No substitutions will be accepted.

1.4 SHOP DRAWINGS:

- A. The contractor shall submit a package which is sufficiently detailed to show that the proposed system meets the specifications. The package shall contain the following:
 - 1. Catalog cuts of components, including system cabinets with physical dimensions.
 - 2. Circuited Floor Plans showing the types and arrangement of connections among the components, including cable types.
 - 3. Tabulations verifying the extra capacity required below. Show tabulations for points, power supplies, and battery standby.
 - 4. Without these, the package will be rejected without review.

1.5 WARRANTY:

- A. The Contractor shall guarantee the system to perform as specified and be free from defects in materials and workmanship for one year from date of Owner acceptance. Any repairs during this time are to be provided by the Contractor during normal working hours at no cost to the Owner.

1.6 OPERATION:

- A. The actuation of any alarm initiating device such as a manual pull station, fire sensor or sprinkler flow switch shall cause the following to occur:
 - 1. Sound all audible and visual alarm signals until manually acknowledged and reset.
 - 2. Display the device in alarm label at the control panel.
 - 3. Display the device in alarm label at the annunciator panel if supplied.
 - 4. Transmit the alarm to an approved supervising station via internal DACT or Alarm Relay Module.

PART 2 - PRODUCTS

- 2.0 Manufacturers: Basis of design – Simplex Grinnell.
Subject to compliance with requirements, provide products by one of the following:

- 1. Simplex Grinnell. (Required for Cramp ES & Carnell ES -School House)
- 2. Edwards - EST
- 3. Notifier.

2.1 MAIN PANEL:

- A. Fire Alarm Master Controller CPU: Modernize and expand the existing Fire Alarm Controls adding additional modules and enclosures as necessary. Where required demolish and/or consolidate existing legacy controls into modern 4100 U/ES type enclosures. At a minimum provide and power as noted the following in quantities necessary to complete the project:
 - 1. 4100-9621 Simplex 4100 ES Digital Audio w/Microphone
 - 2. 4100-5401 Simplex 4100 ES expansion power supply.
 - 3. 4100-1329 Simplex 4100 ES 100 W Digital Amplifier.
 - 4. 4100-XXXX Related Support Modules as appropriate.

2.2 SYSTEM COMPONENTS

- 1. Both Initiating and Notification material supplied shall be addressable whenever possible. Where specified as "Fire Alarm Only" supply notification appliances labeled FIRE as opposed to ALERT. Where specified non-voice alarm supply appropriate equivalent tone only device. Consult the Johnson

Controls representative regarding substitutions and appropriate equipment selections.

This is a comprehensive specification and not all devices included in this specification are shown on the contract drawings. This is to list the specification requirements of a device should it become necessary to add to the project later.

- B. Addressable TrueAlert Speaker/Visual Combination Alarm: Simplex 49SV-APPL (C or W) with 49SVC- (CW or WW) designate ALT for ALERT Cover.
1. White housing with a clear lens, wall-mount
 2. Fully synchronized per ADA and UL Standard 1971
 3. Individually addressable point control of both Visible and Audible operation
 4. Strobe intensity shall be as indicated or required by the application (15/30/75/110/135/185 cd))
 5. High quality voice and tone reproduction with multi-tap and capacitor input connection.
 6. Surface-mount adapters where required (4905-9947)
 7. Wire guards where indicated (4905-9998)
- C. Addressable TrueAlert Speaker Alarm: Simplex 49SO-APPL (C or W) with 49SOC- (CW or WW) designate ALT for ALERT Cover.
1. Off-white housing, ceiling-mount
 2. Individually addressable point control of Audible operation
 3. High quality voice and tone reproduction with multi-tap and capacitor input connection.
- D. Addressable TrueAlert Visual Alarm: Simplex 49VO-WWA or 4906-9204
1. White housing with a clear lens, wall-mount
 2. Individually addressable point control of Visible operation
 3. Fully synchronized per ADA and UL Standard 1971
 4. Strobe intensity shall be as indicated or required by the application (15/30/75/110 cd))
 5. Surface-mount adapters where required (4905-9940)
 6. Wire guards where indicated (4905-9961)
- E. Addressable TrueAlert Visual Alarm for Weather-Proof: Simplex 49VO-APPLW-O with 49VOC-WRALT-O ALERT Cover.
1. Red housing with a clear lens, wall-mount
 2. Individually addressable point control of Visible operation
 3. Fully synchronized per ADA and UL Standard 1971
 4. Strobe intensity shall be as indicated or required by the application (20/30/75cd))
 5. Surface Mount Weather-Proof Box (49WPBB-AVVOWR)

F. Conventional TrueAlert Speaker/Visual Combination Alarm: Simplex 4906-9153 with 4905-9846 Cover

1. White housing with a clear lens, wall-mount
2. Fully synchronized per ADA and UL Standard 1971
3. Strobe intensity shall be as indicated or required by the application (15/30/75/110 cd)
4. High quality voice and tone reproduction with multi-tap and capacitor input connection.
5. Surface-mount adapters where required (4905-9947)
6. Wire guards where indicated (4905-9998)

G. Conventional TrueAlert Speaker Alarm: Simplex 4902-9721 with 2905-9946 Tile Bridge

1. Off-white housing, ceiling-mount
2. High quality voice and tone reproduction with multi-tap and capacitor input connection.

H. Conventional TrueAlert Visual Alarm: Simplex 4906-9103 with 4905-9842 Cover

1. White housing with a clear lens, wall-mount
2. Fully synchronized per ADA and UL Standard 1971
3. Strobe intensity shall be as indicated or required by the application (15/30/75/110 cd)
4. Surface-mount adapters where required (4905-9940)
5. Wire guards where indicated (4905-9961)

I. Conventional TrueAlert Visual Alarm for Weather-Proof: Simplex 4906-9105

1. Red housing with a clear lens, wall-mount
2. Fully synchronized per ADA and UL Standard 1971
3. Strobe intensity shall be as indicated or required by the application (15/60/75cd)
4. Surface Mount Weather-Proof Box (4905-9828)

J. Conventional Audible for Weather-Proof: ET-1010 with SBB-R Back Box

1. Red housing.
2. High quality voice and tone reproduction with multi-tap and capacitor input connection selectable (1/8, 1/4, 1/2, 1, 2, 4, 8 Watt @ 70.7 Volt).

K. Conventional TrueAlert Loudspeaker for Wide Area Indoor/Outdoor

1. Where a single loudspeaker device is specified for wide area audible notification operation supply Simplex 49OMNI-05-A. Device shall be tapped at 100 Watt / 70.7 Volt

- L. Eaton Wheelock Audible for Weather-Proof: ET-1010 with SBB-R Back Box
 - 1. Red housing.
 - 2. High quality voice and tone reproduction with multi-tap and capacitor input connection selectable (1/8, 1/4, 1/2, 1, 2, 4, 8 Watt @ 70.7 Volt).

- M. Eaton Wheelock Directional Loudspeaker: STH-15SR with SHMP-R Plate
 - 1. Red housing.
 - 2. High quality voice and tone reproduction with multi-tap and capacitor input connection selectable (0.9, 1.8, 3.8, 7.5, 15 Watt @ 70.7 Volt).

- N. IDNet Addressable Pull Station for ADA approved operation; Simplex #4099-9020
 - 1. Single-action operation with ADA approved pull-to-operate actuation mechanism
 - 2. Red Lexan housing with clearly visible operating instructions provided on the cover. The words FIRE ALARM shall appear on the front in white letters
 - 3. Key operated test-reset lock designed so that after actual emergency operation, they cannot be restored to normal use except by the use of a key.
 - 4. Surface Mount supply Box (2975-9178)
 - 5. Wire guards where indicated (2099-9800)

- O. IDNet Addressable Pull Station for Rugged/Vandal; Simplex #2099-9138 with 4090-9051
 - 1. Single-action operation with pull-to-activate lever
 - 2. Red cast metal housing with clearly visible operating instructions provided on the cover. The words FIRE ALARM shall appear on the front in white letters
 - 3. Key operated test-reset lock designed so that after actual emergency operation, they cannot be restored to normal use except by the use of a key.
 - 4. Surface Mount supply Cast Aluminum Box (2975-9211)

- P. IDNet Addressable Pull Station for Weather-Proof; Simplex #2099-9144 with 4090-9051
 - 1. Single-action operation pull-to-activate lever
 - 2. Red cast metal housing with clearly visible operating instructions provided on the cover. The words FIRE ALARM shall appear on the front in white letters
 - 3. Key operated test-reset lock designed so that after actual emergency operation, they cannot be restored to normal use except by the use of a key.

- Q. Detection Devices – General
 - 1. Sensors shall include analog sensing and addressable communication, and shall connect to the fire alarm control panel's Signaling Line Circuits.
 - 2. Sensors shall mount to the same addressable base which includes a status indicator LED.

3. The fire alarm control panel shall permit detector sensitivity adjustment through field programming of the system.
 4. The sensors shall be ceiling-mount and shall include a separate twist-lock base which includes a tamper proof feature. Provide surface-mount adapter plate where required.
 5. The sensors shall provide a test means whereby they will simulate an alarm condition and report that condition to the control panel.
- R. TrueAlarm Smoke Sensor (Photoelectric): Simplex #4098-9714
1. Shall use the photoelectric (light-scattering) principal to measure smoke density and shall, on command from the control panel, send data to the panel representing the analog level of smoke density.
 2. Supply Standard Addressable Base Simplex #4098-9792 or Simplex #4098-9794 where Piezo Electric Sounder is specified.
- S. TrueAlarm Heat Sensor (Thermal); Simplex #4098-9733E
1. Thermal detectors shall be intelligent addressable devices rated to operate at 135 or 155 degrees Fahrenheit and be field-selectable with or without a rate-of-rise element rated at 15 degrees F per minute.
 2. Supply Standard Addressable Base Simplex #4098-9792E.
- T. TrueAlarm Multi-Sensor (Photoelectric with Thermal): Simplex #4098-9754
1. Shall use the photoelectric (light-scattering) principal to measure smoke density and shall, on command from the control panel, send data to the panel representing the analog level of smoke density. Thermistor shall be self restoring and rate compensated.
 2. Supply Multi-Sensor Addressable Base Simplex #4098-9792 or Simplex #4098-9794 where Piezo Electric Sounder is specified.
- U. TrueAlarm Multi-Sensor (Photoelectric with Carbon Monoxide): Simplex #4098-9714/9746
1. Shall use the photoelectric (light-scattering) principal to measure smoke density and shall, on command from the control panel, send data to the panel representing the analog level of smoke density. Electrolytic CO Toxic Gas Sensor.
 2. Supply CO Addressable Base Simplex #4098-9797 or Simplex #4098-9798 where Piezo Electric Sounder is specified.
- V. Air Aspiration Smoke Sensor: Simplex #VLC-600 with 2098-9808 Remote Status LED
1. Laser Detection Chamber type, featuring a high efficiency aspirator continually sampling air through a filtered transport system.

2. The Housing shall be compact in size measuring 8-7/8" square and enclose the entire TrueAlarm Laser COMPACT sensor.
- W. Duct Smoke Sensor: Simplex #4098-9756 with 2098-9806 Test Station
1. Photoelectric type, with sampling tube of design and dimensions as recommended by the manufacturer for the specific duct size and installation conditions where applied. Sensor includes relay as required for fan shutdown.
 2. The Duct Housing shall provide a supervised relay driver circuit for driving up to 15 relays with a single "Form C" contact rated at 7A@ 28VDC or 10A@ 120VAC. This auxiliary relay output shall be fully programmable. Mount relay within 3 feet of HVAC control circuit.
 3. Duct Housing shall have a transparent cover to monitor for the presence of smoke and a relay control trouble indicator Yellow LED and Red sensor status LED.
 4. Duct Housing shall include two (2) Test Ports for measuring airflow and for testing. .
 5. When sufficient smoke is sensed, an alarm signal is initiated at the FACP, and appropriate action taken to shutdown associated air handling system.
 6. Each duct detector shall have a Remote Test Station with an alarm LED and test switch located where indicated.
 7. Weatherproof Enclosure if indicated (4098-9845)
- X. Addressable Interface (Monitor) Module; Simplex #4090-9001
1. Addressable monitor modules shall be provided to connect one supervised IDC zone of conventional alarm initiating devices (any N.O. dry contact device) to one of the fire alarm control panel SLCs.
 2. The monitor module shall mount in a standard single-gang electrical box. Provide mounting bracket and cover plate with LED view port
 3. The IDC zone shall be suitable for Style D or Style B operation. An LED shall be provided that shall flash under normal conditions, indicating that the monitor module is operational and in regular communication with the control panel.
 4. Supply mounting bracket Simplex # 4090-9810 with cover plate with LED light pipe for viewing Simplex # 4090-9807.
- Y. Addressable Relay (Control) Module; Simplex # 4090-9002
1. Addressable Relay Modules shall be available for HVAC control and other building functions. The relay shall be form C and rated for a minimum of 2.0 Amps resistive or 1.0 Amps inductive. The relay coil shall be magnetically latched to reduce wiring connection requirements, and to insure that 100% of all auxiliary relay or NACs may be energized at the same time on the same pair of wires.

2. The control module shall mount in a standard 4-inch square, 2-1/8 inch deep electrical box, or to a surface mounted backbox.
 3. Supply cover plate with LED light pipe for viewing Simplex # 4090-9802
- Z. Addressable Multi-Point Module (HVAC Dampers and other); Simplex # 4090-9118
1. Addressable Relay Modules shall be available for HVAC control and other building functions. The relay shall be form C and rated for a minimum of 2.0 Amps resistive or 1.0 Amps inductive. The relay coil shall be magnetically latched to reduce wiring connection requirements, and to insure that 100% of all auxiliary relay or NACs may be energized at the same time on the same pair of wires. The input shall support the supervised monitoring of normally open, dry contacts in a "T-Sense" configuration.
 2. The control module shall mount in a standard 4-inch square, 2-1/8 inch deep electrical box, or to a surface mounted backbox.
 3. Supply cover plate with LED light pipe for viewing Simplex # 4090-9802
- AA. Non-Simplex Brand Components – General
1. Under certain circumstances the devices of other Manufacturer's may be required to satisfy environmentally challenging or special applications.
 2. Conventional Heat Detection shall be products as manufactured by System Sensor.
 3. Weatherproof Conventional Heat Detection shall be products as manufactured by Fire Detection Devices.
 4. Linear Heat Detection Cable shall be products as manufactured by Protectowire or SafeCable.
 5. Toxic Gas Detection shall be products as manufactured by MSA or Macurco.
 6. Photo-Beam Detection shall be products as manufactured by Fire Fighting Enterprises or Xtralis.
 7. These system Inputs shall be supervised as Conventional Initiating Device Zones via Panel Module or Addressable Module.
 8. Weather Resistant/Proof Signaling shall be products as manufactured by Cooper Notification.
 9. NEMA 4X Signaling shall be products as manufactured by MEDC.
 10. Aftermarket add-on Relays shall be products as manufactured by Air Products and Controls.
- BB. Remote Annunciator Panel; Simplex # 4100-940X
1. Supervised remote annunciator with same look and feel as Primary Control Display including audible and visual indication of fire alarm by device, and audible and visual indication of system trouble.

2. Multi-line expanded content 320x240 dot matrix (QVGA) active event display screen with Bright white LED backlighting capable of displaying up to 854 characters.
 3. English display: Indicates system normal with date and time during normal operation. Indicates type of alarm or trouble exact device with location, number of alarms with scrolling capability and supervisory conditions.
 4. Six dedicated LED indicators: Power on, Alarm silence, System trouble, System supervisory, and Two alarm LED's.
 5. Password protected.
 6. LCD/lamp test button.
 7. Control buttons: Alarm acknowledge, Supervisory acknowledge, Trouble acknowledge, Alarm silence. System reset, Scrolling next and previous, Seven programmable buttons for customized usage.
 8. Mounting: Factory mounted in surface wall-mounted cabinet enclosure with key access. Simplex Red finish.
- CC. Small Form Voice Command Remote Annunciator Panel; Simplex # 4100-940X
1. Supervised remote annunciator with same look and feel as Primary Control Display including audible and visual indication of fire alarm by device, and audible and visual indication of system trouble.
 2. Multi-line expanded content 320x240 dot matrix (QVGA) active event display screen with Bright white LED backlighting capable of displaying up to 854 characters.
 3. English display: Indicates system normal with date and time during normal operation. Indicates type of alarm or trouble exact device with location, number of alarms with scrolling capability and supervisory conditions.
 4. Six dedicated LED indicators: Power on, Alarm silence, System trouble, System supervisory, and Two alarm LED's.
 5. Password protected.
 6. LCD/lamp test button.
 7. Control buttons: Alarm acknowledge, Supervisory acknowledge, Trouble acknowledge, Alarm silence. System reset, Scrolling next and previous, Seven programmable buttons for customized usage.
 8. Cabinet Mounted Remote Microphone 4003-9803
 9. Mounting: Mounted in surface/semi-flush wall-mounted cabinet (YM0356) enclosure with key access. Enclosure access door shall deliver with painted label FIRE ALARM EMERGENCY COMMUNICATION SYSTEM LOCAL OPERATING CONSOLE. Simplex Red finish with white lettering.
- DD. System Expansion Transponder; Simplex # 4100-96XX
1. System hardware expansion shall occur collocated or remote of the Fire Alarm Master Controller using only system Transponders based on the same controls and enclosures used by the FACP.
 2. System Expansion Transponder shall be Simplex 4100 ES MINIPLEX Type 4100-9600 Series.
 3. Expansion Power Supplies shall be 4100 ES Type EPS dictated by the project requirements.
 4. System Audio Expansion shall use the same 4100 ES Amplifier type as the Master Controller.

2.3 BATTERIES AND EXTERNAL CHARGER

A. Battery; Simplex # 2081-XXXX

1. Shall be 12 volt, Gel-Cell type.
2. Shall have sufficient capacity to power the fire alarm system for not less than twenty-four hours plus 15 minutes of alarm upon a normal AC power failure.
3. The batteries are to be completely maintenance free.

B. Battery Charger; Simplex# 4081-XXXX

1. Shall be completely automatic, with constant potential charger maintaining the battery fully charged under all service conditions. Charger shall operate from a 120/240-volt source.

C. Enclosure; Simplex# 4081-XXXX

1. Shall be of adequate volume to support external mounting of the battery reserve. Coordinate with supplier for proper selection and supply as necessary.

2.4 SPARE DEVICES; Simplex# BESAFEADDR

D. Provide the spare devices listed below in addition to all quantity of devices indicated on drawings. Deliver devices to Owner at conclusion of project.

1. One (1) sensor of each type
2. One (1) sensor base of each type
3. One (1) manual pull station of each type
4. One (1) interface module
5. One (1) control module
6. Two (2) speaker-visual devices
7. One (1) visual device

E. Extra material to be stored in a manufacturer approved and supplied spare parts kit. The enclosure shall be of adequate interior volume, be clearly labeled as to contents, and installed by the contractor in a readily accessible location for routine service activities.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Installation shall be in accordance with the NFPA 72, local and state codes, as shown on the drawings, and as recommended by the equipment manufacturer.

- B. Device Mounting: All fire detection and alarm system devices, control panels and remote annunciators shall be installed as follows:
1. Accessible ceilings (lay-in ceilings or suspended drywall or similar construction)
 - a. flush mounted devices with recessed box and concealed wiring/conduit
 2. Inaccessible ceilings (exposed 'open' structure or inaccessible ceilings)
 - a. unfinished spaces; surface mounted devices using exposed conduit and boxes
 - b. finished spaces; surface mounted devices using surface raceway
 3. Hollow walls (stud walls or hollow CMU)
 - a. flush mounted devices with recessed box and concealed wiring in conduit
 - b. surface devices with exposed conduit may be used only in unfinished spaces (mechanical / electrical rooms or similar areas).
 4. Solid walls (solid masonry)
 - a. surface mounted devices with surface raceway system
 - 1) exposed conduit may be used only in unfinished spaces (mechanical / electrical rooms or similar areas).

3.2 WIRING METHODS

- A. General: All fire alarm system wiring shall be installed concealed wherever possible.
1. Install wiring in cable tray where indicated. Use an approved cable support system attached directly to structure elsewhere.
 2. No wiring shall lie directly on ceilings. No wiring shall be strapped or tied to piping, ductwork or conduits.
 3. In open structure areas (rooms without ceilings) install wiring in conduit.
- B. Conduit and Raceway:
1. Conduit shall be electrical metallic tubing, $\frac{3}{4}$ " minimum, with fittings and boxes.
 2. All conduit and junction boxes shall be concealed in finished areas and may be exposed in unfinished areas or areas without ceilings.
 3. Conduit shall not enter the fire alarm control panel, or any other remotely mounted control panel equipment or backboxes, except where conduit entry is specified by the FACP manufacturer
 4. Conduit fill shall not exceed 40 percent of interior cross sectional area where three or more cables are contained within a single conduit.
 5. All conduit, mounting boxes, junction boxes and panels are to be securely hung and fastened with appropriate fittings to insure positive grounding throughout the entire system.
 6. Fire alarm cable must be separated from any open conductors of Power, or Class 1 circuits, and shall not be placed in any conduit, junction box or raceway containing these conductors, as per NEC Article 760-29. Wiring for 24 volt control, alarm notification, emergency communication and similar power-limited auxiliary functions may be run in the same conduit as initiating and signaling line circuits. All circuits shall be provided with transient suppression

devices and the system shall be designed to permit simultaneous operation of all circuits without interference or loss of signals.

7. Conduit sleeves with fire-stopping shall be provided where open wiring penetrates floors or fire-rated partitions.

C. Wiring:

1. Wiring shall be in accordance with local, state and national codes (e.g., NEC Article 760) and as recommended by the manufacturer of the fire alarm system.
2. All fire alarm system wiring and cables must be new and be color-coded red
3. Number and size of conductors or cables shall be as recommended by the fire alarm system manufacturer, but not less than 18 AWG for initiating device circuits and signaling line circuits, and 14 AWG for notification appliance circuits.
4. Wire and cable shall be listed and/or approved by a recognized testing agency for use with a protective signaling system.
5. Wire and cable not installed in conduit shall have a plenum-rated fire resistance rating as indicated in NFPA 70 (e.g., FPLR).
6. Conductors in conduit shall be type THHN or THWN insulated as specified in other Section 260519,
7. Wire and Cable shall be as recommended by the equipment manufacturer and approved for use as a Fire Alarm Cable by the National Fire Code and the local authority. Where exposed all circuits shall be enclosed in EMT or better. Installation shall follow Section 16100.
8. The fire alarm control panel shall be connected to a separate dedicated branch circuit, maximum 20 amperes. This panel circuit breaker shall be labeled as FIRE ALARM in "RED" and be provided with a "RED" Circuit Breaker Lock, Garvin UBL2 or equivalent. The control panel shall be grounded using a #10 AWG conductor.
9. Wiring used for the multiplex communication circuit (SLC) shall be twisted and unshielded and support a minimum wiring distance of 12,500 feet. The design of the system shall permit use of IDC and NAC wiring in the same conduit with the SLC communication circuit.
10. All field wiring shall be electrically supervised for open circuit and ground fault.
11. All conductors and cables shall be installed without the use of splices unless permitted by the manufacturer.
12. Cable lubricants shall be used only as permitted by the manufacturer.
13. Flexible connectors are to be used for all devices mounted in suspended lay-in ceiling panels.
14. No wiring other than fire alarm detection, alarm or auxiliary functions will be permitted in fire alarm raceways.

D. Terminal Boxes, Junction Boxes and Cabinets

1. All boxes and cabinets shall be factory painted red and UL listed for their use and purpose. Suppliers of such material include Arlington Industries, Bridgeport, Garvin, and Space Age Electronics.

- E. The contractor shall supply two Category VI Cables between the customer's primary network service switch and the FACP to support IP Based Remote Service Monitoring and Reporting. Cables shall be certified to meet the ANSI/TIA -568-B.2-1 Standard for Gigabit Ethernet. Only 22 or 23 AWG copper shall be allowed.

3.3 EQUIPMENT INSTALLATION

- A. Comply with NFPA 72, NFPA 101, and requirements of authorities having jurisdiction for installation and testing of fire-alarm equipment. Install all electrical wiring to comply with requirements in NFPA 70 including, but not limited to, Article 760, "Fire Alarm Systems."
 - 1. Devices placed in service before all other trades have completed cleanup shall be replaced.
 - 2. Devices installed but not yet placed in service shall be protected from construction dust, debris, dirt, moisture, and damage according to manufacturer's written storage instructions.
- B. Equipment Mounting: Install fire-alarm control unit on utility strut to provide an air-space from the wall surface if mounting on an exterior masonry wall.
 - 1. Install seismic bracing. Comply with requirements of "Vibration and Seismic Controls for Electrical Systems."
 - 2. Install dowel rods to connect concrete base to concrete floor. Unless otherwise indicated, install dowel rods on 18-inch (460-mm) centers around the full perimeter of concrete base.
 - 3. For supported equipment, install epoxy-coated anchor bolts that extend through concrete base and anchor into structural concrete floor.
 - 4. Place and secure anchorage devices. Use setting drawings, templates, diagrams, instructions, and directions furnished with items to be embedded.
 - 5. Install anchor bolts to elevations required for proper attachment to supported equipment.
- C. Equipment Mounting: Install fire-alarm control unit on finished floor.
 - 1. Comply with requirements for seismic-restraint devices specified in "Vibration and Seismic Controls for Electrical Systems."
- D. Install wall-mounted equipment, with tops of cabinets not more than 78 inches (1980 mm) above the finished floor.
 - 1. Comply with requirements for seismic-restraint devices specified in "Vibration and Seismic Controls for Electrical Systems."
- E. Manual Fire-Alarm Boxes:
 - 1. Install manual fire-alarm box in the normal path of egress within 60 inches (1520 mm) of the exit doorway.
 - 2. Mount manual fire-alarm box on a background of a contrasting color.

3. The operable part of manual fire-alarm box shall be between 42 inches (1060 mm) and 48 inches (1220 mm) above floor level. All devices shall be mounted at the same height unless otherwise indicated.
- F. Smoke-or-Heat Detector Spacing:
1. Comply with the "Smoke-Sensing Fire Detectors" section in the "Initiating Devices" chapter in NFPA 72, for smoke-detector spacing.
 2. Comply with the "Heat-Sensing Fire Detectors" section in the "Initiating Devices" chapter in NFPA 72, for heat-detector spacing.
 3. Smooth ceiling spacing shall not exceed 30 foot spacing.
 4. Spacing of detectors for irregular areas, for irregular ceiling construction, and for high ceiling areas shall be determined according to NFPA 72.
 5. HVAC: Locate detectors not closer than 36 inches (910 mm) from air-supply diffuser or return-air opening.
 6. Lighting Fixtures: Locate detectors not closer than 12 inches (300 mm) from any part of a lighting fixture and not directly above pendant mounted or indirect lighting.
- G. Install a cover on each smoke detector that is not placed in service during construction. Cover shall remain in place except during system testing. Remove cover prior to system turnover.
- H. Duct Smoke Detectors: Comply with NFPA 72 and NFPA 90A. Install sampling tubes so they extend the full width of duct. Tubes more than 36 inches (9100 mm) long shall be supported at both ends.
1. Do not install smoke detector in duct smoke-detector housing during construction. Install detector only during system testing and prior to system turnover.
 2. Duct Smoke Detector shall be equipped with Remote Test Switches. Test Switches shall be installed in the ceiling below the Roof Top Unit they support if applicable.
- I. Air-Sampling Smoke Detectors: If using multiple pipe runs, the runs shall be pneumatically balanced.
- J. Elevator Shafts: Coordinate temperature rating and location with sprinkler rating and location. Do not install smoke detectors in elevator shafts, unless the shaft is protected by an Automatic Sprinkler System installed in accordance with NFPA 13.
- K. Single-Station Smoke Detectors: Where more than one smoke alarm is installed within a dwelling or suite, they shall be connected so that the operation of any smoke alarm causes the alarm in all smoke alarms to sound.
- L. Remote Status and Alarm Indicators: Install in a visible location near each smoke detector, sprinkler water-flow switch, and valve-tamper switch that is not readily visible from normal viewing position.

- M. Audible Alarm-Indicating Devices: Install not less than 6 inches (150 mm) below the ceiling. Install bells and horns on flush-mounted back boxes. Install all devices at the same height unless otherwise indicated.
- N. Visible Alarm-Indicating Devices: Install not less than 6 inches (150 mm) below the ceiling. Install such that the center line of the Visible Alarm Device is 80" above the finished floor surface. Install all devices at the same height unless otherwise indicated
- O. Alarm Network Communications:
 - 1. Digital Alarm Communicator and TCP/IP communications cable as specified in 2.3 J. 2. & 4. shall be Category 6 Plenum Rated Type. Cables shall be certified to meet the ANSI/TIA -568-B.2-1 Standard for Gigabit Ethernet. Only 22 or 23 AWG copper shall be allowed. Work shall be completed in conformance with accepted Voice and Data installation practices.
- P. Identification:
 - 1. All wiring shall be identified at the FACP and at each terminal and junction box. Each conductor and cabinet terminal must be numbered and coded. All conductors in conduit pull boxes or cabinets containing more than one wire must be labeled on each end with machine printed on flexible high adhesion vinyl tape.
 - 2. Wiring color codes must be used throughout. Transposing or changing color coding of wires will not be permitted.
 - 3. Junction boxes shall be painted fire red and identified with 'FA' on cover. Suppliers of such material include Arlington Industries, Bridgeport, Garvin, and Space Age Electronics.
- Q. Smoke detectors and pull stations shall not be installed prior to the system programming and test period. If construction is ongoing during this period, measures shall be taken to protect devices from contamination and physical damage

3.4 COORDINATION

- A. Coordinate with all other trades in submittal of shop drawings. Shop drawings shall detail space conditions to the satisfaction of all concerned trades, subject to final review by the architect or project manager whichever is applicable. If installation of equipment, raceways, cable trays and/or conduit is performed prior to coordination with other trades, which interferes with work of other trades, make necessary changes to correct the condition at no additional cost to the owner.
- B. Maintain all existing equipment and systems in operation until new equipment and systems are installed, tested and made operational as required, to follow phasing of construction.
- C. Coordinate and disconnect existing electronic/electrical equipment, services and/or controls to items being removed.

3.5 TEST

- A. Provide the service of a competent, factory-trained project manager NICET Level IV and technician NICET Level II minimum authorized by the manufacturer of the fire alarm equipment to technically supervise and participate during all of the adjustments and tests for the system.
1. Before energizing the cables and wires, check for correct connections and test for short circuits, ground faults, continuity, and insulation.
 2. Close each sprinkler system flow valve and verify proper supervisory alarm at the FACP.
 3. Verify activation of all flow switches.
 4. Open and ground initiating device and signaling line circuits and verify that the trouble signal actuates.
 5. Check presence and audibility of tone and voice message at all alarm notification devices.
 6. Check installation, supervision, and operation of all intelligent smoke detectors during a walk test.
 7. Each of the alarm conditions that the system is required to detect should be introduced on the system. Verify the proper receipt and the proper processing of the signal at the FACP and the correct activation of the control points.
 8. Test optional features based on the manufacturer's instructions.
- B. After certification of completion and operation of the system, the entire system shall be retested by the manufacturer's representative in the presence of a representative of the owner and the Authority Having Jurisdiction, and a test report per NFPA 72, shall be made out, in triplicate, and signed by the owner's representative, indicating that they witnessed the actual test of the system.

3.6 FINAL INSPECTION

- A. At the final inspection a factory trained representative of the manufacturer of the major equipment shall demonstrate that the systems function properly in every respect.

3.7 INSTRUCTIONS

- A. Furnish the services of a system manufacturer qualified field representative who shall have specialized experience in the operation and maintenance of the systems and shall instruct the owner's personnel in the techniques involved in the operation of the systems.
- B. Formal on-site training shall be provided to the owner's representative/maintenance personnel and shall include instructions in the location, inspection, maintenance, testing and operation of all electronic components.

- C. Provide minimum of (4) hours of general instruction. Provide a signed copy of the name of the personnel giving the instructions and the personnel of the owner who were instructed.

END OF SECTION 280760

SEAL:



R. JEFFREY STRAUB
STATE AND LICENSE NO: RA63652

ARCHITECT

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100% DESIGN SUBMISSION
01/08/2021

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1	02/12/2021	ADDENDUM #2
NO.	DATE	REVISION

SCHOOL & LOCATION
**WILLIAM CRAMP
ELEMENTARY SCHOOL**
MAILING ADDRESS: 3449 NORTH
MASCHER STREET PHILADELPHIA
PA 19140
DEED ADDRESS:

PROJECT TITLE
**CLASSROOM
MODERNIZATION**

DRAWING TITLE

**OVERALL FIRST FLOOR
DEMOLITION PLAN**

LOCATION NO.	FILE NO.
DRAWN BY	CHECKED BY

B-014 C	OF	2020 / 21
B-015 C	OF	2020 / 21

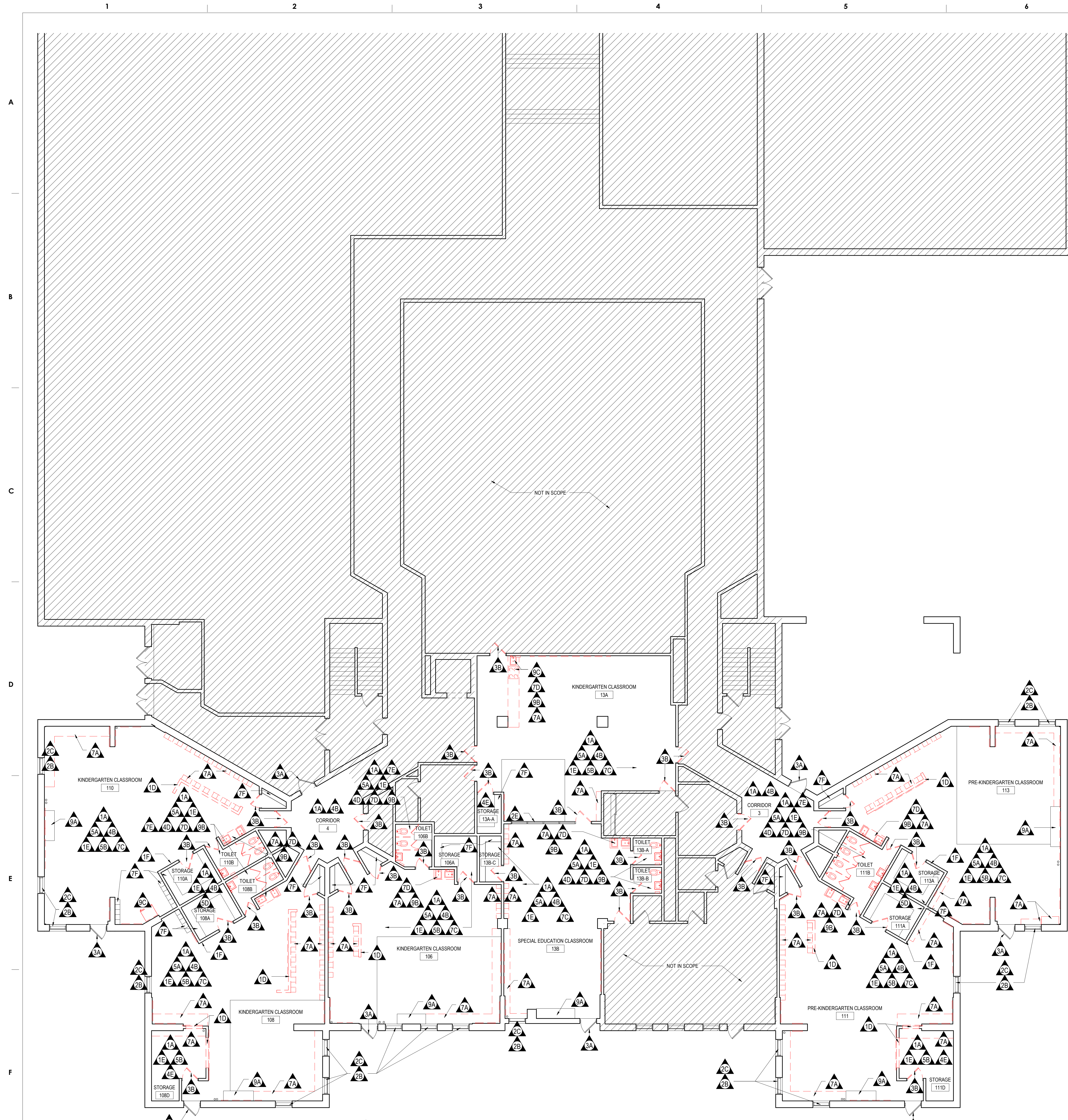
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D1.1

TAG	DEMOLITION NOTE
1 - WALL DEMOLITION AND RENOVATION	
1A	EXISTING WALLS SHALL BE SCRAPPED; REMOVE ANY/ALL ABANDONED OR UNUSED CONDUIT, WIRING, FASTENERS, BRACKETS, PROJECTORS AND MOUNTS, PROJECTOR SCREENS, TVS AND MOUNTS, BLOCKING AND ASSOCIATED ACCESSORIES IN THEIR ENTIRETY. ALL ABANDONED OR UNUSED CONDUIT, WIRING AND PIPING SHALL BE REMOVED TO THE SOURCE OF SUPPLY. PATCH ANY AND ALL PENETRATIONS AND CRACKING THROUGHOUT AND PREPARE WALLS, COLUMNS, EXPOSED PIPING, REGISTERS, HEATERS, CONDUIT AND ASSOCIATED ACCESSORIES TO RECEIVE NEW FINISH MATCHING ADJACENT FINISHED SURFACE AS SCHEDULED.
1B	REMOVE EXISTING OPERABLE PARTITION PANELS IN ITS ENTIRETY, INCLUDING BUT NOT LIMITED TO, ANY ASSOCIATED HARDWARE AND DISPLAY BOARDS. EXISTING CEILING TRACK TO BE REMOVED IN ITS ENTIRETY, WHERE OCCURS, FLOOR TRACK TO BE REMOVED IN ITS ENTIRETY AND PATCH AND REPAIR FLOOR TO MATCH ADJACENT, STRUCTURAL BEAM TO REMAIN. PREPARE ADJACENT FINISHES FOR NEW WORK.
1D	REMOVE EXISTING CMU WALL IN ITS ENTIRETY TO EXTENTS INDICATED ON DRAWINGS, INCLUDING BUT NOT LIMITED TO, ALL ASSOCIATED COMPONENTS, CONDUIT, DISPLAY BOARDS, DOOR AND FRAME ASSEMBLIES, ETC. GRIND EXCESS MORTAR TO PROVIDE SMOOTH AND EVEN SURFACE TO RECEIVE NEW FLOOR FINISH AS SCHEDULED, WHERE OCCURS. PATCH AND REPAIR TO MATCH EXISTING ADJACENT SURFACES AND PREPARE FOR NEW WORK AS SCHEDULED.
1E	EXISTING GLAZED CMU WALL FINISH AND WALL BASE TO BE CLEANED AND REMOVED OF ALL EXISTING ADHESIVES AND PREPARED TO RECEIVE NEW FINISH AS SCHEDULED.
1F	REMOVE EXISTING TOP 2" CMU CAP FROM PERIMETER OF WALL IN ITS ENTIRETY. PATCH AND PREPARE ADJACENT SURFACES FOR NEW WORK.
1J	REMOVE EXISTING STUD WALL IN ITS ENTIRETY TO EXTENTS INDICATED ON DRAWINGS, INCLUDING BUT NOT LIMITED TO, ALL ASSOCIATED COMPONENTS, CONDUIT, DISPLAY BOARDS, DOOR AND FRAME ASSEMBLIES, ETC. PATCH AND REPAIR TO MATCH EXISTING ADJACENT SURFACES AND PREPARE FOR NEW WORK AS SCHEDULED.
2 - WINDOW DEMOLITION AND RENOVATION	
2B	EXISTING SOLID SURFACE OR SLATE WINDOW SILL SHALL BE CLEANED AND REMOVED OF ALL EXISTING ADHESIVES. REMOVE ALL MISC./OBSOLETE ITEMS FROM SILL. PATCH ALL PENETRATIONS.
2C	ALL EXISTING WINDOW SHADES AND ASSOCIATED COMPONENTS SHALL BE REMOVED IN THEIR ENTIRETY. PATCH AND PREPARE ADJACENT FINISHES FOR NEW FINISHES AND/OR SHADES.
2E	REMOVE EXISTING WINDOW PANELS IN THEIR ENTIRETY. FRAME SHALL BE THOROUGHLY CLEANED OF ALL ADHESIVES, STAPLES AND UNUSED FASTENERS. EXISTING FASTENER LOCATIONS WILL NEED TO BE LIGHTLY SANDED IN ORDER TO BE REMOVED. PREPARE EXISTING FRAME FOR NEW INFILL AND FINISH. REFER TO FRAME ELEVATIONS.
3 - DOOR DEMOLITION AND RENOVATION	
3A	EXISTING DOOR AND FRAME ASSEMBLY TO REMAIN. REMOVE ANY/ALL OBSOLETE EQUIPMENT, STAPLES AND ASSOCIATED ACCESSORIES AND FASTENERS IN THEIR ENTIRETY FROM DOOR AND FRAME ASSEMBLY. ANY/ALL PENETRATIONS IN EXISTING DOOR AND FRAME, INCLUDING OLD HARDWARE PENETRATIONS, SHALL BE PATCHED WITH SAME MATERIAL AS DOOR. SAND AND RETURN TO "LIKE NEW" CONDITION AND PREPARE FOR NEW FINISH AS SCHEDULED. ALL MISCELLANEOUS HARDWARE AND SECURITY GRILLES AND ASSOCIATED BRACKETING SHALL BE REMOVED IN ITS ENTIRETY (WHERE OCCURS). PREPARE DOOR AND/OR FRAME ASSEMBLIES TO RECEIVE NEW INFILL AS SCHEDULED (WHERE OCCURS). PREPARE DOOR FOR NEW HARDWARE AS SCHEDULED. CONTRACTOR SHALL VERIFY IN FIELD ALL DOOR, FRAME AND HARDWARE REQUIREMENTS. CONTRACTOR SHALL NOT REMOVE ANY COMPONENTS OF DOOR OR HARDWARE UNTIL ALL COMPONENTS OF NEW ASSEMBLY ARE PHYSICALLY ON SITE, INCLUDING CORES.
3B	REMOVE EXISTING DOOR AND HARDWARE IN THEIR ENTIRETY. FRAME SHALL BE STRIPPED, SANDED AND PREPARED FOR NEW FINISH AS SCHEDULED. PREPARE EXISTING FRAME TO RECEIVE NEW DOOR AND HARDWARE AS SCHEDULED. ANY/ALL PENETRATIONS IN EXISTING FRAME, INCLUDING OLD HARDWARE PENETRATIONS, SHALL BE PATCHED WITH SAME MATERIAL AND PROFILE AS FRAME. SAND AND RETURN TO "LIKE NEW" CONDITION AND PREPARE FOR NEW FINISH AS SCHEDULED. ALL MISCELLANEOUS HARDWARE AND SECURITY GRILLES AND ASSOCIATED BRACKETING SHALL BE REMOVED IN ITS ENTIRETY (WHERE OCCURS). PREPARE FRAME ASSEMBLIES TO RECEIVE NEW INFILL AS SCHEDULED (WHERE OCCURS). CONTRACTOR SHALL VERIFY IN FIELD ALL DOOR, FRAME AND HARDWARE REQUIREMENTS. CONTRACTOR SHALL NOT REMOVE ANY COMPONENTS OF DOOR OR HARDWARE UNTIL ALL COMPONENTS OF NEW ASSEMBLY ARE PHYSICALLY ON SITE, INCLUDING CORES.
4 - FLOOR DEMOLITION AND RENOVATION	
4B	REMOVE EXISTING VINYL TILE FLOORING / VINYL ASBESTOS TILE FLOORING AS OUTLINED IN THE ASBESTOS INSPECTION REPORT IN ITS ENTIRETY INCLUDING TRANSITION STRIPS AND SUBFLOOR. CONTRACTOR SHALL LEVEL FLOORING AS REQUIRED TO ACCEPT NEW SUBFLOORING, FINISH AND TRANSITIONS AS SCHEDULED. WHERE FLOOR DRAINS AND/OR PLUMBING CONNECTIONS OCCUR, CONTRACTOR SHALL MODIFY EXISTING CONNECTIONS AS REQUIRED TO ACCEPT NEW FINISH.
4D	REMOVE EXISTING CERAMIC TILE FLOORING DOWN TO EXISTING SUBSTRATE. CONTRACTOR SHALL LEVEL FLOORING AS REQUIRED TO ACCEPT NEW SUBFLOORING, FINISH AND TRANSITIONS AS SCHEDULED. WHERE FLOOR DRAINS AND/OR PLUMBING CONNECTIONS OCCUR, CONTRACTOR SHALL MODIFY EXISTING CONNECTIONS AS REQUIRED TO ACCEPT NEW FINISH.
4E	PREPARE EXISTING CONCRETE FLOOR AND ASSOCIATED BASE TO RECEIVE NEW FLOOR FINISH AND AND BASE AS SCHEDULED. CONTRACTOR SHALL LEVEL FLOORING AS REQUIRED TO ACCEPT NEW SUBFLOORING, FINISH AND TRANSITIONS AS SCHEDULED. WHERE FLOOR DRAINS AND/OR PLUMBING CONNECTIONS OCCUR, CONTRACTOR SHALL MODIFY EXISTING CONNECTIONS AS REQUIRED TO ACCEPT NEW FINISH.
5 - CEILING DEMOLITION AND RENOVATION	
5A	EXISTING HARD CEILING AND/OR METAL CEILINGS SHALL BE SCRAPPED; REMOVE ANY/ALL ABANDONED OR UNUSED CONDUIT, WIRING, FASTENERS, BRACKETS, PROJECTORS AND MOUNTS AND ASSOCIATED ACCESSORIES IN THEIR ENTIRETY. ALL ABANDONED OR UNUSED CONDUIT, WIRING AND PIPING SHALL BE REMOVED TO THE SOURCE OF SUPPLY. PATCH ANY AND ALL PENETRATIONS AND CRACKING THROUGHOUT AND PREPARE CEILINGS, BEAMS, EXPOSED PIPING AND CONDUIT AND ASSOCIATED ACCESSORIES TO RECEIVE NEW FINISH MATCHING ADJACENT SURFACE AS SCHEDULED. WHERE CAPPING OF OLD OR ABANDONED SYSTEMS OCCURS, PROVIDE COVER PLATE AND PAINT TO MATCH EXISTING SURFACES. REFER TO ENGINEERING DRAWINGS FOR FURTHER INFORMATION WHERE OCCURS.
5B	REMOVE EXISTING SUSPENDED CEILING ASSEMBLY IN ITS ENTIRETY. REMOVE ANY/ALL ABANDONED OR UNUSED CONDUIT, WIRING, FASTENERS, BRACKETS, PROJECTORS AND MOUNTS AND ASSOCIATED ACCESSORIES IN THEIR ENTIRETY. ALL ABANDONED OR UNUSED CONDUIT, WIRING AND PIPING SHALL BE REMOVED TO THE SOURCE OF SUPPLY. PREPARE ADJACENT SURFACES FOR NEW CEILING ASSEMBLY AS SCHEDULED. REFER TO ENGINEERING DRAWINGS FOR FURTHER INFORMATION WHERE OCCURS.
5D	REMOVE EXISTING ADHERED CEILING TILE IN ITS ENTIRETY. REMOVE ANY/ALL ABANDONED OR UNUSED CONDUIT, WIRING, FASTENERS, BRACKETS, PROJECTORS AND MOUNTS AND ASSOCIATED ACCESSORIES IN THEIR ENTIRETY. ALL ABANDONED OR UNUSED CONDUIT, WIRING AND PIPING SHALL BE REMOVED TO THE SOURCE OF SUPPLY. PREPARE ADJACENT SURFACES FOR NEW CEILING ASSEMBLY AS SCHEDULED. REFER TO ENGINEERING DRAWINGS FOR FURTHER INFORMATION WHERE OCCURS.
7 - EQUIPMENT DEMOLITION AND RENOVATION	
7A	EXISTING BUILT-IN CASEWORK, BUILT-IN SHELVING AND/OR COAT HOOKS AND ASSOCIATED BLOCKING AND FASTENERS SHALL BE REMOVED IN THEIR ENTIRETY. PATCH AND PREPARE ALL ADJACENT FINISHES FOR NEW WORK AND FINISH AS SCHEDULED.
7C	REMOVE EXISTING DISPLAY BOARDS, WHERE OCCURS, TACK STRIPS, TRIM AND ALL RELATED COMPONENTS. PATCH AND REPAIR ADJACENT FINISHES TO MATCH EXISTING.
7D	REMOVE ALL ACCESSORIES INCLUDING, BUT NOT LIMITED TO, SOAP DISPENSERS, PAPER TOWEL DISPENSERS, MIRRORS, SOAP DISHES, HAND SANITIZERS, CURTAIN RODS, GRAB BARS, ETC FROM ROOM IN THEIR ENTIRETY. RETURN ALL ACCESSORIES TO OWNER, WHERE RECESSED SOAP TRAYS/DISPENSERS OR RECESSED PAPER TOWEL DISPENSERS/WASTE RECEPTACLES OCCUR, REMOVE AND PATCH WALL TO RECEIVE NEW FINISH AS SCHEDULED.
7E	REMOVE EXISTING TOILET PARTITIONS AND ASSOCIATED ACCESSORIES AND HARDWARE. PATCH AND PREPARE ADJACENT SURFACES FOR FINISH AS SCHEDULED.
7F	PREPARE EXISTING BUILT-IN CASEWORK AND BUILT-IN SHELVING UNITS FOR NEW FINISH AS SCHEDULED. SHALL BE FREE OF ANY FASTENERS, STAPLES, ADHESIVES, ETC. ENTIRE ASSEMBLY TO BE THOROUGHLY CLEANED, SANDED, PATCHED OF ANY PENETRATIONS OR CRACKING AND PREPARED FOR NEW FINISH AND INFILL AS SCHEDULED.
7G	REMOVE EXISTING SMARTBOARD WALL OR FLOOR MOUNTED BRACKETS IN THEIR ENTIRETY, WHERE OCCURS. PATCH AND PREPARE ALL ADJACENT FINISHES FOR NEW WORK AND FINISH AS SCHEDULED.
9 - MEP DEMOLITION AND RENOVATION	
9A	EXISTING UNIT VENTILATOR AND/OR RADIATOR, RADIATOR COVER AND ALL ASSOCIATED PIPING AND COMPONENTS TO BE REFINISHED WITH ELECTROSTATIC PAINT AND REINSTALLED AS SCHEDULED. CLEAN UNIT VENTILATOR AND/OR RADIATOR AND ALL ASSOCIATED COMPONENTS PRIOR TO REINSTALLATION OF COVER.
9B	REMOVE ALL PLUMBING FIXTURES AND PATCH ANY/ALL PENETRATIONS AND PREPARE SURFACE TO RECEIVE NEW FINISH AND/OR WORK AS SCHEDULED. REFER TO ENGINEERING DRAWINGS FOR ADDITIONAL INFORMATION WHERE OCCURS.
9C	REMOVE ALL APPLIANCES AND THEIR ASSOCIATED COMPONENTS, INCLUDING FUME HOODS, OVENS, AND REFRIGERATORS, SHALL BE RETURNED TO OWNER. PREPARE FOR NEW WORK AS SCHEDULED. ALL APPLIANCES SHALL BE GC PROVIDED AND INSTALLED UNLESS STATED OTHERWISE. AT NO POINT SHOULD ANY COMPONENT BE REMOVED FROM SITE WITHOUT SPECIFIC OWNER APPROVAL.

NOTE:
REFER TO "GENERAL PROJECT ALTERATION NOTES" ON CS 2 FOR ADDITIONAL INFORMATION.
REFER TO DOOR SCHEDULE FOR ADDITIONAL INFORMATION.

LEGEND	
	NOT IN SCOPE



1 FIRST FLOOR DEMOLITION PLAN
D1.1 1/8" = 1'-0"

SEAL:



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TAG	DEMOLITION NOTE
1 - WALL DEMOLITION AND RENOVATION	
1A	EXISTING WALLS SHALL BE SCRAPPED; REMOVE ANY/ALL ABANDONED OR UNUSED CONDUIT, WIRING, FASTENERS, BRACKETS, PROJECTORS AND MOUNTS, PROJECTOR SCREENS, TVS AND MOUNTS, BLOCKING AND ASSOCIATED ACCESSORIES IN THEIR ENTIRETY. ALL ABANDONED OR UNUSED CONDUIT, WIRING AND PIPING SHALL BE REMOVED TO THE SOURCE OF SUPPLY. PATCH ANY AND ALL PENETRATIONS AND CRACKING THROUGHOUT AND PREPARE WALLS, COLUMNS, EXPOSED PIPING, REGISTERS, HEATERS, CONDUIT AND ASSOCIATED ACCESSORIES TO RECEIVE NEW FINISH MATCHING ADJACENT FINISHED SURFACE AS SCHEDULED.
1B	REMOVE EXISTING OPERABLE PARTITION PANELS IN ITS ENTIRETY, INCLUDING BUT NOT LIMITED TO, ANY ASSOCIATED HARDWARE AND DISPLAY BOARDS. EXISTING CEILING TRACK TO BE REMOVED IN ITS ENTIRETY, WHERE OCCURS. FLOOR TRACK TO BE REMOVED IN ITS ENTIRETY AND PATCH AND REPAIR FLOOR TO MATCH ADJACENT, STRUCTURAL BEAM TO REMAIN. PREPARE ADJACENT FINISHES FOR NEW WORK.
1D	REMOVE EXISTING CMU WALL IN ITS ENTIRETY TO EXTENTS INDICATED ON DRAWINGS, INCLUDING BUT NOT LIMITED TO, ALL ASSOCIATED COMPONENTS, CONDUIT, DISPLAY BOARDS, DOOR AND FRAME ASSEMBLIES, ETC. GRIND EXCESS MORTAR TO PROVIDE SMOOTH AND EVEN SURFACE TO RECEIVE NEW FLOOR FINISH AS SCHEDULED, WHERE OCCURS. PATCH AND REPAIR TO MATCH EXISTING ADJACENT SURFACES AND PREPARE FOR NEW WORK AS SCHEDULED.
1E	EXISTING GLAZED CMU WALL FINISH AND WALL BASE TO BE CLEANED AND REMOVED OF ALL EXISTING ADHESIVES AND PREPARED TO RECEIVE NEW FINISH AS SCHEDULED.
1F	REMOVE EXISTING TOP 2" CMU CAP FROM PERIMETER OF WALL IN ITS ENTIRETY. PATCH AND PREPARE ADJACENT SURFACES FOR NEW WORK.
1J	REMOVE EXISTING STUD WALL IN ITS ENTIRETY TO EXTENTS INDICATED ON DRAWINGS, INCLUDING BUT NOT LIMITED TO, ALL ASSOCIATED COMPONENTS, CONDUIT, DISPLAY BOARDS, DOOR AND FRAME ASSEMBLIES, ETC. PATCH AND REPAIR TO MATCH EXISTING ADJACENT SURFACES AND PREPARE FOR NEW WORK AS SCHEDULED.
2 - WINDOW DEMOLITION AND RENOVATION	
2B	EXISTING SOLID SURFACE OR SLATE WINDOW SILL SHALL BE CLEANED AND REMOVED OF ALL EXISTING ADHESIVES. REMOVE ALL MISC./OBSOLETE ITEMS FROM SILL. PATCH ALL PENETRATIONS.
2C	ALL EXISTING WINDOW SHADES AND ASSOCIATED COMPONENTS SHALL BE REMOVED IN THEIR ENTIRETY. PATCH AND PREPARE ADJACENT FINISHES FOR NEW FINISHES AND/OR SHADES.
2E	REMOVE EXISTING WINDOW PANELS IN THEIR ENTIRETY. FRAME SHALL BE THOROUGHLY CLEANED OF ALL ADHESIVES, STAPLES AND UNUSED FASTENERS. EXISTING FASTENER LOCATIONS WILL NEED TO BE LIGHTLY SANDED IN ORDER TO BE REMOVED. PREPARE EXISTING FRAME FOR NEW INFILL AND FINISH. REFER TO FRAME ELEVATIONS.
3 - DOOR DEMOLITION AND RENOVATION	
3A	EXISTING DOOR AND FRAME ASSEMBLY TO REMAIN. REMOVE ANY/ALL OBSOLETE EQUIPMENT, STAPLES AND ASSOCIATED ACCESSORIES AND FASTENERS IN THEIR ENTIRETY FROM DOOR AND FRAME ASSEMBLY. ANY/ALL PENETRATIONS IN EXISTING DOOR AND FRAME, INCLUDING OLD HARDWARE PENETRATIONS, SHALL BE PATCHED WITH SAME MATERIAL AS DOOR. SAND AND RETURN TO "LIKE NEW" CONDITION AND PREPARE FOR NEW FINISH AS SCHEDULED. ALL MISCELLANEOUS HARDWARE AND SECURITY GRILLES AND ASSOCIATED BRACKETING SHALL BE REMOVED IN ITS ENTIRETY (WHERE OCCURS). PREPARE DOOR AND/OR FRAME ASSEMBLIES TO RECEIVE NEW INFILL AS SCHEDULED (WHERE OCCURS). PREPARE DOOR FOR NEW HARDWARE AS SCHEDULED. CONTRACTOR SHALL VERIFY IN FIELD ALL DOOR, FRAME AND HARDWARE REQUIREMENTS. CONTRACTOR SHALL NOT REMOVE ANY COMPONENTS OF DOOR OR HARDWARE UNTIL ALL COMPONENTS OF NEW ASSEMBLY ARE PHYSICALLY ON SITE, INCLUDING CORES.
3B	REMOVE EXISTING DOOR AND HARDWARE IN THEIR ENTIRETY. FRAME SHALL BE STRIPPED, SANDED AND PREPARED FOR NEW FINISH AS SCHEDULED. PREPARE EXISTING FRAME TO RECEIVE NEW DOOR AND HARDWARE AS SCHEDULED. ANY/ALL PENETRATIONS IN EXISTING FRAME, INCLUDING OLD HARDWARE PENETRATIONS, SHALL BE PATCHED WITH SAME MATERIAL AND PROFILE AS FRAME. SAND AND RETURN TO "LIKE NEW" CONDITION AND PREPARE FOR NEW FINISH AS SCHEDULED. ALL MISCELLANEOUS HARDWARE AND SECURITY GRILLES AND ASSOCIATED BRACKETING SHALL BE REMOVED IN ITS ENTIRETY (WHERE OCCURS). PREPARE FRAME ASSEMBLIES TO RECEIVE NEW INFILL AS SCHEDULED (WHERE OCCURS). CONTRACTOR SHALL VERIFY IN FIELD ALL DOOR, FRAME AND HARDWARE REQUIREMENTS. CONTRACTOR SHALL NOT REMOVE ANY COMPONENTS OF DOOR OR HARDWARE UNTIL ALL COMPONENTS OF NEW ASSEMBLY ARE PHYSICALLY ON SITE, INCLUDING CORES.
4 - FLOOR DEMOLITION AND RENOVATION	
4B	REMOVE EXISTING VINYL TILE FLOORING / VINYL ASBESTOS TILE FLOORING AS OUTLINED IN THE ASBESTOS INSPECTION REPORT IN ITS ENTIRETY INCLUDING TRANSITION STRIPS AND SUBFLOOR. CONTRACTOR SHALL LEVEL FLOORING AS REQUIRED TO ACCEPT NEW SUBFLOORING, FINISH AND TRANSITIONS AS SCHEDULED. WHERE FLOOR DRAINS AND/OR PLUMBING CONNECTIONS OCCUR, CONTRACTOR SHALL MODIFY EXISTING CONNECTIONS AS REQUIRED TO ACCEPT NEW FINISH.
4D	REMOVE EXISTING CERAMIC TILE FLOORING DOWN TO EXISTING SUBSTRATE. CONTRACTOR SHALL LEVEL FLOORING AS REQUIRED TO ACCEPT NEW SUBFLOORING, FINISH AND TRANSITIONS AS SCHEDULED. WHERE FLOOR DRAINS AND/OR PLUMBING CONNECTIONS OCCUR, CONTRACTOR SHALL MODIFY EXISTING CONNECTIONS AS REQUIRED TO ACCEPT NEW FINISH.
4E	PREPARE EXISTING CONCRETE FLOOR AND ASSOCIATED BASE TO RECEIVE NEW FLOOR FINISH AND AND BASE AS SCHEDULED. CONTRACTOR SHALL LEVEL FLOORING AS REQUIRED TO ACCEPT NEW SUBFLOORING, FINISH AND TRANSITIONS AS SCHEDULED. WHERE FLOOR DRAINS AND/OR PLUMBING CONNECTIONS OCCUR, CONTRACTOR SHALL MODIFY EXISTING CONNECTIONS AS REQUIRED TO ACCEPT NEW FINISH.
5 - CEILING DEMOLITION AND RENOVATION	
5A	EXISTING HARD CEILING AND/OR METAL CEILINGS SHALL BE SCRAPPED; REMOVE ANY/ALL ABANDONED OR UNUSED CONDUIT, WIRING, FASTENERS, BRACKETS, PROJECTORS AND MOUNTS AND ASSOCIATED ACCESSORIES IN THEIR ENTIRETY. ALL ABANDONED OR UNUSED CONDUIT, WIRING AND PIPING SHALL BE REMOVED TO THE SOURCE OF SUPPLY. PATCH ANY AND ALL PENETRATIONS AND CRACKING THROUGHOUT AND PREPARE CEILINGS, BEAMS, EXPOSED PIPING AND CONDUIT AND ASSOCIATED ACCESSORIES TO RECEIVE NEW FINISH MATCHING ADJACENT SURFACE AS SCHEDULED. WHERE CAPPING OF OLD OR ABANDONED SYSTEMS OCCURS, PROVIDE COVER PLATE AND PAINT TO MATCH EXISTING SURFACES. REFER TO ENGINEERING DRAWINGS FOR FURTHER INFORMATION WHERE OCCURS.
5B	REMOVE EXISTING SUSPENDED CEILING ASSEMBLY IN ITS ENTIRETY. REMOVE ANY/ALL ABANDONED OR UNUSED CONDUIT, WIRING, FASTENERS, BRACKETS, PROJECTORS AND MOUNTS AND ASSOCIATED ACCESSORIES IN THEIR ENTIRETY. ALL ABANDONED OR UNUSED CONDUIT, WIRING AND PIPING SHALL BE REMOVED TO THE SOURCE OF SUPPLY. PREPARE ADJACENT SURFACES FOR NEW CEILING ASSEMBLY AS SCHEDULED. REFER TO ENGINEERING DRAWINGS FOR FURTHER INFORMATION WHERE OCCURS.
5D	REMOVE EXISTING ADHERED CEILING TILE IN ITS ENTIRETY. REMOVE ANY/ALL ABANDONED OR UNUSED CONDUIT, WIRING, FASTENERS, BRACKETS, PROJECTORS AND MOUNTS AND ASSOCIATED ACCESSORIES IN THEIR ENTIRETY. ALL ABANDONED OR UNUSED CONDUIT, WIRING AND PIPING SHALL BE REMOVED TO THE SOURCE OF SUPPLY. PREPARE ADJACENT SURFACES FOR NEW CEILING ASSEMBLY AS SCHEDULED. REFER TO ENGINEERING DRAWINGS FOR FURTHER INFORMATION WHERE OCCURS.
7 - EQUIPMENT DEMOLITION AND RENOVATION	
7A	EXISTING BUILT-IN CASEWORK, BUILT-IN SHELVING AND/OR COAT HOOKS AND ASSOCIATED BLOCKING AND FASTENERS SHALL BE REMOVED IN THEIR ENTIRETY. PATCH AND PREPARE ALL ADJACENT FINISHES FOR NEW WORK AND FINISH AS SCHEDULED.
7C	REMOVE EXISTING DISPLAY BOARDS, WHERE OCCURS, TACK STRIPS, TRIM AND ALL RELATED COMPONENTS. PATCH AND REPAIR ADJACENT FINISHES TO MATCH EXISTING.
7D	REMOVE ALL ACCESSORIES INCLUDING, BUT NOT LIMITED TO, SOAP DISPENSERS, PAPER TOWEL DISPENSERS, MIRRORS, SOAP DISHES, HAND SANITIZERS, CURTAIN RODS, GRAB BARS, ETC FROM ROOM IN THEIR ENTIRETY. RETURN ALL ACCESSORIES TO OWNER. WHERE RECESSED SOAP TRAYS/DISPENSERS OR RECESSED PAPER TOWEL DISPENSERS/WASTE RECEPTACLES OCCUR, REMOVE AND PATCH WALL TO RECEIVE NEW FINISH AS SCHEDULED.
7E	REMOVE EXISTING TOILET PARTITIONS AND ASSOCIATED ACCESSORIES AND HARDWARE. PATCH AND PREPARE ADJACENT SURFACES FOR FINISH AS SCHEDULED.
7F	PREPARE EXISTING BUILT-IN CASEWORK AND BUILT-IN SHELVING UNITS FOR NEW FINISH AS SCHEDULED. SHALL BE FREE OF ANY FASTENERS, STAPLES, ADHESIVES, ETC. ENTIRE ASSEMBLY TO BE THOROUGHLY CLEANED, SANDED, PATCHED OF ANY PENETRATIONS OR CRACKING AND PREPARED FOR NEW FINISH AND INFILL AS SCHEDULED.
7G	REMOVE EXISTING SMARTBOARD WALL OR FLOOR MOUNTED BRACKETS IN THEIR ENTIRETY, WHERE OCCURS. PATCH AND PREPARE ALL ADJACENT FINISHES FOR NEW WORK AND FINISH AS SCHEDULED.
9 - MEP DEMOLITION AND RENOVATION	
9A	EXISTING UNIT VENTILATOR AND/OR RADIATOR, RADIATOR COVER AND ALL ASSOCIATED PIPING AND COMPONENTS TO BE REFINISHED WITH ELECTROSTATIC PAINT AND REINSTALLED AS SCHEDULED. CLEAN UNIT VENTILATOR AND/OR RADIATOR AND ALL ASSOCIATED COMPONENTS PRIOR TO REINSTALLATION OF COVER.
9B	REMOVE ALL PLUMBING FIXTURES AND PATCH ANY/ALL PENETRATIONS AND PREPARE SURFACE TO RECEIVE NEW FINISH AND/OR WORK AS SCHEDULED. REFER TO ENGINEERING DRAWINGS FOR ADDITIONAL INFORMATION WHERE OCCURS.
9C	REMOVE ALL APPLIANCES AND THEIR ASSOCIATED COMPONENTS, INCLUDING FUME HOODS, OVENS, AND REFRIGERATORS, SHALL BE RETURNED TO OWNER. PREPARE FOR NEW WORK AS SCHEDULED. ALL APPLIANCES SHALL BE GC PROVIDED AND INSTALLED UNLESS STATED OTHERWISE. AT NO POINT SHOULD ANY COMPONENT BE REMOVED FROM SITE WITHOUT SPECIFIC OWNER APPROVAL.

NOTE:
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REFER TO DOOR SCHEDULE FOR ADDITIONAL INFORMATION.

LEGEND	
	NOT IN SCOPE

1 SECOND FLOOR DEMOLITION PLAN
D1.2 1/8" = 1'-0"

100% DESIGN SUBMISSION
01/08/2021

10		
9		
8		
7		
6		
5		
4		
3		
2		
1	02/12/2021	ADDENDUM #2
NO.	DATE	REVISION

SCHOOL & LOCATION
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DEED ADDRESS:

PROJECT TITLE
CLASSROOM MODERNIZATION

DRAWING TITLE
OVERALL SECOND FLOOR DEMOLITION PLAN

LOCATION NO.	FILE NO.
DRAWN BY	CHECKED BY
B-014 C OF 2020 / 21	B-015 C OF 2020 / 21
DRAWING NO.	D1.2

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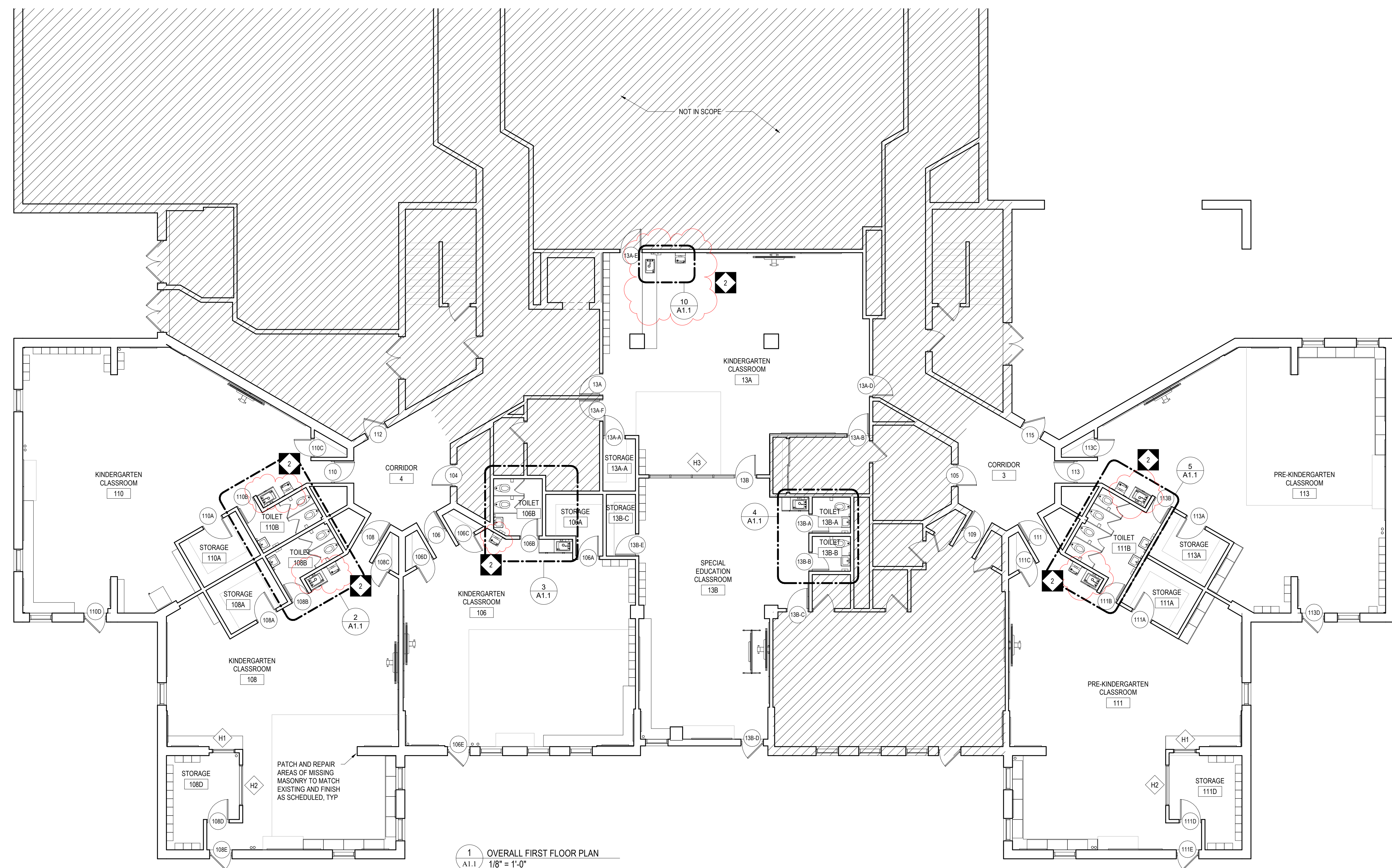
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GENERAL NOTES:

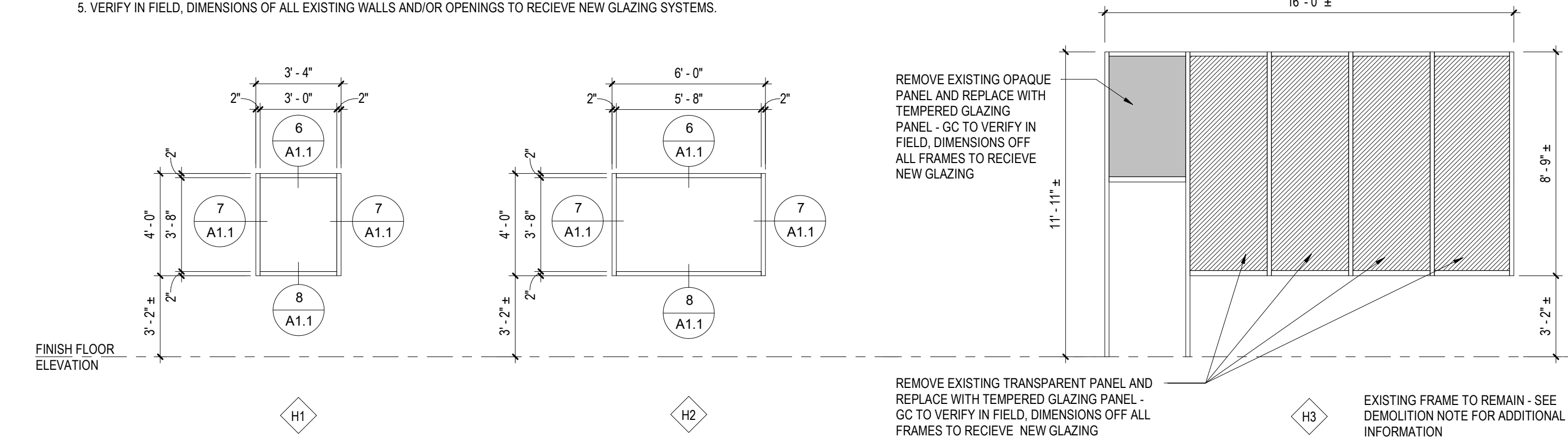
- REFER TO SHEET CS.2 FOR ADDITIONAL INFORMATION.
- ACCESSIBLE FIXTURES ARE INDICATED WITH THE REQUIRED CLEAR FLOOR SPACE CLEARANCES FOR ALL ACCESSIBLE ROUTES & MANEUVERING CLEARANCES.
- PLUMBING FIXTURE ROUGH-IN DIMENSIONS & TOILET PARTITION LAYOUT DIMENSIONS ARE FROM THE WALL FINISH MATERIAL.
- PROVIDE WOOD BLOCKING IN STUD WALLS FOR ALL TOILET ACCESSORIES.
- TOILET PARTITION DIMENSIONS ARE TO THE PANEL CENTERLINE UNLESS NOTED OTHERWISE. MINIMUM CLEAR DIMENSIONS MUST BE PROVIDED WHERE NOTED.
- COORDINATE ALL FINISHES WITH THE ROOM FINISH SCHEDULE.
- CONTRACTOR TO CONFIRM WITH THE OWNER'S REPRESENTATIVE THE LOCATION OF ALL SURFACE-MOUNTED TOILET ROOM ACCESSORIES PRIOR TO INSTALLATION.
- COORDINATE LOCATION OF MEP EQUIPMENT, DEVICES, OUTLET BOXES, ETC. WITH OTHER EQUIPMENT AND FINISH SCHEDULE PRIOR TO INSTALLATION.
- UNLESS NOTED OTHERWISE, ALL FLOOR DRAINS SHALL BE SET 1/4" MAXIMUM. BELOW FINISH FLOOR. DISH FINISH FLOOR A MINIMUM OF 24" RADIUS TO TOP OF FLOOR DRAIN. REFER TO PLUMBING DRAWINGS.
- REFER TO I4 DRAWINGS FOR ADDITIONAL BUILT-IN CASEWORK DOOR HARDWARE LOCATION AND INFORMATION.



1 OVERALL FIRST FLOOR PLAN
1/8" = 1'-0"

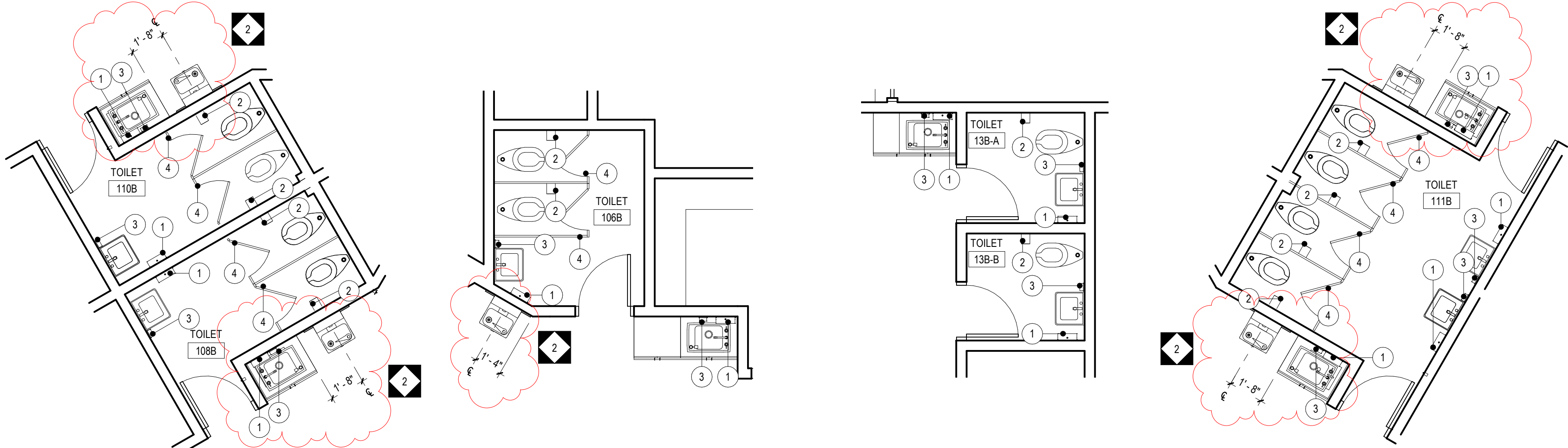
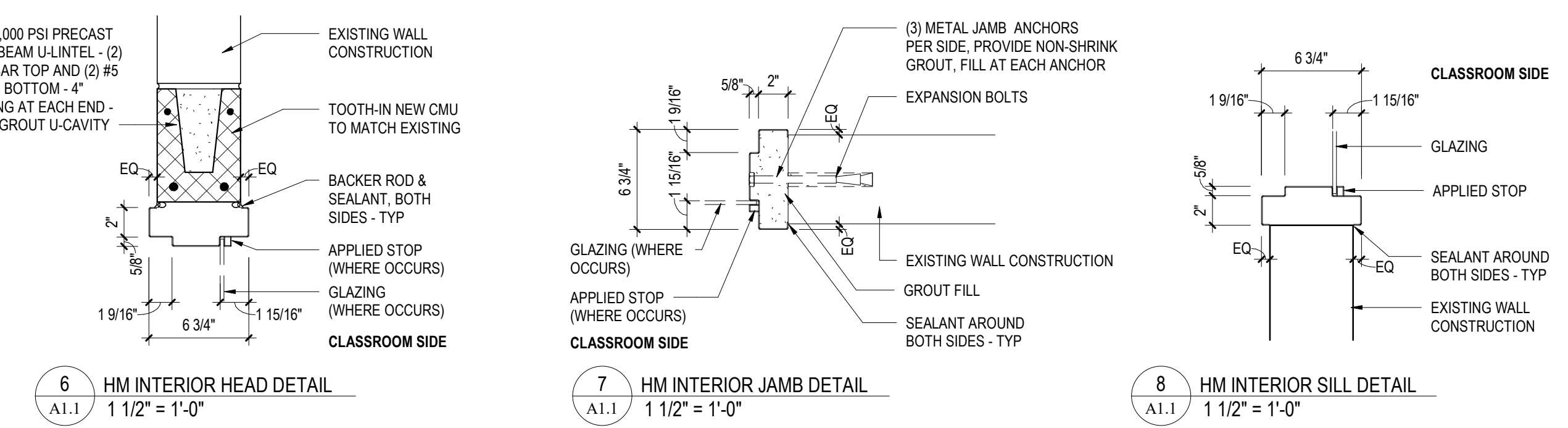
HOLLOW METAL FRAME ELEVATIONS

- ALL GLASS TO BE TEMPERED ADJACENT TO A DOOR WHERE THE NEAREST EXPOSED EDGE OF THE GLAZING IS WITHIN A 24 INCH ARC OR EITHER VERTICAL EDGE OF THE DOOR IN A CLOSED POSITION.
- GLASS LITES GREATER THAN 6 SQUARE FEET WHERE THE BOTTOM EDGE IS WITHIN 18 INCHES OF THE FINISHED FLOOR AND THE TOP EDGE EXTENDS ABOVE 36 INCHES AFF SHALL BE TEMPERED.
- GLASS WHERE THE FINISHED FLOOR OR GRADE ON THE OPPOSING SIDE OF GLASS IS GREATER THAN 30 INCHES SHALL BE TEMPERED TO A HEIGHT OF 42 INCHES AFF.
- ANY PORTION OF GLASS WITHIN CONSTRAINTS OF ABOVE REQUIREMENTS THE ENTIRE PANEL SHALL BE TEMPERED.
- VERIFY IN FIELD, DIMENSIONS OF ALL EXISTING WALLS AND/OR OPENINGS TO RECEIVE NEW GLAZING SYSTEMS.



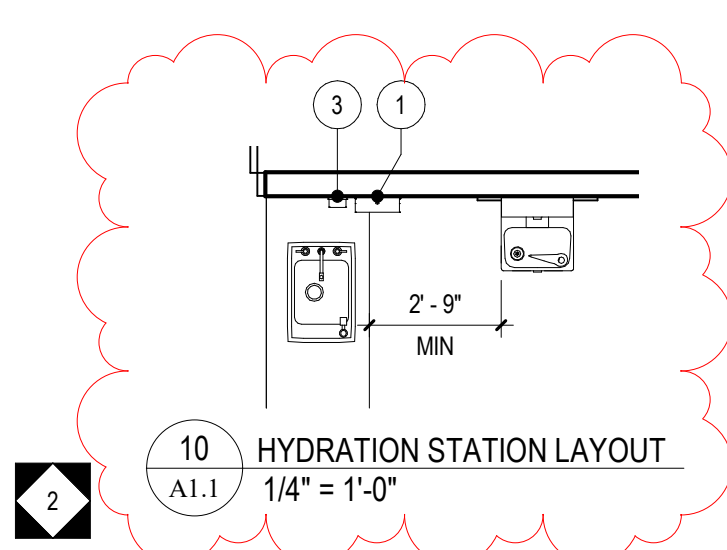
HOLLOW METAL FRAME DETAILS

- CONCRETE MASONRY UNITS INDICATED ARE DIAGRAMATIC IN NATURE AND ARE NOT SPECIFIC TO ANY MANUFACTURER. MASONRY CONTRACTOR SHALL INCORPORATE SHAPES AND OR CUT UNITS AS REQUIRED TO MEET DETAIL REQUIREMENTS.

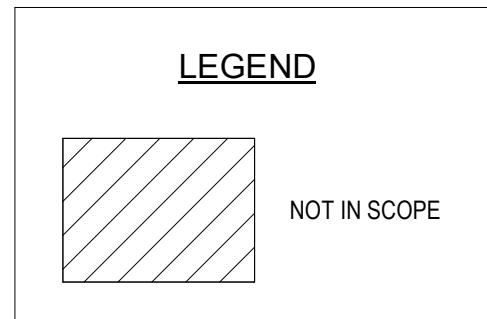


2 LARGE SCALE TOILET PLAN 1/4" = 1'-0"
3 LARGE SCALE TOILET PLAN 1/4" = 1'-0"
4 LARGE SCALE TOILET PLAN 1/4" = 1'-0"
5 LARGE SCALE TOILET PLAN 1/4" = 1'-0"

TOILET ACCESSORY SCHEDULE				
No.	DESCRIPTION	MOUNTING	MANUFACTURER	MODEL
1	SURFACE MOUNTED PAPER TOWEL DISPENSER	48" MAX TO OUTLET OF DISPENSER	KIMBERLY-CLARK - GC SUPPLIED & INSTALLED	29734
2	SURFACE MOUNTED MULTI-ROLL TOILET TISSUE DISPENSER	TISSUE ACCESS @ 19" MIN AFF	KIMBERLY-CLARK - GC SUPPLIED & INSTALLED	05507
3	SURFACE MOUNTED SOAP DISPENSER	PUSH BUTTON @ 44" MAX AFF	KIMBERLY-CLARK -SDP SUPPLIED & GC INSTALLED	92145
4	TOILET PARTITION	AS SPECIFIED	AS SPECIFIED	-



10 HYDRATION STATION LAYOUT
1/4" = 1'-0"



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1	02/12/2021	ADDENDUM #2

SCHOOL & LOCATION
WILLIAM CRAMP ELEMENTARY SCHOOL
MAILING ADDRESS: 3449 NORTH MASCHER STREET PHILADELPHIA PA 19140
DEED ADDRESS:

PROJECT TITLE
CLASSROOM MODERNIZATION

DRAWING TITLE
OVERALL FIRST FLOOR PLAN

LOCATION NO.	FILE NO.
DRAWN BY	CHECKED BY
B-014 C OF 2020 / 21	B-015 C OF 2020 / 21

DRAWING NO.
A1.1

SEAL:



R. JEFFREY STRAUB
STATE AND LICENSE NO: RA03652

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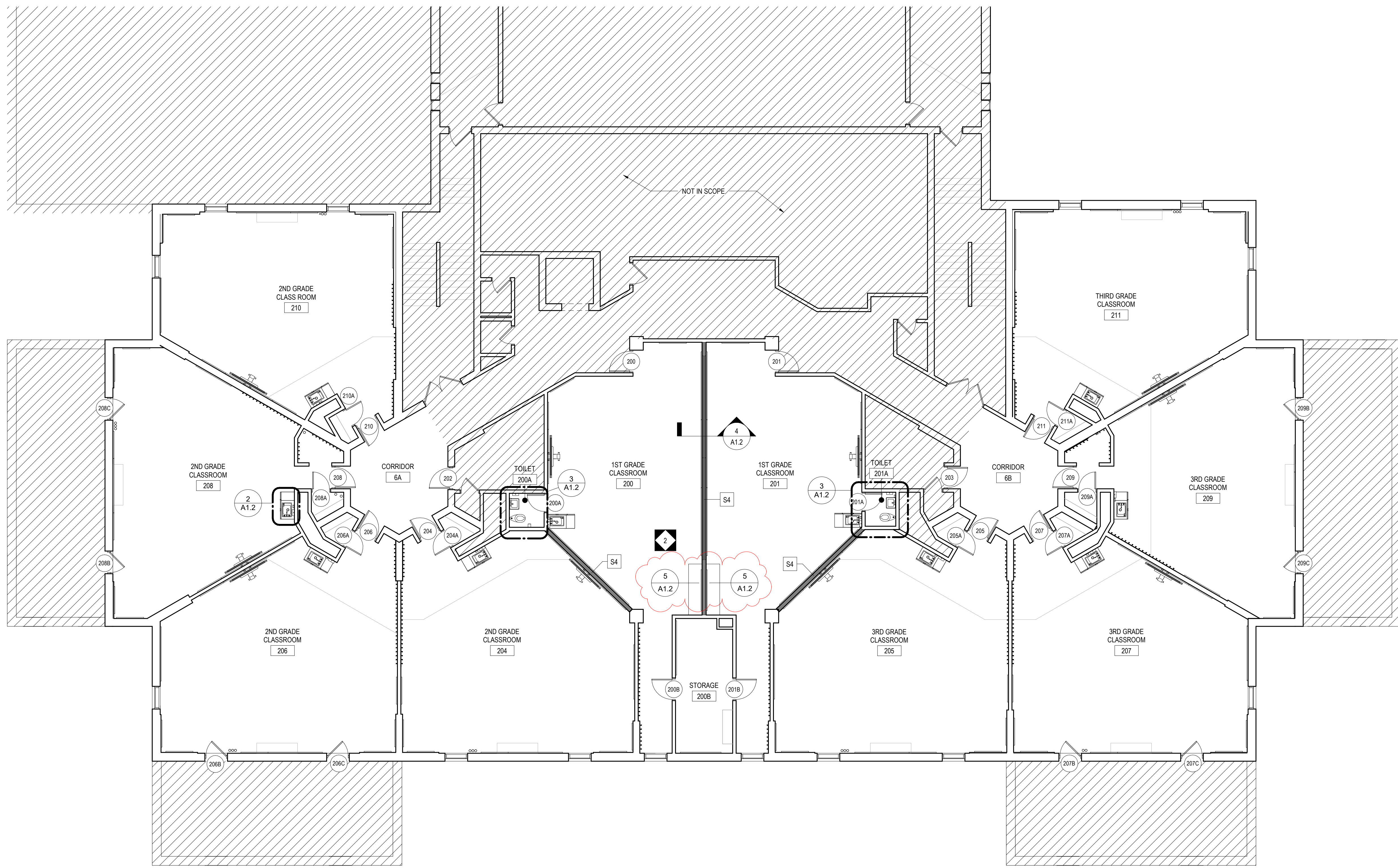
MEP ENGINEERS

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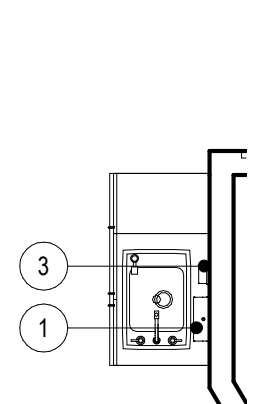
Attn: John Lewis
Email: jlewis@baryiseit.com

GENERAL NOTES:

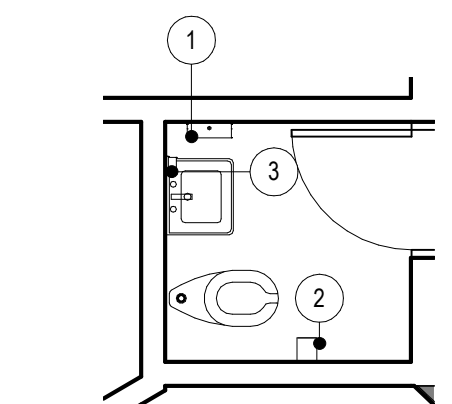
- REFER TO SHEET CS.2 FOR ADDITIONAL INFORMATION.
- ACCESSIBLE FIXTURES ARE INDICATED WITH THE REQUIRED CLEAR FLOOR SPACE CLEARANCES FOR ALL ACCESSIBLE ROUTES & MANEUVERING CLEARANCES.
- PLUMBING FIXTURE ROUGH-IN DIMENSIONS & TOILET PARTITION LAYOUT DIMENSIONS ARE FROM THE WALL FINISH MATERIAL.
- PROVIDE WOOD BLOCKING IN STUD WALLS FOR ALL TOILET ACCESSORIES.
- TOILET PARTITION DIMENSIONS ARE TO THE PANEL CENTERLINE UNLESS NOTED OTHERWISE. MINIMUM CLEAR DIMENSIONS MUST BE PROVIDED WHERE NOTED.
- COORDINATE ALL FINISHES WITH THE ROOM FINISH SCHEDULE.
- CONTRACTOR TO CONFIRM WITH THE OWNER'S REPRESENTATIVE THE LOCATION OF ALL SURFACE-MOUNTED TOILET ROOM ACCESSORIES PRIOR TO INSTALLATION.
- COORDINATE LOCATION OF MEP EQUIPMENT, DEVICES, OUTLET BOXES, ETC. WITH OTHER EQUIPMENT AND FINISH SCHEDULE PRIOR TO INSTALLATION.
- UNLESS NOTED OTHERWISE, ALL FLOOR DRAINS SHALL BE SET 1/4" MAXIMUM BELOW FINISH FLOOR. DISH FINISH FLOOR A MINIMUM OF 24" RADIUS TO TOP OF FLOOR DRAIN. REFER TO PLUMBING DRAWINGS.
- REFER TO I4 DRAWINGS FOR ADDITIONAL BUILT-IN CASEWORK DOOR HARDWARE LOCATION AND INFORMATION.



1 OVERALL SECOND FLOOR PLAN
1/8" = 1'-0"

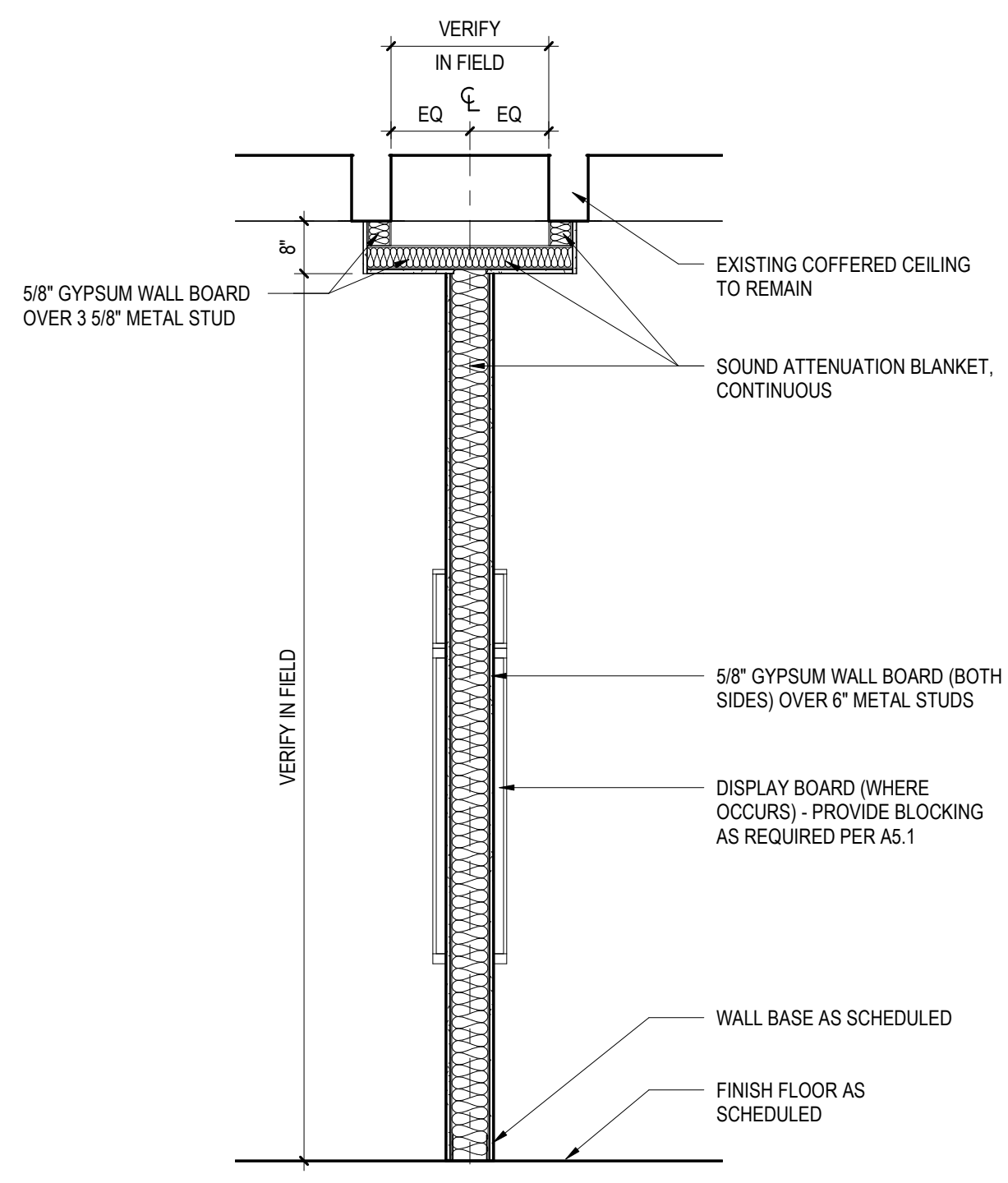


2 TYPICAL SINK LAYOUT
1/4" = 1'-0"

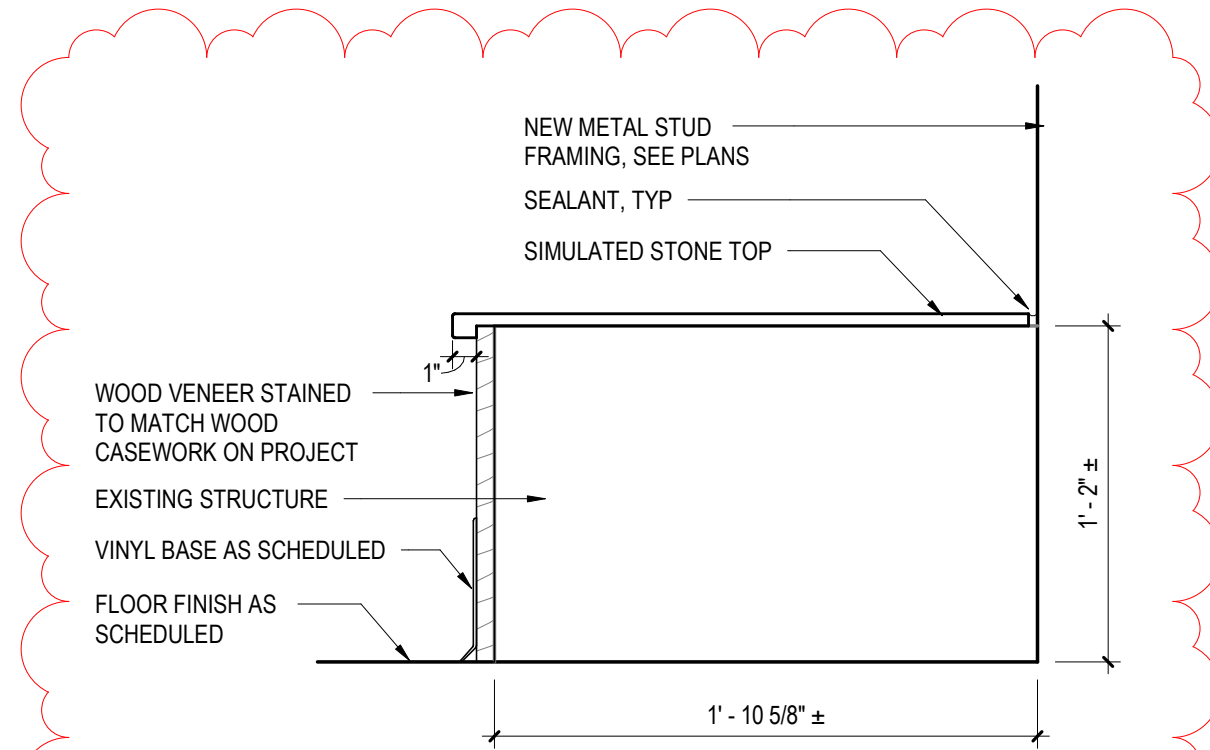


3 LARGE SCALE TOILET PLAN
1/4" = 1'-0"

TOILET ACCESSORY SCHEDULE				
No.	DESCRIPTION	MOUNTING	MANUFACTURER	MODEL
1	SURFACE MOUNTED PAPER TOWEL DISPENSER	48" MAX TO OUTLET OF DISPENSER	KIMBERLY-CLARK - GC SUPPLIED & INSTALLED	29734
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4	TOILET PARTITION	AS SPECIFIED	AS SPECIFIED	-



4 WALL SECTION
1/2" = 1'-0"



5 BENCH DETAIL
1 1/2" = 1'-0"

LEGEND

	NOT IN SCOPE
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1	02/12/2021	ADDENDUM #2
NO.	DATE	REVISION

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DEED ADDRESS:

PROJECT TITLE
CLASSROOM MODERNIZATION

DRAWING TITLE
OVERALL SECOND FLOOR PLAN

LOCATION NO.	FILE NO.
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B-014 C	OF 2020 / 21
B-015 C	OF 2020 / 21

DRAWING NO.
A1.2

NUMBER	NAME	COLOR SCHEME	FLOOR	BASE	WALLS			CEILING FINISH	REMARKS
					WALL FINISH	WAINSCOT			
						FINISH	HEIGHT		
3	CORRIDOR	J	VCT	PNT	PNT			ETR	R51
4	CORRIDOR	J	VCT	PNT	PNT			ETR	R51
6A	CORRIDOR	K	VCT	PNT	PNT			ETR	R51
6B	CORRIDOR	L	VCT	PNT	PNT			ETR	R51
13A	KINDERGARTEN CLASSROOM	A	VCT	VB	PNT			ACT/PNT	R53, R77
13A-A	STORAGE	A	VCT	VB	PNT			PNT	
13A-B	OFFICE	A	VCT	VB	PNT			ACT	
13B	SPECIAL EDUCATION CLASSROOM	B	VCT	VB	PNT			PNT	R53, R77
13B-A	TOILET	G	PT	CT	EPX2	CT	6'-0"	PNT	R52
13B-B	TOILET	G	PT	CT	EPX2	CT	6'-0"	PNT	R52
13B-C	STORAGE	B	VCT	VB	PNT			PNT	
106	KINDERGARTEN CLASSROOM	A	VCT	VB	PNT			PNT	R53
106A	STORAGE	A	VCT	VB	PNT			PNT	
106B	TOILET	G	PT	CT	EPX2	CT	6'-0"	PNT	R52
106D	STORAGE	A	VCT	VB	PNT			PNT	
108	KINDERGARTEN CLASSROOM	A	VCT	VB	PNT			ACT/PNT	R53, R77
108A	STORAGE	A	VCT	VB	PNT			PNT	
108B	TOILET	G	PT	CT	EPX2	CT	6'-0"	PNT	R52
108D	STORAGE	A	VCT	VB	PNT			ACT	
110	KINDERGARTEN CLASSROOM	A	VCT	VB	PNT			ACT/PNT	R53, R77
110A	STORAGE	A	VCT	VB	PNT			PNT	
110B	TOILET	G	PT	CT	EPX2	CT	6'-0"	PNT	R52
111	PRE-KINDERGARTEN CLASSROOM	A	VCT	VB	PNT			ACT/PNT	R53, R77
111A	STORAGE	A	VCT	VB	PNT			PNT	
111B	TOILET	G	PT	CT	EPX2	CT	6'-0"	PNT	R52
111D	STORAGE	A	VCT	VB	PNT			ACT	
113	PRE-KINDERGARTEN CLASSROOM	A	VCT	VB	PNT			ACT/PNT	R53, R77
113A	STORAGE	A	VCT	VB	PNT			PNT	
200	1ST GRADE CLASSROOM	B	VCT	VB	PNT			PNT	R53
200A	TOILET	G	PT	CT	EPX2	CT	6'-0"	PNT	R52
200B	STORAGE	B	VCT	VB	PNT			ACT	
201	1ST GRADE CLASSROOM	B	VCT	VB	PNT			PNT	R53
201A	TOILET	G	PT	CT	EPX2	CT	6'-0"	PNT	R52
204	2ND GRADE CLASSROOM	C	VCT	VB	PNT			PNT	R53
204A	STORAGE	C	VCT	VB	PNT			PNT	
205	3RD GRADE CLASSROOM	D	VCT	VB	PNT			PNT	R53
205A	STORAGE	D	VCT	VB	PNT			PNT	
206	2ND GRADE CLASSROOM	C	VCT	VB	PNT			PNT	R53
206A	STORAGE	C	VCT	VB	PNT			PNT	
207	3RD GRADE CLASSROOM	D	VCT	VB	PNT			PNT	R53
207A	STORAGE	D	VCT	VB	PNT			PNT	
208	2ND GRADE CLASSROOM	C	VCT	VB	PNT			PNT	R53
208A	STORAGE	C	VCT	VB	PNT			PNT	
208B	STORAGE	C	VCT	VB	PNT			PNT	
209	3RD GRADE CLASSROOM	D	VCT	VB	PNT			PNT	R53
209A	STORAGE	D	VCT	VB	PNT			PNT	
209B	STORAGE	D	VCT	VB	PNT			PNT	
210	2ND GRADE CLASS ROOM	C	VCT	VB	PNT			PNT	R53
210A	STORAGE	C	VCT	VB	PNT			PNT	
211	THIRD GRADE CLASSROOM	D	VCT	VB	PNT			PNT	R53

COLOR SCHEME SCHEDULE

COLOR SCHEME A – KINDERGARTEN CLASSROOMS-ORANGE & GREEN
1. WALL PAINT: SHERWIN WILLIAMS, NO. SW7044 AMAZING GRAY
2. ACCENT PAINT 'A' STORAGE: SHERWIN WILLIAMS, NO. SW9171 FELTED WOOL
3. ACCENT PAINT 'B' TEACHING WALL: SHERWIN WILLIAMS, NO. SW6890 OSAGE ORANGE
4. VINYL COMPOSITION TILE, FIELD: ARMSTRONG, NO. 51803 PEARL WHITE
5. VINYL COMPOSITION TILE, ACCENT '1': ARMSTRONG, NO. 51866 LITTLE GREEN APPLE
6. VINYL COMPOSITION TILE, ACCENT '2': ARMSTRONG, NO. 51947 BASIL GREEN
7. 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
1. WALL PAINT: SHERWIN WILLIAMS, NO. SW7044 AMAZING GRAY
2. ACCENT PAINT 'A' STORAGE: SHERWIN WILLIAMS, NO. SW9171 FELTED WOOL
3. ACCENT PAINT 'B' TEACHING WALL: SHERWIN WILLIAMS, NO. SW6765 SPA
4. VINYL COMPOSITION TILE, FIELD: ARMSTRONG, NO. 51803 PEARL WHITE
5. VINYL COMPOSITION TILE, ACCENT '1': ARMSTRONG, NO. 51927 FIELD GRAY
6. VINYL COMPOSITION TILE, ACCENT '2': ARMSTRONG, NO. 57509 LEMON LICK
7. 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
1. WALL PAINT: SHERWIN WILLIAMS, NO. SW6233 SAMOVAR SILVER
2. ACCENT PAINT 'A' STORAGE: SHERWIN WILLIAMS, NO. SW9143 CADET
3. ACCENT PAINT 'B' TEACHING WALL: SHERWIN WILLIAMS, NO. SW6767 AQUARIUM
4. VINYL COMPOSITION TILE, FIELD: ARMSTRONG, NO. 51860 SOFT COOL GRAY
5. VINYL COMPOSITION TILE, ACCENT '1': ARMSTRONG, NO. 51927 FIELD GRAY
6. VINYL COMPOSITION TILE, ACCENT '2': ARMSTRONG, NO. 57516 SCREAMIN' PUMPKIN
7. 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
1. WALL PAINT: SHERWIN WILLIAMS, NO. SW6233 SAMOVAR SILVER
2. ACCENT PAINT 'A' STORAGE: SHERWIN WILLIAMS, NO. SW9143 CADET
3. ACCENT PAINT 'B' TEACHING WALL: SHERWIN WILLIAMS, NO. SW6903 CHEERFUL
4. VINYL COMPOSITION TILE, FIELD: ARMSTRONG, NO. 51860 SOFT COOL GRAY
5. VINYL COMPOSITION TILE, ACCENT '1': ARMSTRONG, NO. 57517 BODACIOUS BLUE
6. VINYL COMPOSITION TILE, ACCENT '2': ARMSTRONG, NO. 59230 VICTORIA BLUE
7. 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
1. WALL PAINT: SHERWIN WILLIAMS, NO. SW7029 AGREEABLE GRAY
2. PORCELAIN FLOOR TILE: DAL TILE, PORTFOLIO, COLOR: PF04 DOVE GREY, MATTE
3. CERAMIC WALL TILE, FIELD: DAL TILE, SEMI-GLOSS GLAZED TILE, 0182 SUEDE GRAY
4. CERAMIC WALL TILE, ACCENT '1': DAL TILE, SEMI-GLOSS GLAZED TILE, Q097 ORANGE BURST
5. GROUT COLOR FOR WALLS: MAPEI, COLOR: 00 WHITE
6. GROUT COLOR FOR FLOORS: MAPEI, COLOR: 27 SILVER
SEE ENLARGED PLANS FOR ACCENT WAINSCOT COLOR LOCATIONS.

COLOR SCHEME H NOT USED
COLOR SCHEME J – CORRIDOR CLASSROOMS-ORANGE & GREEN
1. WALL PAINT: SHERWIN WILLIAMS, NO. SW7044 AMAZING GRAY
2. ACCENT PAINT 'A': SHERWIN WILLIAMS, NO. SW6890 OSAGE ORANGE
3. ACCENT PAINT 'B': SHERWIN WILLIAMS, NO. SW6431 LEAPROG
4. ACCENT PAINT 'C': SHERWIN WILLIAMS, NO. SW6440 COURTYARD
5. BASE PAINT: SHERWIN WILLIAMS, NO. SW 6258 TRICORN BLACK
4. VINYL COMPOSITION TILE, FIELD: ARMSTRONG, NO. 51803 PEARL WHITE
5. VINYL COMPOSITION TILE, ACCENT '1': ARMSTRONG, NO. 51866 LITTLE GREEN APPLE
6. VINYL COMPOSITION TILE, ACCENT '2': ARMSTRONG, NO. 51947 BASIL GREEN
SEE ENLARGED FLOOR PLANS FOR FLOOR PATTERNS AND ACCENT WALL COLOR LOCATIONS.

COLOR SCHEME K – CORRIDOR CLASSROOMS-BLUE & ORANGE
1. WALL PAINT: SHERWIN WILLIAMS, NO. SW6233 SAMOVAR SILVER
2. ACCENT PAINT 'A': SHERWIN WILLIAMS, NO. SW6767 AQUARIUM
3. ACCENT PAINT 'B': SHERWIN WILLIAMS, NO. SW6887 NAVEL
4. ACCENT PAINT 'C': SHERWIN WILLIAMS, NO. SW6886 INVIGORATE
4. VINYL COMPOSITION TILE, FIELD: ARMSTRONG, NO. 51860 SOFT COOL GRAY
5. VINYL COMPOSITION TILE, ACCENT '1': ARMSTRONG, NO. 51927 FIELD GRAY
6. VINYL COMPOSITION TILE, ACCENT '2': ARMSTRONG, NO. 57516 SCREAMIN' PUMPKIN
SEE ENLARGED FLOOR PLANS FOR FLOOR PATTERNS AND ACCENT WALL COLOR LOCATIONS.

COLOR SCHEME L – CORRIDOR CLASSROOM-BLUE & YELLOW
1. WALL PAINT: SHERWIN WILLIAMS, NO. SW6233 SAMOVAR SILVER
2. ACCENT PAINT 'A': SHERWIN WILLIAMS, NO. SW6903 CHEERFUL
3. ACCENT PAINT 'B': SHERWIN WILLIAMS, NO. SW6803 DANUBE
4. ACCENT PAINT 'C': SHERWIN WILLIAMS, NO. SW6804 DIGNITY BLUE
5. BASE PAINT: SHERWIN WILLIAMS, NO. SW 6258 TRICORN BLACK
6. VINYL COMPOSITION TILE, FIELD: ARMSTRONG, NO. 51860 SOFT COOL GRAY
7. VINYL COMPOSITION TILE, ACCENT '1': ARMSTRONG, NO. 57517 BODACIOUS BLUE
8. VINYL COMPOSITION TILE, ACCENT '2': ARMSTRONG, NO. 59230 VICTORIA BLUE
SEE ENLARGED FLOOR PLANS FOR FLOOR PATTERNS AND ACCENT WALL COLOR LOCATIONS.

GENERAL NOTES:
THE FOLLOWING MATERIALS ARE TO BE APPLIED AT ALL LOCATIONS WHERE SPECIFIED UNLESS OTHERWISE NOTED.
1. TACK BOARDS: CLARIDGE FABRICORK, KL498 WINTHROPE
2. ROLLER WINDOW SHADES: MERMET, GREENSCREEN REVIVE, 5% OPEN, COLOR: 0.22 STONE
3. SOLID SURFACE COUNTERTOP & SIDE/BACK SPLASH: CORIAN, COLOR: DEEP CAVIAR
4. SOLID SURFACE 1/4" PANEL BEHIND HYDRATION STATIONS: CORIAN, COLOR: GLACIER WHITE
5. CEILING PAINT: SHERWIN WILLIAMS, NO. SW7006 EXTRA WHITE
6. PREVIOUSLY PAINTED WOOD COMPONENTS: DOORS, TRIM, BASE, CHAIR RAIL, CROWN MOULDING, VISUAL DISPLAY TRIM, WINDOW SILLS: SHERWIN WILLIAMS, NO. SW7068 GRIZZLE GRAY
7. 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.
8. VERTICAL WOOD CASEWORK FINISH: CAMPBELL, RHEA
a. PHILIP H. SHERIDAN E.S.: MAPLE, NATURAL
b. WILLIAM CRAMP E.S.: MAPLE, NATURAL
c. LAURA H. CARNELL E.S.: MAPLE, HARVEST

CONTRACTOR SHALL RECEIVE ARCHITECT'S/OWNER'S APPROVAL PRIOR TO ORDERING AND INSTALLATION.
9. HOLLOW METAL FRAMES AND DOORS: PREVIOUSLY PAINTED AND NEW FERROUS HOLLOW METAL DOORS AND FRAMES: SHERWIN WILLIAMS, NO. SW7068 GRIZZLE GRAY.
10. FLOOR TILE AT RESTROOMS: FLOOR TILE SHALL BE INSTALLED PERPENDICULAR TO DOOR.

NOTES:
A. IF ROOM IS NOT INDICATED TO RECEIVE A FLOOR PATTERN, FIELD COLOR VCT SHALL BE USED.
B. VCT ORIENTATION SHALL BE MATCHED TO EXISTING ADJACENT ROOM.
C. ARCHITECT REQUIRES AN ON-SITE MOCK-UP FOR EACH PAINT COLOR. PROVIDE A MINIMUM 8'x10' AREA, A DOOR FRAME. CONTRACTOR SHALL RECEIVE ARCHITECT'S APPROVAL BEFORE ORDERING.
D. VERTICAL AND HORIZONTAL PLANES OF SOFFIT AND BULKHEAD SHALL BE PAINTED TO MATCH THE ADJACENT WALL COLOR, UNLESS OTHERWISE NOTED.
E. COORDINATE ROOM FINISH SCHEDULE AND COLOR SCHEME SCHEDULE WITH DEMOLITION/TERRATION NOTES.
F. 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, METAL SHELVING AND FENCING SHALL BE PAINTED ADJACENT WALL COLOR.

ROOM FINISH SCHEDULE LEGEND

FLOOR FINISH
PT PORCELAIN TILE
VCT VINYL COMPOSITION TILE
FLOOR REMARKS
R1-R25: NOT USED
BASE FINISH
CT CERAMIC TILE
VB VINYL BASE
BASE REMARKS
R26-R50: NOT USED
WALL FINISH
EPX EPOXY PAINT
PNT PAINT
CT CERAMIC TILE
WALL REMARKS
R51: REFER TO SHEET 17.1 FOR ACCENT PAINT PATTERN AT CORRIDORS.
R52: SEE INTERIOR ELEVATIONS FOR VARYING WALL MATERIALS
R53: PROVIDE ACCENT WALL.
R54-R75: NOT USED
CEILING FINISH
PNT ACOUSTICAL CEILING TILE
ACT PAINTED GYPSUM WALLBOARD
CEILING REMARKS
R76: NOT USED.
R77: SEE REFLECTED CEILING PLANS FOR VARYING CEILING MATERIALS AND HEIGHTS.
R78-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 AND EXTERIOR FERROUS METAL SHALL BE PAINTED INCLUDING LINTELS, RAILINGS, GRILLES AND LOUVERS. (DOES NOT INCLUDE FACTORY OR PRE-FINISHED ITEMS)
6. T=THREAD, R=RISER, L=LANDING, S=STRINGER
7. SEE I7 DRAWINGS FOR MATERIAL TRANSITIONS & FLOOR PATTERN PLANS.
8. ETR = EXISTING TO REMAIN
9. EXIST = EXISTING



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ROOM FINISH SCHEDULE

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A6.2

SEAL:

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STATE AND LICENSE NO: RA03652

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Attr: John Lewis

**100% DESIGN SUBMISSION
1.8.2021**

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1	02/12/2021 ADDENDUM #2
NO.	DATE REVISION

SCHOOL & LOCATION

WILLIAM CRAMP SCHOOL

3449 NORTH MASCHER STREET
PHILADELPHIA, PA 19140

PROJECT TITLE

**CLASSROOM
MODERNIZATION**

DRAWING TITLE

**LARGE SCALE LAYOUTS -
PRE-KINDERGARTEN &
KINDERGARTEN**

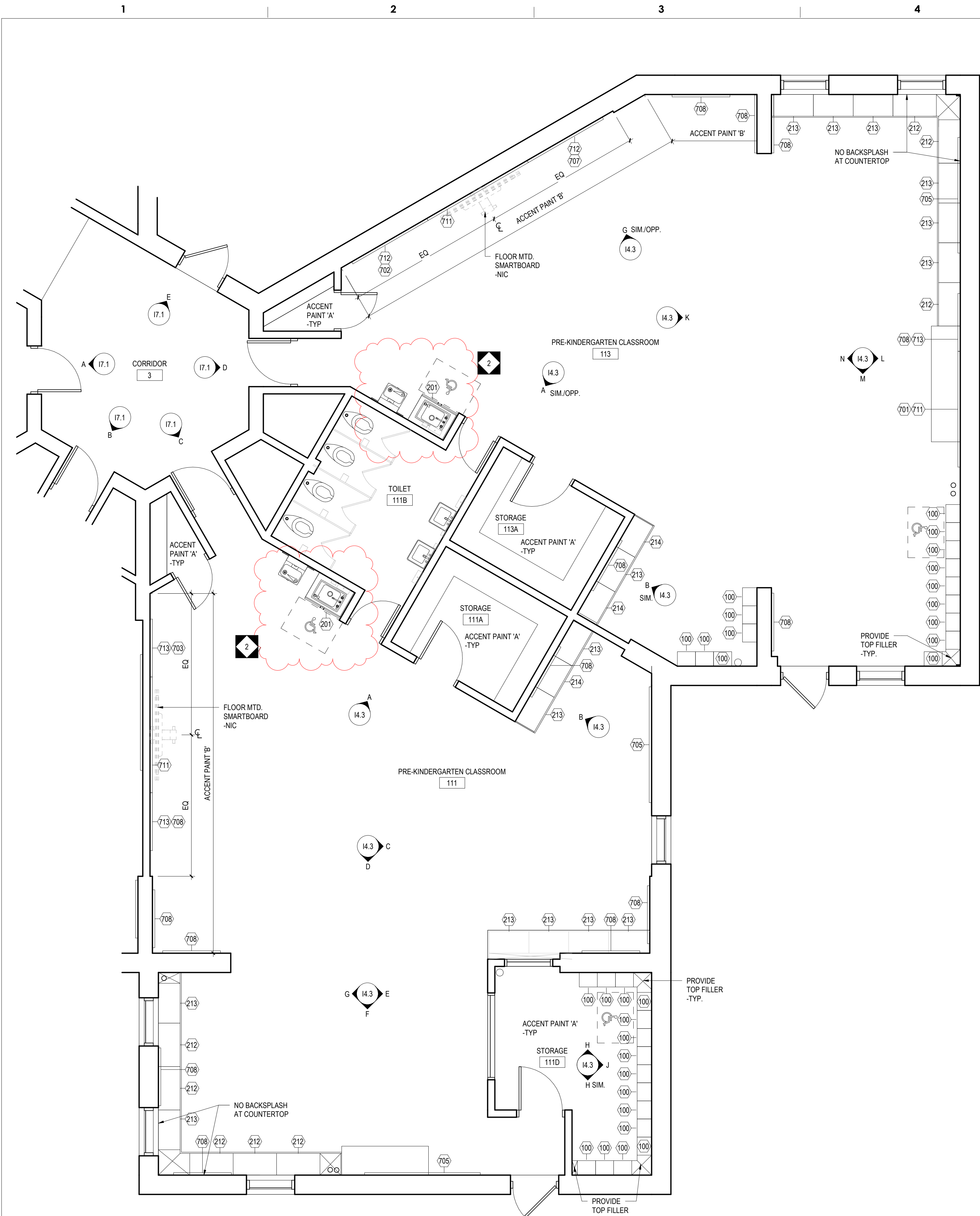
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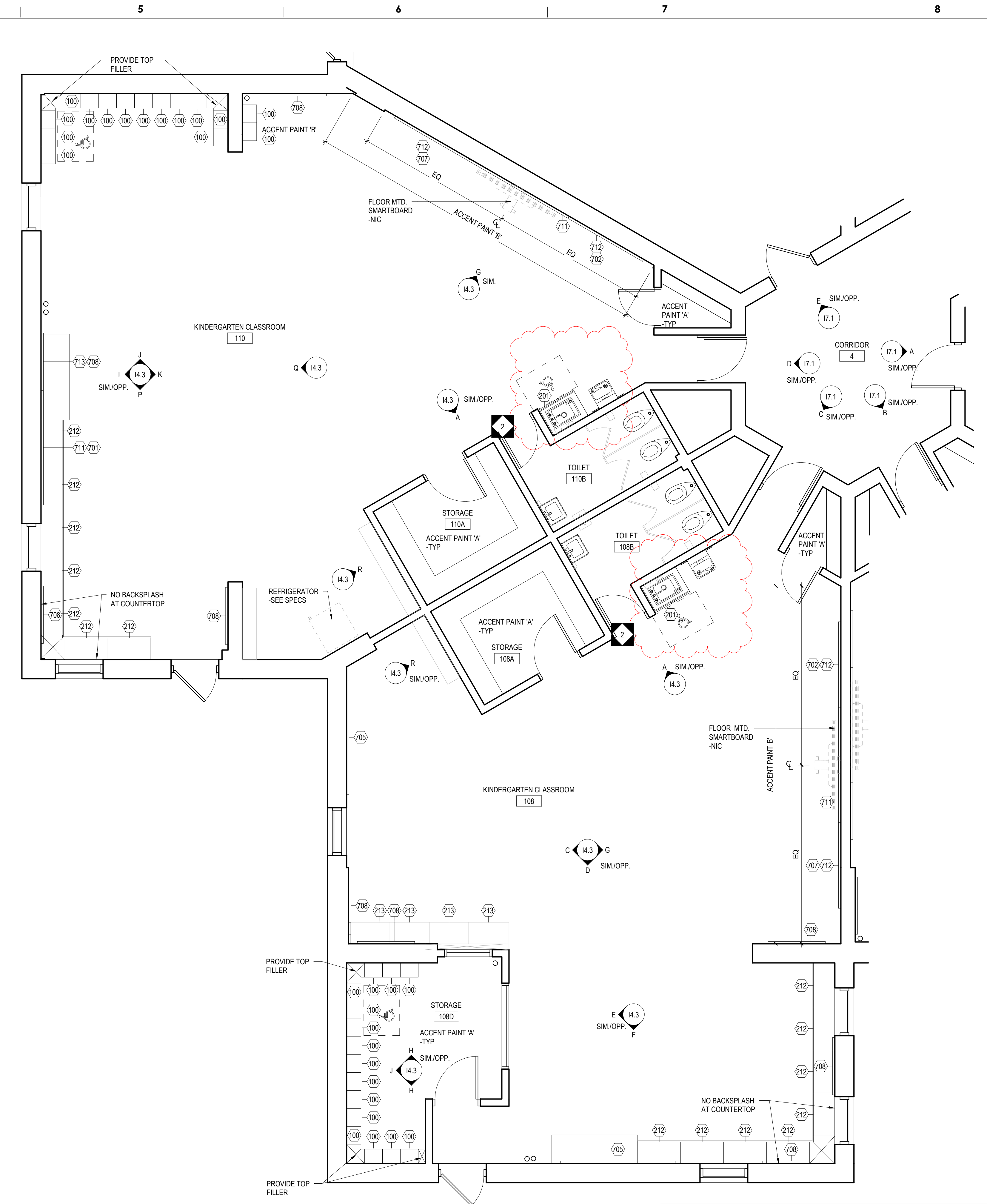
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DRAWING NO.

14.1



1 PRE-KINDERGARTEN - ROOMS 111 & 113
1/4" = 1'-0"



2 KINDERGARTEN - ROOMS 108 & 110
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	VARIES - SEE CASEWORK SCHEDULE
SMARTBOARD	CENTERED ON 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.

I4.1 - 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
201	2-DOOR SINK BASE CABINET	SEE SPECIFICATIONS	--	33"W x 24"D x 26"H
212	OPEN BASE CABINET	SEE SPECIFICATIONS	--	36"W x 18"D x 30"H
213	OPEN BASE CABINET	SEE SPECIFICATIONS	--	33"W x 18"D x 30"H
214	OPEN BASE CABINET	SEE SPECIFICATIONS	--	30"W x 18"D x 30"H
701	MARKERBOARD	SEE SPECIFICATIONS	SEE SPECIFICATIONS	8'-0"W x 4'-0"H
702	MARKERBOARD	SEE SPECIFICATIONS	SEE SPECIFICATIONS	6'-0"W x 4'-0"H
703	MARKERBOARD	SEE SPECIFICATIONS	SEE SPECIFICATIONS	4'-0"W x 4'-0"H
705	TACK BOARD	SEE SPECIFICATIONS	SEE SPECIFICATIONS	8'-0"W x 4'-0"H
707	TACK BOARD	SEE SPECIFICATIONS	SEE SPECIFICATIONS	6'-0"W x 4'-0"H
708	TACK BOARD	SEE SPECIFICATIONS	SEE SPECIFICATIONS	4'-0"W x 4'-0"H
711	TACK BOARD	SEE SPECIFICATIONS	SEE SPECIFICATIONS	8'-0"W x 1'-0"H
712	TACK BOARD	SEE SPECIFICATIONS	SEE SPECIFICATIONS	6'-0"W x 1'-0"H
713	TACK BOARD	SEE SPECIFICATIONS	SEE SPECIFICATIONS	4'-0"W x 1'-0"H

GENERAL NOTES TO APPLY TO ALL I4 DRAWINGS

1. 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.
2. ALL BASE CABINETS SHALL RECEIVE A CONTINUOUS 1-1/8" THICK SIMULATED STONE COUNTERTOP WITH A 4" BACKSPASH UNLESS NOTED OTHERWISE. THE DEPTH OF THE COUNTERTOP SHALL EXTEND 3/4" PAST THE DEPTH OF THE BASE CABINET.
3. COUNTERTOPS THAT RETURN INTO A WALL(S) SHALL RECEIVE BACKSPASH THAT WRAPS CORNER ALONG WALL(S).
4. WHERE COLUMNS, WINDOWS OR OTHER BUILDING COMPONENTS CONFLICT WITH CASEWORK DIMENSIONAL REQUIREMENTS, FIELD VERIFY DIMENSIONS AND PROVIDE CUSTOM UNIT TO ALLOW PROPER FITTING.
5. ALL EXPOSED ENDS OF CASEWORK SHALL RECEIVE FINISHED END PANELS.
6. COLOR FOR INTERIOR OF OPEN CABINETS SHALL MATCH EXTERIOR COLOR.
7. ALL VISUAL DISPLAY AREAS (MARKER BOARDS AND/OR TACK BOARDS) 10'-0" OR LONGER SHALL RECEIVE 2"H MAP RAIL THAT SPANS FROM VERTICAL EDGE TO VERTICAL EDGE.
8. PROVIDE WOOD BLOCKING IN METAL STUD WALLS, PER MANUFACTURER'S RECOMMENDATIONS, TO RECEIVE THE SMART BOARD WALL BRACKET.
9. 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.
10. SEE REFLECTED CEILING PLANS FOR LOCATION OF WINDOW TREATMENTS.
11. STAINLESS STEEL SINKS, FAUCETS, AND BUBBLERS SHALL BE PROVIDED AND INSTALLED BY PLUMBING CONTRACTOR.
12. TELEPHONE UNITS AND SYSTEMS ARE NOT IN CONTRACT.
13. COORDINATE ALL LARGE SCALE PLANS WITH MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS.
14. NIC = NOT IN CONTRACT
15. WHEN DESCRIPTION AND MODEL NUMBER IN CASEWORK AND EQUIPMENT SCHEDULE CONFLICT, THE DESCRIPTION TAKES PRECEDENCE.
16. OPP = OPPOSITE HAND.
17. COORDINATE ALL CASEWORK LAYOUTS AND VISUAL DISPLAY LAYOUTS WITH INTERIOR ELEVATIONS. IN INSTANCE WHERE FLOOR PLANE ELEVATIONS DO NOT COINCIDE, FLOOR PLAN LAYOUT TAKES PRECEDENCE.
18. VISUAL DISPLAY BOARD LAYOUT AND DIMENSIONS VARY - VERIFY IN FIELD ALL DIMENSIONS AND LAYOUTS PRIOR TO FABRICATION OR INSTALLATION.
19. CONTRACTOR PROVIDED, CONTRACTOR INSTALLED VISUAL DISPLAY BOARDS SHALL ALL BE VERIFIED IN FIELD, PRIOR TO FABRICATION & INSTALLATION.

SEAL:

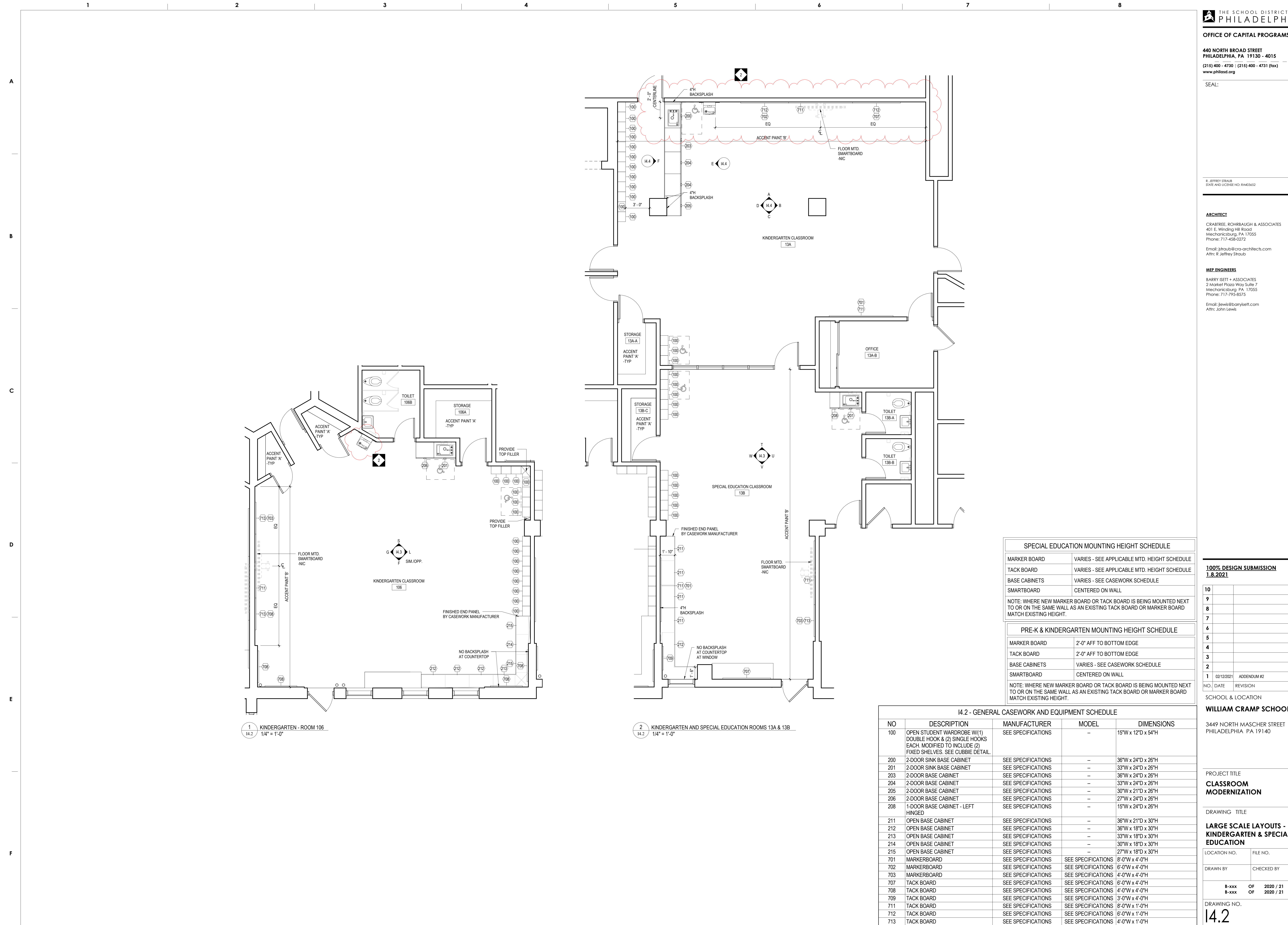
R. JEFFREY STRAUB
STATE AND LICENSE NO: RA03652

ARCHITECT

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Attn: John Lewis



SPECIAL EDUCATION MOUNTING HEIGHT SCHEDULE	
MARKER BOARD	VARIABLES - SEE APPLICABLE MTD. HEIGHT SCHEDULE
TACK BOARD	VARIABLES - SEE APPLICABLE MTD. HEIGHT SCHEDULE
BASE CABINETS	VARIABLES - SEE CASEWORK SCHEDULE
SMARTBOARD	CENTERED ON 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.	

PRE-K & KINDERGARTEN MOUNTING HEIGHT SCHEDULE	
MARKER BOARD	2'-0" AFF TO BOTTOM EDGE
TACK BOARD	2'-0" AFF TO BOTTOM EDGE
BASE CABINETS	VARIABLES - SEE CASEWORK SCHEDULE
SMARTBOARD	CENTERED ON 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.	

I4.2 - 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
200	2-DOOR SINK BASE CABINET	SEE SPECIFICATIONS	--	36"W x 24"D x 26"H
201	2-DOOR SINK BASE CABINET	SEE SPECIFICATIONS	--	33"W x 24"D x 26"H
203	2-DOOR BASE CABINET	SEE SPECIFICATIONS	--	36"W x 24"D x 26"H
204	2-DOOR BASE CABINET	SEE SPECIFICATIONS	--	33"W x 24"D x 26"H
205	2-DOOR BASE CABINET	SEE SPECIFICATIONS	--	30"W x 21"D x 26"H
206	2-DOOR BASE CABINET	SEE SPECIFICATIONS	--	27"W x 24"D x 26"H
208	1-DOOR BASE CABINET - LEFT HINGED	SEE SPECIFICATIONS	--	15"W x 24"D x 26"H
211	OPEN BASE CABINET	SEE SPECIFICATIONS	--	36"W x 21"D x 30"H
212	OPEN BASE CABINET	SEE SPECIFICATIONS	--	36"W x 18"D x 30"H
213	OPEN BASE CABINET	SEE SPECIFICATIONS	--	33"W x 18"D x 30"H
214	OPEN BASE CABINET	SEE SPECIFICATIONS	--	30"W x 18"D x 30"H
215	OPEN BASE CABINET	SEE SPECIFICATIONS	--	27"W x 18"D x 30"H
701	MARKERBOARD	SEE SPECIFICATIONS	SEE SPECIFICATIONS	8'-0"W x 4'-0"H
702	MARKERBOARD	SEE SPECIFICATIONS	SEE SPECIFICATIONS	6'-0"W x 4'-0"H
703	MARKERBOARD	SEE SPECIFICATIONS	SEE SPECIFICATIONS	4'-0"W x 4'-0"H
707	TACK BOARD	SEE SPECIFICATIONS	SEE SPECIFICATIONS	6'-0"W x 4'-0"H
708	TACK BOARD	SEE SPECIFICATIONS	SEE SPECIFICATIONS	4'-0"W x 4'-0"H
709	TACK BOARD	SEE SPECIFICATIONS	SEE SPECIFICATIONS	3'-0"W x 4'-0"H
711	TACK BOARD	SEE SPECIFICATIONS	SEE SPECIFICATIONS	8'-0"W x 1'-0"H
712	TACK BOARD	SEE SPECIFICATIONS	SEE SPECIFICATIONS	6'-0"W x 1'-0"H
713	TACK BOARD	SEE SPECIFICATIONS	SEE SPECIFICATIONS	4'-0"W x 1'-0"H

100% DESIGN SUBMISSION
1.8.2021

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NO.	DATE	REVISION
1	02/12/2021	ADDENDUM #2

SCHOOL & LOCATION

WILLIAM CRAMP SCHOOL
3449 NORTH MASCHER STREET
PHILADELPHIA, PA 19140

PROJECT TITLE
CLASSROOM MODERNIZATION

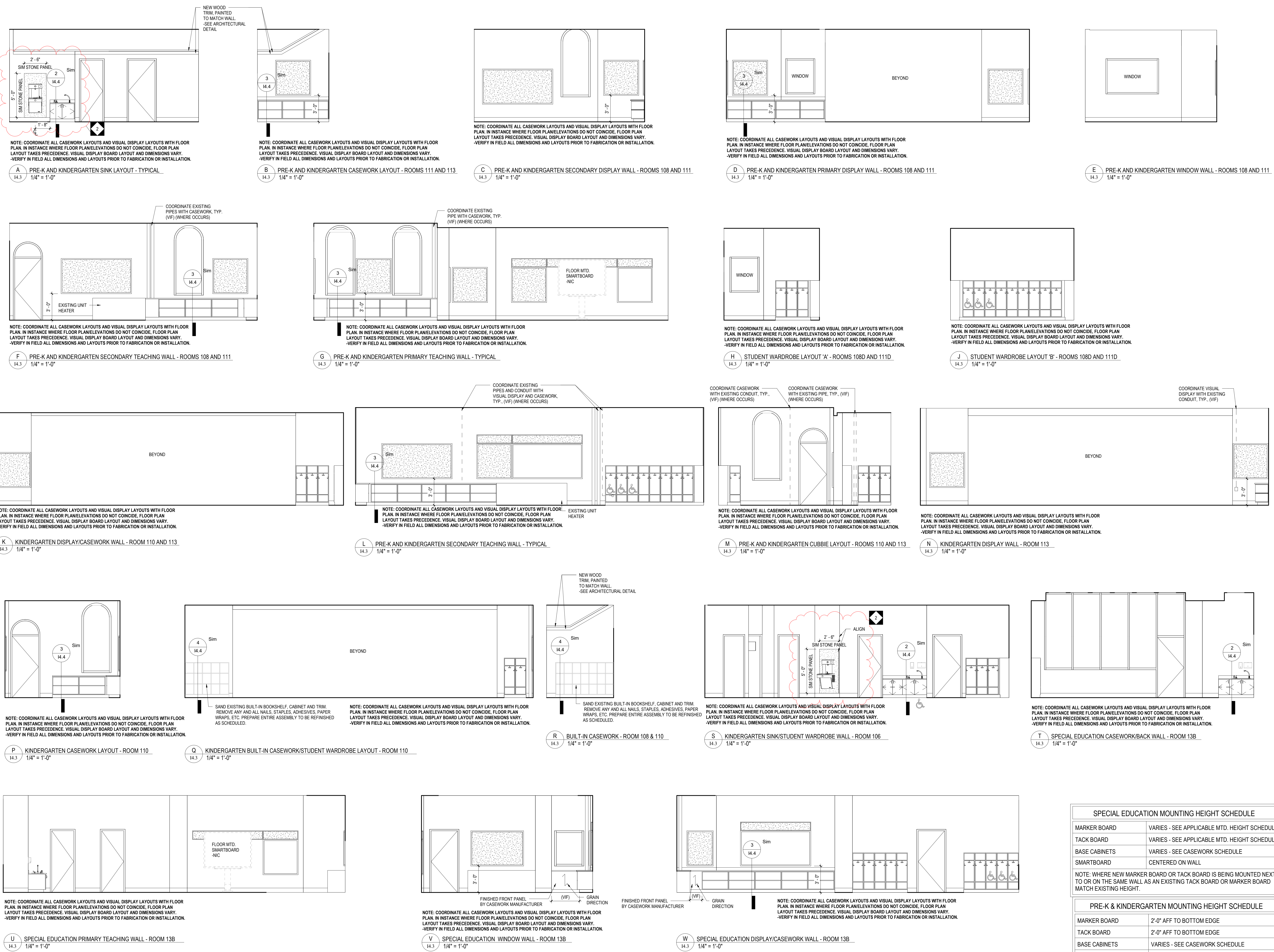
DRAWING TITLE
LARGE SCALE LAYOUTS - KINDERGARTEN & SPECIAL EDUCATION

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SCHOOL & LOCATION

WILLIAM CRAMP SCHOOL

3449 NORTH MASCHER STREET
PHILADELPHIA PA 19140

PROJECT TITLE
CLASSROOM MODERNIZATION

DRAWING TITLE

INTERIOR ELEVATIONS - PRE-K, KINDER & SPECIAL EDUCATION

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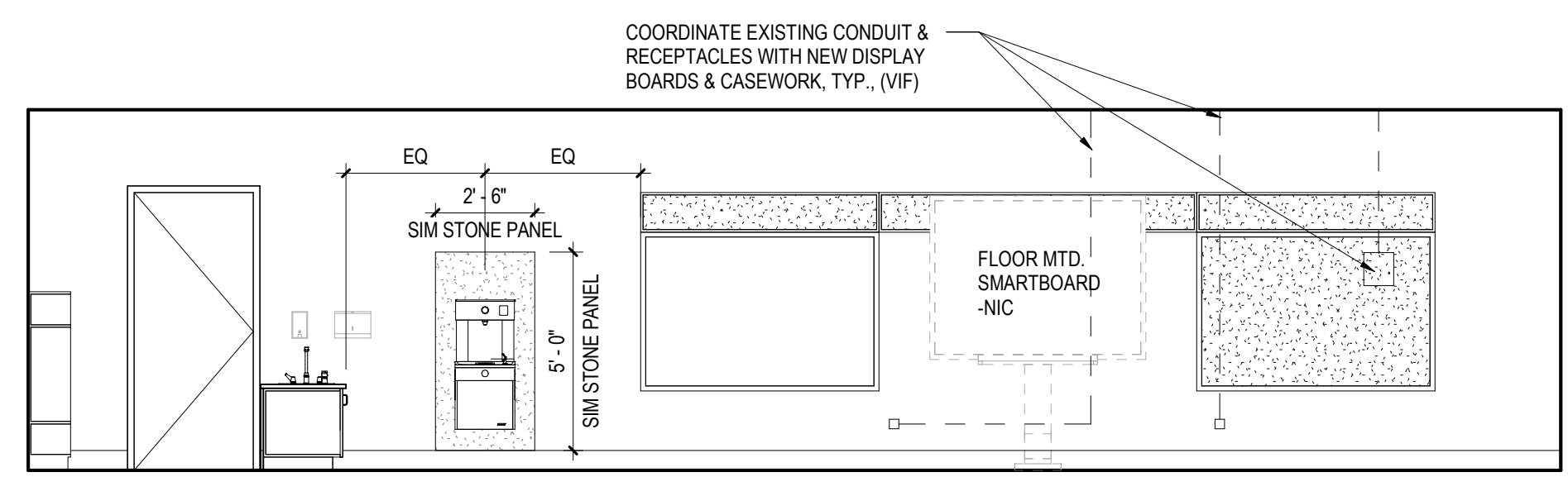
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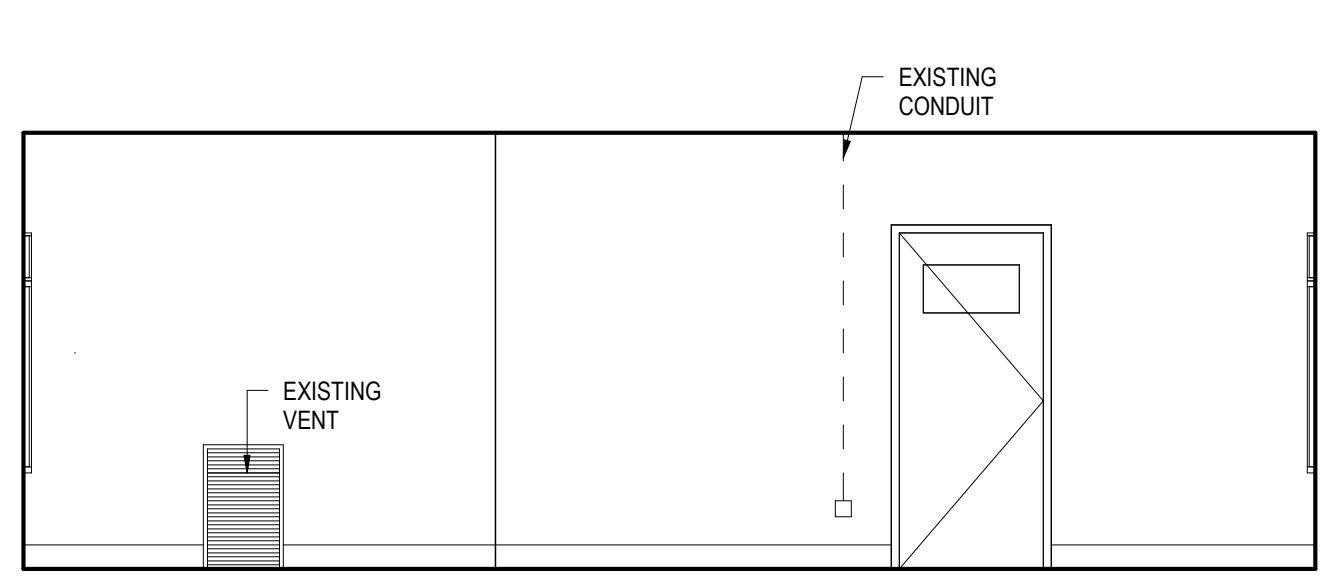
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SPECIAL EDUCATION MOUNTING HEIGHT SCHEDULE	
MARKER BOARD	VARIES - SEE APPLICABLE MTD. HEIGHT SCHEDULE
TACK BOARD	VARIES - SEE APPLICABLE MTD. HEIGHT SCHEDULE
BASE CABINETS	VARIES - SEE CASEWORK SCHEDULE
SMARTBOARD	CENTERED ON WALL
NOTE: WHERE NEW MARKER 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.	

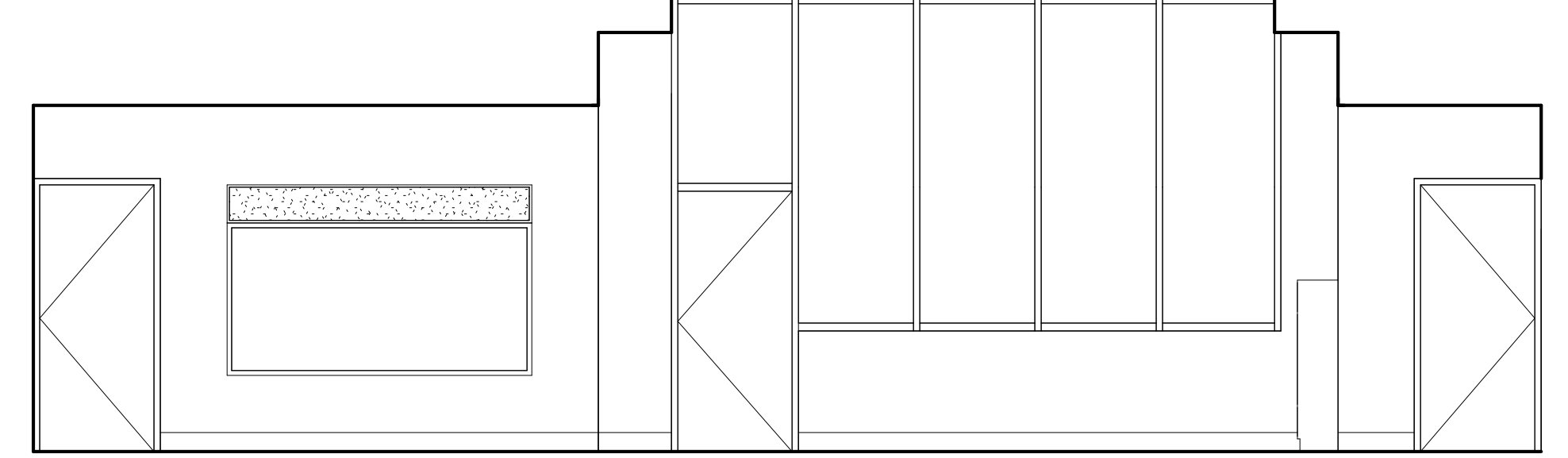
PRE-K & KINDERGARTEN MOUNTING HEIGHT SCHEDULE	
MARKER BOARD	2'-0" AFF TO BOTTOM EDGE
TACK BOARD	2'-0" AFF TO BOTTOM EDGE
BASE CABINETS	VARIES - SEE CASEWORK SCHEDULE
SMARTBOARD	CENTERED ON WALL
NOTE: WHERE NEW MARKER BOARD OR TACK BOARD IS BEING MOUNTED NEXT TO OR ON THE SAME WALL AS AN EXISTING TACK BOARD OR MARKER BOARD MATCH EXISTING HEIGHT.	



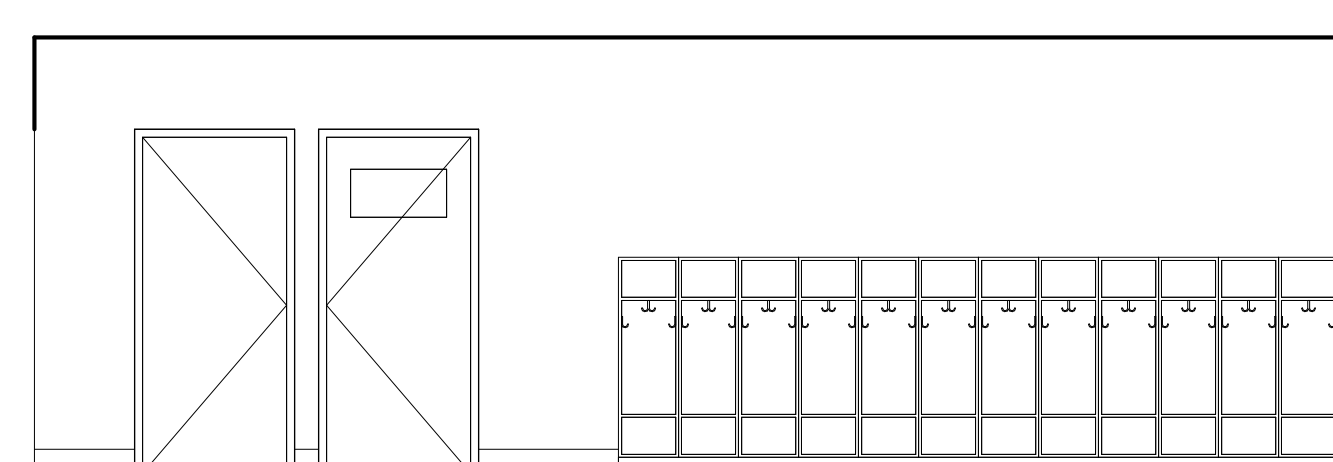
A KINDERGARTEN PRIMARY TEACHING WALL - ROOM 13A
14.4 1/4" = 1'-0"



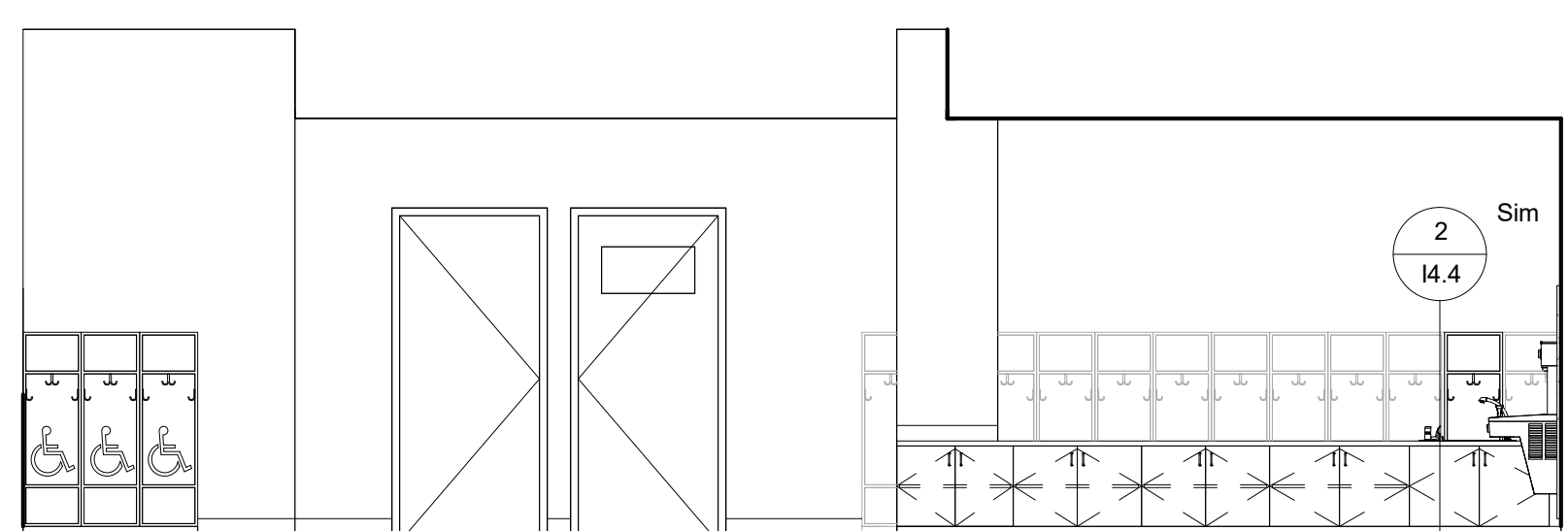
B KINDERGARTEN WALL - ROOM 13A
14.4 1/4" = 1'-0"



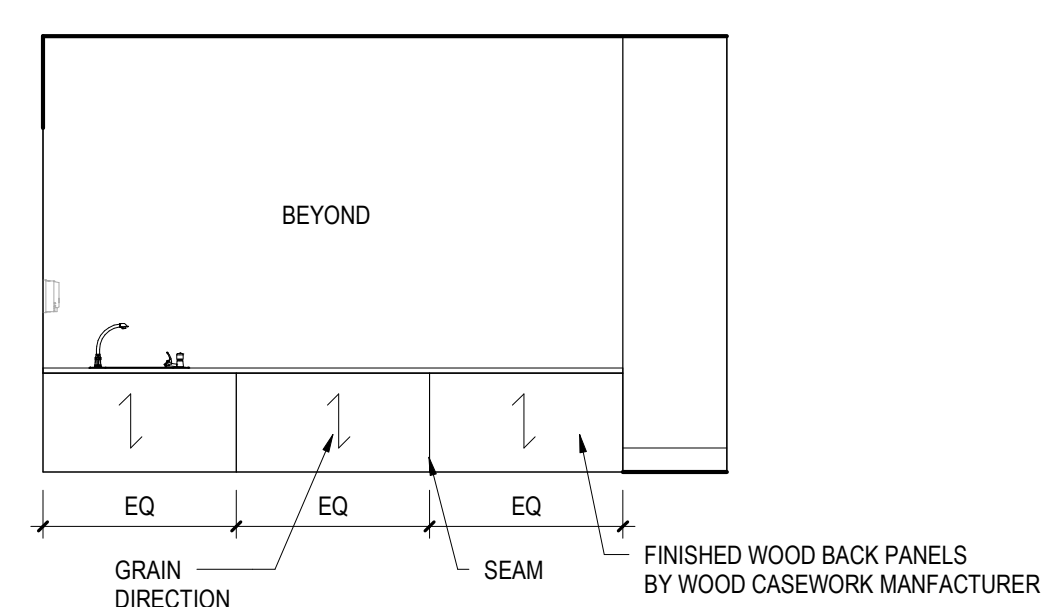
C KINDERGARTEN SECONDARY TEACHING WALL - ROOM 13A
14.4 1/4" = 1'-0"



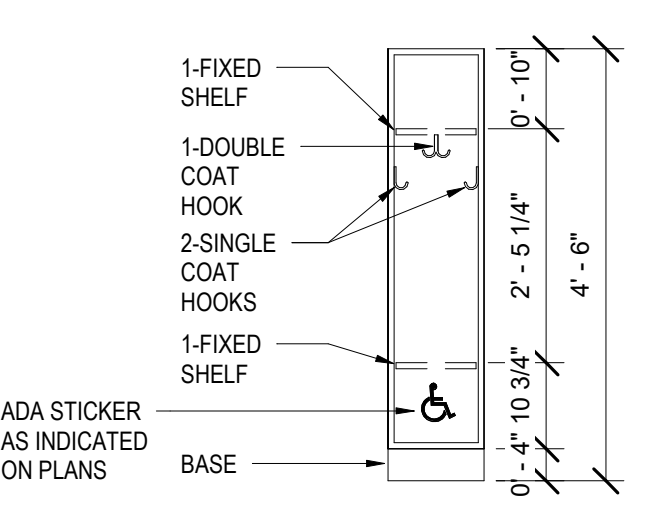
D KINDERGARTEN STUDENT WARDROBE WALL - ROOM 13A
14.4 1/4" = 1'-0"



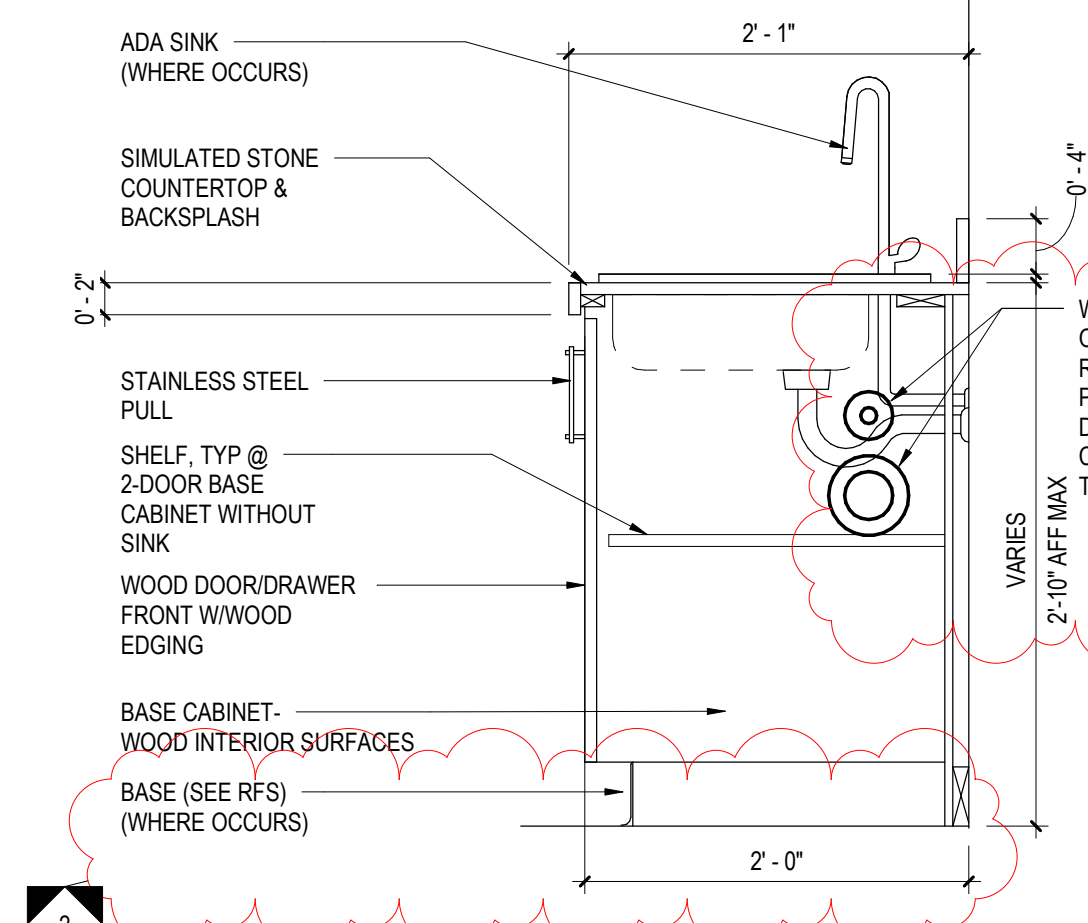
E KINDERGARTEN CASEWORK/ STUDENT WARDROBE WALL - ROOM 13A
14.4 1/4" = 1'-0"



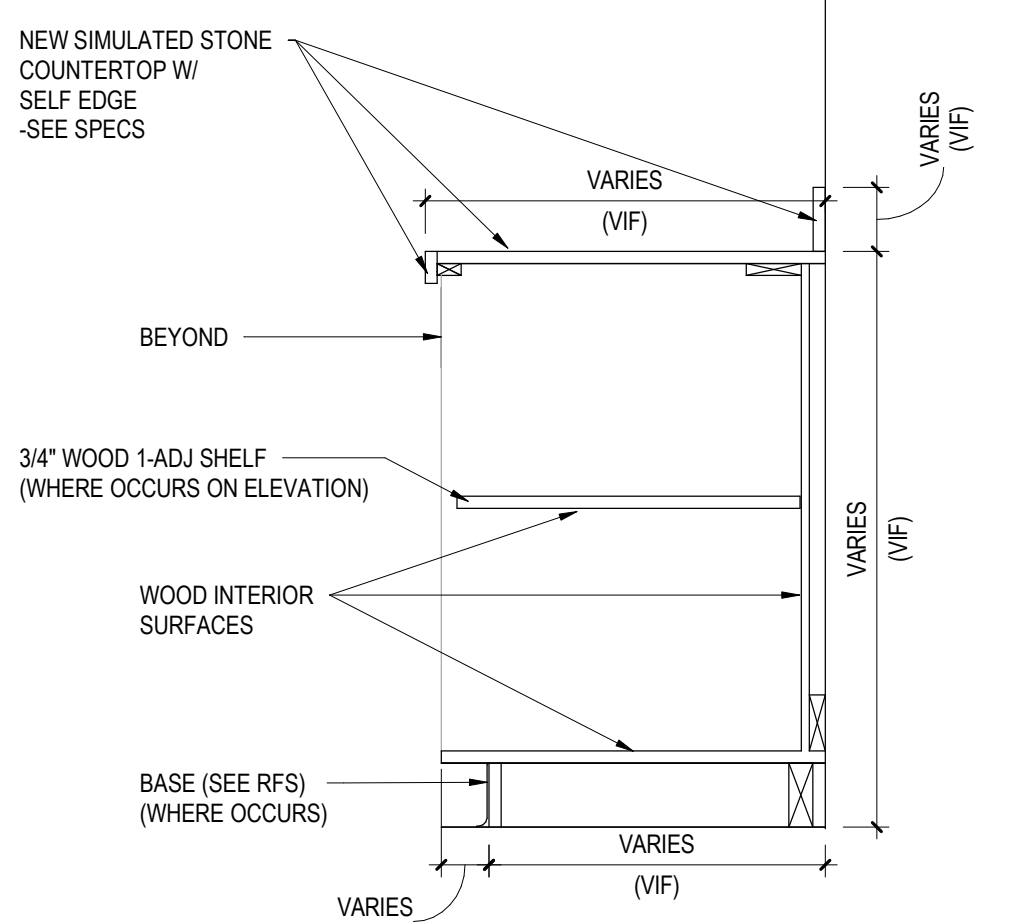
F CASEWORK PANEL ELEVATION - ROOM 13A
14.4 1/4" = 1'-0"



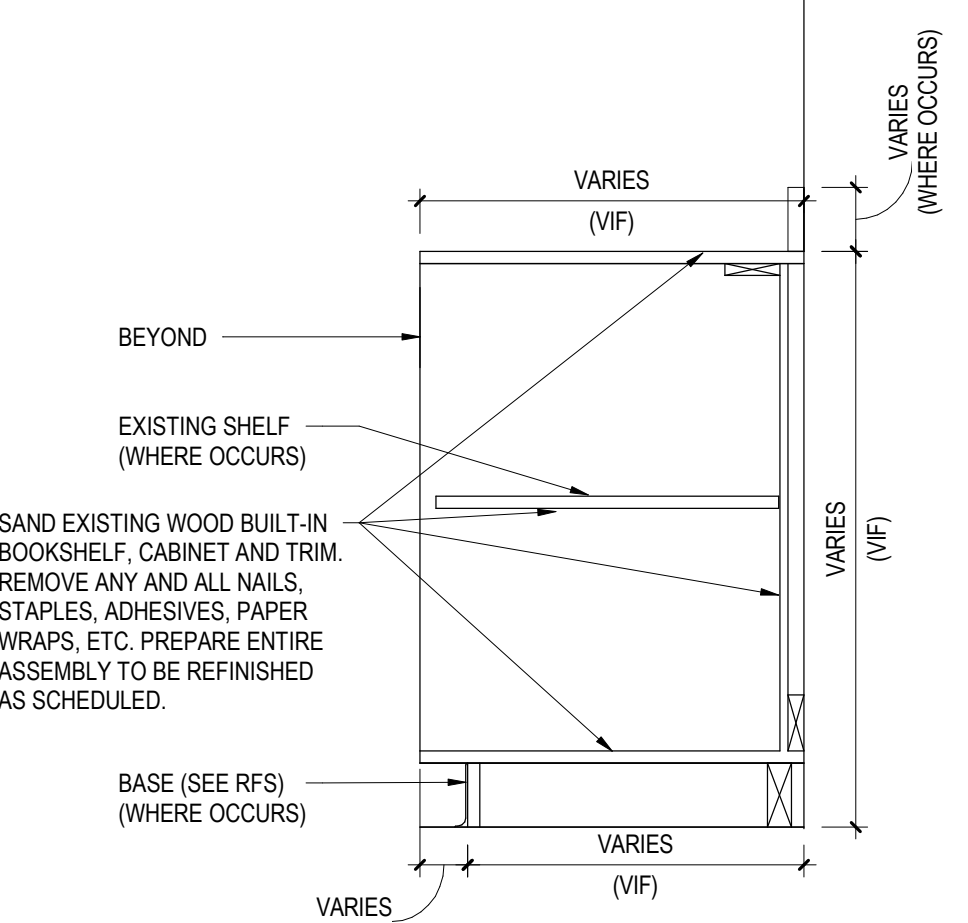
1 STUDENT WARDROBE ELEVATION - TYPICAL
14.4 1/2" = 1'-0"



2 NEW WOOD ADA SINK BASE DETAIL
14.4 1" = 1'-0"



3 NEW WOOD OPEN BASE CABINET DETAIL
14.4 1" = 1'-0"



4 EXISTING WOOD OPEN BASE CABINET DETAIL
14.4 1" = 1'-0"

100% DESIGN SUBMISSION
1.8.2021

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1	02/12/2021	ADDENDUM #2
NO.	DATE	REVISION

SCHOOL & LOCATION
WILLIAM CRAMP SCHOOL

3449 NORTH MASCHER STREET
PHILADELPHIA PA 19140

SPECIAL EDUCATION MOUNTING HEIGHT SCHEDULE	
MARKER BOARD	VARIABLES - SEE APPLICABLE MTD. HEIGHT SCHEDULE
TACK BOARD	VARIABLES - SEE APPLICABLE MTD. HEIGHT SCHEDULE
BASE CABINETS	VARIABLES - SEE CASEWORK SCHEDULE
SMARTBOARD	CENTERED ON 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.	

PRE-K & KINDERGARTEN MOUNTING HEIGHT SCHEDULE	
MARKER BOARD	2'-0" AFF TO BOTTOM EDGE
TACK BOARD	2'-0" AFF TO BOTTOM EDGE
BASE CABINETS	VARIABLES - SEE CASEWORK SCHEDULE
SMARTBOARD	CENTERED ON 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.	

PROJECT TITLE
CLASSROOM MODERNIZATION

DRAWING TITLE
INTERIOR ELEVATIONS & DETAILS - PRE-K, KINDER & SPECIAL EDUCATION

LOCATION NO.	FILE NO.
DRAWN BY	CHECKED BY

B-xxx	OF	2020 / 21
B-xxx	OF	2020 / 21

DRAWING NO.
14.4

SEAL:

R. JEFFREY STRAUB
STATE AND LICENSE NO: RA03652

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MEP ENGINEERS

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Attn: John Lewis

**100% DESIGN SUBMISSION
1.8.2021**

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SCHOOL & LOCATION

WILLIAM CRAMP SCHOOL

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PHILADELPHIA PA 19140

PROJECT TITLE

**CLASSROOM
MODERNIZATION**

DRAWING TITLE

**LARGE SCALE LAYOUTS &
ELEVATIONS - FIRST GRADE**

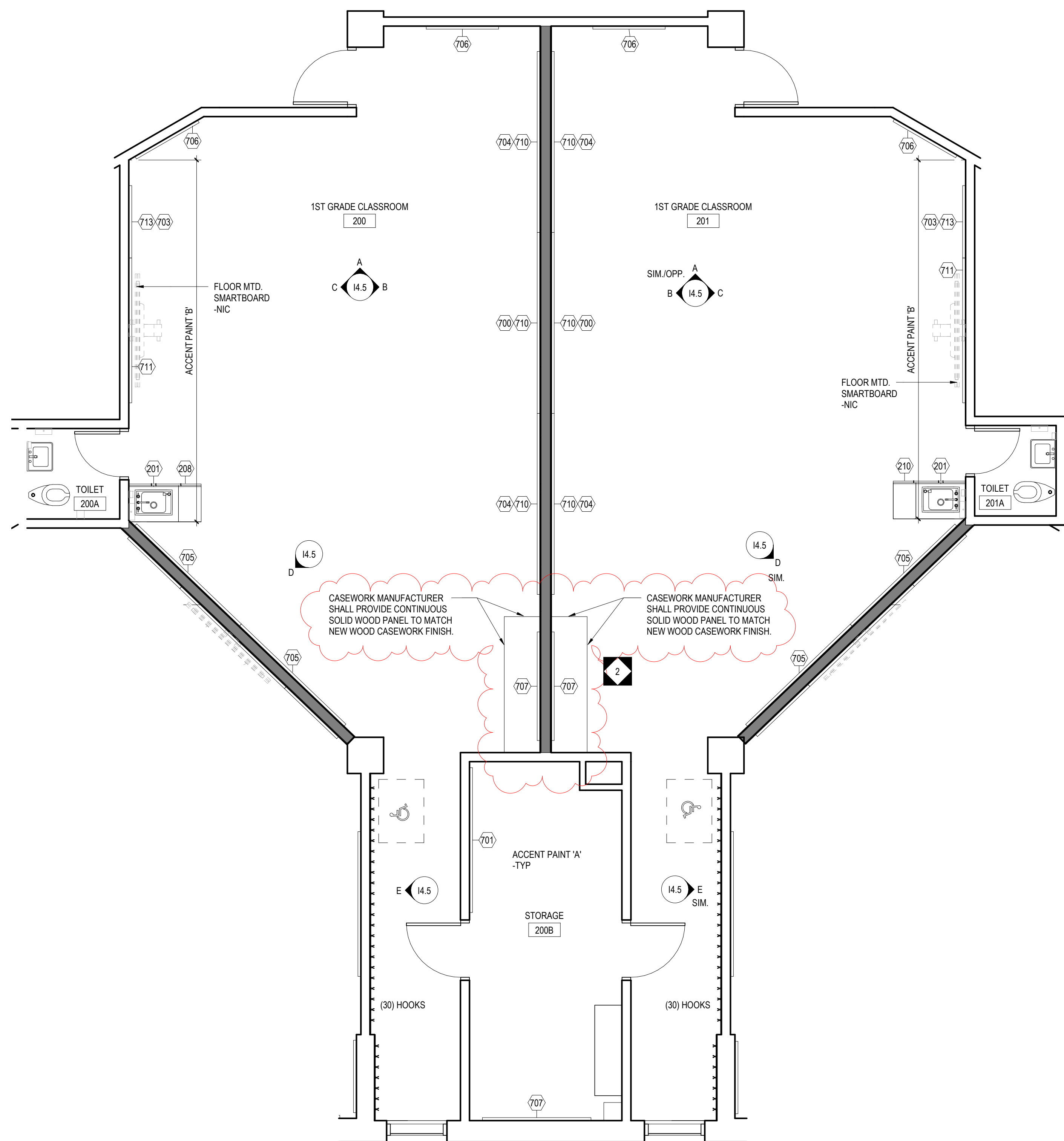
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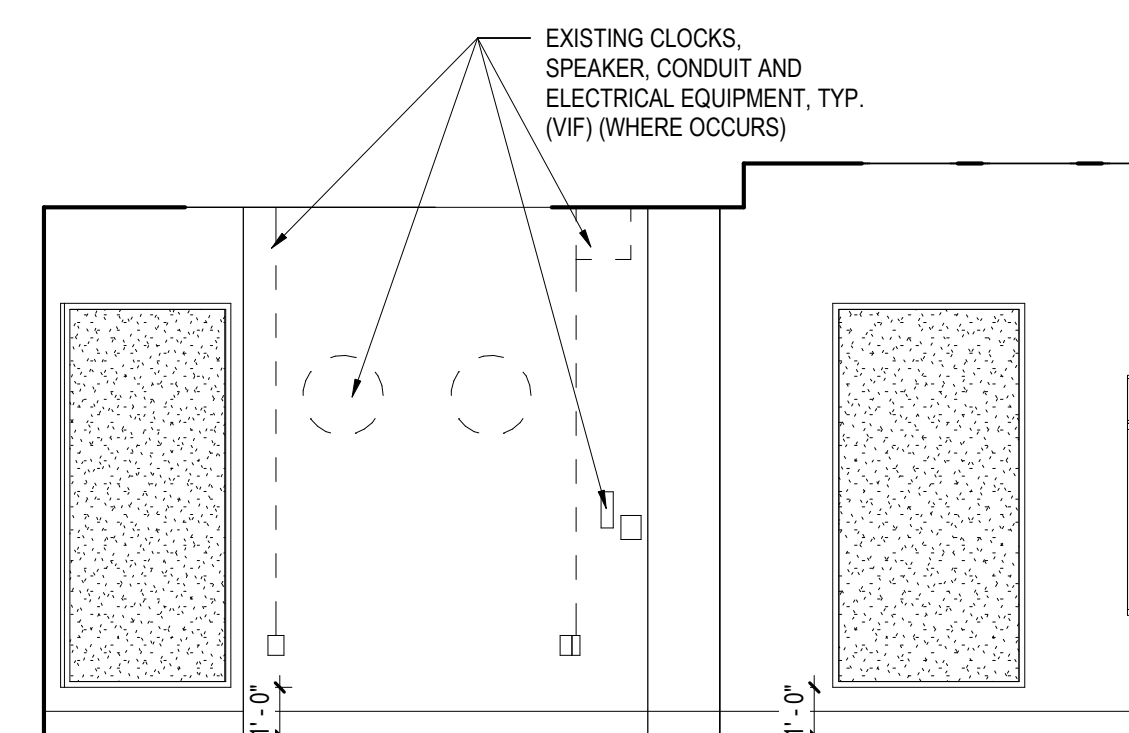
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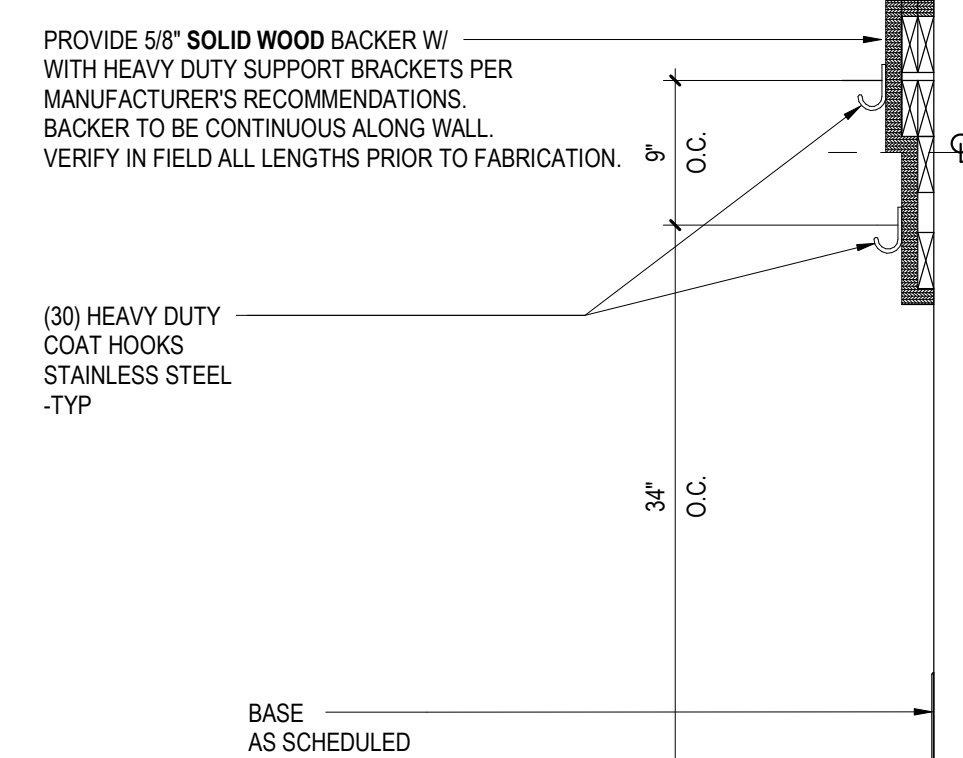


1 FIRST GRADE - ROOMS 200 AND 201
1/4" = 1'-0"

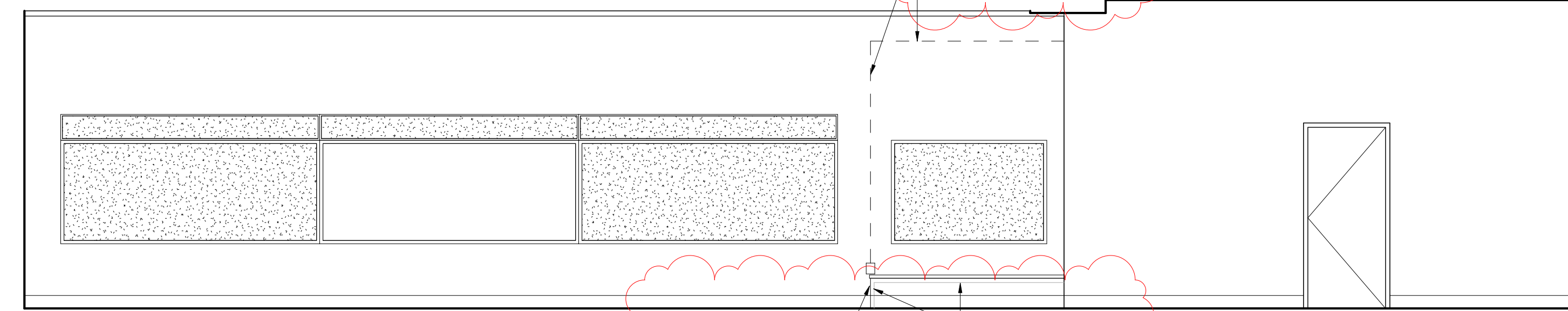


NOTE: COORDINATE ALL CASEWORK LAYOUTS AND VISUAL DISPLAY LAYOUTS WITH FLOOR PLAN. IN INSTANCE WHERE FLOOR PLANELEVATIONS DO NOT COINCIDE, FLOOR PLAN LAYOUT TAKES PRECEDENCE. VISUAL DISPLAY BOARD LAYOUT AND DIMENSIONS VARY. -VERIFY IN FIELD ALL DIMENSIONS AND LAYOUTS PRIOR TO FABRICATION OR INSTALLATION.

A FIRST GRADE SECONDARY DISPLAY WALL - TYPICAL
1/4" = 1'-0"

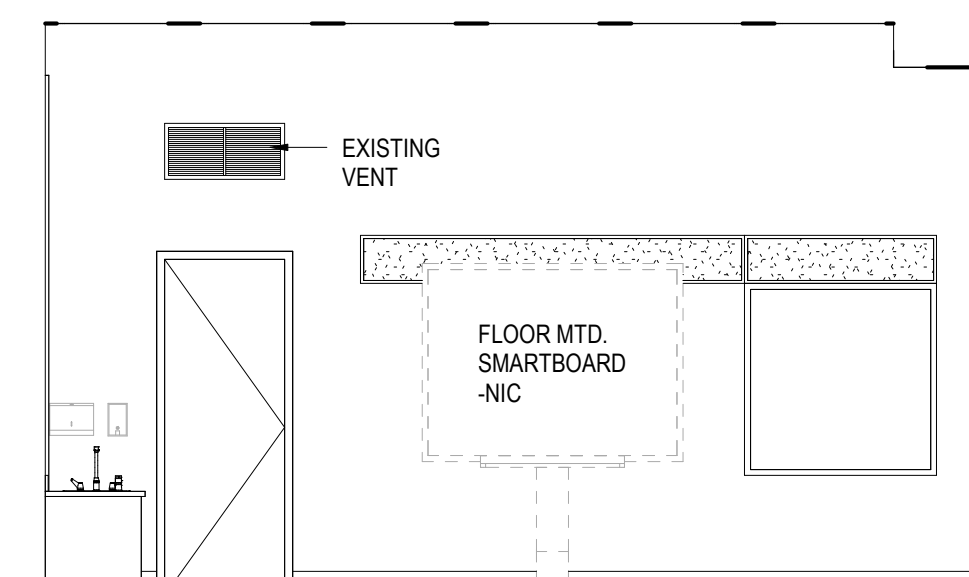


2 NEW COAT HOOK LAYOUT - DETAIL
1" = 1'-0"



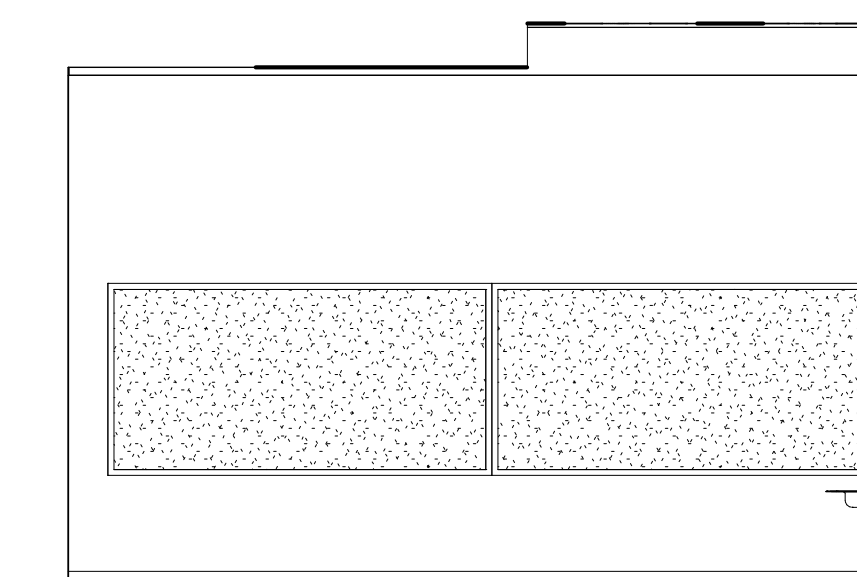
NOTE: COORDINATE ALL CASEWORK LAYOUTS AND VISUAL DISPLAY LAYOUTS WITH FLOOR PLAN. IN INSTANCE WHERE FLOOR PLANELEVATIONS DO NOT COINCIDE, FLOOR PLAN LAYOUT TAKES PRECEDENCE. VISUAL DISPLAY BOARD LAYOUT AND DIMENSIONS VARY. -VERIFY IN FIELD ALL DIMENSIONS AND LAYOUTS PRIOR TO FABRICATION OR INSTALLATION.

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



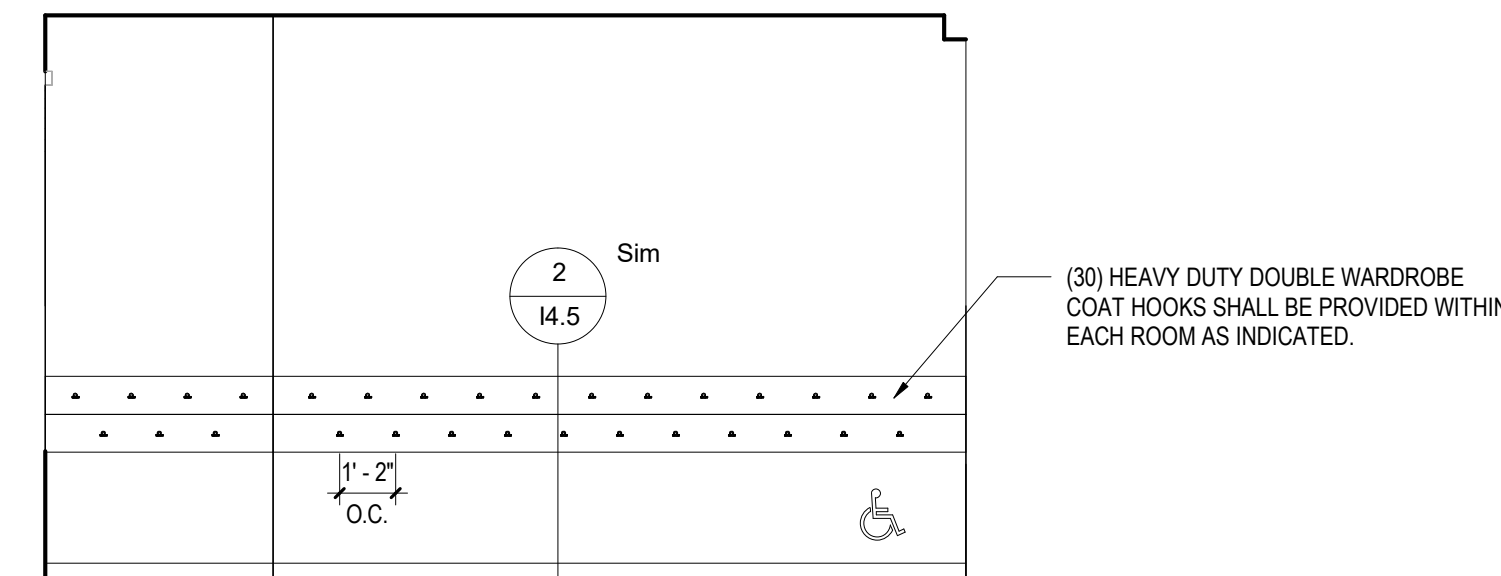
NOTE: COORDINATE ALL CASEWORK LAYOUTS AND VISUAL DISPLAY LAYOUTS WITH FLOOR PLAN. IN INSTANCE WHERE FLOOR PLANELEVATIONS DO NOT COINCIDE, FLOOR PLAN LAYOUT TAKES PRECEDENCE. VISUAL DISPLAY BOARD LAYOUT AND DIMENSIONS VARY. -VERIFY IN FIELD ALL DIMENSIONS AND LAYOUTS PRIOR TO FABRICATION OR INSTALLATION.

C FIRST GRADE PRIMARY TEACHING WALL - ROOM 200
1/4" = 1'-0"



NOTE: COORDINATE ALL CASEWORK LAYOUTS AND VISUAL DISPLAY LAYOUTS WITH FLOOR PLAN. IN INSTANCE WHERE FLOOR PLANELEVATIONS 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.

D FIRST GRADE PRIMARY DISPLAY WALL - TYPICAL
1/4" = 1'-0"



NOTE: COORDINATE ALL CASEWORK LAYOUTS AND VISUAL DISPLAY LAYOUTS WITH FLOOR PLAN. IN INSTANCE WHERE FLOOR PLANELEVATIONS 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.

E COAT HOOK LAYOUT - TYPICAL
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
BASE CABINETS	2'-6" AFF TO TOP OF CABINET
SMARTBOARD	CENTERED ON WALL

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.

14.5 - GENERAL CASEWORK AND EQUIPMENT SCHEDULE				
NO	DESCRIPTION	MANUFACTURER	MODEL	DIMENSIONS
201	2-DOOR SINK BASE CABINET	SEE SPECIFICATIONS	--	33"W x 24"D x 28"H
208	1-DOOR BASE CABINET - LEFT HINGED	SEE SPECIFICATIONS	--	15"W x 24"D x 28"H
210	1-DOOR BASE CABINET - RIGHT HINGED	SEE SPECIFICATIONS	--	15"W x 24"D x 28"H
700	MARKERBOARD	SEE SPECIFICATIONS	SEE SPECIFICATIONS	10'-0"W x 4'-0"H
701	MARKERBOARD	SEE SPECIFICATIONS	SEE SPECIFICATIONS	8'-0"W x 4'-0"H
703	MARKERBOARD	SEE SPECIFICATIONS	SEE SPECIFICATIONS	4'-0"W x 4'-0"H
704	TACK BOARD	SEE SPECIFICATIONS	SEE SPECIFICATIONS	10'-0"W x 4'-0"H
705	TACK BOARD	SEE SPECIFICATIONS	SEE SPECIFICATIONS	8'-0"W x 4'-0"H
706	TACK BOARD	SEE SPECIFICATIONS	SEE SPECIFICATIONS	4'-0"W x 8'-0"H
707	TACK BOARD	SEE SPECIFICATIONS	SEE SPECIFICATIONS	6'-0"W x 4'-0"H
710	TACK BOARD	SEE SPECIFICATIONS	SEE SPECIFICATIONS	10'-0"W x 1'-0"H
711	TACK BOARD	SEE SPECIFICATIONS	SEE SPECIFICATIONS	8'-0"W x 1'-0"H
713	TACK BOARD	SEE SPECIFICATIONS	SEE SPECIFICATIONS	4'-0"W x 1'-0"H

SEAL:



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GENERAL NOTES

- 1. CONTRACT DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE RELATION OF PIPING, DUCTWORK, CONNECTIONS, AND EQUIPMENT. THE DRAWINGS DO NOT INDICATE ALL OFFSETS, ELBOWS, AND FITTINGS THAT MAY BE REQUIRED. THEREFORE, THE CONTRACTOR SHALL CAREFULLY INVESTIGATE THE STRUCTURAL AND FINISH CONDITIONS AFFECTING THE WORK AND ACTUAL EQUIPMENT PROVIDED. THE CONTRACTOR SHALL FURNISH ALL OFFSETS, ELBOWS, FITTINGS, HANGERS, AND ACCESSORIES AS MAY BE REQUIRED TO MEET THESE CONDITIONS AT NO ADDITIONAL COST TO THE OWNER. 2. INSTALL ALL EQUIPMENT AND MATERIALS IN STRICT ACCORDANCE WITH THE CURRENTLY ADOPTED INTERNATIONAL MECHANICAL CODE, ALL PERTINENT CODES, LAWS, ORDINANCES, REGULATIONS, AND RESPECTIVE MANUFACTURER'S WRITTEN INSTRUCTIONS. 3. ALL DUCTWORK SHALL BE CONSTRUCTED AND INSTALLED IN STRICT ACCORDANCE WITH SMACNA AND ASHRAE STANDARDS. 4. COORDINATE HVAC WORK WITH THE WORK OF ALL OTHER CONTRACTORS AND OWNER. 5. THE HVAC CONTRACTOR SHALL ARRANGE THE PROGRESS OF HIS WORK SO AS TO CONFORM TO THE PROGRESS OF THE TRADES AND SHALL COMPLETE THE ENTIRE INSTALLATION AS SOON AS THE CONDITION OF THE PROJECT WILL PERMIT. 6. ALL ITEMS OF LABOR, MATERIAL AND EQUIPMENT NOT SPECIFICALLY DESCRIBED HEREIN NOR DETAILED ON THE DRAWINGS BUT INCIDENTAL TO OR NECESSARY FOR THE COMPLETION OF THE WORK, SHALL BE CONSIDERED AS INCLUDED WITHOUT EXTRA COST. 7. COORDINATE EXACT LOCATIONS OF DIFFUSERS/DUCTWORK WITH LIGHTS, SPRINKLERS, AND CEILING WITH REFLECTED CEILING PLAN AND ARCHITECT. 8. PROVIDE INDIVIDUAL VOLUME DAMPERS FOR BALANCING ON ALL SUPPLY, RETURN, RELIEF, AND EXHAUST MAIN BRANCH AND BRANCH TAKE-OFFS. LOCATE VOLUME DAMPER AS CLOSE AS POSSIBLE TO TAKE OFF POINTS. PROVIDE CABLE CONTROL VOLUME DAMPERS FOR ALL INACCESSIBLE CEILINGS. 9. THE CONTRACTOR SHALL PROVIDE ADEQUATE CLEARANCE FOR ALL UNIT CONTROLS. 10. PROVIDE THREE TIMES DUCT DIAMETER STRAIGHT RUN AT THE INLET OF ALL FPVAV, VAV, AND CAV BOXES. 11. MOUNT ALL SPACE SENSING DEVICES AT 48" AFF. COORDINATE ALL LOCATIONS WITH ARCHITECT PRIOR TO ROUGH-IN AND INSTALLATION. 12. PROVIDE PROTECTION FOR ALL PENETRATIONS OF FIRE RESISTANCE RATED ASSEMBLIES IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENTLY ADOPTED INTERNATIONAL BUILDING CODE. 13. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR CEILING TYPES. PROVIDE APPROPRIATE FRAMES AND MOUNTING HARDWARE FOR ALL AIR DEVICES. MECHANICAL CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL MOUNTING DETAILS AND REQUIREMENTS WITH CEILING CONTRACTOR. 14. ROUTE EQUIPMENT DRAIN PIPING TO FLOOR DRAINS TO PREVENT TRIPPING HAZARDS. DO NOT INSTALL PIPING ON FLOOR IN ANY EQUIPMENT ACCESS AISLES. 15. PROVIDE DOUBLE WALL INSULATED ACCESS DOORS IN ALL INSULATED DUCTWORK AND SINGLE WALL ACCESS DOORS IN UNINSULATED DUCTWORK FOR FIRE DAMPER, SMOKE DAMPER, AND REHEAT COIL INSPECTION AND SERVICE. 16. NO PIPING OR DUCTWORK FOREIGN TO ELECTRICAL, DATA, OR ELEVATOR MACHINE ROOMS IS PERMITTED TO BE INSTALLED IN THESE SPACES. 17. ALL INDOOR FLOOR MOUNTED MECHANICAL EQUIPMENT SHALL BE MOUNTED ON 4" MINIMUM HOUSEKEEPING PAD. 18. PROVIDED ALL PIPING, VALVING & EQUIPMENT SHOWN ON FLOW DIAGRAMS AND DETAILS EVEN IF NOT SHOWN ON FLOOR PLANS. 19. PROVIDE PIPING TO ALL EQUIPMENT REQUIRING WATER SERVICE AND DUCTWORK TO EVERY AIR DEVICE EVEN IF NOT SHOWN ON FLOOR PLANS. 20. ALL PIPING AND DUCTWORK TO BE CONCEALED IN CEILINGS AND WALLS, EXCEPT IN MECHANICAL ROOMS, SPACES WITHOUT CEILINGS, OR WHERE NOTED OTHERWISE. 21. PROVIDE FIRE DAMPERS AND SMOKE DAMPERS AS INDICATED ON FLOOR PLANS, AND WHERE REQUIRED BY APPLICABLE CODES AT RATED CONSTRUCTION. 22. (DELETED) 23. (DELETED) 24. WHERE PLENUM RETURN AIR SYSTEM ARE USED, PROVIDE ONLY MATERIALS IN THE CEILING THAT ARE APPROVED FOR AIR PLENUM USE. 25. PROVIDE ACCESS PANELS FOR ALL VALVES AND DAMPERS ABOVE INACCESSIBLE CEILINGS. ACCESS PANEL TO BE A MINIMUM OF 12"x12". COORDINATE FINAL LOCATION WITH REFLECTED CEILING PLAN. 26. HVAC CONTRACTOR TO PROVIDE ALL CUTTING AND PATCHING IN EXISTING BUILDING. HVAC CONTRACTOR TO PROVIDE NEW LINTELS AT WALL PENETRATIONS; REFER TO STRUCTURAL DRAWINGS FOR LINTEL SPECIFICATIONS AND SIZES. 27. HVAC CONTRACTOR TO PROVIDE WOOD BLOCKING FOR ALL ROOF CURBS IN BOTH EXISTING AND NEW CONSTRUCTION; COORDINATE WITH GC. 28. HVAC CONTRACTOR TO PROVIDE HOUSEKEEPING PADS FOR ALL EQUIPMENT. 29. THE EXISTING CONDITIONS ON THESE DRAWINGS ARE FROM HISTORICAL DOCUMENTS. CHECK AND VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS AT THE SITE PRIOR TO COMMENCING WORK. WHERE DISCREPANCY EXISTS, NOTIFY ENGINEER IN WRITING. 30. CONTRACTOR SHALL UNCONDITIONALLY GUARANTEE IN WRITING ALL MATERIALS, EQUIPMENT, AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM THE DATE OF ACCEPTANCE BY OWNER. 31. THE MECHANICAL CONTRACTOR SHALL SUBMIT TO THE ARCHITECT/ENGINEER AS-BUILT DRAWINGS AND OPERATION AND MAINTENANCE MANUALS INCLUDING ALL NAMEPLATE DATA, WIRING DIAGRAMS, MAINTENANCE INSTRUCTIONS, AND PARTS LIST UPON PROJECT COMPLETION. 32. MAINTAIN A CLEAN AND SAFE WORK AREA AT ALL TIMES. ALL SAFETY PROCEDURES AND ENFORCEMENT IS THE RESPONSIBILITY OF THE CONTRACTOR; CONFORM TO ALL OSHA STANDARDS.

MECHANICAL DRAWING LIST table with columns: TAG, MECHANICAL INFORMATION SHEET, FIRST FLOOR PLAN - MECHANICAL DUCT, SECOND FLOOR PLAN - MECHANICAL DUCT, FIRST FLOOR PLAN - MECHANICAL PIPING, SECOND FLOOR PLAN - MECHANICAL PIPING, FIRST FLOOR PLAN - DEMOLITION - MECHANICAL, SECOND FLOOR PLAN - DEMOLITION - MECHANICAL.

PIPING SYMBOLS

Table with columns: SYMBOL, DESCRIPTION. Lists symbols for SHUT-OFF VALVE, GLOBE VALVE, CHECK VALVE, FLOW SETTER, ANGLE GATE VALVE, RELIEF OR SAFETY VALVE, SOLENOID VALVE, THERMAL EXPANSION VALVE, BACK PRESSURE VALVE, BUTTERFLY VALVE, 2-WAY CONTROL VALVE, 3-WAY CONTROL VALVE, PRESSURE REDUCING VALVE, UNION, STRAINER W/BLOW-OFF & CAP, FLOW SENSOR, SIGHT GLASS, PIPE GUIDE, PIPE ANCHOR, FLEXIBLE CONNECTOR, EXPANSION JOINT, THERMOMETER, PRESSURE GAUGE W/COCK, AUTOMATIC AIR VENT, MANUAL AIR VENT, ORIFICE PLATE, FLOAT AND THERMOSTATIC TRAP, DIRECTION OF FLOW, DIRECTION OF SLOPE, CONCENTRIC REDUCER, ECCENTRIC REDUCER, PIPE UP, PIPE DOWN, PIPE THROUGH, TOP TAKE-OFF, BUCKET TRAP, END OF MAIN DRIP, EXISTING TO REMAIN, NEW WORK, BOILER BLOWDOWN - CONTINUOUS, BOILER FEED WATER, COMPRESSED AIR, CHEMICAL FEED, CHILLED WATER SUPPLY, CHILLED WATER RETURN, CONDENSER WATER RETURN, CONDENSER WATER SUPPLY, CONDENSATE DRAIN OR DRAIN, FUEL OIL RETURN, FUEL OIL SUPPLY, FUEL OIL TANK VENT, HOT GAS, HIGH PRESSURE CONDENSATE RETURN, HIGH PRESSURE STEAM SUPPLY, HEATING RETURN, HEATING SUPPLY, LOW PRESSURE CLEAN STEAM, LOW PRESSURE CONDENSATE RETURN, LOW PRESSURE STEAM SUPPLY, MEDIUM PRESSURE CONDENSATE RETURN, MEDIUM PRESSURE STEAM SUPPLY, MAKE UP WATER, PUMPED CONDENSATE RETURN, REFRIGERANT LIQUID, REFRIGERANT SUCTION, VENT LINE.

DUCTWORK SYMBOLS

Table with columns: DOUBLE LINE, DESCRIPTION, SINGLE LINE. Lists symbols for EXISTING TO REMAIN, EXISTING TO BE REMOVED, NEW WORK, SUPPLY AIR UP, SUPPLY AIR DOWN, EXHAUST OR RETURN AIR UP, EXHAUST OR RETURN AIR DOWN, ROUND DUCT UP, ROUND DUCT DOWN, RECTANGULAR DUCT SIZE SHOWN IN INCHES (FIRST FIGURE-SIDE SHOWN), FLAT OVAL DUCT SIZE (FIRST FIGURE-SIDE SHOWN), DIRECTION OF FLOW, DUCT INCLINED RISE OR DROP IN DIRECTION OF FLOW, 90° ELBOW WITH TURNING VANES, 45° ELBOW (NO VANES), SUPPLY OR RETURN BRANCH CONNECTION, SUPPLY BRANCH WITH SPIN COLLAR CONNECTION, LATERAL CONNECTION ROUND DUCTWORK, CONICAL TEE ROUND DUCTWORK, 4-WAY DIFFUSER (D), 3-WAY, 2-WAY, OR 1-WAY GRILLE (G), EXHAUST OR RETURN GRILLE (G), MOTORIZED DAMPER, VOLUME DAMPER, BYPASS DAMPER, BACK DRAFT DAMPER, SMOKE DAMPER WITH ACCESS DOOR, FIRE DAMPER WITH ACCESS DOOR, COMBINATION FIRE & SMOKE DAMPER WITH ACCESS DOOR, STATIC PRESSURE SENSOR, DUCT TEMPERATURE SENSOR, DUCT HUMIDITY SENSOR, DUCT SMOKE DETECTOR, FLEXIBLE DUCTWORK DUCT PRESSURE CLASS.

NOTE: NOT ALL ABBREVIATIONS AND SYMBOLS INDICATED MAY APPEAR ON THESE CONTRACT DRAWINGS. THIS IS FOR REFERENCE ONLY.

GRILLE/DIFFUSER SCHEDULE

Table with columns: TAG, MANUFACTURER, MODEL NO., MODULE SIZE, NECK SIZE, PATTERN, CFM RANGE, REMARKS. Lists items S1, S2, R1, R2, R3, E1 with details for manufacturer (TITUS), model (TDC, CT-581, 355ZFL, 355ZRL), size (24"x24", 36"x6", 32"x18", 20"x8", 12"x32", 10"x6"), neck size (10", 36"x6", 30"x16", 18"x6", 10"x30", 10"x6"), pattern (4-WAY, LINEAR, R/A, E/A), and CFM range.

REMARKS: 1. PROVIDE WITH BORDER TYPE TO MATCH MOUNTING SURFACE. 2. PROVIDE IN WHITE BAKED ENAMEL FINISH. 3. USE SIZES INDICATED IN SCHEDULE, UNLESS INDICATED OTHERWISE ON PLANS. 4. HEAVY DUTY ALUMINUM GRILLE.

ABBREVIATIONS

Large table of abbreviations with columns: A/C, AFF, AFG, AL, AMB, AMP, AP, APROX, ARR, ATC, AUTO, AUX, AVG, BBD, BF, BHP, BOD, BOP, BOT, BP, BSM, BTU, C TO C, CA, CAP, CI, CL, CO, COL, CON, CONN, CONT, CTR, CF, DET, DB, DDC, DEG, DET, DIA, DIS, DN, DWG, EA, EAT, EDR, EER, EFF, EJ, EL, ELB, ELEC, ENT, ESP, EVAP, EWT, EXH, EXP, EXST, EXT, F&T, FC, FDW, FLR, FO, FPM, FPS, FS, FT, GA, GAL, GALV, GND, GPH, GPM, GPS, GR, HD, HG, HGT, HTD, HTR, HMD, HORIZ, HP, Hz, INSUL, INTL, LAT, LBS, LIN, LP, LRA, LVL, LVR, LWT, MAN, MAX, MBH, MU, MIN, MOD, MOUNT, MTD, NA, NC, NEG, NIC, NO, NTS, OAD, OF, OFCI, OV, PCR, PD, PG, PL, PNEU, PRESS, PROP, PSIG, QTY, RECOV, REF, REQD, REV, RL, RM, RS, RTN, S, SCH, SD, SEC, SENS, SEP, SEQ, SER, SERV, SHT, SOL, SP, SS, STL, SUCT, SPL, TD, TEMP, TH, THK, TSP, TYP, UON, V, VAC, VAV, VB, VEL, VERT, VIB, VOL, VSD, VTR, W, WB, WMS.

MISCELLANEOUS SYMBOLS

Table of miscellaneous symbols including THERMOSTAT, HUMIDISTAT, SWITCH, VFD, POINT OF CONNECTION, DRAWING NOTE SYMBOL, DESIGNATES SUPPLY DIFFUSER TYPE, DESIGNATES RETURN DIFFUSER TYPE, DESIGNATES EXHAUST GRILLE TYPE, REVISION SYMBOL, DIRECTION OF VIEW, SECTION NUMBER, DRAWING ON WHICH SECTION OR DETAIL IS SHOWN, DRAWING FROM WHICH SECTION OR DETAIL IS TAKEN, SUPPLY/RETURN DIFFUSER TYPE, NECK SIZE, CFM.

100% DESIGN SUBMISSION 01/08/2020

Revision table with columns: NO., DATE, REVISION. Shows revision 1 dated 02/12/2021 for ADDENDUM #2.

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3449 N. MASCHER ST PHILADELPHIA, PA 19140

PROJECT TITLE

CLASSROOM MODERNIZATION

DRAWING TITLE

MECHANICAL INFORMATION SHEET

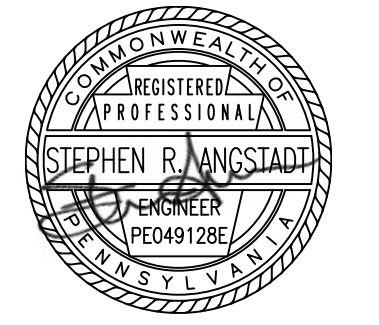
Table with columns: LOCATION NO., FILE NO., DRAWN BY, CHECKED BY, DRAWING NO., MOO.

NOTES BY SYMBOL: ①

(THIS DRAWING ONLY)

- ① NO WORK IN SHADED REGION.
- ② PROVIDE NEW PLUMBING FIXTURE PER SCHEDULE. CONNECT TO EXISTING DOMESTIC WATER ROUGH-INS.
- ③ CONNECT TO EXISTING 1/2" CW BRANCH FROM REMOVED BUBBLER FIXTURE. PROVIDE SHUTOFF BELOW HS1 IN FIXTURE SHROUD. ALL PIPING TO BE CONCEALED IN WALL.
- ④ PROVIDE NEW 1/2" CW BRANCH FROM LAV1 TO HS1 THROUGH WALL. PROVIDE WITH SHUTOFF BELOW HS1 WITHIN FIXTURE SHROUD.
- ⑤ PROVIDE CUTTING AND PATCHING OF EXISTING WALL TO INSTALL PIPING FROM SK1 TO HS1. PATCH TO MATCH EXISTING FINISH.
- ⑥ PROVIDE 1/2" CW BRANCH FROM SK1 TO HS1 EXPOSED ALONG WALL. PROVIDE 4"x4" PRIMED 18 GAUGE SHEET METAL COVER FOR EXPOSED PIPING BETWEEN CASEWORK AND HS1. GC TO PAINT PER FINISH SCHEDULE.

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① **FIRST FLOOR PLAN - DOMESTIC WATER**
SCALE: 1/8" = 1'-0"

100% DESIGN SUBMISSION
01/08/2020

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SCHOOL & LOCATION

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PROJECT TITLE

CLASSROOM MODERNIZATION

DRAWING TITLE

FIRST FLOOR PLAN - DOMESTIC WATER

LOCATION NO.	FILE NO.
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B-014C	OF 2020 / 21
B-015C	OF 2020 / 21

DRAWING NO.
P10

NOTES BY SYMBOL: (E)

(THIS DRAWING ONLY)

- 1 NO WORK IN SHADED REGION.
- 2 PROVIDE NEW PLUMBING FIXTURE PER SCHEDULE. CONNECT TO EXISTING SANITARY & VENT ROUGH-INS.
- 3 PROVIDE NEW 1-1/2" AIR ADMITTANCE VALVE FOR VENT BELOW CASEWORK.
- 4 CONNECT HS1 TO EXISTING DRAIN FROM REMOVED BUBBLER FIXTURE. ALL PIPING TO BE CONCEALED IN WALL.
- 5 TIE NEW 1-1/4" SAN THROUGH WALL TO LAV1 DRAIN. PROVIDE ALL CUTTING AND PATCHING TO MATCH SURROUNDING WALL FINISH.
- 6 TIE NEW 1-1/4" SAN TO SK1 BELOW CASEWORK. PIPING TO BE INSTALLED ON WALL SURFACE. PROVIDE PRIMED 4"x4" 18 GAUGE SHEET METAL COVER FOR EXPOSED PIPING BETWEEN CASEWORK AND HS1. GC TO PAINT PER FINISH SCHEDULE.

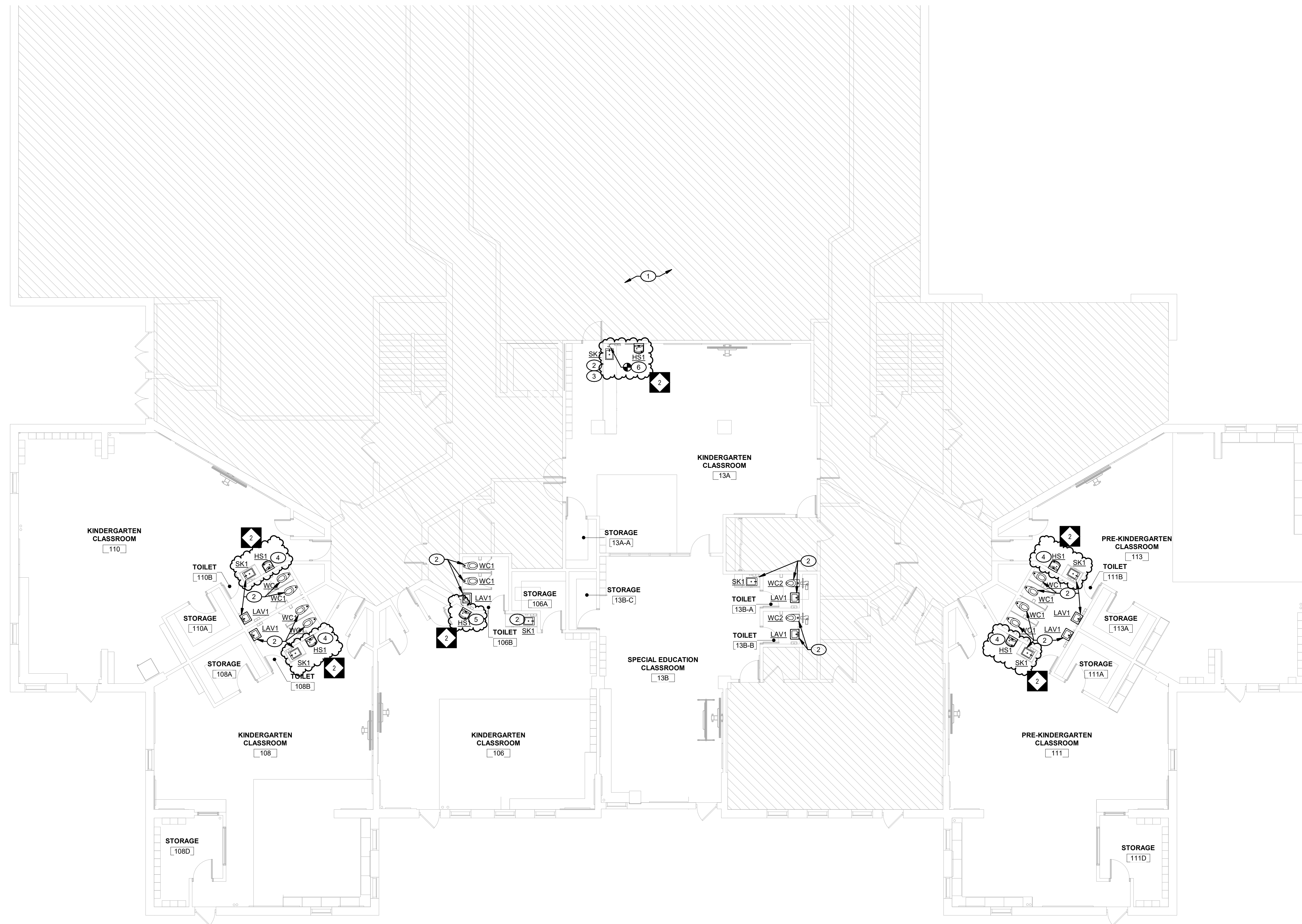


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1 FIRST FLOOR PLAN - SANITARY
SCALE: 1/8" = 1'-0"

100% DESIGN SUBMISSION
01/08/2020

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1	02/12/2021 ADDENDUM #2
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SCHOOL & LOCATION
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PROJECT TITLE
CLASSROOM MODERNIZATION

DRAWING TITLE
FIRST FLOOR PLAN - SANITARY

LOCATION NO.	FILE NO.
DRAWN BY	CHECKED BY
B-014C OF 2020 / 21	B-015C OF 2020 / 21
DRAWING NO.	P20

SEAL:



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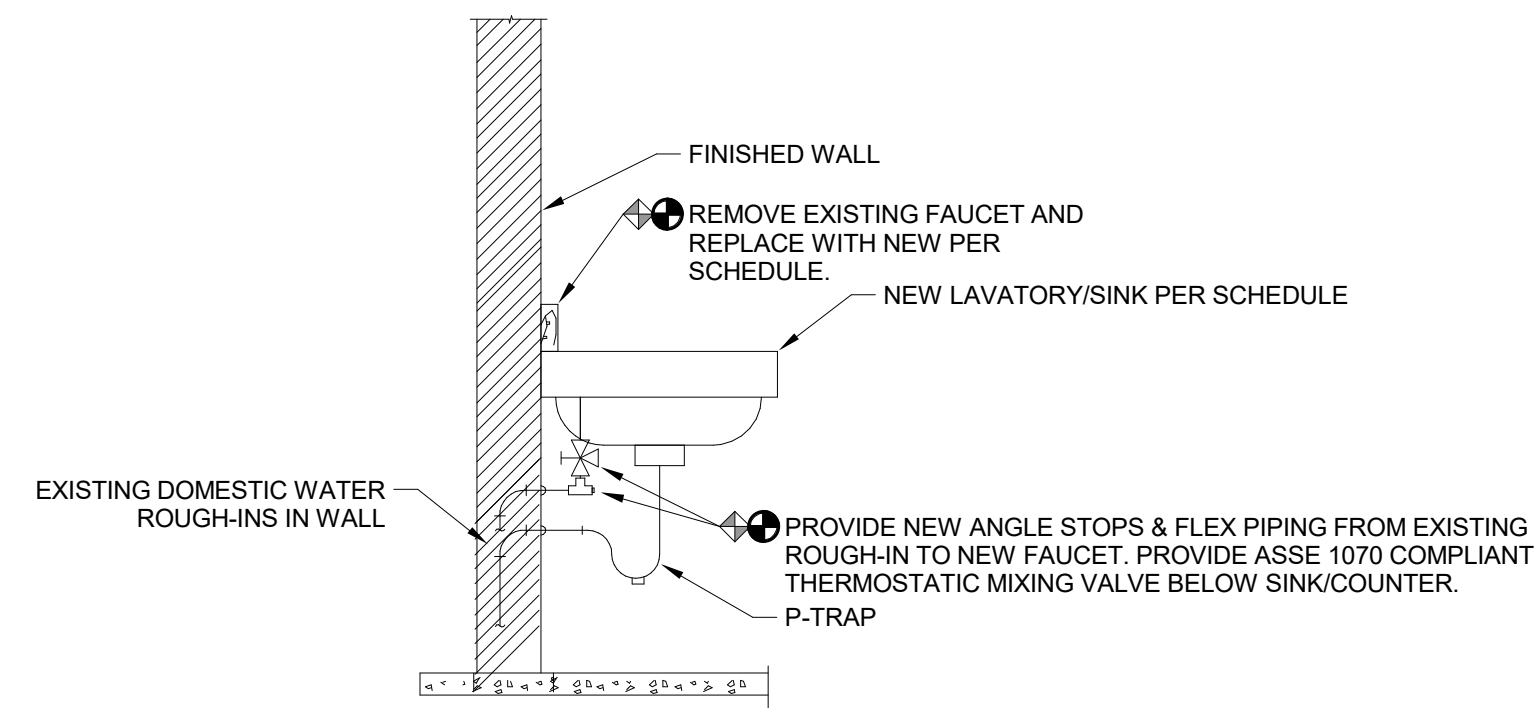
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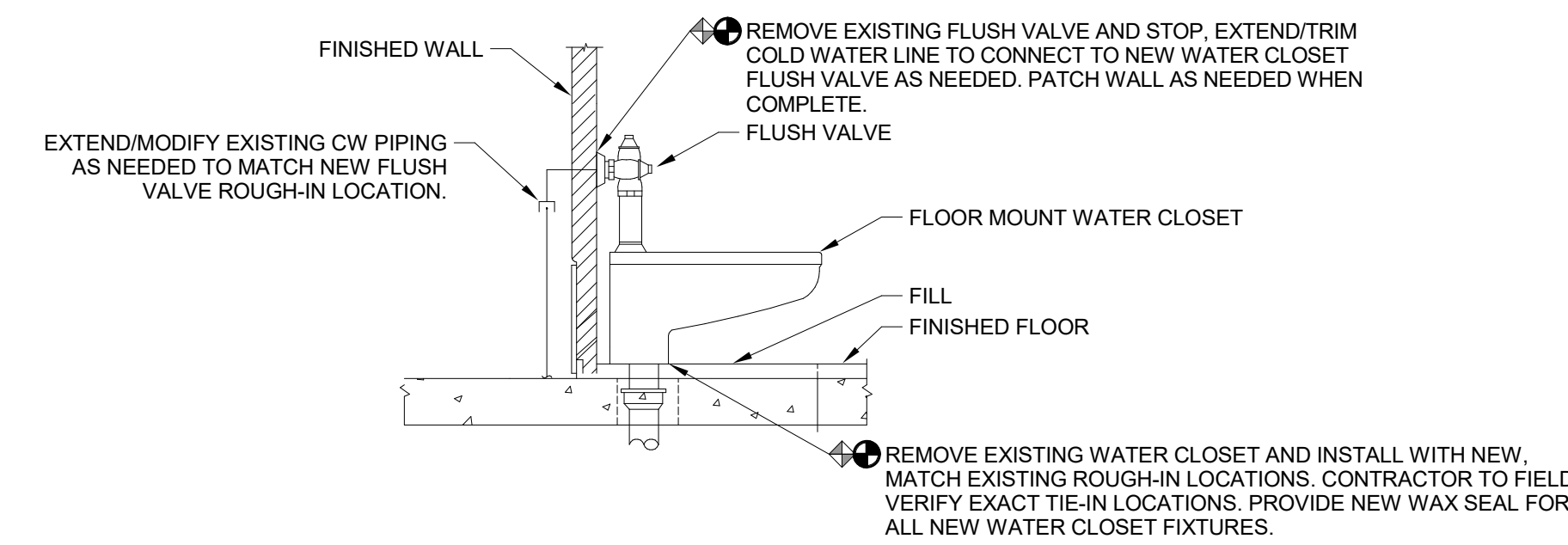
PLUMBING EQUIPMENT SCHEDULE

SYMBOL	FIXTURE TYPE	MANUFACTURER	MODEL NUMBER	FAUCET/VALVE	ANSI/ASME APPROVALS	MOUNTING/SUPPORT	MINIMUM PIPE SIZES					DFU	WSFU	ELECTRIC	NOTES
							CW	CW	CW	CW	CW				
HS1	HYDRATION STATION	ELKAY	LVRGGRN8WSK	(INTEGRAL)	A112.19.3/A117.1 NSF 61, 372	WALL BRACKET	-	1/2"	1-1/4"	1-1/4"	1-1/4"	0.5	0.25	GFI BY EC	FILTERED, 8 GPH, HANDS FREE COMBINATION BOTTLE FILLER/DRINKING FOUNTAIN. MANUAL BUBBLER W/ VANDAL RESISTANT COMPONENTS. MOUNT AT CHILDREN'S ADA HEIGHT.
LAV1	LAVATORY	AMERICAN STANDARD	REGAL 70 #4869.004	"INNSBROOK SELECTRONIC" #6053.205	A112.19.2MA117.1	WALL BRACKET	1/2"	1/2"	1-1/2"	1-1/2"	1-1/2"	1	2	-	1.28 GPF, SEE NOTE 5. CHURCH 295CT 000 SEAT.
SK1	CLASSROOM SINK	ELKAY	DRKAD251755 25"x17"	AMERICAN STANDARD "MONTERREY" #6409.170	A112.19.3M	COUNTER	1/2"	1/2"	1-1/2"	1-1/2"	1-1/2"	2	1.4	-	WITH STRAINER, TAILPIECE, FAUCET AND BUBBLER. REAR CENTER DRAIN. PROVIDE WITH THERMOSTATIC MIXING VALVE. SEE NOTE 6.
WC1	WATER CLOSET	AMERICAN STANDARD	"MADERA" #3451.001	SLOAN 111-1.28-YO-DFB-SG	A112.19.2MA112.19.6MA117.1	FLOOR	-	1"	4"	-	2"	4	10	-	1.28 GPF, SEE NOTE 5. CHURCH 295CT 000 SEAT.
WC2	WATER CLOSET	AMERICAN STANDARD	"AFWALL" #2257.101	SLOAN 140-1.28-4-3/4-LDIM	A112.19.2MA112.19.6MA117.1	EXISTING CARRIER	-	1"	4"	-	2"	4	10	-	1.28 GPF, SEE NOTE 5. CHURCH 295CT 000 SEAT.

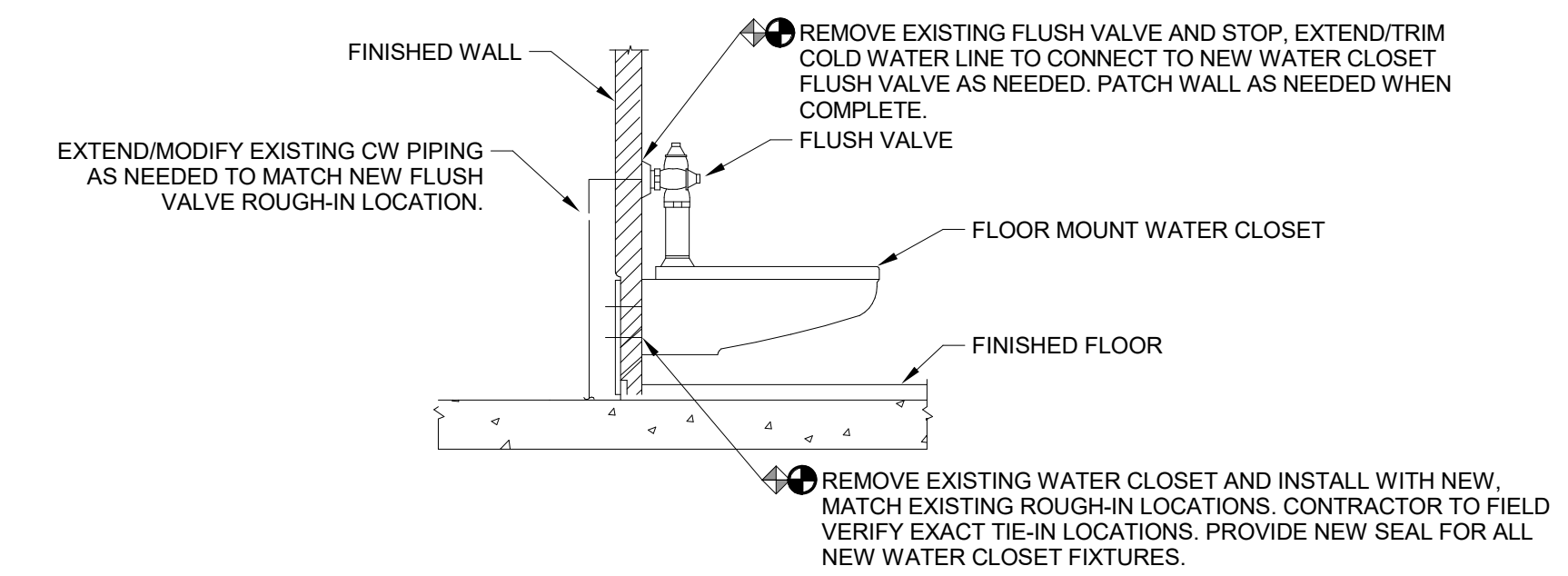
- NOTES:**
1. ALL FIXTURES TO BE BY MANUFACTURER NOTED, OR APPROVED EQUAL, AND SUPPLIED WHITE UNLESS NOTED OR DIRECTED BY ARCHITECT.
 2. ALL EXPOSED PIPING, P-TRAPS AND STOP VALVES TO BE CHROME PLATED BRASS.
 3. PROVIDE WITH PRE-FORMED INSULATION KIT, WHITE IN COLOR ON ALL EXPOSED PIPING FOR HANDICAP FIXTURES.
 4. PROVIDE STOP VALVES AT EACH FIXTURE.
 5. MOUNT FLUSH VALVE HANDLE ON ACCESS SIDE OF WATER CLOSET. RIM HEIGHT FOR ALL WATER CLOSETS TO BE 15" AFF.
 6. PROVIDE COVER FOR BUBBLER HOLE IN SINK RIM. REAR CENTER DRAIN.



EXISTING LAVATORY/SINK REPLACEMENT DETAIL
NO SCALE



EXISTING WATER CLOSET REPLACEMENT DETAIL - FLOOR MOUNT
NO SCALE



EXISTING WATER CLOSET REPLACEMENT DETAIL - WALL MOUNT
NO SCALE

100% DESIGN SUBMISSION
01/08/2020

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NO.	DATE	REVISION

SCHOOL & LOCATION

WILLIAM CRAMP SCHOOL

3449 N. MASCHER ST
PHILADELPHIA, PA 19140

PROJECT TITLE

**CLASSROOM
MODERNIZATION**

DRAWING TITLE

**PLUMBING DIAGRAMS &
SCHEDULES**

LOCATION NO. FILE NO.

DRAWN BY CHECKED BY

B-014C OF 2020 / 21
B-015C OF 2020 / 21

DRAWING NO.

P50

GENERAL NOTES:

- 1. CONTRACTOR SHALL PROVIDE BRANCH CIRCUIT WIRING TO ALL ITEMS WHICH REQUIRE ELECTRICAL CONNECTIONS... 2. CONTRACTOR SHALL USE ONLY THOSE WIRING METHODS ALLOWED IN THE SPECIFICATIONS... 3. A MAXIMUM OF 3 CIRCUITS SHALL BE RUN IN ONE CONDUIT...

GENERAL FIRE ALARM INSTALLATION NOTE:

A NEW FIRE ALARM CONTROL PANEL IS TO BE INSTALLED AS PART OF THIS PROJECT. THE EXISTING PANEL AND ALL REQUIRED SUPPORT DEVICES SHALL REMAIN TO SUPPORT THE EXISTING UNRENOVATED PORTION OF THE BUILDING...

CONTROL EQUIPMENT table with columns for symbol, description, and notes. Includes items like Manual Motor Starter, Combination Motor Starter, and Transformer.

STANDARD MOUNTING HEIGHTS table with columns for height, symbol, and description. Lists heights from 6' below ceiling to finished floor.

- MOUNTING HEIGHT NOTES: 1. MOUNTING HEIGHTS TO CENTER OF OUTLETS UNLESS OTHERWISE NOTED... 2. THE ABOVE MOUNTING HEIGHTS SHALL BE ADHERED TO UNLESS SPECIFICALLY NOTED...

THE ELECTRICAL SYSTEMS PRESENTED ON THE SUBSEQUENT DRAWINGS WERE DESIGNED IN ACCORDANCE WITH THE FOLLOWING APPLICABLE CODES AND STANDARDS:

GENERAL ELECTRICAL DEMOLITION NOTES:

- 1. DEMOLITION OF ALL EXISTING ELECTRICAL EQUIPMENT AND ASSOCIATED PIPING SHALL BE COORDINATED WITH NEW WORK INSTALLATION... 2. THIS CONTRACTOR WILL BE HELD RESPONSIBLE FOR ANY/DAMAGES TO EXISTING FLOORS, FLOOR TILES, WALLS, CEILING, FURNISHINGS, ETC...

ELECTRICAL DRAWING LIST table with columns for drawing number and description. Lists drawings E00 through E21.

SITE WORK table with columns for symbol and description. Includes Utility Pole, Pole Mounted Area Lighting Fixture, Manhole, and Ground Rod.

SIGNAL SYSTEM table with columns for symbol and description. Includes Smoke Detector, Duct Mounted Smoke Detector, Carbon Monoxide Detector, Heat Detector, etc.

Table of electrical symbols and their descriptions. Includes symbols for Door Holder, Flow Switch, Tamper Switch, Time Clock, Keypad, Pushbutton, Floor Box, Volume Control, Card Reader, etc.

ABBREVIATIONS & SYMBOLS table with columns for symbol and description. Lists abbreviations like AFF, AFG, ATS, CT, DC, DF, etc.

LIGHTING table with columns for symbol and description. Lists various lighting fixtures like 2x2, 2x4, 1x8, 1x4, 6x4, 6x2, Wall Pack, Strip Light, Wall Washer, etc.

WIRING DEVICES table with columns for symbol and description. Lists devices like Single Pole Switch, 3-Way Switch, 4-Way Switch, Key Switch, Spring Wound Time Switch, etc.

PANELBOARDS table with columns for symbol and description. Lists Surface Mounted Panel, Flush Mounted Panel, Existing Surface Mounted Panel, Existing Flush Mounted Panel.

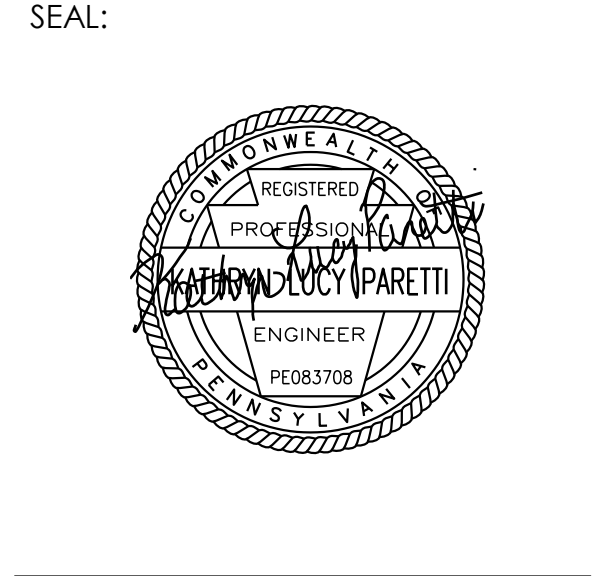
CIRCUITING table with columns for symbol and description. Lists Junction Box, Branch Circuit Number, Room Name, etc.

DEMOLITION DRAWING LINETYPE DESIGNATIONS table with columns for line style and description. Lists Existing to Remain, Existing to be Removed.

NOTE: NOT ALL ABBREVIATIONS AND SYMBOLS INDICATED MAY APPEAR ON THESE CONTRACT DRAWINGS. THIS IS FOR REFERENCE ONLY.

OFFICE OF CAPITAL PROGRAMS

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100% DESIGN SUBMISSION 01/08/2020

Revision table with columns for revision number, date, and description. Shows revisions 10 through 2.

1 02/12/2021 ADDENDUM #2 NO. DATE REVISION

SCHOOL & LOCATION

WILLIAM CRAMP SCHOOL

3449 N. MASCHER ST PHILADELPHIA, PA 19140

PROJECT TITLE

CLASSROOM MODERNIZATION

DRAWING TITLE

ELECTRICAL INFORMATION SHEET

LOCATION NO. FILE NO. table with columns for location and file numbers.

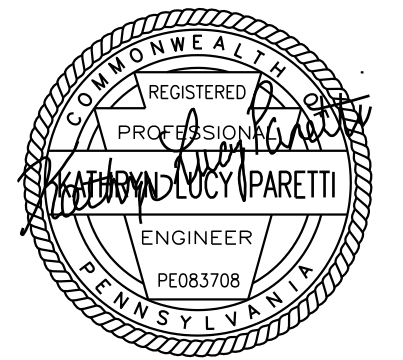
DRAWN BY CHECKED BY table with columns for drafter and checker.

8-014C OF 2020 / 21 8-015C OF 2020 / 21

DRAWING NO.

E00

SEAL:



R. JEFFREY STRAUB
STATE AND LICENSE NO: RA03652

ARCHITECT

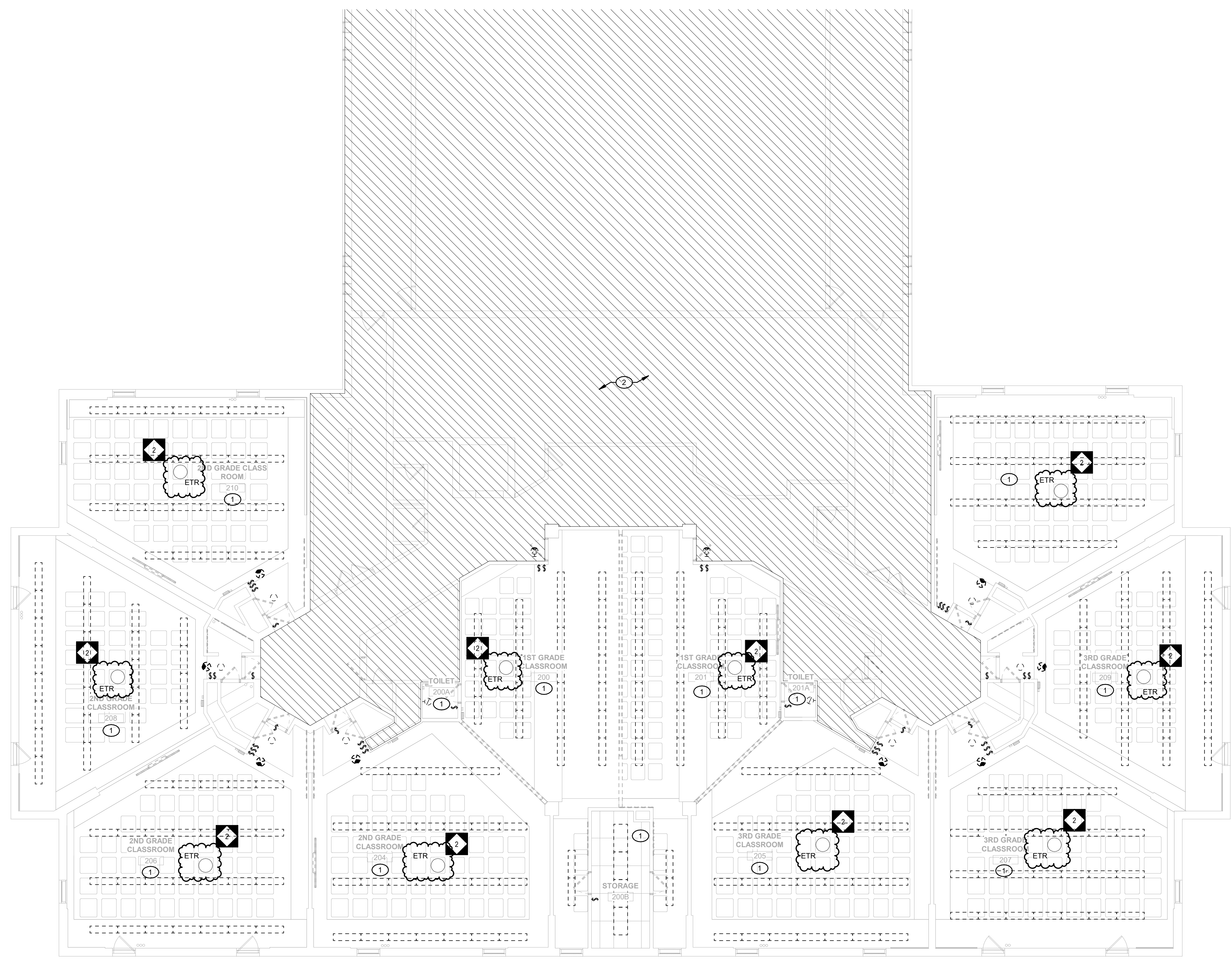
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GENERAL NOTES:

- EXISTING DEVICES AND FIXTURES SHOWN ARE FROM EXISTING DRAWINGS AND VISUAL BELOW CEILING INSPECTION WHILE THE BUILDING WAS OCCUPIED.
- FOR DEVICES SHOWN AS DEMOLITION, REMOVE ALL LIGHTING FIXTURES, ASSOCIATED CONTROLS, CONDUIT, AND WIRE BACK TO SOURCE.

NOTES BY SYMBOL:

- (THIS DRAWING ONLY)
- RETAIN EXISTING CIRCUITS FROM FIXTURES BEING REMOVED FOR USE IN NEW WORK. RETAIN AND REUSE CONDUIT PATHWAYS AS MUCH AS POSSIBLE.
 - NO WORK IN SHADED REGION.

1 SECOND FLOOR PLAN - DEMOLITION - LIGHTING
SCALE: 1/8" = 1'-0"

100% DESIGN SUBMISSION
01/08/2020

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1	02/12/2021 ADDENDUM #2
NO.	DATE REVISION

SCHOOL & LOCATION

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PHILADELPHIA, PA 19140

PROJECT TITLE

CLASSROOM MODERNIZATION

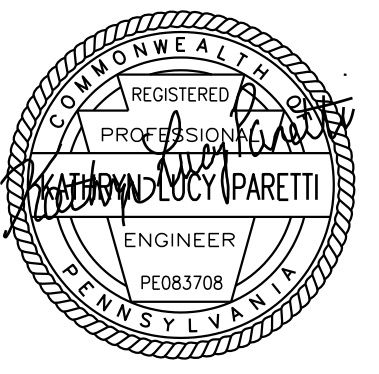
DRAWING TITLE

SECOND FLOOR PLAN - DEMOLITION - LIGHTING

LOCATION NO.	FILE NO.
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B-014C OF 2020 / 21	B-015C OF 2020 / 21

DRAWING NO.
ED11

SEAL:



R. JEFFREY STRAUB
STATE AND LICENSE NO: KA03652

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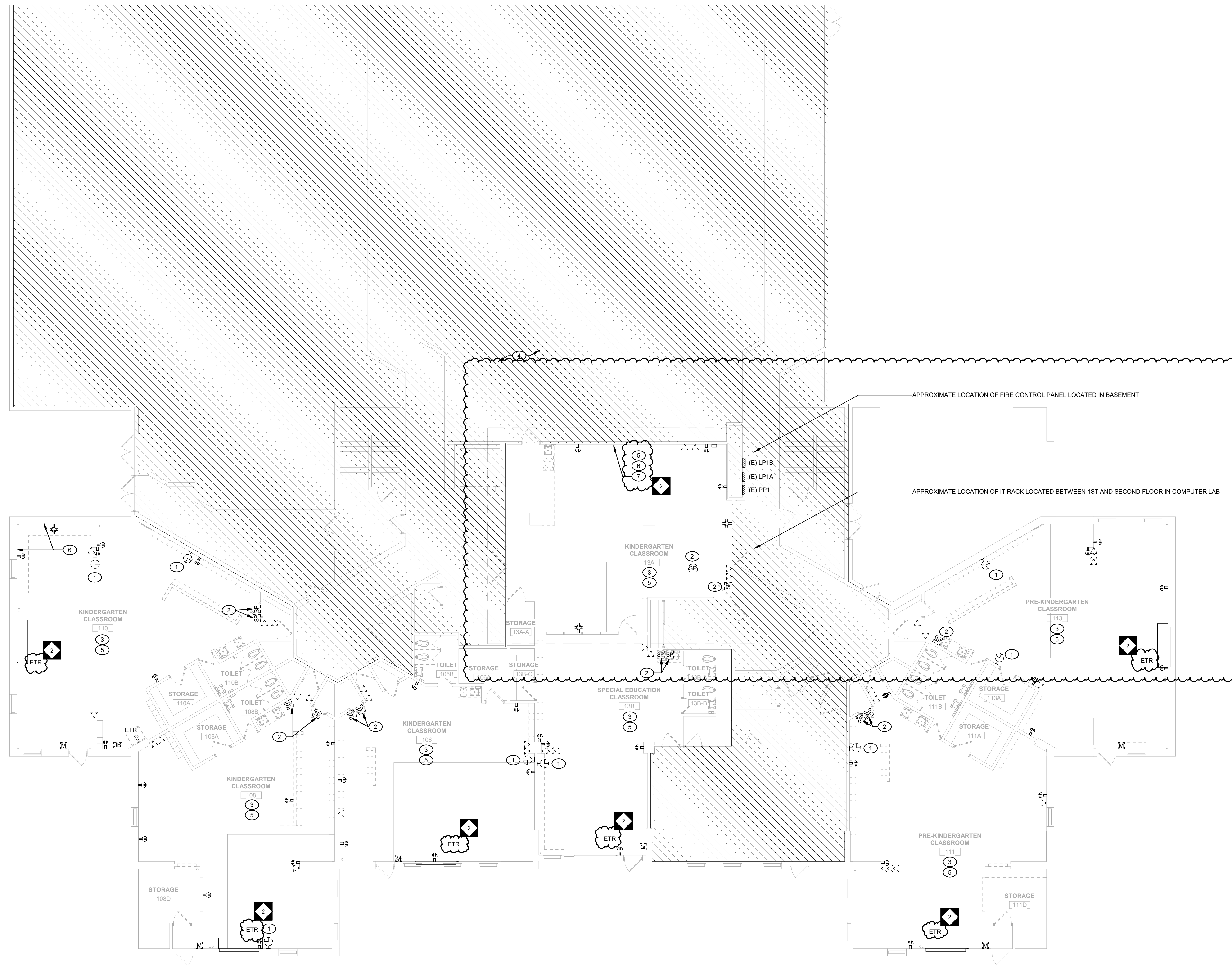
GENERAL NOTES:

- EXISTING DEVICES AND FIXTURES SHOWN ARE FROM EXISTING DRAWINGS AND VISUAL BELOW CEILING INSPECTION WHILE THE BUILDING WAS OCCUPIED.
- FOR DEVICES SHOWN AS DEMOLISHED, REMOVE DEVICE, PLATE, BACK BOX, AND ASSOCIATED WIRE AND CONDUIT BACK TO SOURCE OR NEXT DEVICE TO REMAIN.
- FOR ALL FIRE ALARM DEVICES SHOWN AS DEMOLISHED, REMOVE ALL ASSOCIATED DEVICES, PLATES, BACK BOXES, PATHWAYS, WIRING, AND APPURTENANCES SHALL BE REMOVED.
- UNLESS NOTED OTHERWISE DISCONNECT AND REMOVE ALL CIRCUITS TO MECHANICAL EQUIPMENT BEING REMOVED BY H.C. THIS INCLUDES ALL WIRE AND CONDUIT BACK TO SOURCE. REFERENCE MECHANICAL DRAWINGS FOR EXTENT OF EQUIPMENT REMOVAL.
- REMOVE ALL POWER AND DATA DEVICES FROM WALLS TO BE DEMOLISHED.

NOTES BY SYMBOL: (E)

(THIS DRAWING ONLY)

- DISCONNECT AND REMOVE ALL EXISTING CLOCKS, CONDUIT/RACEWAY AND WIRING ASSOCIATED WITH THIS SYSTEMS TO ITS ENTIRETY WITHIN ROOM. PROVIDE NEW BLANK COVER PLATE, PATCH AND PAINT AROUND COVER PLATE AND ALONG REMOVED CONDUIT/RACEWAY. MATCH EXISTING WALL CONSTRUCTION.
- ALL EXISTING WALL MOUNTED SPEAKERS TO BE REMOVED AND NEW TO BE INSTALLED IN LOCATIONS PROVIDED IN NEW WORK DRAWINGS. RETAIN EXISTING SPEAKER WIRE FOR CONNECTION TO NEW SPEAKER.
- RETAIN EXISTING RECEPTACLE BRANCH CIRCUITS FOR CONNECTION TO NEW RECEPTACLES.
- NO WORK IN SHADED REGION.
- ELECTRICAL CONTRACTOR TO PROVIDE AN ALLOWANCE IN THEIR BID FOR COMPLETE REMOVAL AND/OR REMOVAL AND RELOCATION OF 50' OF SURFACE MOUNTED RACEWAY/CONDUIT AND ASSOCIATED CONDUCTORS FOR EACH CLASSROOM. THIS IS IN ADDITION TO ANY RACEWAY/CONDUIT AND CONDUCTORS SPECIFICALLY INDICATED ON THE DRAWINGS TO BE RELOCATED.
- DISCONNECT REMOVE AND RELOCATE THE EXISTING SURFACE MOUNTED CONDUIT TO ALLOW THE INSTALLATION OF THE NEW STORAGE CUBBIES ALONG THIS WALL. IF CONDUIT IS DEEMED IN THE FIELD TO BE OBSOLETE AND NO LONGER NECESSARY, IT SHALL BE REMOVED ONLY AND RELOCATION IS NOT REQUIRED.
- DISCONNECT REMOVE AND RELOCATE THE EXISTING SURFACE MOUNTED CONDUIT TO ALLOW THE INSTALLATION OF THE NEW MARKER/TACKBOARDS ALONG THIS WALL. IF CONDUIT IS DEEMED IN THE FIELD TO BE OBSOLETE AND NO LONGER NECESSARY, IT SHALL BE REMOVED ONLY AND RELOCATION IS NOT REQUIRED.



1 FIRST FLOOR PLAN - DEMOLITION - POWER
SCALE: 1/8" = 1'-0"

100% DESIGN SUBMISSION
01/08/2020

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1	02/12/2021	ADDENDUM #2
NO.	DATE	REVISION

SCHOOL & LOCATION

WILLIAM CRAMP SCHOOL

3449 N. MASCHER ST
PHILADELPHIA, PA 19140

PROJECT TITLE

**CLASSROOM
MODERNIZATION**

DRAWING TITLE

**FIRST FLOOR PLAN -
DEMOLITION - POWER**

LOCATION NO.	FILE NO.
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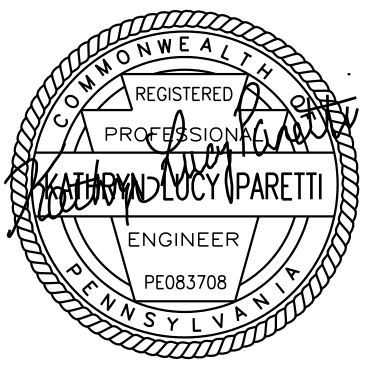
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8-014C	OF	2020 / 21
8-015C	OF	2020 / 21

DRAWING NO.

ED20

SEAL:



R. JEFFREY STRAUB
STATE AND LICENSE NO. KA036652

ARCHITECT

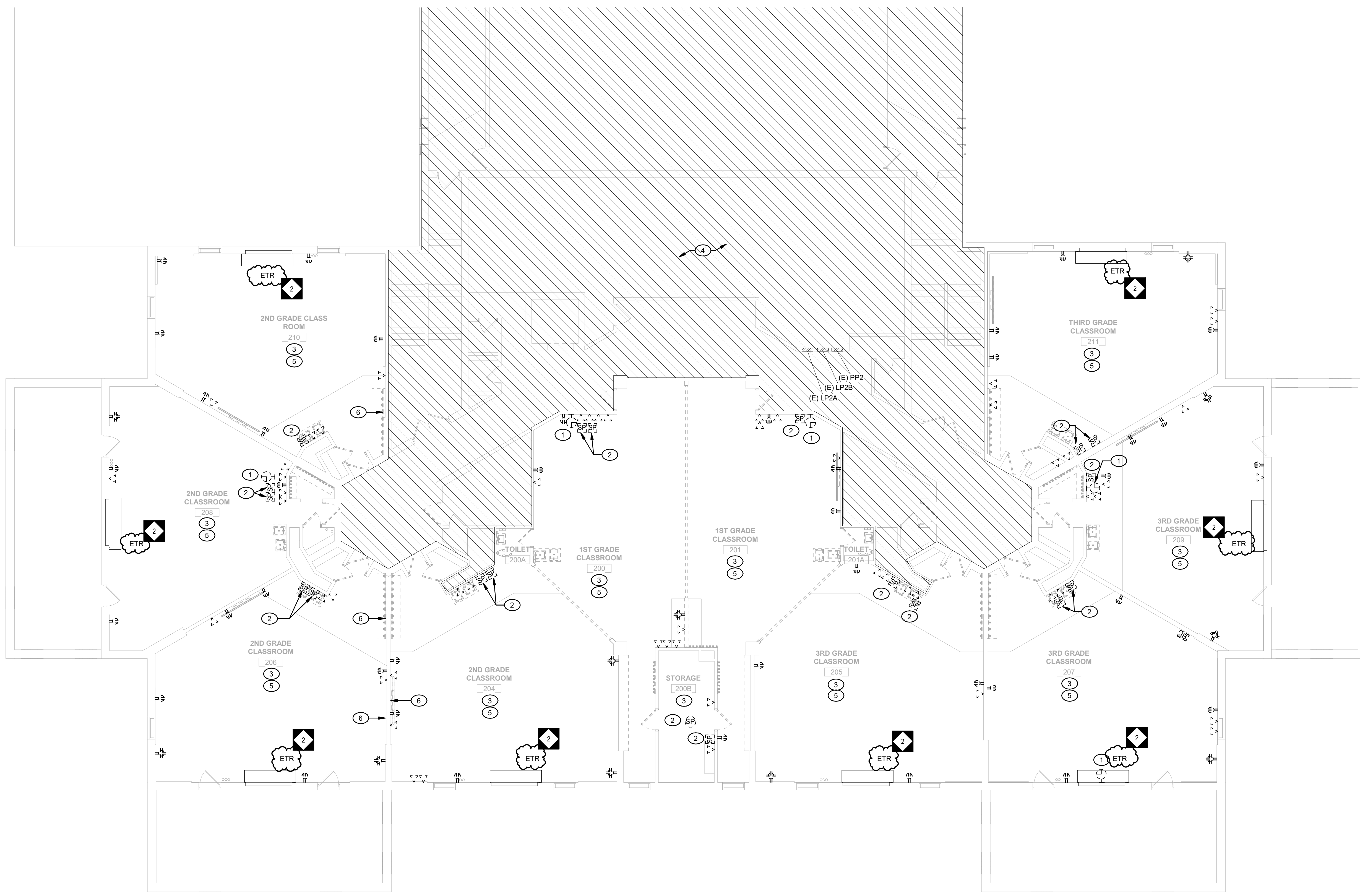
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Mechanicstown, PA 17055
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Attn: Jessie Harder

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Attn: John Lewis



GENERAL NOTES:

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- FOR DEVICES SHOWN AS DEMOLISHED, REMOVE DEVICE, PLATE, BACK BOX, AND ASSOCIATED WIRE AND CONDUIT BACK TO SOURCE OR NEXT DEVICE TO REMAIN.
- FOR ALL FIRE ALARM DEVICES SHOWN AS DEMOLISHED, REMOVE ALL ASSOCIATED DEVICES, PLATES, BACK BOXES, PATHWAYS, WIRING, AND APPURTENANCES SHALL BE REMOVED.
- UNLESS NOTED OTHERWISE DISCONNECT AND REMOVE ALL CIRCUITS TO MECHANICAL EQUIPMENT BEING REMOVED BY H.C. THIS INCLUDES ALL WIRE AND CONDUIT BACK TO SOURCE. REFERENCE MECHANICAL DRAWINGS FOR EXTENT OF EQUIPMENT REMOVAL.
- REMOVE ALL POWER AND DATA DEVICES FROM WALLS TO BE DEMOLISHED.

NOTES BY SYMBOL:

- (THIS DRAWING ONLY)
- DISCONNECT AND REMOVE ALL EXISTING CLOCKS, CONDUIT/RACEWAY AND WIRING ASSOCIATED WITH THIS SYSTEMS TO ITS ENTIRETY WITHIN ROOM. PROVIDE NEW BLANK COVER PLATE, PATCH AND PAINT AROUND COVER PLATE AND ALONG REMOVED CONDUIT/RACE. MATCH EXISTING WALL CONSTRUCTION.
 - ALL EXISTING WALL MOUNTED SPEAKERS TO BE REMOVED AND NEW TO BE INSTALLED IN LOCATIONS PROVIDED IN NEW WORK DRAWINGS. RETAIN EXISTING SPEAKER WIRE FOR CONNECTION TO NEW SPEAKER.
 - RETAIN EXISTING RECEPTACLE BRANCH CIRCUITS FOR CONNECTION TO NEW RECEPTACLES.
 - NO WORK IN SHADED REGION.
 - ELECTRICAL CONTRACTOR TO PROVIDE AN ALLOWANCE IN THEIR BID FOR COMPLETE REMOVAL AND/OR REMOVAL AND RELOCATION OF 50' OF SURFACE MOUNTED RACEWAY/CONDUIT AND ASSOCIATED CONDUCTORS FOR EACH CLASSROOM. THIS IS IN ADDITION TO ANY RACEWAY/CONDUIT AND CONDUCTORS SPECIFICALLY INDICATED ON THE DRAWINGS TO BE RELOCATED.
 - DISCONNECT REMOVE AND RELOCATE THE EXISTING SURFACE MOUNTED CONDUIT TO ALLOW THE INSTALLATION OF THE NEW HOOK SYSTEM ALONG THIS WALL AND VISUAL DISPLAYS. IF CONDUIT IS DEEMED IN THE FIELD TO BE OBSOLETE AND NO LONGER NECESSARY, IT SHALL BE REMOVED ONLY AND RELOCATION IS NOT REQUIRED.

1 SECOND FLOOR PLAN - DEMOLITION - POWER
SCALE: 1/8" = 1'-0"

100% DESIGN SUBMISSION
01/08/2020

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1	02/12/2021 ADDENDUM #2
NO.	DATE REVISION

SCHOOL & LOCATION
WILLIAM CRAMP SCHOOL

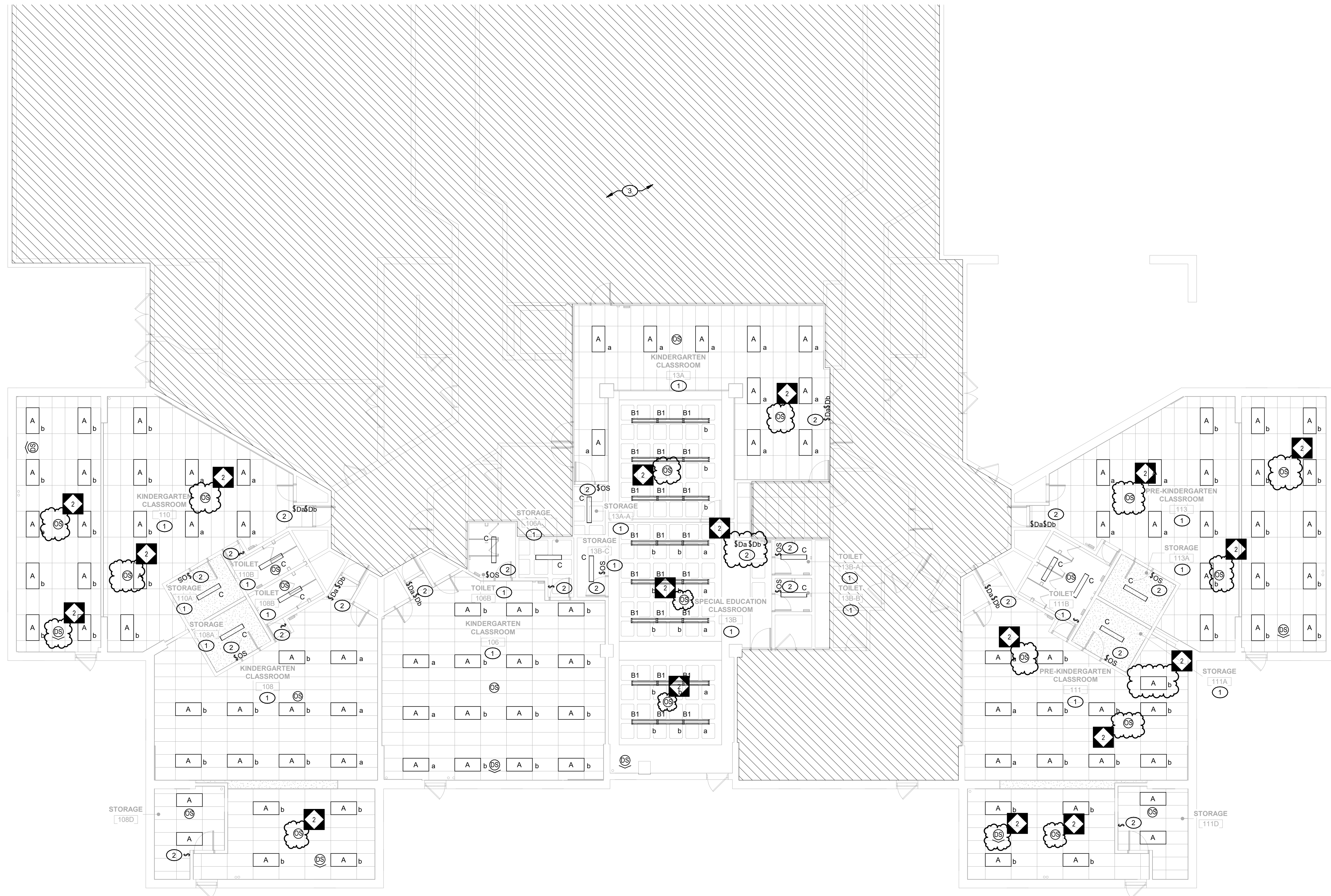
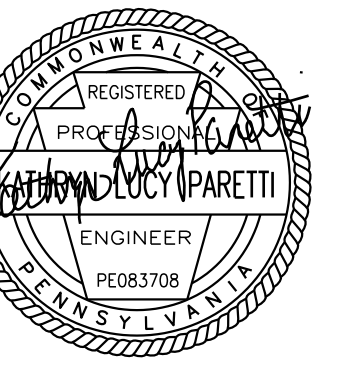
3449 N. MASCHER ST
PHILADELPHIA, PA 19140

PROJECT TITLE
CLASSROOM MODERNIZATION

DRAWING TITLE
SECOND FLOOR PLAN - DEMOLITION - POWER

LOCATION NO.	FILE NO.
DRAWN BY	CHECKED BY
B-014C OF 2020 / 21	B-015C OF 2020 / 21

DRAWING NO.
ED21



1 FIRST FLOOR PLAN - LIGHTING
SCALE: 1/8" = 1'-0"

- NOTES BY SYMBOL:**
- 1 RECONNECT NEW FIXTURES TO CIRCUIT RETAINED DURING DEMOLITION
 - 2 PROVIDE NEW SWITCHES WITH COVER PLATE. COORDINATE EXACT LIGHTING CONNECTION REQUIREMENTS WITH MANUFACTURER PRIOR TO INSTALLATION.
 - 3 NO WORK IN SHADED REGION.

100% DESIGN SUBMISSION
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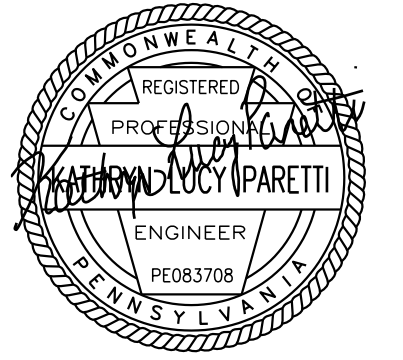
SCHOOL & LOCATION
WILLIAM CRAMP SCHOOL
3449 N. MASCHER ST
PHILADELPHIA, PA 19140

PROJECT TITLE
CLASSROOM MODERNIZATION

DRAWING TITLE
FIRST FLOOR PLAN - LIGHTING

LOCATION NO.	FILE NO.
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8-014C OF 2020 / 21	8-015C OF 2020 / 21
DRAWING NO.	E10

SEAL:



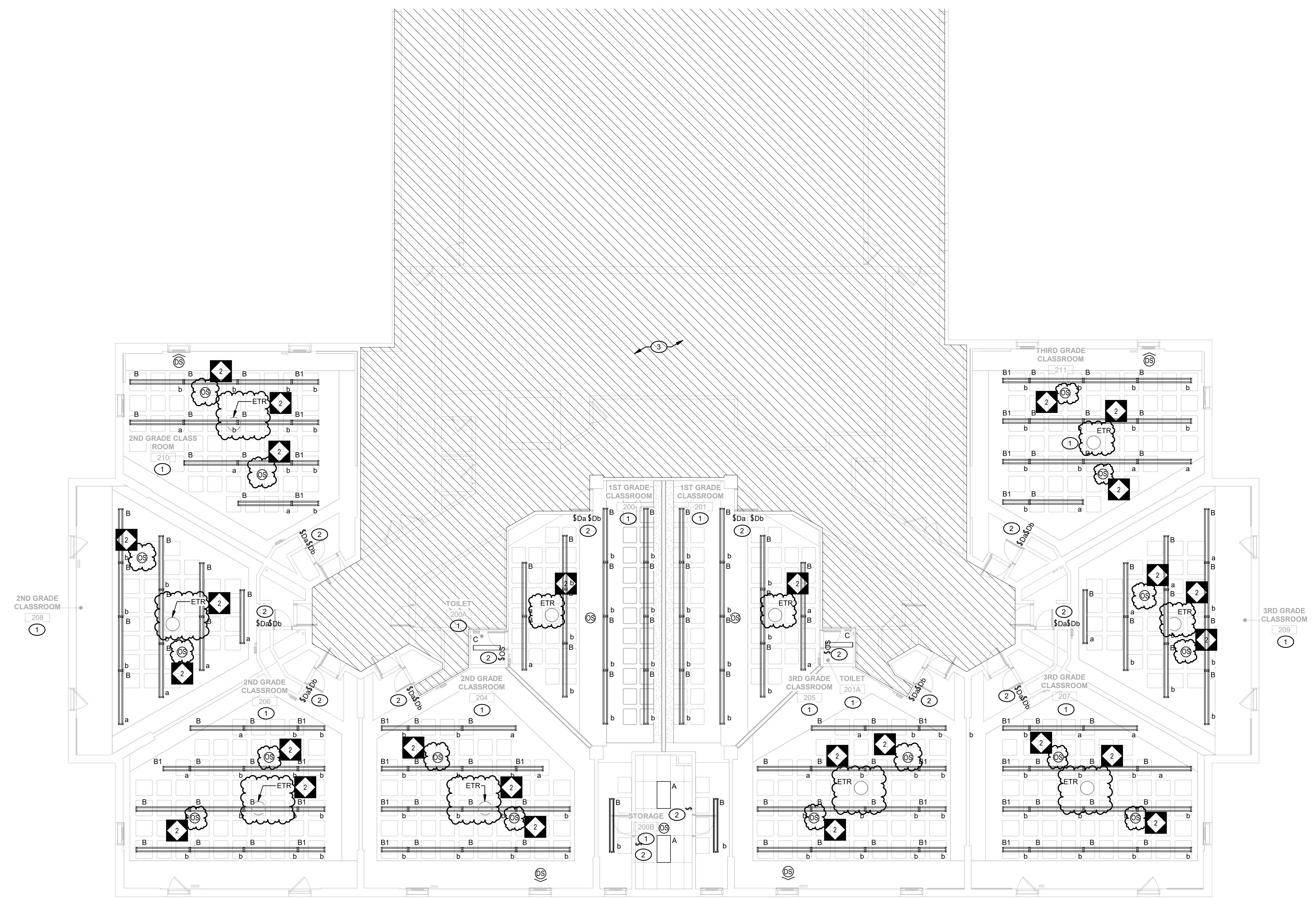
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Attn: John Lewis



NOTES BY SYMBOL: #

- (THIS DRAWING ONLY)
- 1 RECONNECT NEW FIXTURES TO CIRCUIT RETAINED DURING DEMOLITION.
 - 2 PROVIDE NEW SWITCHES WITH COVER PLATE. COORDINATE EXACT LIGHTING CONNECTION REQUIREMENTS WITH MANUFACTURER PRIOR TO INSTALLATION.
 - 3 NO WORK IN SHADED REGION.

1 SECOND FLOOR PLAN - LIGHTING
SCALE: 1/8" = 1'-0"

100% DESIGN SUBMISSION
01/08/2020

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1	02/12/2021	ADDENDUM #2
NO.	DATE	REVISION

SCHOOL & LOCATION

WILLIAM CRAMP SCHOOL

3449 N. MASCHER ST
PHILADELPHIA, PA 19140

PROJECT TITLE

CLASSROOM MODERNIZATION

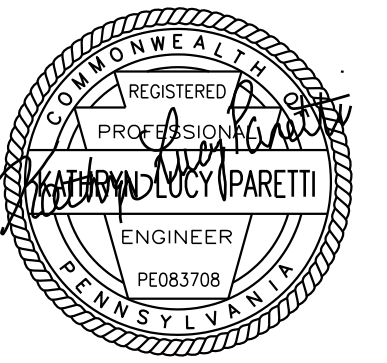
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SECOND FLOOR PLAN - LIGHTING

LOCATION NO.	FILE NO.
DRAWN BY	CHECKED BY
B-014C	OF 2020 / 21
B-015C	OF 2020 / 21

DRAWING NO.
E11

SEAL:



R. JEFFREY STRAUB
STATE AND LICENSE NO: KAK03652

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FIRE ALARM REMOTE ANNUCIATOR LOCATION NOTE:

FIRE ALARM LED REMOTE ANNUCIATOR & VOICE COMMAND REMOTE ANNUCIATOR REQUIRED AS PART OF THE FIRE ALARM SPECIFICATIONS SHALL BE LOCATED AS DIRECTED BY THE SCHOOL DISTRICT AND THE LOCAL FIRE DEPARTMENT. FOR THE PURPOSE OF THE CONTRACTORS BID, THESE SHALL BE CONSIDERED TO BE LOCATED 200' AWAY FROM THE MAIN FIRE ALARM CONTROL PANEL.

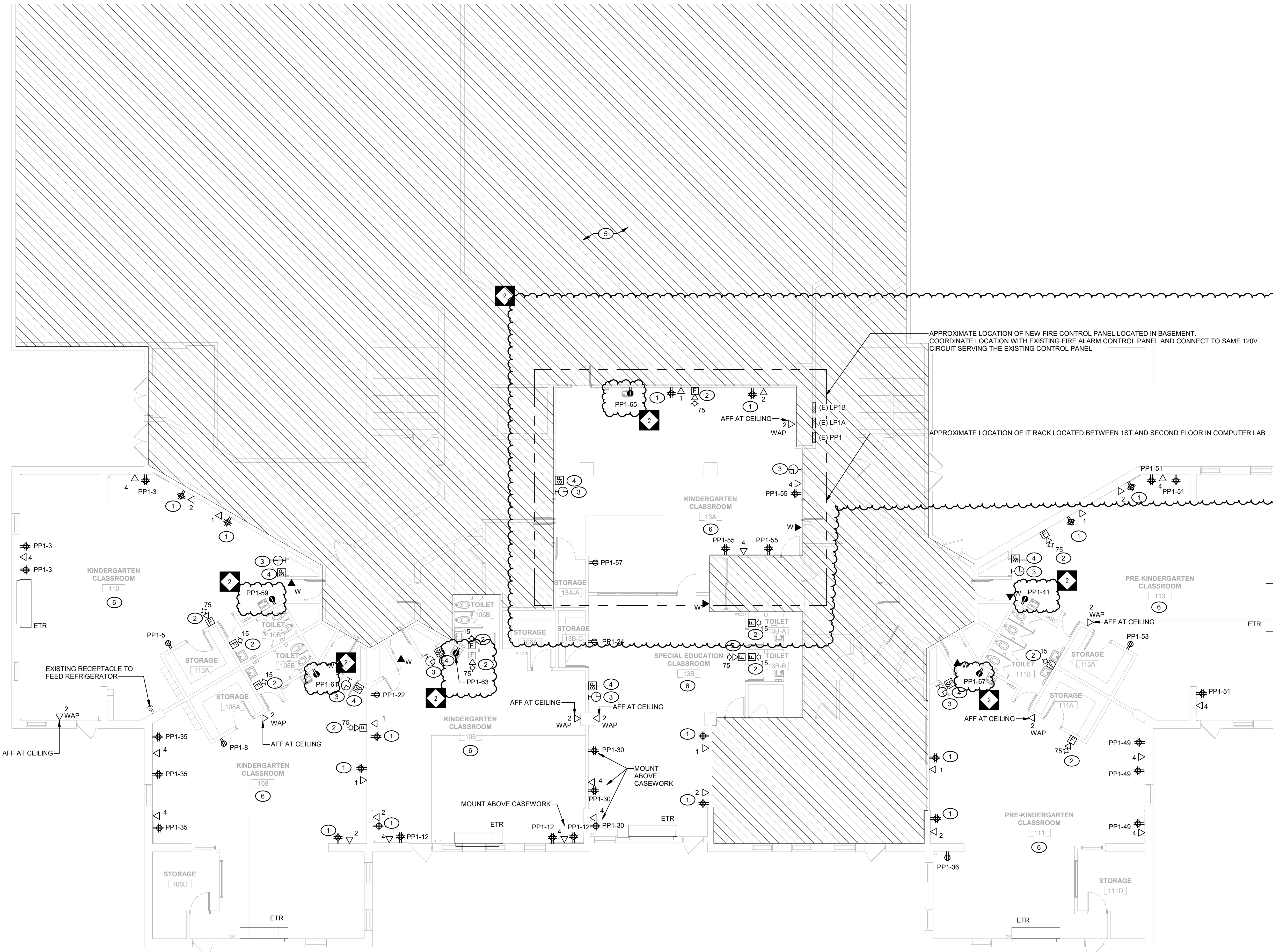
GENERAL NOTES:

1. ALL RECEPTACLES/DATA ON EXISTING BLOCK WALLS TO BE SURFACE MOUNTED (SEE DETAIL). SURFACE MOUNTED RACEWAY SHALL BE MINIMIZED. ALL RECEPTACLES/DATA ON EXISTING WALLS THAT CAN BE FISHED SHALL BE RECESSED AND RACEWAY CONCEALED.
2. COORDINATE EXACT LOCATION OF RECEPTACLES AND DATA OUTLETS SERVING EACH TECHNOLOGICAL REQUIREMENT WITH ARCHITECTURAL DRAWINGS PRIOR TO INSTALLATION.

NOTES BY SYMBOL: (#)

(THIS DRAWING ONLY)

1. RECONNECT TO EXISTING CIRCUIT MAXIMUM OF 2 QUAD RECEPTACLES PER CIRCUIT.
2. PROVIDE A NEW FIRE ALARM DEVICE COMPATIBLE WITH EXISTING FIRE ALARM SYSTEM.
3. PROVIDE NEW BATTERY OPERATED WIRELESS CLOCK. COORDINATE WITH ARCHITECT FOR EXACT HEIGHT AND LOCATION PRIOR TO INSTALLATION.
4. PROVIDE A NEW BOGEN CATALOG #MB8TSQVR SURFACE WALL MOUNTED SPEAKER WITH RECESSED VOLUME CONTROL. CONNECT SPEAKER TO EXISTING SPEAKER WIRING RETAINED DURING DEMOLITION. TAP SPEAKER AT 2 WATTS WHEN CONNECTING TO EXISTING WIRING. SPLICE EXISTING SPEAKER WIRING AND EXTEND TO NEW SPEAKER LOCATION AS REQUIRED TO CONNECT SPEAKER IN ITS NEW LOCATION.
5. NO WORK IN SHADED REGION.
6. REFER TO DEMOLITION DRAWINGS FOR ELECTRICAL CONTRACTORS REQUIREMENTS FOR EXISTING SURFACE MOUNTED RACEWAY/CONDUIT WITHIN THIS CLASSROOM AND ANY ASSOCIATED CONDUCTORS. ENSURE ALL EXISTING DEVICES WHICH ARE TO REMAIN ARE REFERED AS REQUIRED TO MAINTAIN POWER CONTINUITY FOR DEVICE.



1 FIRST FLOOR PLAN - POWER
SCALE: 1/8" = 1'-0"

100% DESIGN SUBMISSION
01/08/2020

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1	02/12/2021 ADDENDUM #2
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3449 N. MASCHER ST
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PROJECT TITLE

CLASSROOM MODERNIZATION

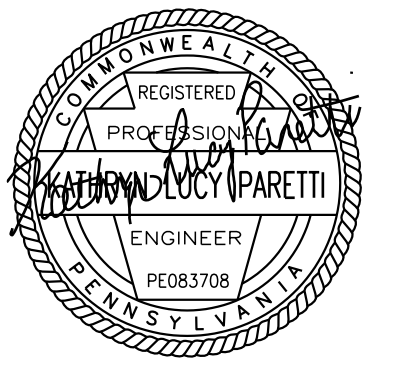
DRAWING TITLE

FIRST FLOOR PLAN - POWER

LOCATION NO.	FILE NO.
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B-014C OF 2020 / 21	B-015C OF 2020 / 21

DRAWING NO.

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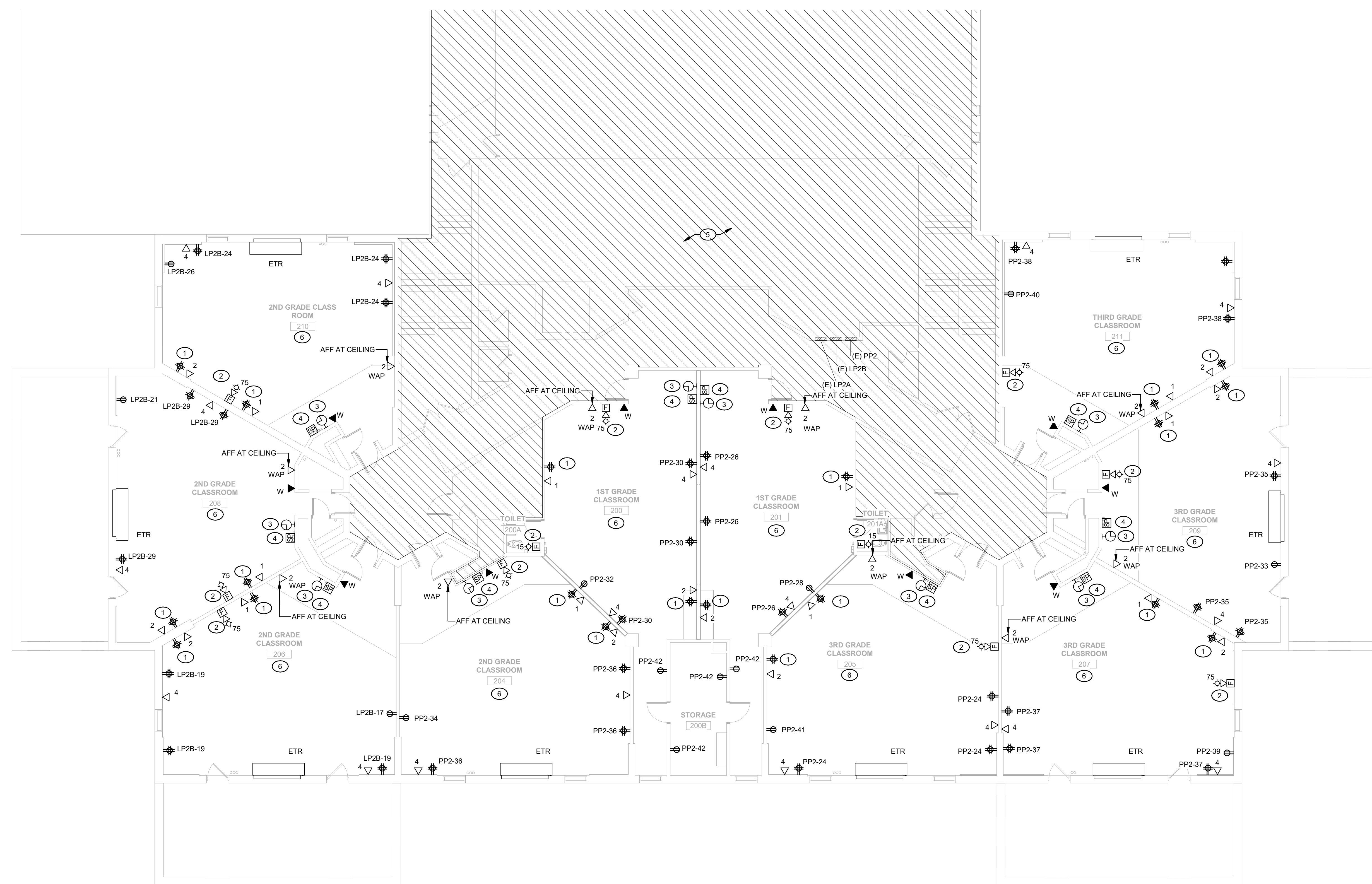


ARCHITECT

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Attn: John Lewis



1 SECOND FLOOR PLAN - POWER
SCALE: 1/8" = 1'-0"

GENERAL NOTES:

1. ALL RECEPTACLES/DATA ON EXISTING BLOCK WALLS TO BE SURFACE MOUNTED (SEE DETAIL). SURFACE MOUNTED RACEWAY SHALL BE MINIMIZED. ALL RECEPTACLES/DATA ON EXISTING WALLS THAT CAN BE FISHED SHALL BE RECESSED AND RACEWAY CONCEALED.
2. COORDINATE EXACT LOCATION OF RECEPTACLES AND DATA OUTLETS SERVING EACH TECHNOLOGICAL REQUIREMENT WITH ARCHITECTURAL DRAWINGS PRIOR TO INSTALLATION.

NOTES BY SYMBOL: (#)

(THIS DRAWING ONLY)

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- 3 PROVIDE NEW BATTERY OPERATED WIRELESS CLOCK. COORDINATE WITH ARCHITECT FOR EXACT HEIGHT AND LOCATION PRIOR TO INSTALLATION.
- 4 PROVIDE A NEW BOGEN CATALOG #MB8TSQVR SURFACE WALL MOUNTED SPEAKER WITH RECESSED VOLUME CONTROL. CONNECT SPEAKER TO EXISTING SPEAKER WIRING RETAINED DURING DEMOLITION. TAP SPEAKER AT 2 WATTS WHEN CONNECTING TO EXISTING WIRING. SPLICE EXISTING SPEAKER WIRING AND EXTEND TO NEW SPEAKER LOCATION AS REQUIRED TO CONNECT SPEAKER IN ITS NEW LOCATION.
- 5 NO WORK TO BE DONE.
- 6 REFER TO DEMOLITION DRAWINGS FOR ELECTRICAL CONTRACTORS REQUIREMENTS FOR EXISTING SURFACE MOUNTED RACEWAY/CONDUIT WITHIN THIS CLASSROOM AND ANY ASSOCIATED CONDUCTORS. ENSURE ALL EXISTING DEVICES WHICH ARE TO REMAIN ARE REFERRED AS REQUIRED TO MAINTAIN POWER CONTINUITY FOR DEVICE.

100% DESIGN SUBMISSION
01/08/2020

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1	02/12/2021 ADDENDUM #2
NO.	DATE REVISION

SCHOOL & LOCATION

WILLIAM CRAMP SCHOOL

3449 N. MASCHER ST
PHILADELPHIA, PA 19140

PROJECT TITLE

**CLASSROOM
MODERNIZATION**

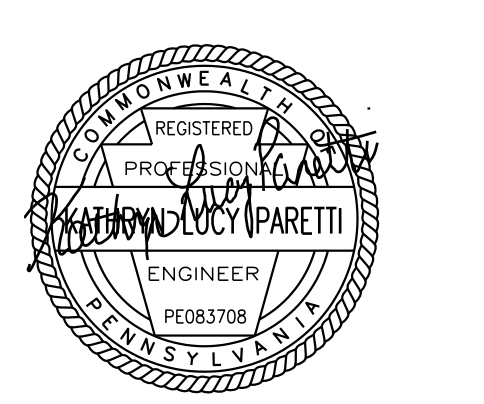
DRAWING TITLE

**SECOND FLOOR PLAN -
POWER**

LOCATION NO.	FILE NO.
DRAWN BY	CHECKED BY
B-014C OF 2020 / 21	B-015C OF 2020 / 21

DRAWING NO.

E21



J. JEFFREY STRAUB, STATE AND LICENSE NO. RA63652

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MEP ENGINEERS: BARRY ISETT + ASSOCIATES, 2 MARKET PLAZA WAY SUITE 7, MECHANICSBURG, PA 17055, PHONE: 717-795-8575. Email: jlewis@barryisett.com, Altir: John Lewis



610.398.0940, barryisett.com

Table 1: Circuit schedule for Panel (E) LP1A. Bus Amp: 400A, Main Breaker: MLO, Phase: 3, Wire: 4. Includes columns for circuit description, breaker, wire, cond, kvaph, and amp.

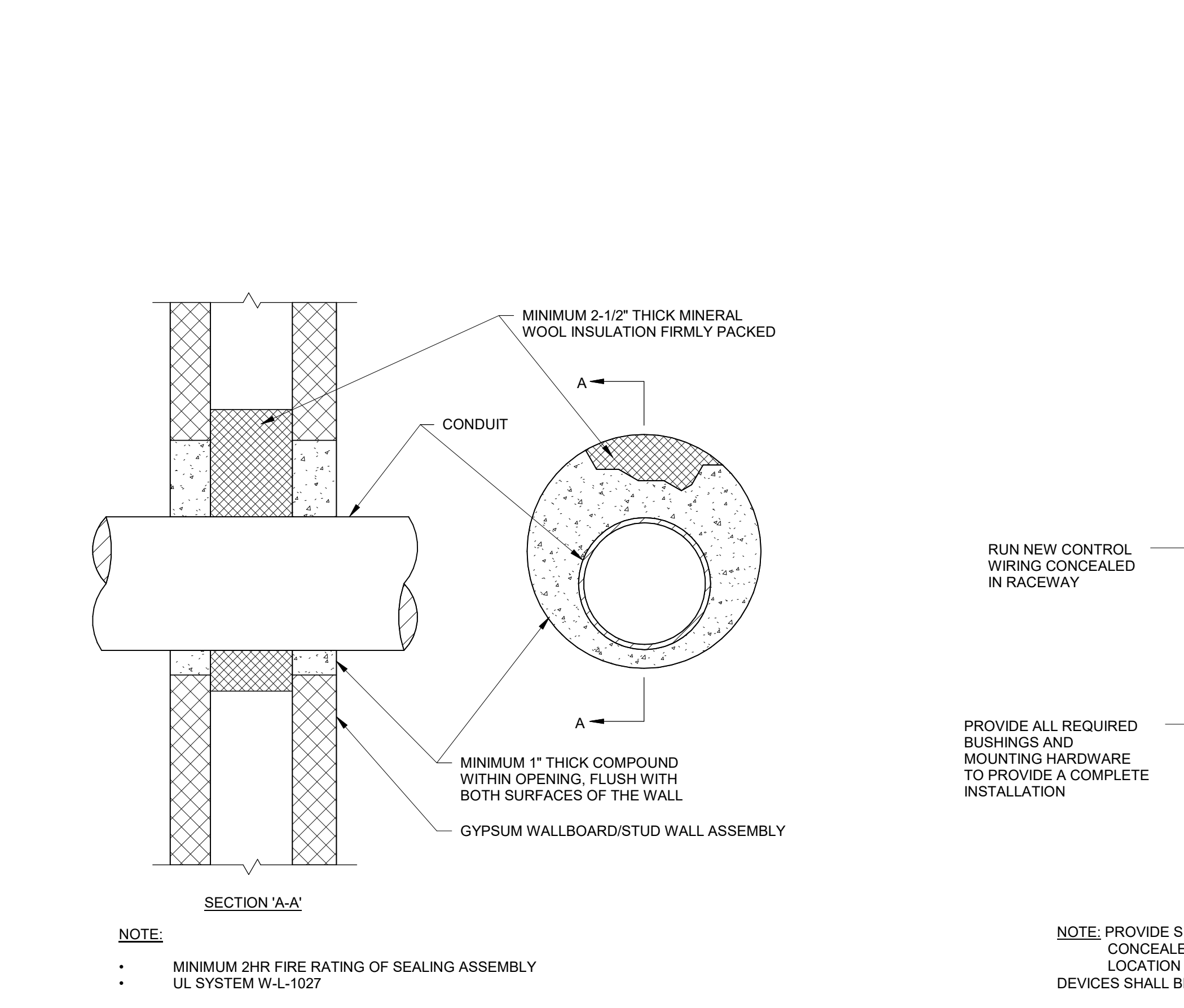
Table 2: Circuit schedule for Panel (E) LP1A. Bus Amp: 225A, Main Breaker: MLO, Phase: 3, Wire: 4. Includes columns for circuit description, breaker, wire, cond, kvaph, and amp.

Table 3: Circuit schedule for Panel (E) LP1B. Bus Amp: 225A, Main Breaker: MLO, Phase: 3, Wire: 4. Includes columns for circuit description, breaker, wire, cond, kvaph, and amp.

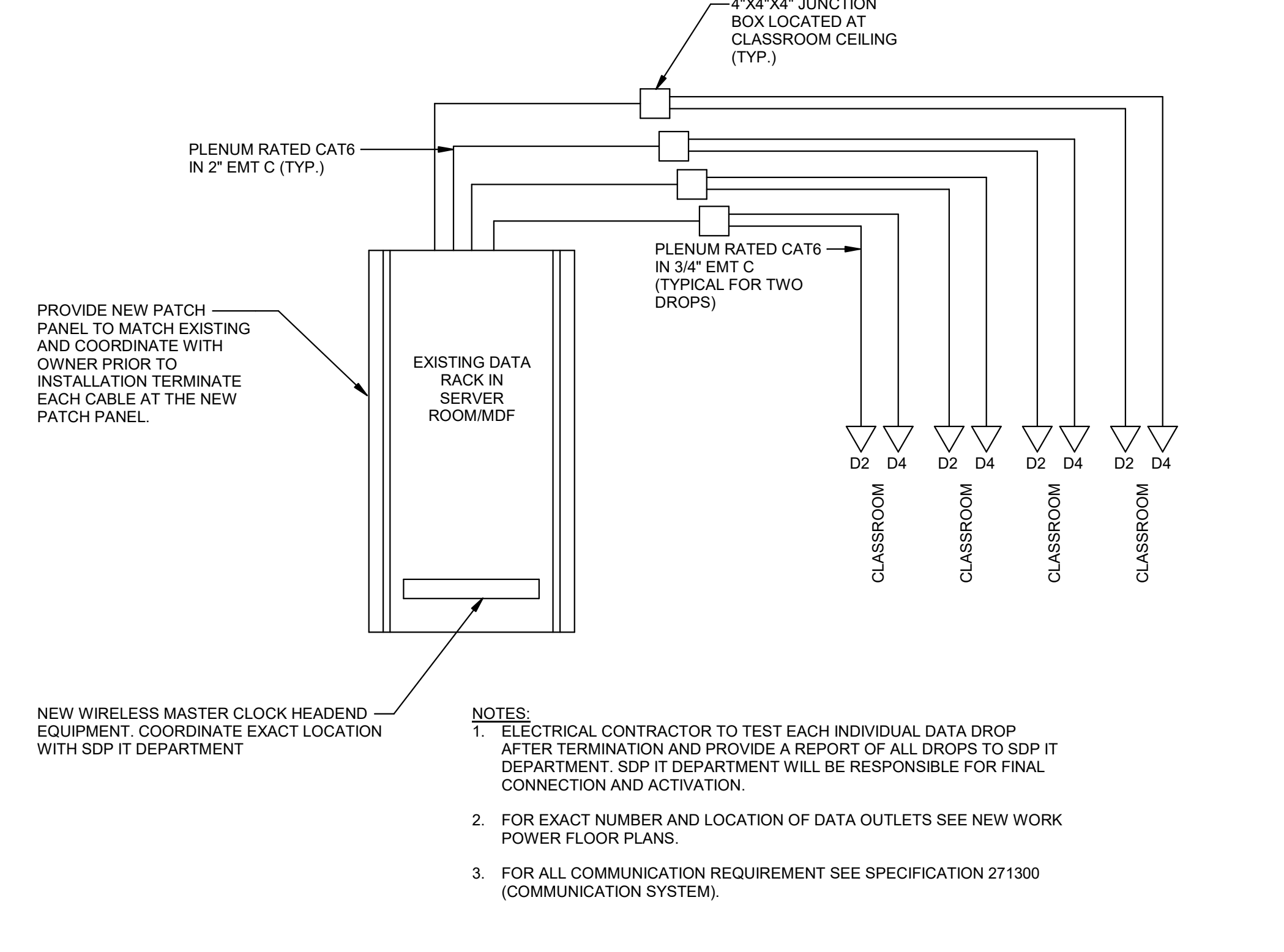
Table 4: Circuit schedule for Panel (E) LP2A. Bus Amp: 100A, Main Breaker: MLO, Phase: 3, Wire: 4. Includes columns for circuit description, breaker, wire, cond, kvaph, and amp.

Table 5: Circuit schedule for Panel (E) LP2B. Bus Amp: 100A, Main Breaker: MLO, Phase: 3, Wire: 4. Includes columns for circuit description, breaker, wire, cond, kvaph, and amp.

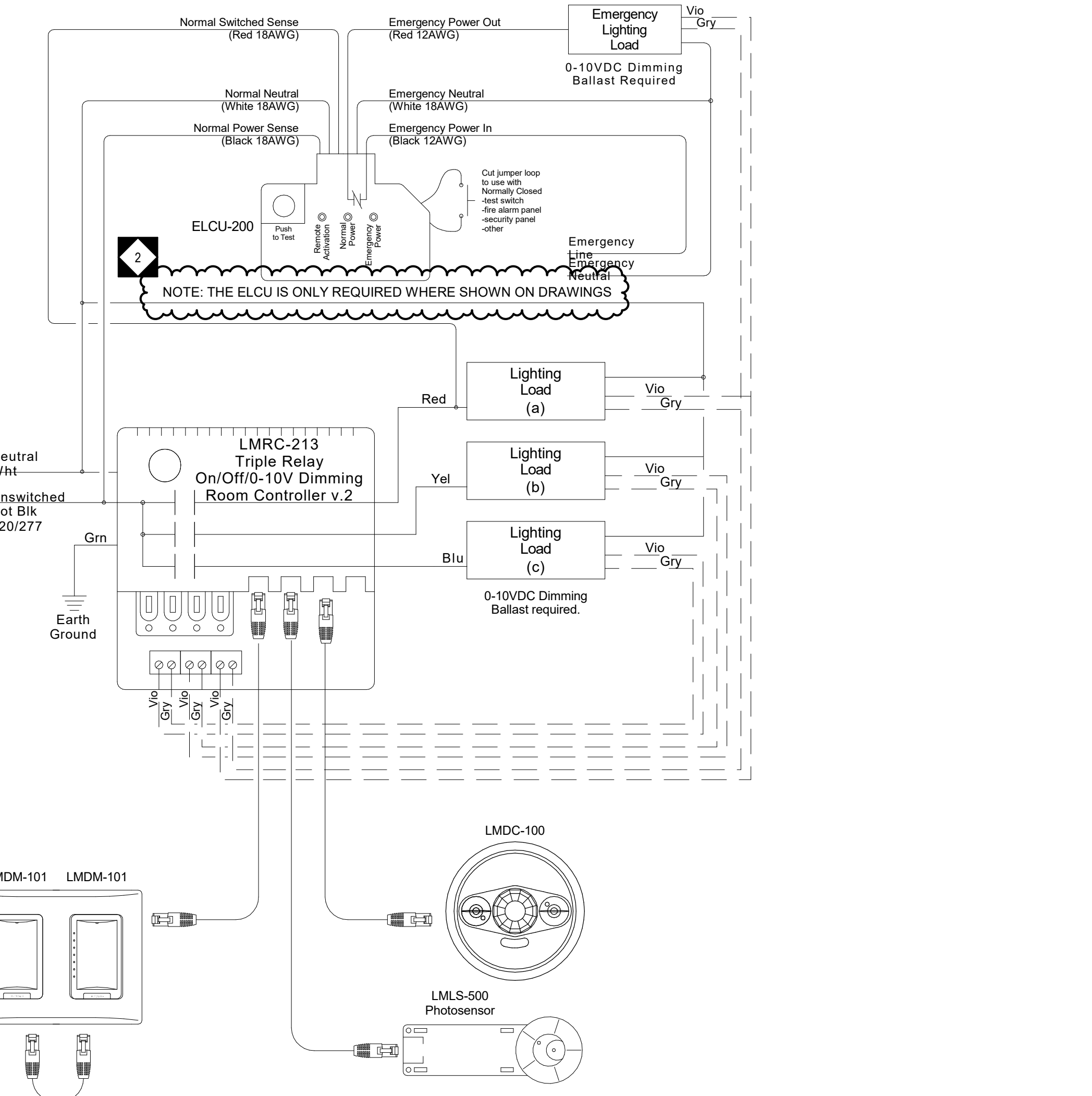
Table 6: Circuit schedule for Panel (E) PP2. Bus Amp: 100A, Main Breaker: MLO, Phase: 3, Wire: 4. Includes columns for circuit description, breaker, wire, cond, kvaph, and amp.



1 WALL CONDUIT PENETRATION - FIRE SEALING SCALENTS



3 EXISTING DATA RACK DETAIL SCALENTS



4 TYPICAL CLASSROOM LIGHTING CONTROLS SCALENTS

PANEL SCHEDULE KEY table with columns for Panel (E) LP1A, (E) LP1B, (E) LP2A, and (E) LP2B.

- NOTES: 1. ELECTRICAL CONTRACTOR TO TEST EACH INDIVIDUAL DATA DROP AFTER TERMINATION... 2. FOR EXACT NUMBER AND LOCATION OF DATA OUTLETS SEE NEW WORK POWER FLOOR PLANS... 3. FOR ALL COMMUNICATION REQUIREMENT SEE SPECIFICATION 271300 (COMMUNICATION SYSTEM).

NOTE: MINIMUM 2HR FIRE RATING OF SEALING ASSEMBLY UL SYSTEM W-L-1027

NOTE: PROVIDE SURFACE CONDUIT RACEWAY WHERE WIRING CANNOT BE CONCEALED IN NEW OR EXISTING WALLS... DEVICES SHALL BE MOUNTED AT APPROPRIATE HEIGHT.

2 TYPICAL SURFACE MOUNTING DETAIL SCALENTS

100% DESIGN SUBMISSION 01/08/2020

Revision table with columns for NO., DATE, and REVISION.

SCHOOL & LOCATION

WILLIAM CRAMP SCHOOL

3449 N. MASCHER ST PHILADELPHIA, PA 19140

PROJECT TITLE

CLASSROOM MODERNIZATION

DRAWING TITLE

ELECTRICAL SCHEDULES & DETAILS

Location No. and File No. fields.

Drawn by and Checked by fields.

Revision table with columns for NO., DATE, and REVISION.

DRAWING NO. E40