

Addendum Number: 04

Addendum Issue Date: May 5, 2025 Owner: Robinson CUSD #2

Project Name: Robinson Washington Elementary

Renovation & Addition

Project Number: 02401781.001

Containing: 103 Pages; 55 Drawings; 8 Specifications Sections

This addendum amends the drawings and specifications of the above reference project and is hereby incorporated into the contract documents as part thereof. Bidders must acknowledge receipt of this Addendum in the space provided on the Bid Form. **FAILURE TO DO SO MAY SUBJECT BIDDER TO DISQUALIFICATION**.

General:

- 1. In the existing building, please use Armstrong Fine Fissured 2x4 square lay-in or approved equal for installation of new ACT in the existing grid.
- 2. GC will be responsible for any asbestos abatement as required to install the proposed work.
- 3. All roof drain bodies and all horizontal storm piping are to be insulated with 1" thick fiberglass with a vapor barrier jacket.
- 4. Exhaust fans EF1 and EF2 are equipment replacement only, utilizing existing grease duct and grease duct wrap. No new fire barrier duct wrap is needed for proposed work.
- 5. For storefront B in the gross motor area, we can add one more 2" x 4.5" vertical frame in between the columns, if we need to meet the windload requirements.
- 6. ACE Sign Co. is an approved substitution for the signage. A physical sample of one sign type will be required for the sign-off for all the manufacturers, and if approved, it can be installed in the project.

Drawings:

- 1. G0.1 GENERAL INFORMATION
 - a. REVISE flush mounting height for MULTI-STALL URNIAL as shown. See attached.
 - b. REVISE clearance at TYPICAL ACCESSIBLE LAVATORY AND MIRROR as shown. See attached.
- SP1.0 SPECIFICATIONS
 - a. REVISE note 2 for specification section H "Upper Landing"
- 3. SP2.0 SPECIFICATIONS
 - a. REVISE section 1.3 measurement and payment for sanitary sewerage section.
- 4. C1.1 SITE & UTILITY PLAN
 - a. DELETE reference to Kee Safety or equal for guardrail/handrail manufacturer. Guardrail/handrail supplied shall be core mounted powder coated steel railing.

- b. ADD callouts to corresponding handrail/guardrail detail for the various sections of handrail/guardrail on the south and west side of the proposed addition.
- c. REVISE building water service. The 6" combined water service shall be separated in a 6' x 8' x 5.5' concrete vault outside of the building. 6" fire service inside the vault shall include two (2) check valves for backflow prevention. The 4" domestic service shall include a 2" Badger Recordall Model M170 disc meter. Vault walls and top shall be 6" class SI concrete. Top to be equipped with a 3'x3' Bilco Door and manhole steps shall be installed for access into the vault. Inside of vault top shall include 2" thick Styrofoam insulation mechanically attached to the underside of the vault top.
- d. REVISE storm sewer listed as "WMC PVC" to read "WMQ PVC". WMQ stands for water main quality and is equivalent to SDR-21 PVC.
- e. ADD cross-section callouts for the egress walks on the south and west side of the proposed addition.
- f. ADD detail 4 to provide more detail for the proposed upper landing footing on the west side of the proposed addition.

5. D1.2 - SITE DETAILS

- a. REVISE detail 4 to provide more detail for the proposed upper landing footing on the south side of the proposed addition.
- b. REVISE Note 1 on detail 2.
- c. DELETE detail 3 and replace with new detail for the guardrail along the egress walks for the proposed addition.

6. AD1.1 - DEMOLITION PLANS

- a. ADD enlarged plan as shown in Detail 6, to clarify demolition at door C-X106-1.
- b. ADD keynote D28.05 to read, "REMOVE EXISTING 'PUSH TO EXIT' BUTTON AND ASSOCIATED HARDWARE". ADD KEYNOTE D28.05 to detail 2 and 6 as shown. See attached.

7. A1.1 – OVERALL FLOOR PLAN

a. REMOVE wall-mounted handrail near the gross motor area. See attached.

A1.1A – ENLARGED FLOOR PLAN – AREA A

a. REMOVE wall-mounted handrail near the gross motor area. REMOVE keynote 05.04. See A1.1 for additional information.

9. A3.1 - EXTERIOR ELEVATIONS

a. REMOVE wall-mounted handrail near the gross motor area shown in detail 4. REMOVE elevation keynote 25. See A1.1 for additional information.

10. A3.3 - EXTERIOR SIGNAGE DETAILS

a. REVISE note to read, "BUILDING MOUNTED TOP ILLUMINATED SIGNAGE – FINAL FONT DESIGN TO BE APPROVED BY ARCHITECT AND OWNER". See exterior signage specifications for more information.

11. A4.1 - BUILDING SECTIONS

a. ADD detail callout to Detail 4 in reference to detail 4/A5.9. See attached.

12. A5.3 - WALL SECTIONS - AREA A

a. REVISE detail callout in Detail 1 in reference to detail 9/A5.9. See attached.

13. A5.9 – EXTERIOR DETAILS

a. REVISE detail 5 to show column extending down to foundation wall. ADD annotations for additional insulation within and around column as shown. See attached.

b. ADD detail 9 to show conditions at gross motor storefront sill between north columns. See attached.

14. A5.10 - EXTERIOR DETAILS

a. REMOVE detail 8 from scope of work. REVISE detail numbers accordingly. See attached.

15. A7.2 - DOOR SCHEDULE, ELEVATIONS AND DETAILS

- a. REVISE doors X101-3 and X101-4 panel and frame to be painted hollow metal. ADD note 2 to each door on schedule.
- b. ADD note 2 to read, "LEVEL 3 BULLET RESISTANT HOLLOW METAL DOOR AND FRAME ASSEMBLY" See attached.

16. A7.3 - GLAZING ELEVATIONS

a. ADD the following note to glazing type H and I, "LEVEL 3 BULLET RESISTANT HOLLOW METAL FRAME AND GLAZING ASSEMBLY – SEE SPECIFICATIONS". See attached.

17. A7.3.1 – GLAZING ELEVATIONS – WINDOW GRAPHICS

a. ADD elevation for glazing type C as shown.

18. A7.4 – GLAZING DETAILS

- a. ADD the following note to detail 5, "GLAZING TYPE B JAMB TO BE 6" IN WIDTH SEE GALZING ELEVATION FOR MORE INFORMATION" See attached.
- b. REVISE jamb shown in detail 7 to be 6" in width to match glazing elevations. See attached.
- c. ADD the following note to detail 9 and 10 to read, "LEVEL 3 BULLET RESISTANT HOLLOW METAL FRAME AND DOOR ASSEMBLY SEE SPECIFICATIONS". See attached.
- d. ADD the following note to detail 11 to read, "LEVEL 3 BULLET RESISTANT WINDOW ASSEMBLY SEE SPECIFICATIONS" See attached.

19. A8.0 - TYPICAL CASEWORK DETAILS

a. ADD detail 9 to show construction detail of stage within gross motor. See attached.

20. A8.1 - TYPICAL CASEWORK DETAILS

a. ADD note E, "Spec 064100 is for the front office reception desk only. Spec Section 123200 is for all other casework", under interior general notes.

21. A8.2 - PRESCHOOL INTERIOR ELEVATIONS AND ENLARGED PLANS

a. ADD undercabinet lighting valance to upper cabinets and associated dimensions in details 2, 4, and 5.

22. A8.3 - KINDERGARTEN INTERIOR ELEVATIONS AND ENLARGED PLANS

a. ADD undercabinet lighting valance to upper cabinets and associated dimensions in details 2, 4, and 5.

23. A8.4 - KINDERGARTEN INTERIOR ELEVATIONS AND ENLARGED PLANS

a. ADD undercabinet lighting valance to upper cabinets and associated dimensions in details 2, 4, and 5.

24. A8.5 - RESTROOM INTERIOR ELEVATIONS AND ENLARGED PLANS

- a. REVISE location of paper towel dispenser and waste receptacle in restrooms T117 and T118. See details 5, 7, 8, 9, and 12.
- b. REVISE location of west wall of restrooms T117 and T118, see revised dimensions shown in detail 5.
- c. REVISE countertop size in restrooms T117 and T118 as shown in details 7 and 9.

25. A8.6 – ADMIN INTERIOR ELEVATIONS AND ENLARGED PLANS

- a. ADD undercabinet lighting valance to upper cabinets and associated dimensions in detail 9.
- b. REVISE location of east wall of Sensory 119, see revised dimension shown in detail 1.
- 26. A8.8 GROSS MOTOR INTERIOR ELEVATIONS AND ENLARGED PLANS

- a. ADD undercabinet lighting valance to upper cabinets and associated dimensions in detail 9.
- 27. IO.1 FINISH SCHEDULES AND GENERAL INFORMATION
 - a. REVISE the Overall Product Finish Schedule as shown.
 - b. ADD Finish Schedule Note #13.
- 28. IO.2 FINISH SCHEDULES
 - a. REVISE the Overall Product Finish Schedule as shown.
 - b. ADD Finish Schedule Note #13.
- 29. I1.1 FIRST FLOOR FINISH PLAN
 - a. REVISE flooring in Gross Motor 101
- 30. I1.1A ENLARGED FINISH PLAN AREA A
 - a. REVISE flooring in Gross Motor 101
- 31. I3.1 INTERIOR FINISH DETAILS
 - a. REVISE detail numbers as shown
 - b. ADD/REVISE details #4 and 5 as shown.
- 32. I4.1A ENLARGED SIGNAGE PLAN AREA A
 - a. REVISE flooring in Gross Motor 101
- 33. I8.1 ENLARGED FINISH PLANS
 - a. ADD wall finish tag to indicate finish in existing vestibule area in detail #1.
 - b. ADD keynote #13 to Corridor C-X101 as shown in detail #1.
- 34. I8.3 ENLARGED FINISH PLANS
 - a. REVISE detail #1 as shown.
- 35. RO.1 INTERIOR RENDERINGS
 - a. REVISE view #1 rendering
- 36. F1.1 FIRE PROTECTION PLAN OVERALL
 - a. REVISE incoming fire service to remove backflow preventer.
 - b. REVISE keynote 1.
- 37. F5.1 DIAGRAMS
 - a. REVISE detail 1.
- 38. P1.1 PLUMBING UNDERSLAB PLAN OVERALL
 - a. REVISE to show both an incoming domestic water and fire service.
 - b. REVISE keynote 1.
- 39. P1.1B PLUMBING UNDERSLAB PLAN AREA B
 - a. REVISE to show both an incoming domestic water and fire service.
 - b. REVISE keynote 1.
- 40. P1.3B PLUMBING WATER PLAN AREA B
 - a. REVISE main domestic water and fire service inside building.
 - b. REVISE keynote 6.
 - c. REVISE backflow preventer tag to BFP-1.
 - d. ADD keynote 7.
- 41. P6.2 SCHEDULES
 - a. REVISE backflow preventer schedule.

42. MD1.1D - ENLARGED MECHANICAL DEMOLITION PLAN - AREA D

- a. REVISE hot water supply and return demolition work for units serving Gym X102A and Cafeteria X102B.
- b. ADD Keynote #9.
- 43. M1.4 OVERALL MECHANCIAL ROOF PLAN
 - a. ADD condensate drain piping serving indoor air handling units AHU-1,2,3,4.
 - b. ADD keynote #6.
- 44. M2.1D ENLARGED MECHANICAL PIPING FLOOR PLAN AREA D
 - a. REVISE hot water supply and return piping serving indoor air handling units AHU-1,2,3,4.
 - b. ADD condensate drain piping serving indoor air handling units AHU-1,2,3,4.
 - c. ADD refrigerant piping serving indoor air handling units AHU-1,2,3,4.
 - d. ADD keynotes #5 and #6.
- 45. M5.2 DIAGRAMS Cont.
 - a. REVISE Diagram #4 KITCHEN HOOD EXHAUST FAN.
- 46. ED1.4 ROOF ELECTRICAL DEMOLITION PLAN
 - a. REVISE existing exhaust fan to be removed. See attached sheet.
 - b. ADD keynote #5.
- 47. E1.1 FIRST FLOOR LIGHTING PLAN AREA A
 - a. ADD undercabinet lights to Preschool 102, 103, 104, 105, 106, and 108. See attached sheet.
- 48. E1.2 FIRST FLOOR LIGHTING PLAN AREA B
 - a. ADD undercabinet lighting to Mothers room 114, Sensory 119, and Nurse 120. See attached sheet.
- 49. E2.1 FIRST FLOOR POWER PLAN AREA A
 - a. ADD power connection to HVAC controls panel in 107. See attached sheet.
 - b. ADD keynote #8 for connection to HVAC panel. See attached sheet.
- 50. E2.4 ELECTRICAL ROOF PLAN
 - a. ADD power connection to EF 4. See attached sheet.
- 51. E2.5 TEMPORARY ELECTRICAL CONNECTIONS
 - a. ADD power connection to EF 4. See attached sheet.
- 52. E5.2 SCHEDULES
 - a. ADD electrical data for EF 4 to equipment data schedule. See attached sheet.
- 53. E5.4 SCHEDULES
 - a. ADD circuit for EF 4 to A-LC-1 panelboard schedule. See attached sheet.
- 54. E5.5 SCHEDULES
 - a. ADD spares to A-LH-2 panelboard schedule. See attached sheet.
- 55. E5.6 SCHEDULES
 - a. ADD spare to INV-B panelboard schedule. See attached sheet.
 - b. ADD circuit for HVAC controls panel to B-LJ-1 panelboard schedule. See attached sheet.
 - c. ADD spares to B-LJ-1 panelboard schedule. See attached sheet.

Specifications:

- 1. 07 4646 FIBER CEMENT SIDING
 - a. ADD sections 2.3.G and 2.4.

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- 2. 08 7100 DOOR HARDWARE
 - a. REVISE hardware set #18.
- 3. 08 4313-3 ALUMINUM-FRAMED STOREFRONTS
 - a. REVISE 2.1.A.3 to read, "6 inches wide by 4-1/2 inches deep".
- 4. 09 6500 RESILIENT FLOORING
 - a. REMOVE 1.5 QUALITY ASSURANCE
 - b. REMOVE 2.1.C and 2.1.D from scope of project
 - c. REVISE 2.2.B to read "Stair Nosings Type [RB-3]: 3 inch horizontal return, 2-3/16 inch vertical return, radius for stage edge."
- 5. 09 6566 RESILIENT ATHLETIC FLOORING
 - a. ADD spec section 09 6566 in its entirety.
- 6. 10 1402 EXTERIOR SIGNAGE
 - a. ADD spec section 10 1402 in its entirety.
- 7. 22 0719 PLUMBING PIPING INSULATION
 - a. ADD sections 3.3.A.3 and 3.3.A.4.
- 8. 23 0713 DUCT INSULATION
 - a. REVISE 2.2.B.2 to read, "Maximum Service Temperature: 250 degrees F."
 - b. ADD 2.2.B.4 to read, "Minimum Density: 0.75 pcf."
 - c. REVISE 2.3.B to read, "Insulation: ASTM C612; rigid, limited-combustible blanket."
 - d. ADD 2.3.B.1 to read, "Maximum Service Temperature: 450 degrees F."
 - e. ADD 2.3.B.2 to read, "Maximum Water Vapor Absorption: 5.0 percent."
 - f. ADD 2.3.B.3 to read, "Minimum Density: 2.25 pcf."

END OF ADDENDUM

Issued By:

FARNSWORTH GROUP, INC. Annapoorna Halepatali Project Architect

Attachments:

Drawings: G0.1, AD1.1, A1.1, A1.1A, A3.1, A4.1, A5.3, A5.9, A5.10, A7.2, A7.3, A7.3.1, A7.4, A8.0, A8.1, A8.2, A8.3, A8.4, A8.5, A8.6, A8.8, I0.1, I0.2, I1.1, I1.1A, I3.1, I4.1A, I8.1, I8.3, R0.1, F1.1, F5.1, P1.1, P1.1B, P1.3B, P6.2, MD1.1D, M1.4, M2.1D, M5.2, ED1.4, E1.1, E1.2, E2.1, E2.4, E2.5, E5.2, E.4, E.5, E.6

Specifications: 07 4646, 08 7100, 096500, 096566, 10 1402, 22 0719, 23 0713

PART 2 PRODUCTS 2.1 MATERIALS Sub-base or Base Material: CA 6 or CA 10. Backfill and Fill Materials: satisfactory soil materials. Engineered Fill: Sub-base or base material. Drainage Fill: CA 7 or as shown on the plans. Material shall meet requirements of E, 1 and 2. Filtering Material: size as shown on the plans 1. The material provided must not exceed any of the following mineral content percentages as determined by a petrographic analysis of the Material Not to Exceed Limestone or Calcite 15% Dolomite Friable Sandstone 10% Shale or Bituminous Coal or 5% Mica Schist 2. A petrograph analysis of the material provided may be required by the Engineer. Testing shall be according to ASTM C295-65 (1973) and shall be done by an approved laboratory. PART 3 EXECUTION

A. Filter Fabric: Manufacturer's standard nonwoven pervious geotextile fabric of polypropylene, nylon or polyester fibers, or a combination per Article 1080.03 of Illinois Department of Transportation, latest edition, Standard Specifications for Road and Bridge Construction.

3.1 PREPARATION A. Protect existing structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earthwork operations. Protect subgrades and foundation soils against freezing temperatures or frost. Provide protective insulating materials as necessary.

Provide erosion control measures to prevent erosion or displacement of soils and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways. 3.2 DEWATERING

A. Prevent surface water and subsurface or ground water from entering excavations, from ponding on prepared subgrades, and from flooding Project site and surrounding area. B. Protect subgrades and foundation soils from softening and damage by rain or water accumulation.

A. Construction shall be per the plans, the above referenced Specifications, and as modified below. 3.4 EXCAVATION

3.3 CONSTRUCTION REQUIREMENTS

A. Explosives: Use of explosives [will not] be permitted. B. Classified Excavation: Excavation is classified and includes excavation to required subgrade elevations. Excavation will be classified as earth excavation or rock excavation as follows:

1. Earth excavation includes excavation of pavements and other obstructions visible on surface; underground structures, utilities, and other items indicated to be demolished and removed; together with soil and other materials encountered that are not classified as rock or unauthorized excavation.

a. Intermittent drilling, [blasting], or ripping to increase production and not necessary to permit excavation of material encountered will be classified as earth excavation

2. Rock excavation includes removal and disposal of rock material and obstructions encountered which, in the opinion of the Engineer,

require for its removal the continuous use of pneumatic tools or [drilling and blasting]. [edit] a. Rock material includes boulders 1/2 cu. yd. (0.38 cu. meter) or more in volume and rock in beds, ledges, unstratified masses, and conglomerate deposits

b. The Contractor shall be required to demonstrate that the material cannot be removed "by hand pick" or by a power operated excavator or shovel of at least 3/4 cubic yard (0.57 cubic meter) capacity, which is in good working condition. No payment will be made for Rock Excavation unless air tools or [explosives] [edit] were used by the Contractor. c. No payment will be made for Rock Excavation unless the Engineer approves such payment in writing in advance upon being satisfied that

the material meets the above criteria. 3.5 EXCAVATION FOR STRUCTURES

A. Excavate to indicated elevations and dimensions within a tolerance of plus or minus 0.10 foot (30 mm). Extend excavations a sufficient distance from structures for placing and removing concrete formwork, installing services and other construction, and for inspections. Excavations for Footings and Foundations: Do not disturb bottom of excavation. Excavate by hand to final grade just before placing concrete reinforcement. Trim bottoms to required lines and grades to leave solid base to receive other work.

3.6 APPROVAL OF SUBGRADE Notify Engineer when excavations have reached required subgrade. B. When Engineer determines that unforeseen unsatisfactory soil is present, excavate and replace with approved compacted backfill or fill

Unforeseen additional excavation and replacement material will be paid according to the Contract provisions for Extra Work. Reconstruct subgrades damaged by freezing temperatures, frost, rain, accumulated water, or construction activities, as approved by the

Test rolling of subgrade for parking lots, roads and streets. The Contractor will provide, at his own expense, a loaded truck and test roll the compacted earth subgrade in the presence of the Engineer before any sub-base, base or surface material is placed. The truck shall be loaded as follows: 27,000 pounds on two axles and 45,000 pounds on three axles with a tolerance not to exceed 10 percent. The Contractor shall give the Engineer 48-hour notice prior to test 2. The truck shall make one pass over the entire subgrade area to be constructed. Any areas which show rutting, cracking or rolling of the compacted subgrade upon test rolling will not be accepted. The Contractor will recompact and/or reconstruct the section that fails and test

Repairs and/or reconstruction of subgrade will be paid according to the contract provisions for Extra Work. 3.7 STORAGE OF SOIL MATERIALS A. Stockpile excavated materials acceptable for backfill and fill soil materials, including acceptable borrow materials. Stockpile soil materials

without intermixing. Place, grade, and shape stockpiles to drain surface water. 1. Stockpile soil materials away from edge of excavations. Do not store within drip line of remaining trees. 3.8 BACKFILL

A. Backfill excavations promptly, but not before completing the following: 1. Acceptance of construction below finish grade including, where applicable, damp proofing, waterproofing, wall bracing and perimeter Surveying locations of underground utilities for record documents.

Concrete formwork removal. Removal of trash and debris from excavation. Removal of temporary shoring and bracing, and sheeting.

roll again prior to acceptance.

3.9 COMPACTION

A. Place backfill and fill materials in layers not more than 8 inches (200 mm) in loose depth for material compacted by heavy compaction equipment, and not more than 4 inches (100 mm) in loose depth for material compacted by hand-operated tampers. B. Place backfill and fill materials evenly on all sides of structures to required elevations. Place backfill and fill uniformly along the full length of each structure. Percentage of Maximum Dry Density Requirements: Compact soil in accordance with soils report. In lieu of a soils report, compact soil to not less than the following percentages of maximum dry density according to ASTM D 698: (standard)

Under structures, building slabs, steps, and pavements, compact the top 12 inches (300 mm) below subgrade and each layer of backfill or fill material at 98 percent maximum dry density. 2. Under walkways, compact the top 6 inches (150 mm) below subgrade and each layer of backfill or fill material at 95 percent maximum dry

3. Adjacent to structures, under lawn or unpaved areas, compact the top 6 inches (150 mm) below subgrade and each layer of backfill or fill material at 90 percent maximum dry density. 3.10 GRADING

A. General: Uniformly grade areas to a smooth surface, free from irregular surface changes. Comply with compaction requirements and grade to cross sections, lines, and elevations indicated. Provide a smooth transition between existing adjacent grades and new grades.

Cut out soft spots, fill low spots, and trim high spots to conform to required surface tolerances. Site Grading: Slope grades to direct water away from buildings and to prevent ponding. Finish subgrades to required elevations within the following tolerances: Lawn or Unpaved Areas: Plus or minus 0.10 foot . Walks: Plus or minus 0.10 foot

A. Under slabs-on-grade, place drainage fill course on prepared subgrade. Compact drainage fill to required cross sections and thickness. When compacted thickness of drainage fill is 6 inches (150 mm) or less, place materials in a single layer.

3.12 FIELD QUALITY CONTROL

3.13 PROTECTION A. Protecting Graded Areas: Protect newly graded areas from traffic, freezing, and erosion. Keep free of trash

B. Repair and re-establish grades to specified tolerances where completed or partially completed surfaces become eroded, rutted, settled, or lose compaction due to subsequent construction operations or weather conditions.

Scarify or remove and replace material to depth approved by the Engineer; reshape and recompact at optimum moisture content to the required density

Where settling occurs during the Project correction period, remove finished surfacing, backfill with additional approved material, compact, and reconstruct surfacing. Restore appearance, quality, and condition of finished surfacing to match adjacent work, and eliminate evidence

of restoration to the greatest extent possible.

3.14 DISPOSAL OF SURPLUS AND WASTE MATERIALS

A. Disposal: Remove surplus satisfactory soil and waste material, including unsatisfactory soil, trash, and debris, and legally dispose of it off the Owner's property. 1. Owner reserves the right to have selected excavated materials deposited at designated locations within the site at no additional cost to the Owner.

B. Disposal: Transport surplus satisfactory soil to designated storage areas on the Owner's property. Stockpile or spread soil as directed by Owner 1. Remove waste material, including unsatisfactory soil, trash, and debris, and legally dispose of it off the Owner's property.

PART 1 - UNIT PRICE DESCRIPTIONS

1.1 The Work shall be performed and paid for according to the following Unit Prices: A. PCC COMBINATION CURB & GUTTER, B6.12

1. This Work shall include but not be limited to all material, equipment, labor and transportation necessary for the installation of Curb and Gutter.

2. All work shall be in accordance with the Standard Specifications for Road and Bridge Construction, Section 606. 3. All curb and gutter shall transition to the configuration where connecting to existing curb or curb and gutter.

4. Payment and Measurement: a. This work will be measured for payment by the lineal foot as measured along the back of the curb.

b. This work will be paid for at the contract unit price per foot for PCC COMBINATION CURB & GUTTER, B6.12.

B. CONNECTION TO EXISTING STRUCTURE 1. This Work shall include but not be limited to the following:

a. Material, equipment, labor and excavation necessary for connecting proposed piping to existing manholes, b. Provide and install suitable fittings, couplings, or adapters as required to make the connections shown on the

Plans. Connections shall be made in a watertight manner and be structurally sound. c. Connect to existing piping with new pipe of the same material.

d. Connection should be completed using a Fernco coupling with stainless steel shear rings with a concrete base to help support the joint and keep the two pieces of pipe from offsetting e. PCC base for connection to existing storm sewer piping shall meet the following minimum dimensions: 24" long (centered on joint), extend 6" beyond each outside edge of pipe, 8" thick.

2. All work shall be in general conformance with the Standard Specifications for Water and Sewer Main Construction in Illinois.

3. Payment and Measurement: a. This work will be measured for payment per each connection made. b. This work will be paid for at the contract unit price per each for CONNECT TO EXISTING STRUCTURE.

C. MOBILIZATION 1. This Work shall include but not be limited to all preparatory work and operations necessary for the movement of personnel, equipment, supplies, and incidentals to the project site and for all other work or operations which must

be performed or costs incurred when beginning work on the Project. 2. Only initial mobilization will be paid for. Subsequent mobilizations for any reason shall not be paid for but shall be considered incidental to the contract.

3. The total amount which the Contractor will receive payment for this item will be limited to six percent of the original total contract amount. Should the bid for this work exceed six percent, the amount of six percent will not be paid until the work is substantially complete.

4. Payment a. This work will be paid for at the contract LUMP SUM price for MOBILIZATION.

D. TRENCH BACKFILL

1. This Work shall include, but not be limited to, the following: a. All material, equipment, labor and transportation necessary to install trench backfill (select granular backfill) in all trenches made in the subgrade under and within 2 feet of proposed pavement, curb, gutter, driveway, or

b. Compaction of the IDOT trench backfill. Compaction shall be completed per Methods 1, 2, or 3 described in Article 550.07 of the IDOT Standard Specifications for Road and Bridge Construction, Current Addition, Please note the compaction method is dependent on the material selected for trench backfill and the contractor is responsible for selecting a compaction method that is allowable with the trench backfill material they propose

2. Jetting (Method 3) is permitted and water for jetting shall be obtained by Contractor from hydrants along construction area. Contractor to coordinate water usage with Illinois American Water. A hydrant meter must be used to quantify amount of water used for jetting. 3. Materials shall be in accordance with the following:

a. Fine aggregates selected for IDOT trench backfill shall be in accordance with Article 1003.04 of the IDOT Standard Specifications for Road and Bridge Construction, Current Addition. b. Coarse aggregates selected for IDOT trench backfill shall be in accordance with Article 1004.05 of the IDOT Standard Specifications for Road and Bridge Construction, Current Addition.

4. Trench backfill (select granular backfill) is required across the full width of the trench. 5. Maximum trench width shall be 1.5 feet from the outside edges of the proposed pipe. Select granular backfill required due to trench widths in excess of the maximum width shall be considered incidental to the Contract and no payment will be made for this work.

6. Submittals: a. Select Granular Backfill material gradation report and sources. 7. Measurement and Payment:

b. This work will be paid for at the unit price per CUBIC YARD for TRENCH BACKFILL.

E. PCC SIDEWALK

1. This Work shall include but not be limited to all equipment, labor and transportation necessary for the construction of sidewalks 2. All work shall be in general conformance with the Standard Specifications for Road and Bridge Construction in

Illinois Section 424 and detail 6 on Sheet D1.2. 3. Thickness of replacement sidewalk shall match existing sidewalk thickness in kind but with a minimum thickness of

4. Width of sidewalk shall be per the construction drawings.

a. This work will be measured for payment by the square foot.

5. Payment and Measurement:

a. This work shall be measured by the CUBIC YARD.

b. This work will be paid for at the contract unit price per square foot for PCC SIDEWALK. F. DETECTABLE WARNINGS

1. This work shall include but not be limited to:

a. All material, equipment, labor and transportation necessary to remove and replace or add detectable warnings at sidewalk accessible ramps. b. This work shall be performed in accordance with IDOT Standards 424001-07, 424006-01, 424011-01,

424016-01, Federal PROWAG guidelines and Illinois ADA c. Detectable warnings shall consist of a surface of truncated domes meeting the requirements of the standards referenced above and the details shown on the plans.

2. Payment and Measurement:

a. This work will be paid for at the unit price per square foot for DETECTABLE WARNINGS.

G. HOT MIX ASPHALT (HMA) PAVEMENT, 4.5"

1. This Work shall include, but not be limited to, the following:

a. Material, equipment, labor and transportation necessary for construction of new pavements with hot mix asphalt

b. Saw cut, prepare and protect all edges of existing pavements.

c. Subbase and subgrade materials, placement, compaction and testing. d. Temporary driving surfaces and detours.

e. Bituminous surfaces materials and their placement, consolidation, finishing and testing. 2. All work shall be in general conformance with the Standard Specifications for Road and Bridge Work in Illinois Section 406 and details as shown on the Plans.

3. HMA mixture composition shall be IL-9.5 in accordance with Section 1030 of the Standard Specifications for Road and

4. Demolition materials and debris shall be disposed of legally at sites to be arranged for by the Contractor. Submittals

a. HMA Bituminous specifications

6. Measurement and Payment: a. This work will be measured for payment by the SQUARE YARD.

b. This work will be paid for at the contract unit price per SQUARE YARD for HMA PAVEMENT, 4.5".

H. UPPER LANDING

1. This Work shall include but not be limited to all materials, equipment, labor and transportation necessary for the construction of a reinforced concrete retaining wall.

All work shall be in general conformance with the Standard Specifications for Road and Bridge Construction in Illinois and detail 4 on Sheet D1.2. . Concrete shall be class SI in accordance with Table 1 in Section 1020 of the Standard Specifications for Road and

Bridge Construction in Illinois

4. Submittals: a. PCC Mix Design.

b. Shop drawings for reinforcing steel.

 c. Field test reports for PCC. 5. Payment and Measurement:

a. This work will be measured for payment by the LINEAL FOOT. b. This work will be paid for at the contract unit price per foot for UPPER LANDING.

END OF SECTION

I. TAPPING VALVE AND SLEEVE 1. This Work shall include but not be limited to all material, excavation, equipment, labor and transportation necessary to furnish and install tapping valves and sleeves and wet taps in accordance with the requirements of the Standard Specifications for Water and Sewer Main Construction in Illinois.

Contractor shall physically make the taps.

3. Contractor shall field verify location, size, depth and orientation of the existing pipe to be tapped. Underground utilities shown on the Plans (including existing water mains and services) are based on the "best available information" and are only intended to be approximate. The Contractor is responsible for determining exact locations, sizes, and types of

pipe of any underground utilities (including water mains and services) which may affect his work.

4. Tapping sleeve shall be stainless steel and conform to AWWA C223. All bolts and hardware shall be stainless 18-8 stainless steel. Assembly seals shall be testing according with AWWA C223 at a pressure of no less than 75 PSI. Tapping sleeves up to and including eight-inch nominal diameter shall be Cascade CST-SL, Ford FAST, or approved equal. Tapping sleeves larger than eight-inch nominal diameter shall be Cascade CST-EX or approved equal.

5. The tapping valve shall be resilient seat type with body and bonnet made of ductile iron for 250 psig working pressure. The mating valve flange to the tapping sleeve outlet must have a raised male face, conforming to MSS SP-60, to ensure true alignment of valve and tapping machine. The outlet end of the valve shall have the desired joint connection for the intended pipe. All interior and exterior ferrous surfaces shall be protected against corrosion by fusion bonded epoxy coating. Coating shall be applied prior to assembly to assure coverage of all exposed areas, including bolt holes. All joints shall be restrained.

6. Coordinate tapping of existing mains with utility owner.

7. Sizes listed on Plans correspond to tapping valve size. Contractor shall verify size and dimensions of existing main to be tapped.

Payment and Measurement:

a. This work shall be measured per each tapping valve and sleeve installed.

b. This work will be paid for at the unit price per each for TAPPING VALVE AND SLEEVE of the specified valve size.

1. This Work shall include, but not be limited to, all material, excavation, equipment, labor and transportation necessary to furnish and install water main in accordance with the requirements of the Standard Specifications for Water and Sewer

Main Construction in Illinois. 2. This Work shall include, but not be limited to, the following:

b. Furnish and install pipe bedding, haunching and initial fill of the type and class shown on the Plans

c. Furnish and install plugs, caps, adapters and couplings as required to complete the work. d. Furnish and install bends, fittings, taps, and other appurtenances as required for a complete installation.

e. Perform all testing and disinfection as required by Standard Specifications and State Health Laws. f. Provide trench dewatering as needed to complete the work.

h. Make connections to existing systems using necessary adapters, fittings, couplings, etc. as needed.

i. Removal, disposal and capping of existing abandoned transite raw water main, as necessary. Location and alignment shown on plans are estimated based on air release valves. Removed sections do not need to be replaced and open segments shall be capped to prevent loss of trench backfill.

a. PVC SDR-21 per ASTM D2241. Joints shall be flexible elastomeric-gasket couplings complying with ASTM F477 and pressure rated in accordance with ASTM D3139.

b. PVC C900 DR18 with AWWAC110/AWWAC153 restrained and thrust blocked fittings per ASTM F1674. 4. Fittings for vertical adjustments shall be considered incidental to the contract. Contractor shall conduct all exploratory excavation necessary to determine the depths of all utility crossings and adjust the grade of the water main as necessary to avoid additional fittings.

accessible for locating equipment, but not hinder valve operation. 6. Disinfection shall be in strict accordance with the Standard Specifications for Water and Sewer Construction in Illinois, latest edition. Contractor shall be responsible for all sampling and testing of their work. Provide sample taps at

distances not to exceed 1200 lineal feet apart for testing and sampling. Properly abandon sample taps below grade when water main has passed all testing. 7. Pressure testing shall be 100 PSI for 2 hrs. Allowable leakage shall be per the Standard Specifications. All testing

8. Submittals: a. Pipe specifications

 b. Fittings specifications c. Tracer wire specifications

Measurement and Payment: a. Water main:

a This work shall be measured by the LINEAL FOOT along the centerline of the proposed pipe through

b This work will be paid for at the unit price per LINEAL FOOT for WATER MAIN of the type and size specified K. WATER SERVICES

1. This Work shall include but not be limited to all material, excavation, equipment, labor and transportation necessary to furnish and install water main services as shown on the Plans.

This Work shall include but not be limited to a. Tapping the water main and installation of a double band bronze tapping saddle as manufactured by Mueller or equal on PVC and HDPE mains.

b. Installation of a corporation stop, Mueller #H-15000 or equal on the water main. c. Installation of NSF approved water service line (with tracer wire for HDPE installations) via open cut or boring methods.

d. Installation of a meter pit of the brand and type as directed by the Robinson Public Works Department e. Restore any disturbed surfaces or structures

3. Water services shall be a minimum of 2" SDR 9, 250 Class. Fittings, valves and taps shall all be the same nominal 4. No separate measurement of pavement and surface restoration, curb and gutter, sidewalk, etc. shall be made for water

services. Necessary restorations associated with the water service installation shall be considered incidental to the water service pay item. 5. Payment and Measurement:

a. This work shall be measured per each unit installed. b. This work will be paid for at the unit price per EACH for DOMESTIC WATER SERVICE, of the type and size

BID SET

04/03/2025

2211 WEST BRADLEY AVENUE

CHAMPAIGN, ILLINOIS 61821

DATE: DESCRIPTION:

4 05/05/2025 ADDENDUM #4

(217) 352-7408 / info@f-w.com

www.f-w.com

Engineers | Architects | Surveyors | Scientists

Robinson CUSD #2

WASHINGTON **ELEMENTARY**

RENOVATION &

ADDITION

WASHINGTON ELEM.SCHOOL 507 W.Condit St.

DATE: 04/03/2025 DESIGNED: JRR GAB DRAWN: JRR REVIEWED: FIELD BOOK NO.:

SPECIFICATIONS

PROJECT NO.:

proposed on-site and borrow soils to verify that soils comply with specified requirements and to perform required field and

classify proposed on-site and borrow soils to verify that soils comply with specified requirements and to perform required field

D. Testing and Inspection Service: Contractor shall employ a qualified independent geotechnical engineering testing agency to

1. Joint Utility Location Information for Excavators: Contractor shall call the toll-free J.U.L.I.E. telephone number,

1-800-892-0123, before starting excavation. Allow 48 hours for other than emergency assistance.

and laboratory testing.

Coordinate with other work.

B. Protect and maintain existing utilities.

1.7 PROJECT CONDITIONS

3.11 DRAINAGE FILL

Pavements: Plus or minus 1/2 inch

When compacted thickness of drainage fill exceeds 6 inches (150 mm) thick place materials in equal layers, with no layer more than 6 inches (150 mm) thick nor less than 3 inches (75 mm) thick when compacted.

A. Testing Agency Services: Allow testing agency to inspect and test each subgrade and each fill or backfill layer. Do not proceed until test results for previously completed work verify compliance with requirements.

WATER MAIN FOR FIRE SERVICE

a. All material, equipment, labor and transportation necessary to install water main as shown on the Plans.

g. Pot hole or otherwise locate existing utilities and services ahead of pipe laying operations and adjust water main depth and location as necessary to avoid and minimize conflicts with utilities.

Pipe materials:

5. Furnish and install #12 THHN solid and insulated tracer wire from valve box to valve box where it shall be readily

shall be conducted in the presence of the Owner's Representative. Give Owner 48 hours notice of any testing.

Robinson, II 62454

SHEET NUMBER:

SECTION 020600 - PROJECT DEMOLITION PROJECT DEMOLITION 020600 - 6 RELATED DOCUMENTS A. General provisions of the Contract, including General Conditions, Special Provisions, and Division 1 Specification Sections all apply A. This Section includes the following: ADJUST LIST BELOW TO SUIT PROJECT Demolition and removal of specific site items. Disconnecting, capping or sealing, and removing site utilities. Section 1 - Contract Provisions A. Remove and Lawfully Dispose: Remove and lawfully dispose of items except those indicated to be reinstalled, salvaged, or to remain the Owner's property B. Remove and Salvage: The Contractor will become the Owner of all removed materials. MATERIALS OWNERSHIP A. All designated, demolished materials shall become the Contractor's property and shall be removed from the site with further disposition at the Contractor's option and expense. A. Submittals prior to start of demolition: Prepare and submit the Local Authority demolition and building permit demolition plan, check-list, interim and close-out paperwork and forms. The Owner and Engineer shall be copied. 2. State and Local permit fees, if any, will be paid (or reimbursed with receipt) by the Owner. Schedule of demolition activities indicating the following: Detailed sequence of demolition and removal work, with starting and ending dates for each activity. Dates for shutoff and capping of utility services. Photographs or videotape, sufficiently detailed, of existing conditions of adjoining construction and site improvements that might be misconstrued as damage caused by demolition operations. 1.6 QUALITY ASSURANCE A. Demolition Firm Qualifications: Engage an experienced firm that has successfully completed demolition Work similar to that Regulatory Requirements: Comply with hauling and disposal regulations of authorities having jurisdiction. Obtain and pay for all 1.7 PROJECT CONDITIONS Owner assumes no responsibility for actual condition of buildings to be demolished. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical. Review reports and investigation materials available from Owner prior to starting demolition work as listed in the Special Conditions On-site sale of removed materials will not be permitted. C. Contractor shall observe all applicable local codes and ordinances. A. Coordinate with OWNER all demolition scheduling. Working hours: Demolition operations shall be allowed between the hours of 7:00 a.m. and 8:00 p.m., Monday through Saturday, or in accordance with Local Noise Ordinance requirements.

Coordinate with utility providers for utility abandonment. Coordinate work with adjacent properties which may be affected by the Work.

Backfill Materials: Contractor shall provide CA-7 granular backfill according to Illinois Department of Transportation's Standard Specifications for Roads and Bridges.

Locate existing active utilities and determine the requirements for their protection with respect to the demolition work. Utility Service Removal: Locate, identify, and disconnect all utility services at the main that are serving structures to be demolished in accordance with the utility company's standards.

Follow notification procedures as required by utility providers. Any associated fees from utility companies shall be included in the Base Bid price. Contractor shall be responsible for obtaining all necessary permits and permissions and any requirements of the utility company. Sewer services shall be capped at the main and filled from the property line to the main with flowable fill. Obtain necessary permits from local authorities as required for working within their right-of-way. Contractor shall comply with

requirements for traffic control, drainage maintenance, patching, backfilling, testing requirements, documentation, etc. as required to Water services shall be terminated at the water main at the tap. Remove and replace all associated sidewalks/pavements as Work shall be done by persons licensed to perform the work in the respective trade. Do not start demolition work until utility

disconnections has been completed and verified in writing. Inspect existing conditions and correlate with requirements indicated to determine extent of demolition required. See the plans for extent of demolition limits.

Perform inspections as the work progresses to detect hazards resulting from demolition activities.

Contractor shall obtain and prepare all permits required for demolition activities. Contractor shall limit operations to within the demolition limits defined on the plans

D Drain, purge, or otherwise remove, collect, and legally dispose of chemicals, gases, explosives, acids, flammables, or other dangerous materials in accordance with proper EPA regulations before proceeding with demolition operations. Conduct demolition operations and remove debris to ensure minimum interference with roads, parking lot, light poles, security fence or other adjacent occupied and used facilities.

Contractor shall not close any adjacent streets to vehicular traffic. Provide and maintain appropriate traffic control as necessary to perform the work. Contractor shall notify the proper authorities and obtain and submit necessary permits required for site specific road closures. Contractor shall provide necessary signage, signals, and barricades according to Federal, State, and local regulations. Do not close or obstruct streets or other adjacent occupied or used facilities without permission from Owner and authorities having jurisdiction. Provide alternate routes around obstructed traffic ways if required by governing regulations.

Conduct demolition operations to prevent injury to people and damage to facilities to remain. Ensure safe passage of people around Erect temporary protection such as walks, fences, railings, canopies, and covered passageways, where required by

Contractor shall erect a plainly visible 4-foot orange snow fence around the limits of demolitions, shown on the plans, to deter Protect existing site improvements, appurtenances, adjacent properties, sidewalks, pavements and landscaping to remain.

Contractor shall furnish all labor, material, and equipment necessary to remove the designated hardscapes, and all other required materials within the defined site limits of demolition as shown on the plans.

Filling Below-Grade Areas: Completely fill below-grade areas and voids resulting from demolition operations in accordance with the Damages: Promptly repair damages to adjacent facilities caused by demolition operations. Reparations to public infrastructure must be constructed to Local code and standards and be approved by Local authorities

Perform backfilling using machinery. Take caution when necessary to prevent displacing walls, foundations, or buried utilities or

Prior to backfilling any substructure the bottom slab must be rubblized to the extent to which water drainage readily occurs. Do not place backfill material on wet or frozen areas Place backfill in one-foot lifts and perform compaction using appropriate machinery. No specific Proctor Compaction Testing properties shall be required. Compaction shall be performed to the satisfaction of the Owner.

Site Grading: Site shall be graded to provide positive drainage as indicated on the Plans. Where no contours or spot elevations are shown, provide positive drainage to adjacent drainage structures following the natural land surface contours. Remove or place topsoil materials to achieve positive drainage and the ability to grow grass turf.

3.5 DISPOSAL OF DEMOLISHED MATERIALS

the appropriate disposal facility.

A. General: Promptly salvage or dispose of demolished materials. Do not allow demolished materials to accumulate on-site.

B. Burning: Burning of demolished materials will not be permitted. RETAIN BELOW IF DISPOSAL IS PERMITTED ON OWNER'S PROPERTY. REVISE BELOW, IF APPLICABLE, TO INDICATE LIMITS ON TYPE OF MATERIALS THAT MAY BE DISPOSED OF ON-SITE.

. Disposal: Transport demolished materials off Owner's property and legally dispose of them.

Contractor shall be responsible for any charges associated with disposal of materials to landfill or recycling centers Contractor shall be responsible to determine the proper waste characterization and recycling or disposal methods to ensure that waste materials are recycled or disposed according to procedures that are consistent with applicable regulations. Contractor shall provide equipment, personnel and facilities necessary to load materials for transport and complete transportation to

3.6 ENVIRONMENTAL CONTROLS REVISE METHODS IN PARA BELOW TO SUIT PROJECT. WATER MIST MAY NOT BE ACCEPTABLE.

A. Dust Control: To prevent spread of dust during demolition work, use water mist, temporary enclosures, and other methods approved by Owner and coordinate with the Owner for its use. Environmental protection regulations apply.

a. Contractor shall be allowed to use Owner hydrants or water supply connection(s) for a water supply. Contractor will be required to meter water usage but will not be charged for water usage. Do not create hazardous or objectionable conditions, such as ice, flooding, and pollution, when using water.

B. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.

C. Cisterns, septic tanks, or cesspools, if encountered, shall be pumped and contents disposed of by a licensed septic tank hauler.

D. Drainage: Keep gutters, sewers, drains, and ditches open for surface drainage. No damming or ponding of water shall be permitted.

E. Keep excavations free from water during the performance of work.

F. Return adjacent areas to condition existing before start of demolition.

3.7 PROTECTION

A. Exercise care during demolition work to confine demolition operations to the site. The physical means and methods used for protection are at the Contractor's option. Contractor shall be completely responsible for the replacement and restitution work of whatever nature at no expense to the Owner.

Provide adequate protective measures to protect public pedestrian and vehicular traffic on streets and walkways. Signs, signals, and barricades used shall conform to requirements of Federal, State, and local laws and regulations.

3.8 EXPLOSIVES

A. Explosives shall not be permitted.DELETE THIS ARTICLE WHEN DRAWINGS SHOW ALL DEMOLITION NOTES AND LISTS. WHEN OTHER PART 3 ARTICLES ABOVE DO NOT SUFFICE, ADD A DETAILED DEMOLITION SCHEDULE BELOW.

END OF SECTION 020600LIST ITEMS TO BE REMOVED.

DIVISION 33 - UTILITIES SECTION 334200 - STORMWATER CONVEYANCE

PART 1 GENERAL 1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General Conditions, Special Provisions, and Specification Sections, apply to this Section.

1.2 SUMMARY

conveyance.

A. This Section includes the furnishing and installation of storm sewer system piping, fittings, and appurtenances for storm water

1.3 UNIT PRICE - MEASUREMENT AND PAYMENT

A. Storm Sewer, size and material shown on proposal

1. Basis of Measurement: By the lineal foot, the length of pipe installed shall be measured along the centerline of the storm sewer. Excavation and backfill to include trench and haunching, compaction, disposal of surplus material, by-pass pumping, and dewatering if required and other incidentals shall be included in the unit price for pipe installation.

Basis of Payment: Contract unit price per lineal foot and includes all labor, material, pipe, and equipment necessary to construct the piping system complete in place, and all other work necessary for a complete installation.

B. Remove Existing Manhole

Basis of Measurement: Each removed as shown on the Plans and specified herein.

Basis of Payment: Contract unit price per each and includes all labor, material and equipment required to remove and dispose the existing manhole as it is shown in the plans.

Remove Existing 12-inch RCP Sewer W/12-inch Flared End Section

the sewer and End Section complete as shown in the plans.

Basis of Measurement: Per lump sum as shown on the Plans and specified herein. Basis of Payment: Contract unit price per lump sum and includes all labor, material and equipment required to completely remove

Manholes, as shown on the plans Basis of Measurement: Each constructed as shown on the Plans and specified herein. Basis of Payment: Contract unit price per each and includes all labor, material and equipment required to install the manhole with grate complete, as shown in the plans

Precast Manhole as shown on the plans Basis of Measurement: Each constructed as shown on the Plans and specified herein. Basis of Payment: Contract unit price per each and includes all labor, material and equipment required to install the manhole Tee

with grate, as shown in the plans Basis of Payment: Contract unit price per lineal foot and includes all labor, material and equipment required for the complete removal of sewer.

Mobilization Basis of Measurement: This work will be paid for at the lump sum price for Mobilization. Basis of Payment: Contract unit price per lump sum and includes all labor, material for mobilizing and demobilizing to and from the

Restoration Basis of Measurement: Per lump sum for all turf areas disturbed during construction and as shown in the Plans for the complete seeding and restoration

Basis of Payment: Contract unit price per lump sum and includes all labor, material, and equipment required to install 4-inches of black dirt, seeding, fertilizer and erosion control blanket over area. **Temporary Construction Fence** Basis of Measurement: By the lineal foot, the length of construction fence installed as shown in the Plans.

Basis of Payment: Contract unit price per lineal foot and includes all labor, material, and equipment required to install and remove Basis of Measurement: By the lineal foot, the length of silt fence installed as shown in the Plans.

Basis of Payment: Contract unit price per lineal foot and includes all labor, material, and equipment required to install and remove silt fence after project completion Furnished Excavation Basis of Measurement: By the cubic yard, the volume of borrowed excavation installed along the centerline of the storm sewer. Basis of Payment: Contract unit price per cubic yard and includes all labor, material, and equipment required to install and compact borrowed excavation over the storm sewer pipe. Furnished excavation shall be free of debris and rocks. Final grading to proposed

elevations shall be considered incidental to furnished excavation. Tree Removal Basis of Measurement: Tree to be removed as payment item will be measured per unit of diameter where one unit is equal to 1 inch. The diameter will be measured at a point 4.5 feet above the highest ground level at the base of the tree and will be determined by dividing the measured circumference of the tree by 3.1416. A multiple stem trees branches having a diameter of 6-inch or more at a point 4.5 feet above the highest ground level at the base will be measured for payment as individual trees. Each installed as shown on the Plans and specified herein.

Basis of Payment: Tree removal will be paid for at the contract unit price per unit diameter for Tree Removal (6 to 15 Units Diameter) or Tree Removal (Over 15 Units Diameter). Clearing and grubbing of shrubs and trees (less than 6inches) shall not be paid for separately but considered incidental to pipe installation costs. Rock Excavation

Basis of Measurement: Where rock excavation is to be measured for payment, it will be computed by the cubic yard. The measured length and width will be the length and width of rock removed; however the measured width will not exceed the trench width. The measured depth will be the difference in elevation between the top and bottom of the rock as determined by the Engineer. Where rock is encountered in the bottom of the trench, the bottom of rock will be defined as 8 inches below the bottom Basis of Payment: Contract unit price per cubic yard. This shall include furnishing all materials, incidentals, and materials for all preparation and excavation of rock. No payment shall be made for rock excavation unless the ENGINEER approves such

payment in writing in advance upon being satisfied that the material meets the above. Removal and Disposal of Unsuitable Material Basis of Measurement: Where Removal and Disposal of Unsuitable Material is to be measured for payment, it will be computed by

Basis of Payment: Contract unit price per cubic yards and includes all labor, material and transportation to an appropriate certified 1.5 SUBMITTALS

General: Submit the following according to Conditions of the Contract and Division 1 Specification Sections. Product data: including pressure rating, rated capacity, and settings of selected models for pipe, fittings and accessories. Manufacturer's installation instructions: Indicate special procedures required to install products. Manufacturer's certificate: Certify that pipe, accessories and fittings meets or exceeds specified requirements

1.6 QUALITY ASSURANCE

Comply with requirements of the permitting agency Robinson City.

Reference sections to measurement and basis of payment do not apply.

Codes and Standards: Comply with the requirements of the latest edition of the following:

Standard Specifications for Water and Sewer Main Construction in Illinois, Current Edition, hereinafter referred to as the Standard Specifications, shall apply as modified below and by the Special Provisions Modifying these Standard Specifications Pertinent standard drawings contained in the Specifications shall also apply except as modified in the Special Provisions or in the

1.7 SEQUENCING AND SCHEDULING

Coordinate and stage connection and installation not to cause any flooding to properties. Where the connection of new work to old requires interruption of service and notification of customers affected, the Owner, the Engineer and the Contractor shall mutually agree upon a date and time for connections which will allow ample time to assemble labor and materials and to notify all customers affected.

Coordinate all installation, cleaning, flushing, testing etc. with the Owner and the Owner's representative. C. Coordinate with the City of Robinson to inspect storm sewer after installation.

PART 2 PRODUCTS

2.1 STORM SEWER A. Reinforced Concrete Pipe and bends shall be manufactured in accordance with applicable Provisions of ASTM C76, C443, C361

Rubber gaskets shall be in accordance to AASHTO M 315 or ASTM C 443. Preformed flexible sealant/gasket shall be in accordance with AASHTO M 198 or ASTM C 990.

Cement shall conform to the requirements of ASTM C 150 Wire fabric reinforcement shall consist of wire conforming to ASTM A 185 or A 497, smooth wire conforming to ASTM A 82, and/or deformed wire conforming to ASTM A 496. Bar reinforcement shall conform to ASTM A 615, grade 60, ASTM A 616, grade 60, and/or ASTM A 617, grade 60.

Aggregates shall conform to ASTM C 33, except that the requirements for gradation shall not apply to precast items. Polyvinyl Chloride Pipe shall be manufactured with applicable Provisions of 6" to 15" SDR 26 ASTM D-3034. Joints shall be in accordance with ASTM D-3212.

External joint wrap system, when required, shall conform to the requirements of ASTM C 877.

2.2 PRECAST MANHOLES

Shall conform with ASTM C 478 and the design dimensions shown on the Plans.

Minimum concrete compressive strength shall be 4,500 psi. Precast components shall be free from fractures, large or deep cracks and surface roughness conforming to ASTM C 478. Joints shall be designed for rubber gaskets, butyl rope or equivalent bituminous material.

2.3 MANHOLE STEPS

A. Manhole steps when required shall be gray cast iron ASTM A 48 or copolymer polypropylene coated steel reinforcing with load and pullout ratings meeting OSHA standards.

2.4 FRAMES AND COVERS

Frames and Covers shall conform to the requirements of gray iron castings as specified in ASTM A 48 or ductile iron castings as specified in ASTM A 536.

2.5 ADJUSTING RINGS

A. Concrete adjusting rings shall conform to the requirements of Section 1042 of the latest edition of the IDOT Standard

B. Concrete adjusting rings shall have a minimum thickness of 2 inches.

2.6 RESTORATION

Restoration IDOT Standard Specification for Road and Bridge Construction, Latest Edition

Seeding Class 1B- Low Maintenance Lawn Mixture 7 Mulching per Article 251.

Fertilizer per Article 250. 2.7 ROCK EXCAVATION

All excavation shall be classified as earth excavation, except rock excavation

B. Rock excavation shall consist of the excavation of boulders ½ cu yd in volume or greater and as determined by the Engineer.

PART 3 EXECUTION 3.1 GENERAL INSTALLATION

A. Contractor shall exercise care in unloading and handling pipe, fittings, and all other material. Dropping pipe from trucks and allowing pipe to roll against other pipe will not be permitted Pipe shall be installed in accordance with the plans and above referenced specifications except as modified by Engineer.

Installation shall be in accordance with manufacturer's instructions. Work shall be properly braced where necessary. Any damage to the pipe bedding, pipe or alignment of the constructed main caused by removal of sheeting shall be cause for rejection of the affected portion of the work. Under no circumstances shall water be permitted to rise in un-backfilled trenches after pipe has been placed. Trenches shall be

backfilled with approved material, free of large clods, stones or rocks and carefully deposited in acceptance to applicable sections of the Standard Specifications for Sewer and Water Main Construction in Illinois. Backfilling and compaction shall be performed in manner not to cause pipe displacement. The remainder of backfill materials shall t

3.2 EXISTING UTILITIES Joint Utility Location Information for Excavators: Call the toll-free J.U.L.I.E. telephone number, 1-800-892-0123, before starting

excavation. Allow 48 hours for other than emergency assistance. 3.3 PIPING INSTALLATION

A. All installation of pipe shall conform to the Standard Specifications except where noted. Pipe shall not be rolled or pushed into the trench from the bank. Before pipe is lowered into the trench, it shall be thoroughly inspected, as necessary, to insure sound

conditions and eliminate the possibility of leakage. All joints shall be suitable for the type of pipe being jointed and shall be made in accordance with manufacturer's

C. Storm sewer that is laid near pipe lines designated to carry portable water shall meet IEPA's horizontal and vertical separation. 3.5 MANHOLE INSTALLATION

Precast base section shall be carefully placed on the prepared bedding to be fully and uniformly supported in true alignment. All lift holes shall be either filled with a precast concrete plug sealed and covered with mastic or thoroughly wetted, filled with mortar, smoothed, and pointed both inside and out.

All joints between precast elements in storm sewer manholes shall be with an internal or external sealing band or mastic joint Precast sections shall be placed and aligned to provide vertical sides and vertical alignment of the ladder rungs. The completed structure shall be rigid and true to dimensions.

3.6 FIELD QUALITY CONTROL

Construction Observation: Owner will employ a qualified engineering firm to perform construction observation of the installation. The Construction observation shall not relive Contractor of his duties and responsibilities for the complete installation of the storm

3.7 CLEAN UP

Excess Excavation: All excess excavated materials shall become the responsibility of the Contractor for disposal off the construction site except that the Owner reserves the right to have selected excavated materials deposited at designated locations within the Village Limits at no additional cost to the Owner.

B. Property of the Owner: All existing pipes and appurtenances removed as part of the pipe installation shall become the responsibility of the Contractor for disposal off the construction site, except that the Owner reserves the right to have selected excavated materials delivered to a location specified by the Owner at no additional cost to the Owner.

DIVISION 2 - SITEWORK SECTION 02730 - SANITARY SEWERAGE

GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General Conditions, Special Provisions and other Division 1 Specifications, apply to this Section.

Section 02201 - Earthwork

1.4 SUBMITTALS

This Section includes sanitary sewerage system piping and appurtenances. Related Sections: The following sections contain requirements that relate to this section:

Section 02231 - Aggregate base Course Section 02520 - Portland Cement Concrete Paving Section 02721 - Storm Sewerage

1.3 UNIT PRICE - MEASUREMENT AND PAYMENT

Sanitary sewer pipe of the specified size. Basis of Measurement: Lineal Foot Basis of Payment: Contract unit price per Lineal Foot. 44ADD 04

General: Submit the following in accordance with conditions of Contract and Division 1 Specification Sections. Product Data: Provide data indicating pipe, pipe accessories, and fittings. Manufacturer's installation instructions: Indicate special procedures required to install products.

Manufacturer's certificate: Certify that pipe meets or exceeds specified requirements.

1.5 QUALITY ASSURANCE A. Codes and Standards: Comply with requirements of the following specifications as modified herein: The Robinson City Municipal Code.

Standard Specifications for Water and Sewer Main Construction in Illinois, Latest Edition, hereinafter referred to as the Standard Specifications shall apply as modified below and by the Special Provisions Modifying these Standard Specifications. Pertinent standard drawings contained in the Specifications shall also apply except as modified in the Special Provisions or on

Testing and Inspection: Crawford Memorial Hospital will employ a qualified engineering, testing and inspection firm. The

Contractor shall notify the engineer a minimum of 48 hours prior to any work.

1.6 PROJECT CONDITIONS A. Site Information: Call JULIE 1-800-892-0123 48 hours before you excavate.

1.7 SEQUENCING AND SCHEDULING A. Coordinate with other utility work.

PRODUCTS

2.1 SEWER PIPE AND FITTINGS Polyvinyl Chloride (PVC) ASTM D 3034 SDR 26; bell and spigot for elastomeric gasket joints, minimum cell class 12454 B or C.

Gaskets: ASTM F 477 flexible elastomeric

3. Fittings: same as pipe PART 3 EXECUTION

Joints: ASTM D 3212

3.1 INSTALLATION

PART 2

A. Pipe shall be installed in accordance with the plans and above referenced specifications except as modified below.

C. Service marking

B. Installation shall be in accordance with manufacturer's instructions.

At the time the services are installed, place 2 in. x 4 in. wood studs extending from the bottom of the service to 2 feet above the

2. At the time the curb and gutter is poured, the Contractor shall mark the top of the curb with a "S" for the location of sewer

3.2 EXISTING UTILITIES

excavation. Allow 48 hours for other than emergency assistance. Telephone Fiber Optics Line Crossings: The Contractor will cross fiber optics telephone lines at various locations shown on the plans. The Contractor shall notify AT&T, MCI, GTE and U.S. Sprint at least 72 hours prior to making this crossing so that they may furnish an inspector during the period of the crossing. It shall be the responsibility of the Contractor to make the necessary

Joint Utility Location Information for Excavators: Call the toll-free J.U.L.I.E. telephone number, 1-800-892-0123, before starting

provisions to protect these telephone lines from any damage due to his operations. No extra compensation will be allowed for

3.4 FIELD QUALITY CONTROL

these crossings.

A. All pipe shall be tested.

1. Sewers: per Section 31-1.11

a. televised with tape supplied to owner

Construction Observation and Inspection: Crawford Memorial Hospital will employ a qualified firm to provide observation and

C. Construction Observation and Inspection: Crawford Memorial Hospital will employ a qualified engineering agency to perform

construction observation and inspection. 3.5 CLEAN UP

A. Excess Excavation: All excess excavated materials shall become the responsibility of the Contractor for disposal off the construction site as directed except that the Owner reserves the right to have selected excavated materials deposited at designated locations within the [Corporate, Project] Limits at no additional cost to the Owner.

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DATE: DESCRIPTION: 4 05/05/2025 ADDENDUM #4

BID SET 04/03/2025

Robinson CUSD #2

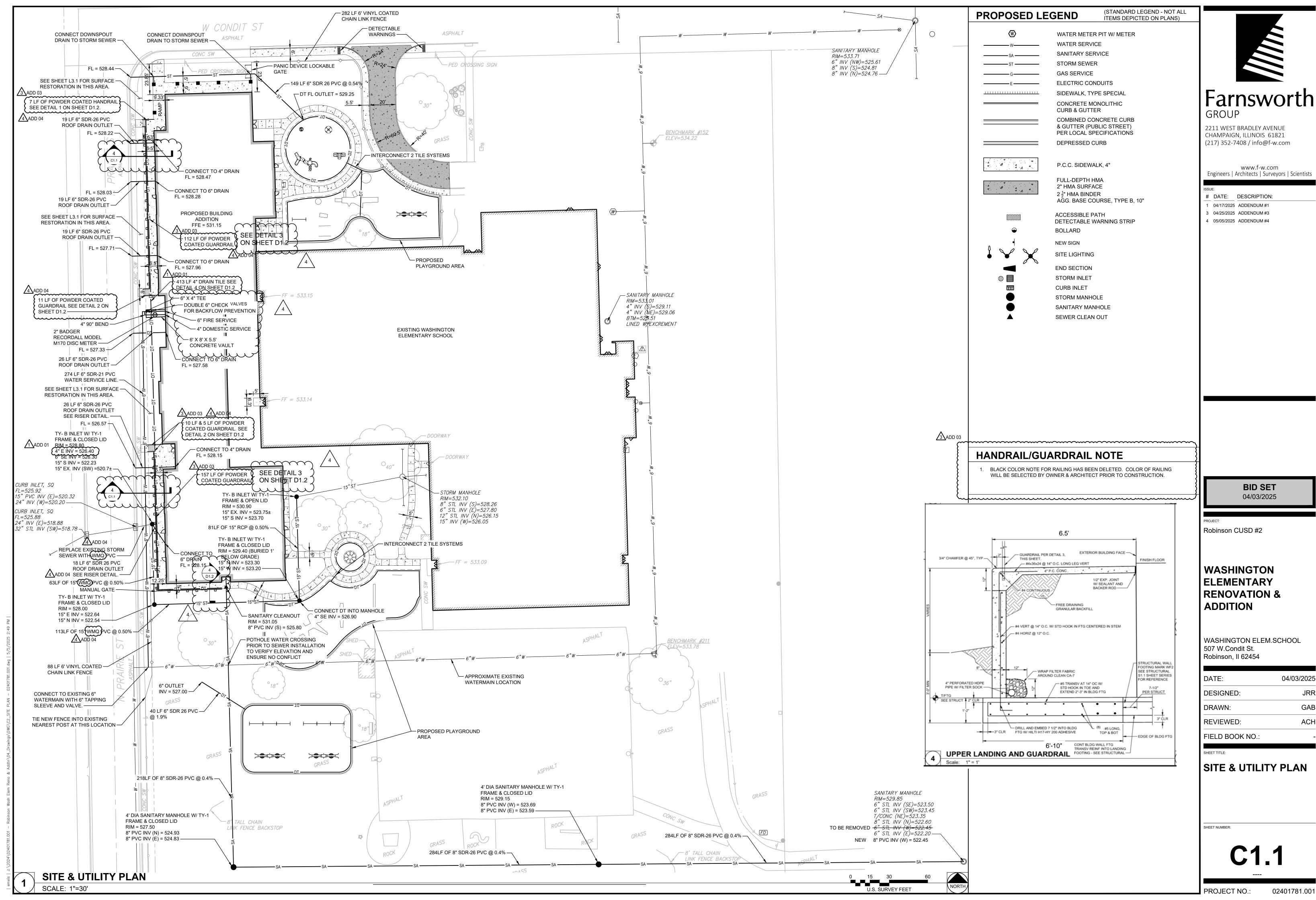
l WASHINGTON **ELEMENTARY** RENOVATION & **ADDITION**

WASHINGTON ELEM.SCHOOL 507 W.Condit St. Robinson, II 62454

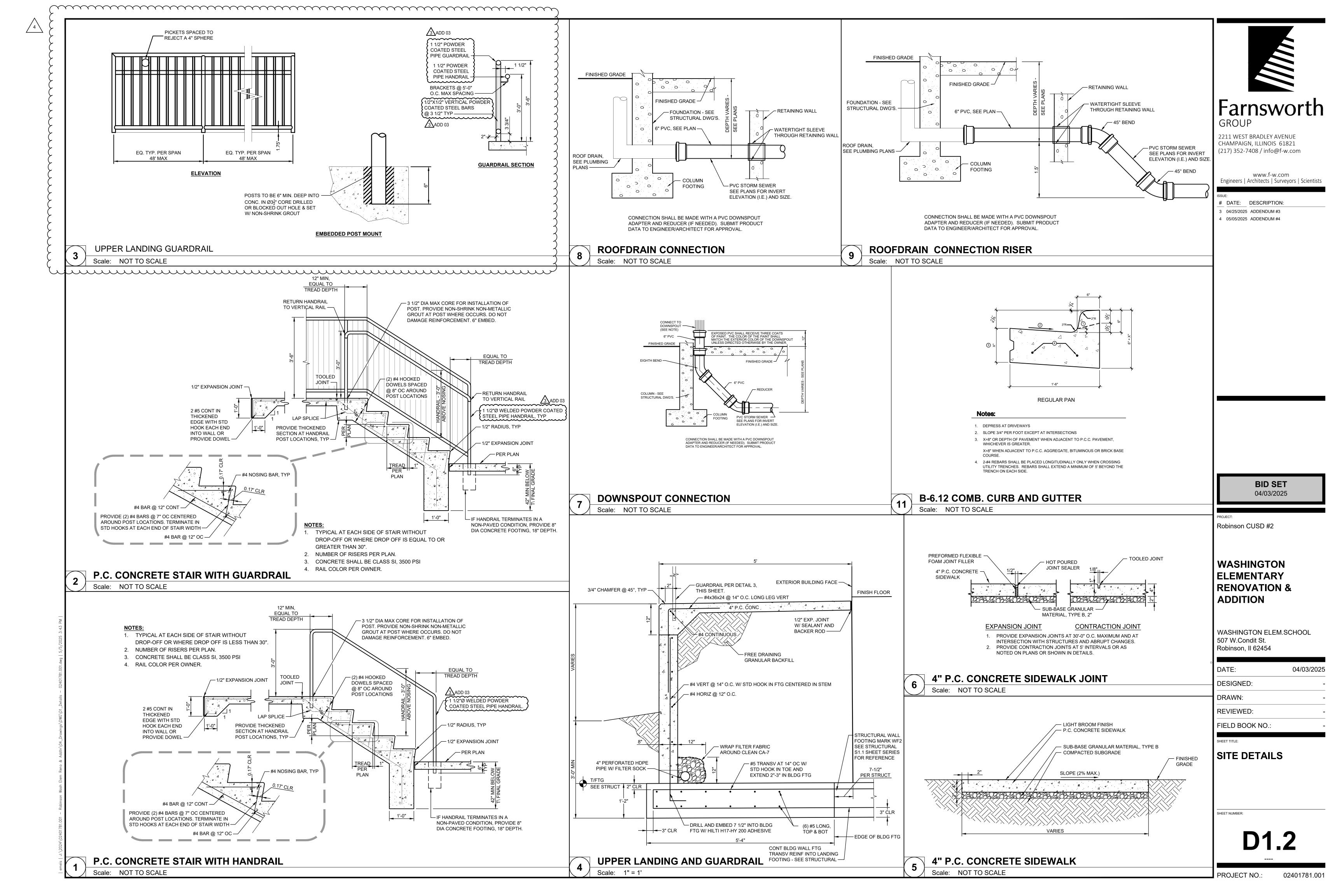
DATE: 04/03/2025 **DESIGNED:** JRR GAB DRAWN: JRR REVIEWED: FIELD BOOK NO .:

SPECIFICATIONS

PROJECT NO.:



04/03/2025 JRR GAB ACH



GENERAL A1.1A ENLARGED FLOOR PLAN - AREA A I1.1C ENLARGED FINISH PLAN - AREA C M7.1 CONTROLS DIAGRAMS A. REFER TO GENERAL INFORMATION SHEETS FOR SYMBOLS AND ABBREVIATIONS. G0.1 GENERAL INFORMATION A1.1B ENLARGED FLOOR PLAN - AREA B INTERIOR FINISH DETAILS M7.2 CONTROLS DIAGRAMS Cont. LS1.1 FIRST FLOOR LIFE SAFETY PLAN A1.1C ENLARGED FLOOR PLAN - AREA C 13.2 INTERIOR FINISH DETAILS M7.3 CONTROLS DIAGRAMS Cont. B. WALLS TO BE REMOVED SHALL BE FROM FLOOR TO STRUCTURE ABOVE UNLESS SIGNAGE SCHEDULE & DETAILS A2.1 OVERALL ROOF PLAN 14.0 M7.4 CONTROLS DIAGRAMS Cont. OTHERWISE INDICATED AND SHALL INCLUDE ALL MECHANICAL, ELECTRICAL, A2.1A ROOF PLAN - AREA A 14.1A ENLARGED SIGNAGE PLAN - AREA A ETC. PREPARE ALL DISTURBED AREAS FOR NEW CONSTRUCTION. C0.1 ENLARGED SIGNAGE PLAN - AREA B GENERAL NOTES ROOF PLAN - AREA B **ELECTRICAL** A2.1B C. DO NOT SCALE DRAWINGS TO DETERMINE DIMENSIONS. IF A REQUIRED SP1.0 SPECIFICATIONS A2.1C ROOF PLAN - AREA C 14.1C ENLARGED SIGNAGE PLAN - AREA C E0.1 GENERAL INFORMATION DIMENSION IS NOT INDICATED, CONTACT THE ARCHITECT FOR DETERMINATION. SP2.0 SPECIFICATIONS A2.2 ROOF DETAILS I8.1 **ENLARGED FINISH PLANS** E0.2 GENERAL INFORMATION CD1.1 SITE DEMOLITION PLAN **ENLARGED FINISH PLANS** ED1.1 FIRST FLOOR ELECTRICAL DEMOLITION PLAN A2.3 ROOF DETAILS 18.2 D. THE CONTRACTOR SHALL NOT CUT STRUCTURAL MEMBERS/ELEMENTS IN A C1.1 SITE & UTILITY PLAN CANOPY DETAILS **ENLARGED FINISH PLANS** ROOF ELECTRICAL DEMOLITION PLAN A2.4 18.3 ED1.4 MANNER RESULTING IN A REDUCTION OF LOAD CARRYING CAPACITY OR C2.1 SITE GRADING PLAN R0.1 ES1.1 A2.5 CANOPY DETAILS INTERIOR RENDERINGS ELECTRICAL SITE PLAN LOAD/DEFLECTION RATIO. D1.1 SITE DETAILS E1.0 FIRST FLOOR LIGHTING PLAN - AREA SECRETARY X131 EXTERIOR ELEVATIONS E. PAINT ALL STEEL DOORS, DOOR FRAMES, INTERIOR BORROW LITE FRAMES, D1.2 SITE DETAILS A3.2 FIRE PROTECTION E1.1 FIRST FLOOR LIGHTING PLAN - AREA A EXTERIOR ELEVATIONS LINTELS AND OTHER EXPOSED METAL ITEMS UNLESS OTHERWISE NOTED OR D1.3 SITE DETAILS A3.3 **EXTERIOR SIGNAGE DETAILS** F0.1 E1.2 FIRST FLOOR LIGHTING PLAN - AREA B GENERAL INFORMATION D1.4 SITE DETAILS **BUILDING SECTIONS** FIRE PROTECTION PLAN - OVERALL E1.3 FIRST FLOOR LIGHTING PLAN - AREA C D1.5 SITE DETAILS A4.2 BUILDING SECTIONS F5.1 DIAGRAMS E1.4 FIRST FLOOR LIGHTING ZONE PLAN EXISTING CONDITION INFORMATION SHOWN WITHIN THE PROJECT AREA IS BASED ON FIELD OBSERVATION AND EXISTING DRAWING DOCUMENTATION. ALL A5.1 WALL SECTIONS - AREA A E2.0 FIRST FLOOR POWER PLAN - AREA EXISTING EXISTING CONDITION INFORMATION SHOWN OUTSIDE THE PROJECT AREA IS LANDSCAPE WALL SECTIONS - AREA A PLUMBING E2.1 FIRST FLOOR POWER PLAN - AREA A PROVIDED FOR REFERENCE ONLY AND HAS NOT BEEN FIELD VERIFIED. L1.1 OVERALL LAYOUT PLAN A5.3 WALL SECTIONS - AREA A P0.1 GENERAL INFORMATION E2.2 FIRST FLOOR POWER PLAN - AREA B CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING CONDITIONS L1.2 NORTH PLAYGROUND LAYOUT PLAN E2.3 FIRST FLOOR POWER PLAN - AREA C A5.4 WALL SECTIONS - AREA A PLUMBING UNDERSLAB PLAN - OVERALL PRIOR TO BEGINNING ANY NEW WORK AND SHALL BRING AND DISCREPANCIES COURTYARD PLAYGROUND LAYOUT PLAN WALL SECTIONS - AREA B PLUMBING UNDERSLAB PLAN - AREA A E2.4 ELECTRICAL ROOF PLAN TO THE ATTENTION OF THE DESIGN PROFESSIONAL PRIOR TO DEMOLITION AND SOUTH PLAYGROUND LAYOUT PLAN WALL SECTIONS - AREA B PLUMBING UNDERSLAB PLAN - AREA E TEMPORARY ELECTRICAL CONNECTIONS A5.6 E2.5 CONSTRUCTION. L2.1 PLAYGROUND SITE DETAILS A5.7 WALL SECTIONS - AREA C PLUMBING UNDERSLAB PLAN - AREA C E3.1 FIRST FLOOR SYSTEMS PLAN - AREA A G. STORAGE OF ANY FLAMMABLE OR COMBUSTIBLE LIQUIDS IS UNDERSTOOD TO L2.2 E3.2 PLAYGROUND SITE EQUIPMENT A5.8 EXTERIOR DETAILS PLUMBING DWV PLAN - OVERALL FIRST FLOOR SYSTEMS PLAN - AREA B NOT BE WITHIN THE BUILDING. STORAGE OF ANY MATERIAL IS TO BE IN L3.1 PLANTING PLAN A5.9 EXTERIOR DETAILS PLUMBING DWV PLAN - AREA A E3.3 FIRST FLOOR SYSTEMS PLAN - AREA C COMPLIANCE WITH ALL APPLICABLE CODES AND AUTHORITIES HAVING NORTH PLANTING PLAN ENLARGEMENT E4.1 A5.10 EXTERIOR DETAILS PLUMBING DWV PLAN - AREA B ONE-LINE DIAGRAM JURISDICTION. E5.1 L3.3 WEST PLANTING PLAN ENLARGEMENT A6.1 VERTICAL CIRCULATION PLANS, SECTIONS AND DETAILS P1.2C PLUMBING DWV PLAN - AREA C SCHEDULES L4.1 PLANTING DETAILS A7.1 PARTITION TYPES PLUMBING WATER PLAN - OVERALL E5.2 SCHEDULES A7.2 DOOR SCHEDULE, ELEVATIONS AND DETAILS PLUMBING WATER PLAN - AREA A E5.3 SCHEDULES **DEFERRED SUBMITTALS** STRUCTURAL A7.3 GLAZING ELEVATIONS PLUMBING WATER PLAN - AREA B E5.4 SCHEDULES S0.1 GENERAL INFORMATION A7.3.1 GLAZING ELEVATIONS - WINDOW GRAPHICS PLUMBING WATER PLAN - AREA C E5.5 **SCHEDULES** THE FOLLOWING SYSTEMS ARE A DESIGN/BUILD RESPONSIBILITY OF THE S0.2 GENERAL INFORMATION A7.4 GLAZING DETAILS P2.1 PLUMBING ROOF PLAN - OVERALL E5.6 SCHEDULES CONTRACTOR OR PRODUCT MANUFACTURER AND WILL REQUIRE THE DEFERRED S0.3 GENERAL INFORMATION A7.5 GLAZING DETAILS P5.1 DIAGRAMS E5.7 SCHEDULES SUBMITTAL OF DESIGN WORK TO THE CITY OF ANYWHERE FOR PLAN REVIEW AND S1.1A FOUNDATION PLAN - AREA A TYPICAL CASEWORK DETAILS SCHEDULES E6.1 DETAILS TYPICAL CASEWORK DETAILS S1.1B FOUNDATION PLAN - AREA B A8.1 SCHEDULES E6.2 DETAILS 1. FIRE SPRINKLER SYSTEMS S1.1C FOUNDATION PLAN - AREA C A8.2 PRESCHOOL INTERIOR ELEVATIONS AND ENLARGED PLANS 2. FIRE ALARM SYSTEMS S1.2A CANOPY FOUNDATION PLAN - AREA A KINDERGARTEN INTERIOR ELEVATIONS AND ENLARGED PLANS MECHANICAL A8.3 3. STEEL JOISTS LABELED "KSP" WITH MAXIMUM DEPTH AS INDICATED ON ROOF S1.3A SLAB AND CONTROL JOINT PLAN - AREA A KINDERGARTEN INTERIOR ELEVATIONS AND ENLARGED PLANS A8.4 M0.1 GENERAL INFORMATION FRAMING PLAN S1.3B SLAB AND CONTROL JOINT PLAN - AREA B A8.5 MD1.1D ENLARGED MECHANICAL DEMOLITION PLAN - AREA D 4. LIGHT GAUGE FRAMING RESTROOM INTERIOR ELEVATIONS AND ENLARGED PLANS S1.3C SLAB AND CONTROL JOINT PLAN - AREA C A8.6 ADMIN INTERIOR ELEVATIONS AND ENLARGED PLANS MD1.1E ENLARGED MECHANICAL DEMOLITION PLAN - AREA E S2.1A ROOF FRAMING PLAN - AREA A ADMIN INTERIOR ELEVATIONS AND ENLARGED PLANS MD1.4 OVERALL ROOF MECHANICAL DEMOLITION PLAN **BID ALTERNATES** S2.1B ROOF FRAMING PLAN - AREA B A8.8 GROSS MOTOR INTERIOR ELEVATIONS AND ENLARGED PLANS M1.1A ENLARGED VENTILATION FLOOR PLAN - AREA A S2.1C ROOF FRAMING PLAN - AREA C A8.9 GROSS MOTOR, CORRIDOR, AND RAMP INTERIOR ELEVATIONS M1.1B ENLARGED VENTILATION FLOOR PLAN - AREA B S2.2A CANOPY FRAMING PLAN - AREA A A8.10 CORRIDOR INTERIOR ELEVATIONS M1.1C ENLARGED VENTILATION FLOOR PLAN - AREA C REFERENCE SECTION 00 2113 AND 00 4100 OF THE PROJECT MANUAL FOR THE S2.3E EXISTING ROOF FRAMING PLAN A8.11 CORRIDOR INTERIOR ELEVATIONS M1.1D ENLARGED VENTILATION FLOOR PLAN - AREA D SCHEDULE OF BID ALTERNATES TO BE INCLUDED WITH THE BID PACKAGE S3.1 FOUNDATION DETAILS M1.1E ENLARGED VENTILATION FLOOR PLAN - AREA E A8.12 VESTIBULE INTERIOR ELEVATIONS AND ENLARGED PLANS S3.2 FOUNDATION DETAILS A9.1A REFLECTED CEILING PLAN - AREA A OVERALL ROOF MECHANICAL PLAN S4.1 FRAMING DETAILS A9.1B REFLECTED CEILING PLAN - AREA B M2.1A ENLARGED MECHANICAL PIPING FLOOR PLAN - AREA A S4.2 FRAMING DETAILS A9.1C REFLECTED CEILING PLAN - AREA C M2.1B ENLARGED MECHANICAL PIPING FLOOR PLAN - AREA B COLUMN SCHEDULE AND BASE PLATES A9.2 CEILING DETAILS ENLARGED MECHANICAL PIPING FLOOR PLAN - AREA C S6.1 MASONRY DETAILS ENLARGED MECHANICAL PIPING FLOOR PLAN - AREA D INTERIORS ENLARGED MECHANICAL PIPING FLOOR PLAN - AREA E FINISH SCHEDULES AND GENERAL INFORMATION **ARCHITECTURAL** M5.1 DIAGRAMS 10.1 A0.1 GENERAL INFORMATION 10.2 FINISH SCHEDULES DIAGRAMS Cont. AD1.1 DEMOLITION PLANS FIRST FLOOR FINISH PLAN SCHEDULES I1.1 A1.1 OVERALL FLOOR PLAN ENLARGED FINISH PLAN - AREA A M6.2 SCHEDULES Cont. I1.1B ENLARGED FINISH PLAN - AREA B 60" MIN. 60" MIN. 60" MIN. 60" MIN. 60" MIN. 60" MIN 54" MIN. 54" MIN. 54" MIN. 36" 36" MIN. 36" MIN. 42" MIN. 42" MIN. MIN. 42" MIN. CLEAR CLEAR 30" MIN. 27" MIN. 1-1/2" MIN. DIAMETER 1-1/2" DIAMETER GRAB BAR DIAMETER GRAB BAR GRAB BAR DIAMETER DIAMETER DIAMETER TOILET TOILET GRAB BAR TOILET **GRAB BAR GRAB BAR** TISSUE 1. FIXTURES SHOWN ARE FOR TISSUE TISSUE DISPENSER REFERENCE ONLY AND ARE **TOILET TOILET TOILET** DISPENSER DISPENSER NOT PROJECT SPECIFIC. TISSUE TISSUE TISSUE TOILET TOILET TOILET SEE PLUMBING DRAWINGS DISPENSER DISPENSER DISPENSER **FIXTURE FIXTURE FIXTURE** AND SCHEDULES FOR TOILET TOILET **TOILET** FIXTURE TYPES. FIXTURE FIXTURE **FIXTURE** . MOUNTING HEIGHTS ARE TO --12" BE COMPLIANT WITH 2010 9" MIN KINDERGARTEN ACCESSIBLE TOILET PRE-K ACCESSIBLE TOILET MULTI-STALL ACCESSIBLE TOILET ADA, ICC/ANSI A117.1-2007 MOUNTING CHILDREN'S DRINKING AND THE ILLINOIS FOUNTAIN ACCESSIBILITY CODE-2018 PROVIDE ALL NECESSARY CONCEALED BLOCKING AND REINFORCEMENT FOR THE 2 SECURE INSTALLATION OF 60" MIN. ALL EQUIPMENT AND 60" MIN. 54" MIN. ACCESSORIES. NOTE: SINKS IN COUNTERS TO BE 3. EXPOSED PLUMBING 42" MIN. LEVER OPERATING 1-1/2" MOUNTED WITH RIM NO MORE BARRIER FREE LAVATORIES CONTROLLED LEVER OPERATING DIAMETER MUST BE INSULATED OR THAN 2'-10" HIGH AND WITH AT **EXPOSED** 24" MIN. 12" CONTROLLED GRAB BAR OTHERWISE CONFIGURED LEAST 2'-3" KNEE CLEARANCE. 17" - 19"__ SOAP DISPENSER **PLUMBING AT** TO ELIMINATE POSSIBLE TOILET BARRIER TOILET CONTACT. DIAMETER DIAMETER **TISSUE** TISSUE SOAP DISPENSER FREE 4. SEE TOILET ACCESSORY **GRAB BAR** GRAB BAR DISPENSER DISPENSER **LAVATORIES** SCHEDULE AND RESTROOM EACH SIDE SHALL BE SANITARY ELEVATIONS, A8.1 TOILET INSULATED NAPKIN DISPOSAL TOILET TOILET **TISSUE** TISSUE TOILET DISPENSER DISPENSER **FIXTURE** CLEAR **TOILET TOILET FIXTURE** ADULT ACCESSIBLE TOILET 16" - 18" ADULT AMBULATORY TOILET TYPICAL TOILET NON-ACCESSIBLE TYPICAL ACCESSIBLE TYPICAL ACCESSIBLE TYPICAL CHILDREN'S DRINKING FOUNTAIN WHEELCHAIR ACCESSIBLE **CLEARANCE AT LAVATORY** LAVATORY AND MIRROR LAVATORY AND MIRROR (CANTILEVERED STYLE)

HAND DRYER

PAPER TOWEL DISPENSER/

WASTE RECEPTACLE

DIAPER CHANGING

2'-0" AT SIDEWALLS

AT COUNTER SINKS

1'-6" AT SIDEWALLS

AT LAVATORY

PAPER TOWEL

DISPENSER

DRAWING LIST

DRAWING LIST

ROBE/COAT

ACCESSIBLE -

TOWEL BAR

ROBE/COAT HOOK

TOILET ACCESSORIES

HOOK

STANDARD MOUNTING HEIGHTS **SCALE:** 3/8" = 1'-0"

- CORNER GUARD

3" TO CORNERGUARD

OR DOOR FRAME

HANDRAIL

BUMPER GUARD

WALL PROTECTION

- 4'-0" MAX TO

POINT - IF FIRE

EXTINGUISHER

OVER 40 LBS

3'-6" MAX HT.

FIRE EXTINGUISHER

CABINET

HIGHEST OPERABLE

MOP SHELF

4'-0" MIN

MOP BASIN

- 4'-0"x4'-0" FRP

TYPICAL JANITORS CLOSET

PANELS, EACH WALL

4'-0" MIN

DRAWING LIST

DRAWING LIST

WALL MOUNTED TACKBOARD WALL MOUNTED LECTURE UNIT AND MARKERBOARD BOARD

OF DOOR WIDTH WHEN

ON WALL BEYOND

COAT RACK / COAT HOOK

PROJECT GENERAL NOTES

SHEET TITLE: **GENERAL INFORMATION**

2211 W. BRADLEY AVENUE

DATE: DESCRIPTION:

04/17/2025 ADD 01

04/22/2025 ADD 02

05/05/2025 ADD 04

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Renovation & Addition

507 W. Condit St. Robinson, IL

04/03/2025

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TMM

Robinson CUSD #2

Washington

Elementary

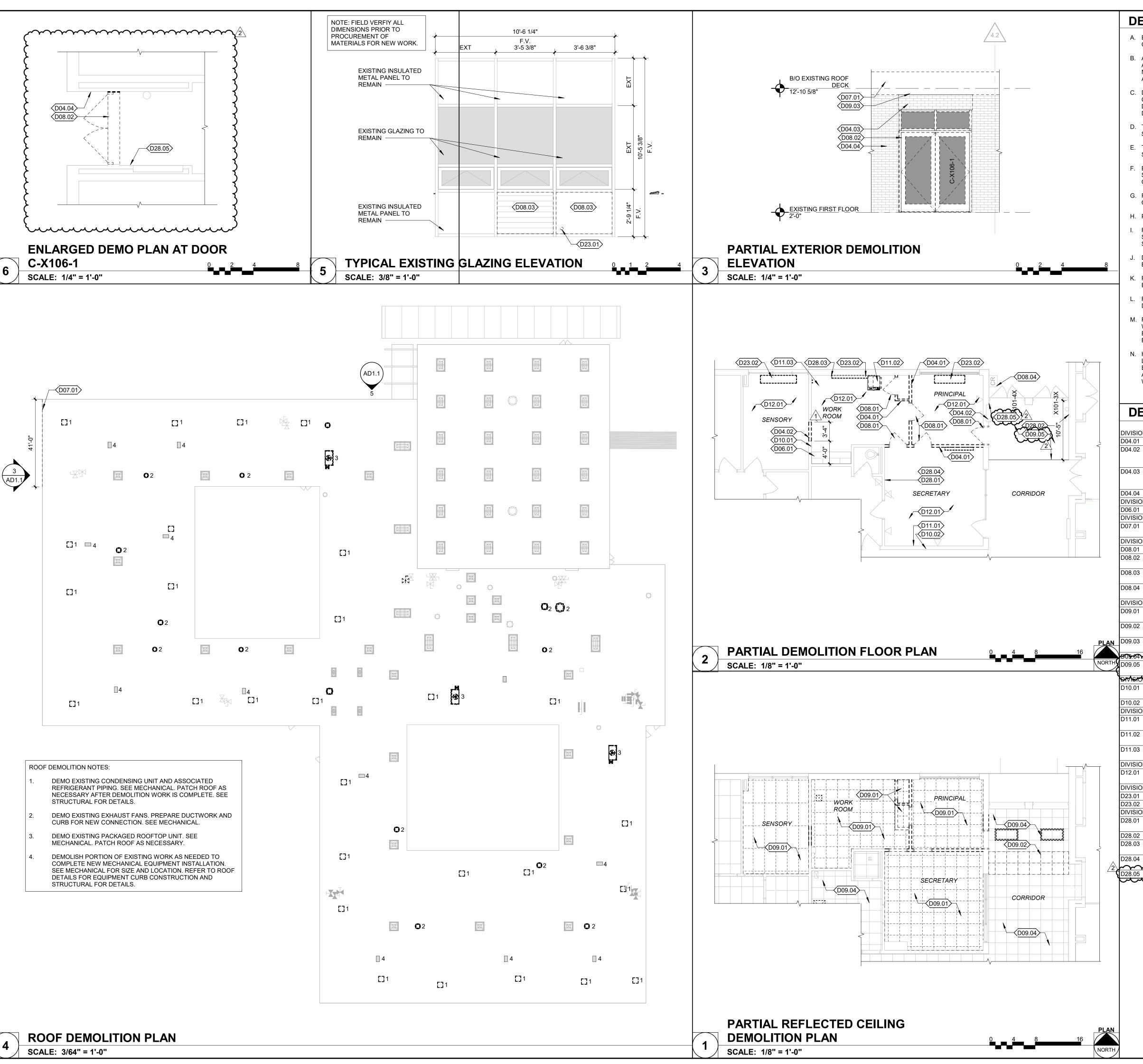
DATE:

DESIGNED:

REVIEWED:

DRAWN:

SHEET NUMBER:



DEMOLITION GENERAL NOTES

- A. EXISTING CONSTRUCTION SHOWN DASHED IS TO BE DEMOLISHED -COORDINATE WITH NEW CONSTRUCTION
- B. ALL ITEMS INDICATED TO BE DEMOLISHED SHALL BE REMOVED AS TO FULLY ALLOW FOR THE PROPER FURNISHING AND INSTALLATION OF ALL SCHEDULED NEW WORK. THIS SHALL INCLUDE DEMOLITION OF ADJACENT ITEMS,
- ACCESSORIES, AND APPURTENANCES AS NECESSARY. C. DEMOLITION DRAWINGS ILLUSTRATE MAJOR ITEMS TO BE REMOVED.
- CONTRACTOR SHALL COORDINATE THESE DRAWINGS WITH NEW WORK DRAWINGS AND SHALL BE RESPONSIBLE FOR OTHER ITEMS REQUIRED TO BE DEMOLISHED TO ACCOMMODATE NEW WORK.
- D. THE CONTRACTOR IS RESPONSIBLE FOR RETAINING AND RELOCATING ALL SALVAGE AS DESIGNATED BY THE OWNER'S REPRESENTATIVE.
- E. THE CONTRACTOR IS RESPONSIBLE FOR STORAGE AND PROTECTION OF ALL
- F. EXISTING ITEMS, EQUIPMENT, PLUMBING FIXTURES, ETC, TO REMAIN IN PLACE SHALL BE PROTECTED FROM DIRT AND DAMAGE DURING DEMOLITION AND CONSTRUCTION.
- G. PROTECT ALL FINISHES TO REMAIN FROM DAMAGE DURING DEMOLITION AND CONSTRUCTION.
- H. PRIOR TO DEMOLITION, ENSURE THE STABILITY OF ANY WALLS TO REMAIN.
- REMOVE ACOUSTICAL CEILINGS INCLUDING, BUT NOT LIMITED TO, RELATED SUPPORT SYSTEMS, CEILING TILES, LIGHT FIXTURES, GRILLES, DIFFUSERS, EXIST SIGNS, AND OTHER ELECTRICAL OR COMMUNICATION DEVICES.
- DEMOLITION OF FLOOR FINISHES INCLUDES REMOVAL OF ADHESIVES, GROUTING BEDS, RESILIENT BASE, ETC.
- . REMOVAL OF EXISTING PLUMBING FIXTURES TO INCLUDE PIPING, WASTE LINES, ETC. LINES ARE TO BE CAPPED AS REQUIRED. SEE PLUMBING DRAWINGS.
- REMOVAL OF EXISTING HVAC TO INCLUDE DUCTWORK, HANGERS, GRILLES, DIFFUSERS, ETC. SEE MECHANICAL DRAWINGS.
- M. REMOVAL OF EXISTING ELECTRICAL SYSTEMS TO INCLUDE CONDUIT, BOXES, WIRE, CABLE, SUPPORTS, WIRING DEVICES, SAFETY SWITCHES, FIRE ALARM EQUIPMENT, SPEAKERS, TELEPHONE OUTLETS AND LIGHT FIXTURES. SEE ELECTRICAL DRAWINGS.
- I. HAZARDOUS MATERIALS INCLUDING, BUT NOT LIMITED TO; ASBESTOS AND/OR LEAD PAINT, IS ENCOUNTERED ON THE PROJECT SITE, THE OWNER SHALL ENGAGE A TESTING COMPANY TO IDENTIFY AREAS AND PROVIDE APPROPRIATE ABATEMENT. DEMOLITION CONTRACTOR SHALL COORDINATE ALL ACTIVITIES WITH ABATEMENT CONTRACTOR.

DEMOLITION KEYNOTES (BY DIVISION) D#.#>

DIVISION 04: MASONRY		
D04.01	REMOVE EXISTING CMU WALL IN ITS ENTIRETY IN LOCATIONS SHOWN.	
D04.02	REMOVE PORTION OF EXISTING CMU WALL TO ACCOMODATE NEW OPEN PREP FOR NEW WORK SEE STRUCTURAL FOR LINTEL DETAILS AND DOOF SCHEDULE FOR OPENING DIMENSION.	
D04.03	REMOVE EXISTING BRICK IN ITS ENTIRETY. PREP THE EXISTING CMU WAL RECEIVE NEW FINISH. ENSURE THE EXISTING WALL IS 2 HR FIRE RATED V (FIELD VERIFY).	

D04.04 CLEAN MASONRY AND PREP FOR NEW WORK DIVISION 06: WOOD, PLASTICS, AND COMPOSITES RETAIN EXISTING CABINETS AND COUNTERTOP IN ITS ENTIRETY.

DIVISION 07: THERMAL AND MOISTURE PROTECTION REMOVE EXISTING FASCIA TO EXTENTS SHOWN. SEE ROOF DETAILS FOR MORE INFORMATION. PROTECT ROOF DURING CONSTRUCTION.

REMOVE INTERIOR DOOR(S) AND FRAME ASSEMBLY. SALVAGE TO OWNER. REMOVE EXTERIOR(S), FRAME, AND TRANSOME ASSEMBLY ABOVE, PREP TO RECEIVE NEW 2 HR FIRE RATED DOOR. SALVAGE TO OWNER REMOVE EXISTING LOUVER GRILLE FROM EXISTING STOREFRONT ASSEMBLY PROVIDE INSULATED METAL INFILL PANEL TO MATCH EXISTING.

EXISTING PUSH BUTTON AND OTHER ACCESSORIES TO REMAIN AND TO BE TIED TO THE NEW DOOR HARDWARE. REMOVE EXISTING ACOUSTIC CEILING TILE SYSTEM AND ACCESSORIES TO FULL EXTENTS OF ROOM.

REMOVE EXISTING ACOUSTIC CEILING TILE SYSTEM AS NECESSARY TO INSTALL NEW STOREFRONT SYSTEM. REMOVE EXISTING SOFFIT PANELS, PREP AREA FOR NEW WORK - SEE REFLECTED CEILING PLAN.

REMOVE WALL TILES TO EXTENTS SHOWN. PREP CMU WALL TO RECEIVE NEW DIMBIONINI SPECIMENES COMMUNICATION OF THE SPECIMENES COMMUNIC TEMPORARILY REMOVE THE PAPER TOWEL DISPENSER TO BE INSTALLED IN THE SAME LOCATION AFTER NEW WORK. REMOVE EXISTING MAILBOX TO BE REINSTALLED IN THE NEW LOCATION.

DIVISION 11: EQUIPMENT REMOVE EXISTING SECURITY TV TO BE REUSED IN THE PROJECT. PROTECT DURING CONSTRUCTION. REMOVE EXISTING PRINTER/COPIER TO BE REUSED IN THE PROJECT. PROTECT DURING CONSTRUCTION.

REMOVE EXISTING SECURITY TV/MONITOR TO BE REUSED IN THE PROJECT.

PROTECT DURING CONSTRUCTION. **DIVISION 12: FURNISHINGS** REMOVE EXISTING FURNITURE AND OTHER EXISTING ACCESSORIES. SALVAG

DIVISION 23: HEATING, VENTILATING, AND AIR CONDITIONING (HVAC) REMOVE EXISTING CONDENSATE PIPING, SEE MECHANICAL

REMOVE EXISTING UNIT HEATER. SEE MECHANICAL **DIVISION 28: ELECTRONIC SAFETY AND SECURITY** TEMPORARILY REMOVE EXISTING PA SYSTEM TO BE REUSED IN THE PROJECT. PROTECT DURING CONSTRUCTION. EXISTING FIRE ALARM PANEL TO REMAIN

EXISTING SECURITY WALL PANELS TO REMAIN. PROTECT DURING CONSTRUCTION. TEMPORARILY REMOVE EXISTING ENTRY DOOR COMMUNICATION SYSTEM TO

PERECONEIGURED TO THE NEW RECERTION OF EIGE LAVOUT

Farnsworth

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04/22/2025 ADD 02 05/05/2025 ADD 04

Bid Set

04/03/2025

Robinson CUSD #2

Washington Elementary

Renovation & Addition

507 W. Condit St. Robinson, IL

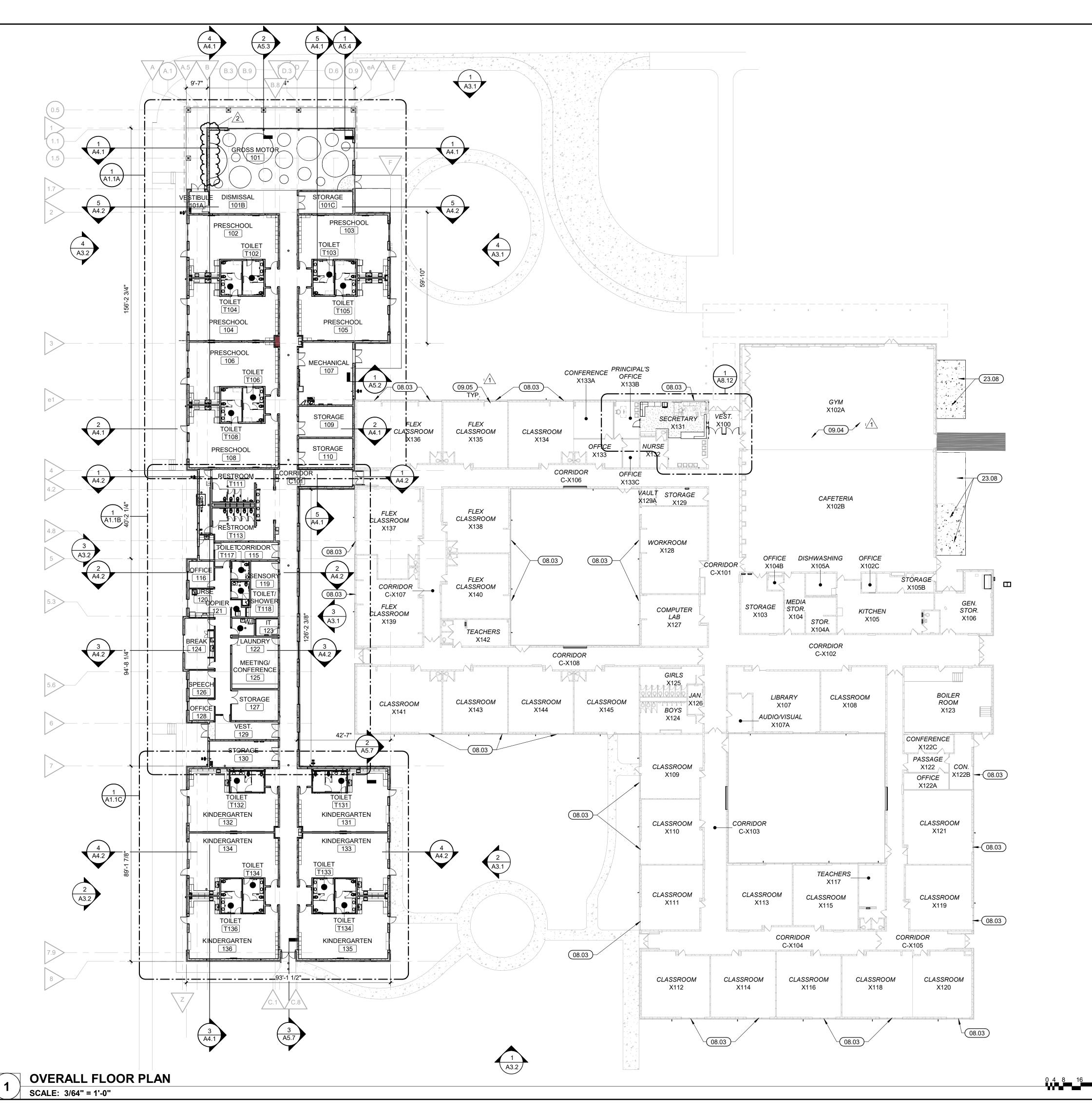
DATE: 04/03/2025 DESIGNED: TMM DRAWN: APH/SCB/JB REVIEWED:

DEMOLITION PLANS

SHEET NUMBER:

02401781.001

PROJECT NO.:



PLAN GENERAL NOTES

- A. REFER TO LIFE SAFETY AND PARTITIONS FOR LOCATION OF RATED PARTITIONS, SEPARATION INFORMATION, AND PARTITION TYPES. ALL INTERIOR PARTITIONS ARE TYPE 1 UNLESS OTHERWISE NOTED OR SHOWN.
- B. ALL DIMENSIONS ARE TO FACE OF STUD, CMU AND/OR CONCRETE UNLESS NOTED OTHERWISE.
- C. ALL WOOD IN CONTACT WITH CONCRETE SHALL BE PRESSURE TREATED.
- D. ALL NEW WORK SHALL BE PLUMB TRUE, AND LEVEL UNLESS OTHERWISE NOTED.
- E. EXTEND FIRE RESISTANT CONSTRUCTION TO STRUCTURE ABOVE. EXTEND PARTITIONS AROUND EQUIPMENT, CABINETS, AND OTHER ITEMS THAT PENETRATE THESE PARTITIONS AND FILL VOIDS IN PARTITIONS ABOVE CEILING TO MAINTAIN DESIGNATED FIRE RESISTANCE. SEE LIFE SAFETY SHEET(S) FOR FURTHER FIRE AND SMOKE RESISTANCE INFORMATION.
- F. DISSIMILAR FLOOR MATERIALS SHALL MEET UNDER CENTER OF DOOR LEAF
- G. REFER TO STRUCTURAL DRAWINGS FOR FRAMING INFORMATION AND FRAMING
- H. ALL APPLIANCES ARE TO BE PROVIDED AND INSTALLED BY GENERAL CONTRACTOR, UNLESS OTHERWISE NOTED OR SHOWN.
- I. VERIFY ALL APPLIANCE DIMENSIONS PRIOR TO FINAL MILLWORK CONSTRUCTION.
- J. FURNITURE IS SHOWN FOR REFERENCE ONLY AND IS NOT IN CONTRACT.
- K. REFER TO CIVIL DRAWINGS FOR EXTERIOR EGRESS AND GUARDRAILS.
- ALL EXISTING FINISHES SHALL REMAIN UNLESS OTHERWISE NOTED. PATCH AND PAINT, INSTALL ADDITIONAL CEILING GRIDS OR TILES, ETC. AS REQUIRED IN ORDER TO PERFORM NECESSARY MECHANICAL INSTALLATION.

KEYNOTES (BY DIVISION)

DIVISION 08: OPENINGS

- 08.03 REPLACE EXISTING LOUVERS WITHIN EXISTING STOREFRONT ASSEMBLIES WITH 1" INSULATED METAL PANELS - FINISH TO MATCH EXISTING. SEE AD1.1 FOR MORE INFORMATION. **DIVISION 09: FINISHES**
- 09.04 ENSURE EXISTING GYM FLOOR IS PROTECTED DURING MECHANICAL WORK.
- 09.05 INSTALL LVT FLOORING IN EXISTING CLASSROOMS WHERE EXISTING UNIT HEATER IS REMOVED. LVT FLOORING TO MATCH EXISTING.

DIVISION 23: HEATING, VENTILATING, AND AIR CONDITIONING (HVAC) 23.08 GROUND MOUNTED MECHANICAL EQUIPMENT - SEE MECHANICAL

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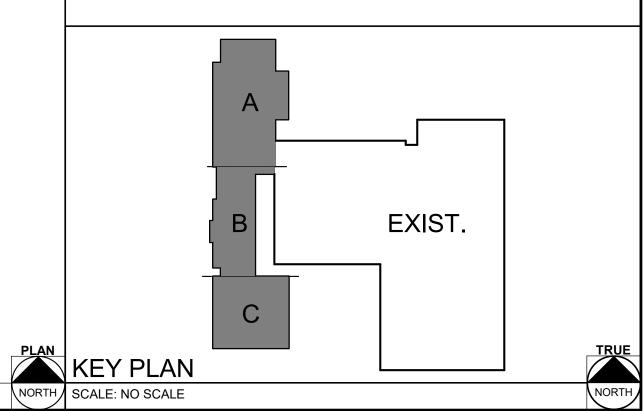
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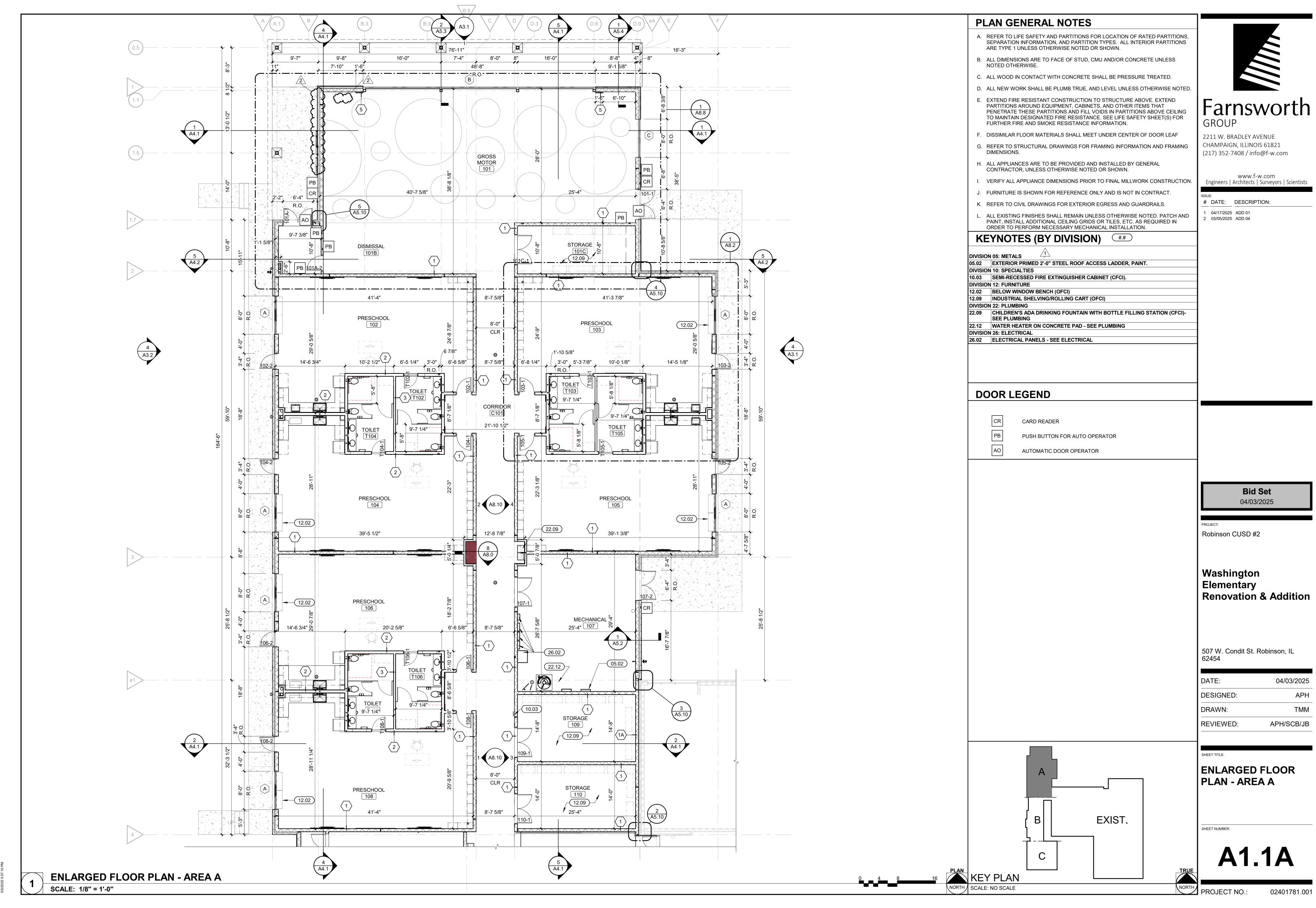
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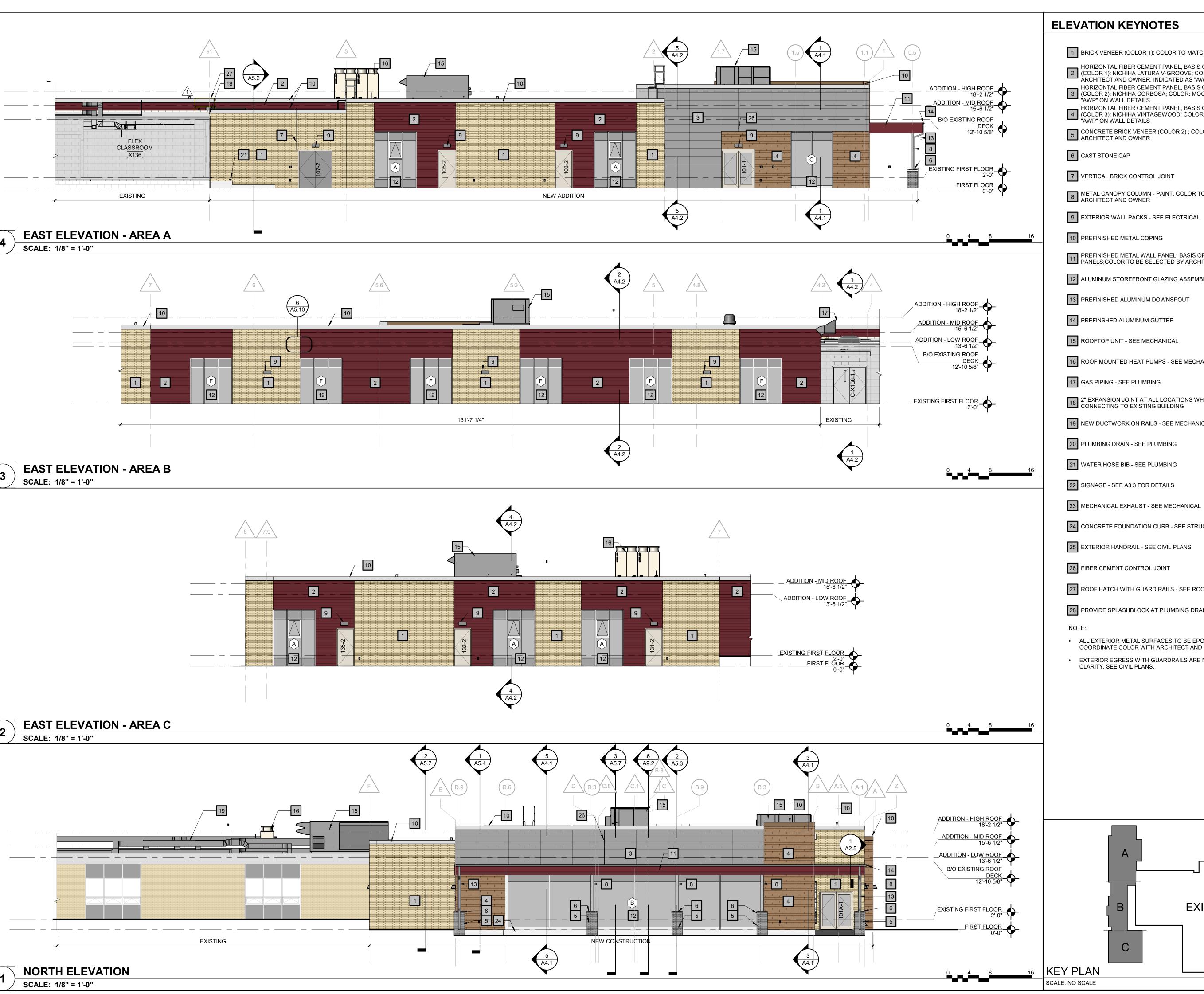
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DRAWN:	TMM
REVIEWED:	APH/SCB/JB



OVERALL FLOOR PLAN

SHEET NUMBER:





ELEVATION KEYNOTES

- 1 BRICK VENEER (COLOR 1); COLOR TO MATCH EXISTING
- HORIZONTAL FIBER CEMENT PANEL, BASIS OF DESIGN PRODUCT (COLOR 1): NICHIHA LATURA V-GROOVE; COLOR TO BE SELECTED BY ARCHITECT AND OWNER. INDICATED AS "AWP" ON WALL DETAILS.
- HORIZONTAL FIBER CEMENT PANEL, BASIS OF DESIGN PRODUCT (COLOR 2): NICHIHA CORBOSA; COLOR: MOONDUST. INDICATED AS "AWP" ON WALL DETAILS
- HORIZONTAL FIBER CEMENT PANEL, BASIS OF DESIGN PRODUCT (COLOR 3): NICHIHA VINTAGEWOOD; COLOR: CEDAR. INDICATED AS "AWP" ON WALL DETAILS
- CONCRETE BRICK VENEER (COLOR 2); COLOR TO BE SELECTED BY ARCHITECT AND OWNER
- 7 VERTICAL BRICK CONTROL JOINT
- METAL CANOPY COLUMN PAINT, COLOR TO BE SELECTED BY ARCHITECT AND OWNER
- 9 EXTERIOR WALL PACKS SEE ELECTRICAL
- PREFINISHED METAL WALL PANEL; BASIS OF DESIGN: PAC-CLAD FLUSH PANELS; COLOR TO BE SELECTED BY ARCHITECT AND OWNER
- 12 ALUMINUM STOREFRONT GLAZING ASSEMBLY
- 13 PREFINISHED ALUMINUM DOWNSPOUT
- 14 PREFINSHED ALUMINUM GUTTER
- 16 ROOF MOUNTED HEAT PUMPS SEE MECHANICAL
- 17 GAS PIPING SEE PLUMBING
- 2" EXPANSION JOINT AT ALL LOCATIONS WHERE ADDITION IS CONNECTING TO EXISTING BUILDING
- 19 NEW DUCTWORK ON RAILS SEE MECHANICAL

- 24 CONCRETE FOUNDATION CURB SEE STRUCTURAL
- 25 EXTERIOR HANDRAIL SEE CIVIL PLANS
- 26 FIBER CEMENT CONTROL JOINT
- 27 ROOF HATCH WITH GUARD RAILS SEE ROOF PLAN
- 28 PROVIDE SPLASHBLOCK AT PLUMBING DRAIN SEE PLUMBING
- ALL EXTERIOR METAL SURFACES TO BE EPOXY PAINTED -COORDINATE COLOR WITH ARCHITECT AND OWNER.
- EXTERIOR EGRESS WITH GUARDRAILS ARE NOT SHOWN FOR CLARITY. SEE CIVIL PLANS.

EXIST.



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EXTERIOR **ELEVATIONS**

SHEET NUMBER:



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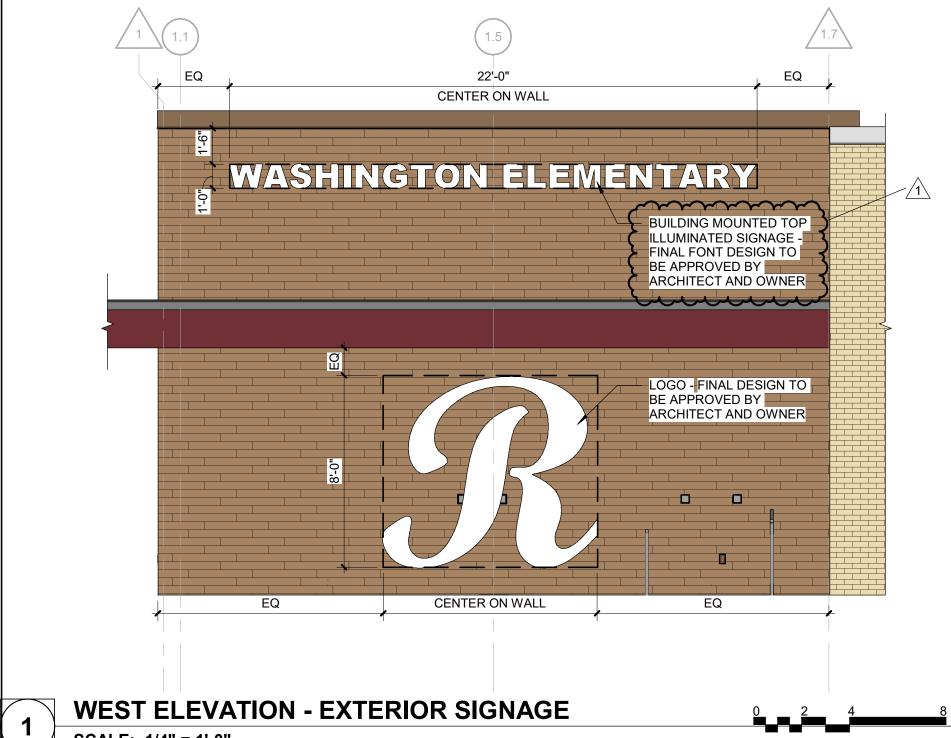
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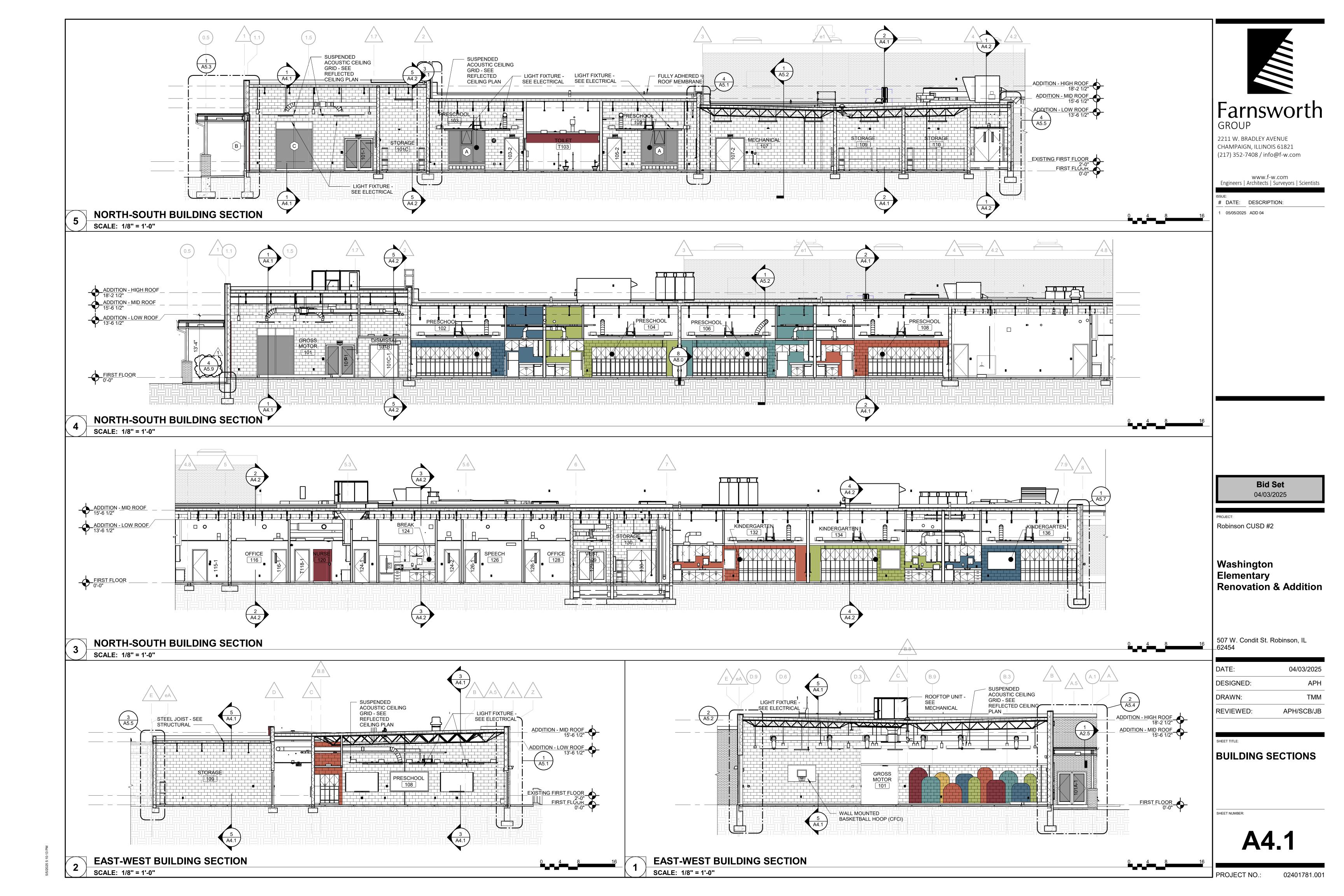
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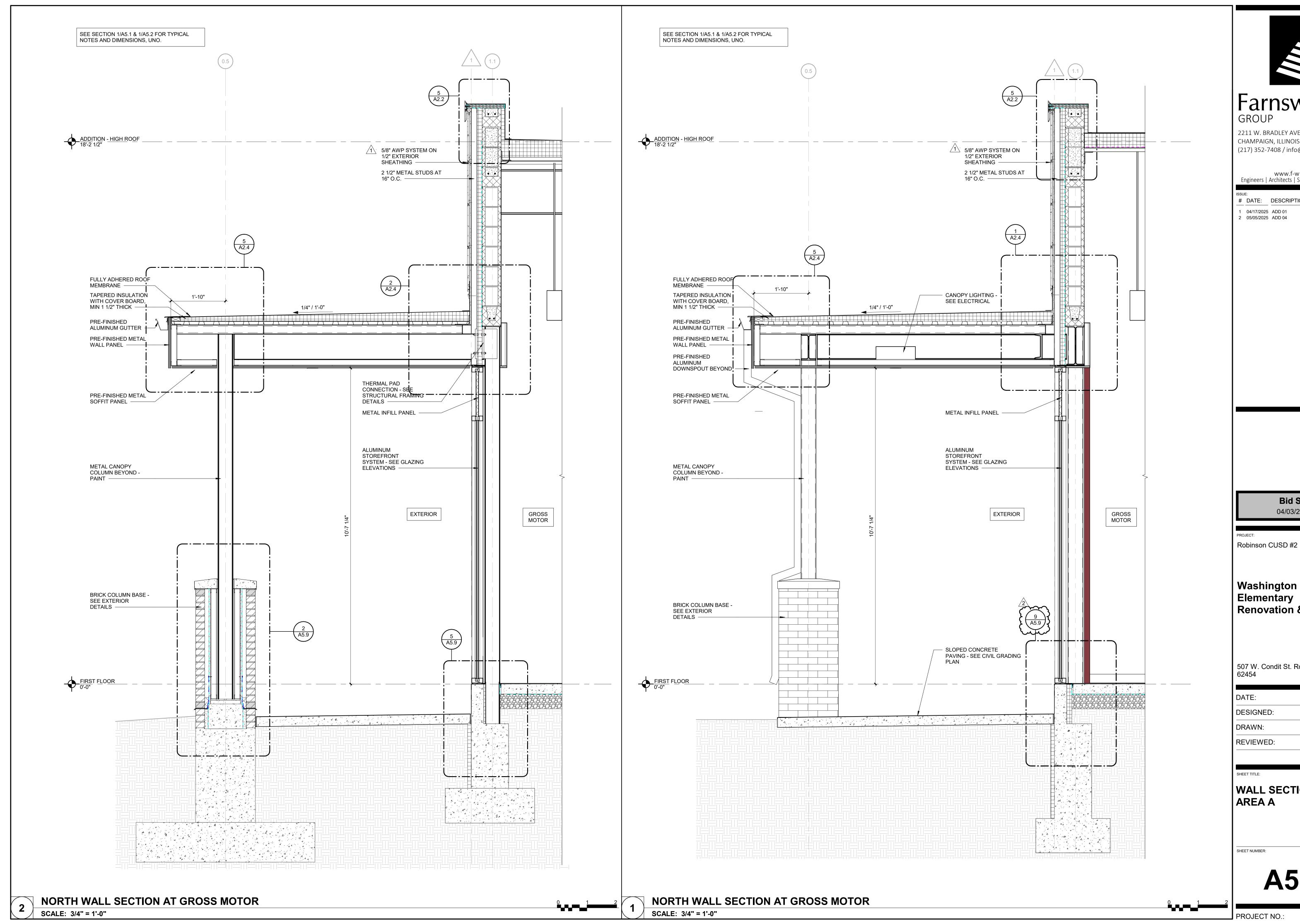
SHEET TITLE:

EXTERIOR SIGNAGE DETAILS

SHEET NUMBER:









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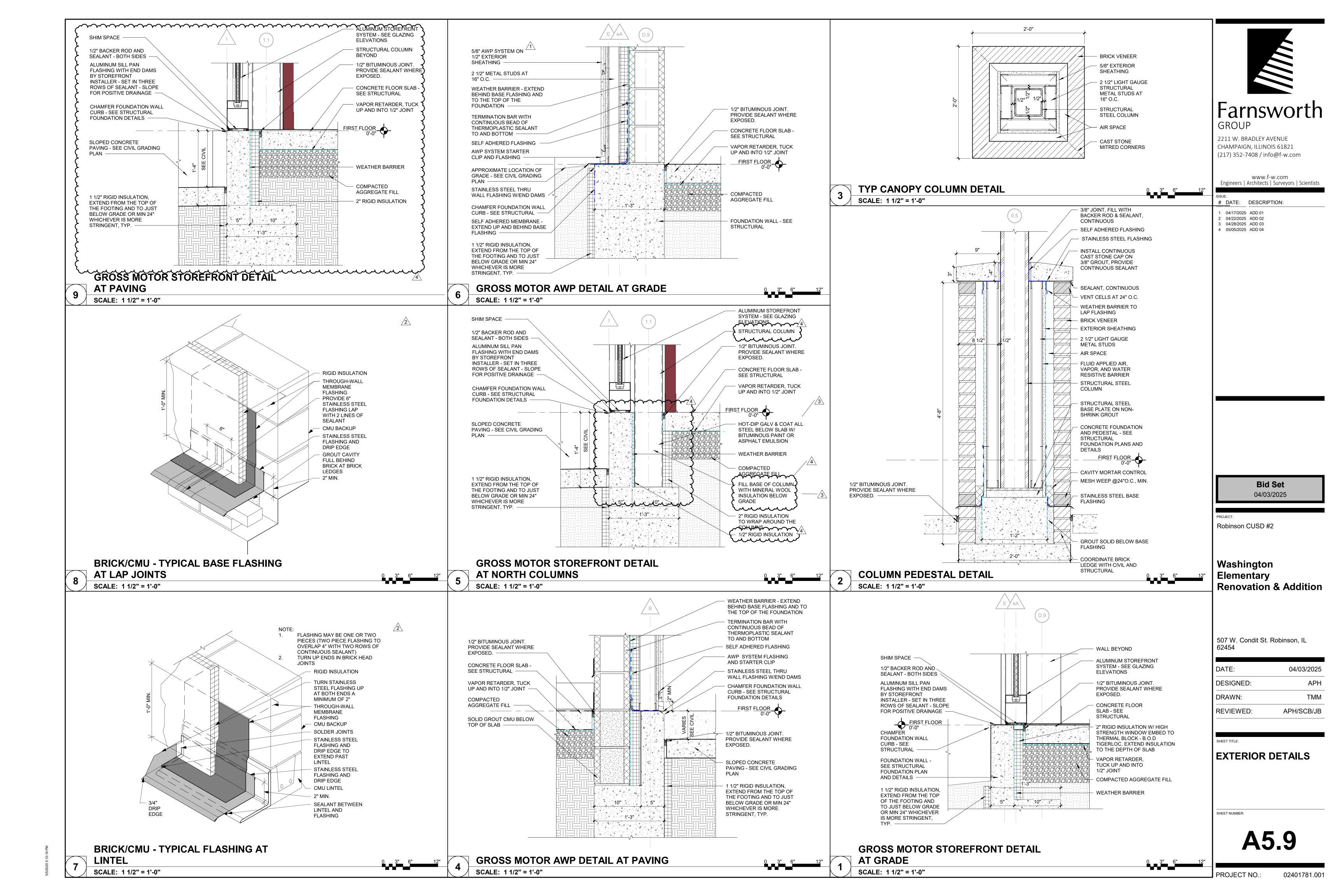
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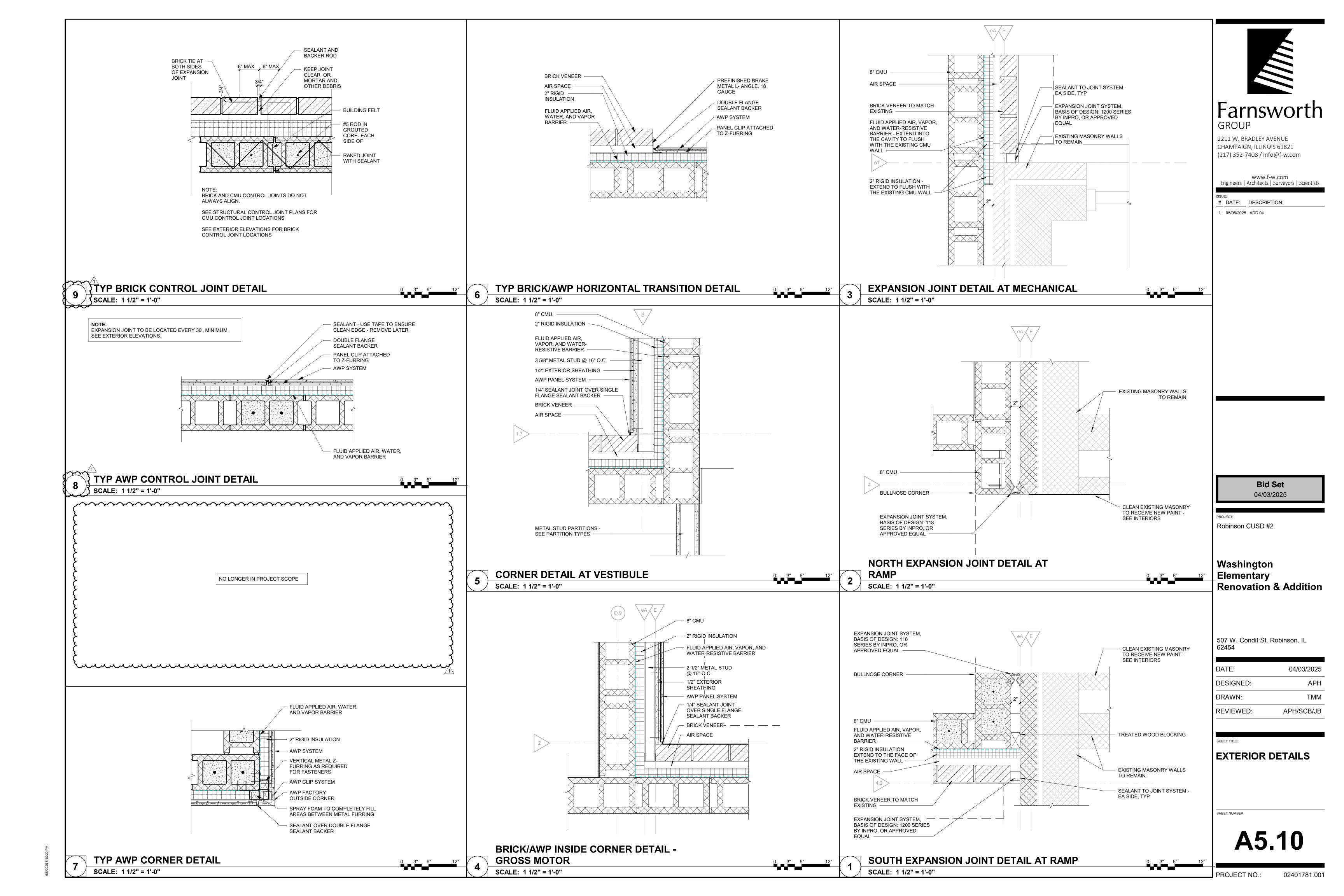
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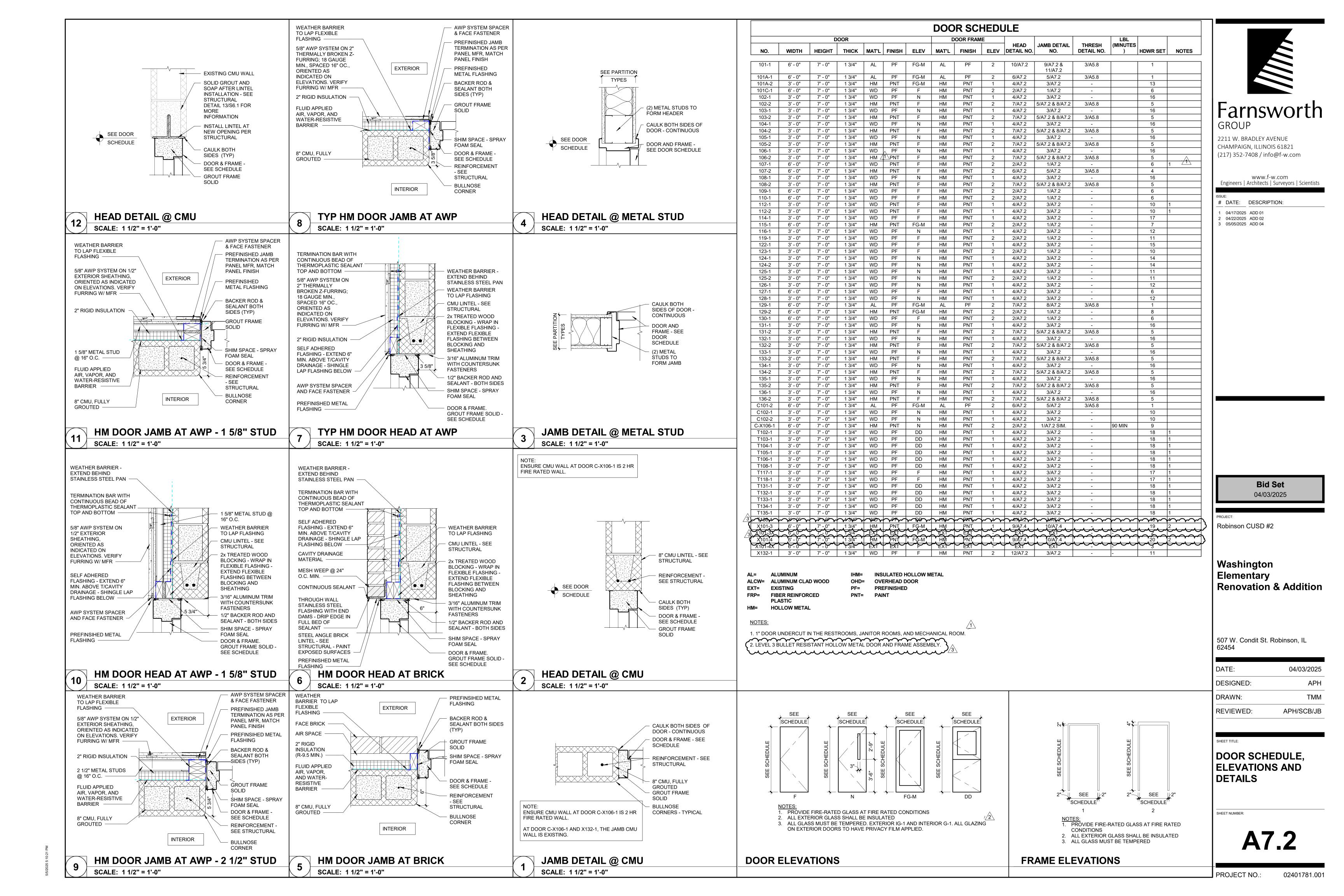
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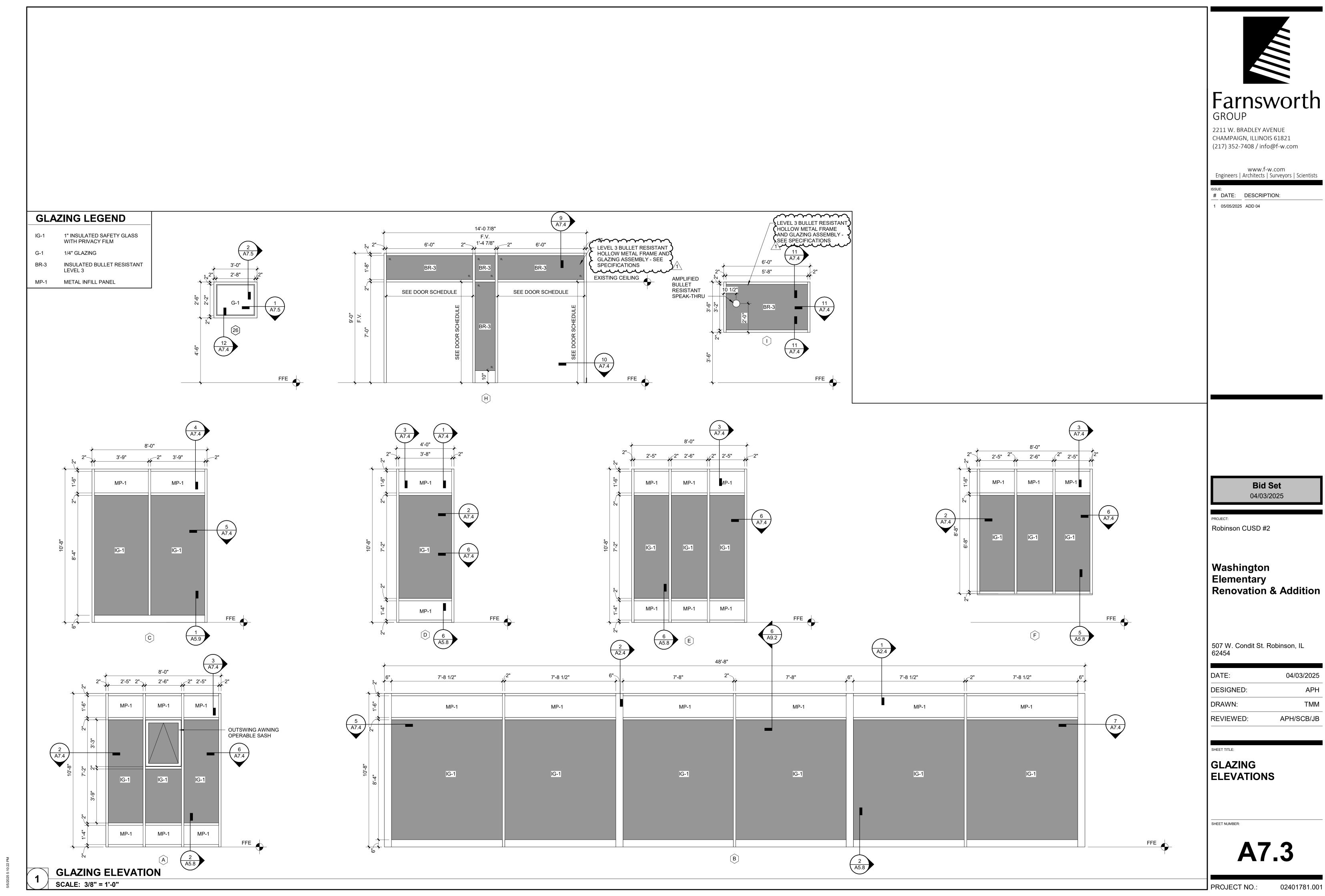
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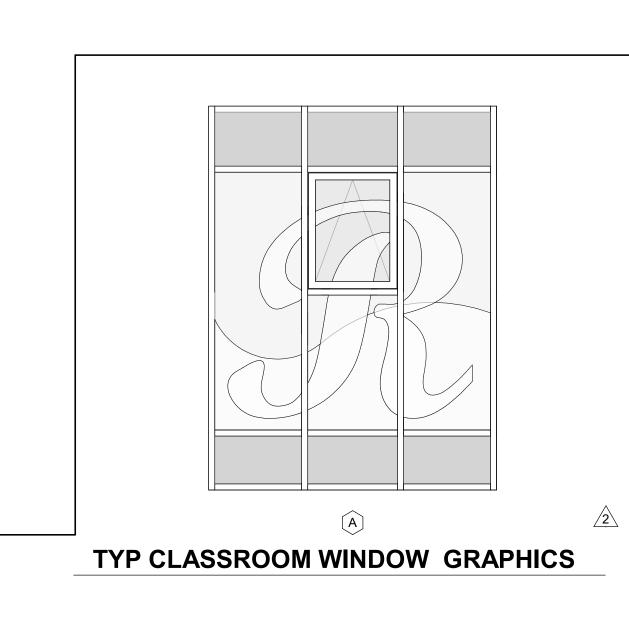
WALL SECTIONS -

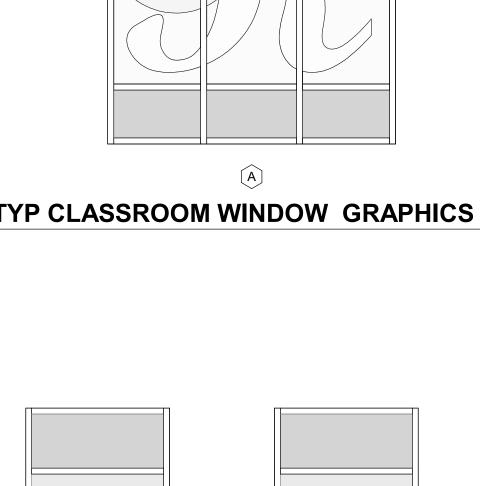


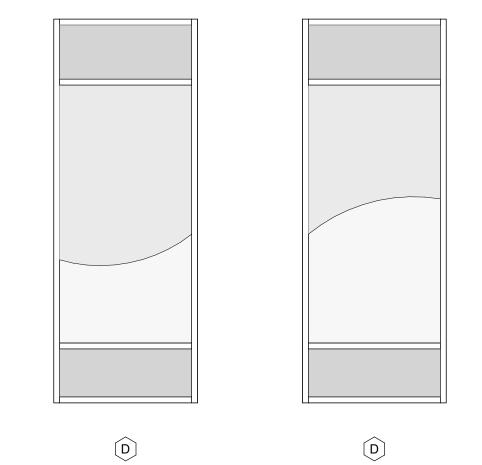












E

WEST ELEVATION - AREA B GRAPHICS

 \bigcirc

NOTE:
ELEVATIONS SHOWN ARE TO GIVE GENERAL DESIGN INTENT ONLY.
FINAL DESIGN, INCLUDING COLORS AND LOGOS, ARE TO BE CONFIRMED

ALL GLAZING MARKED AS IG-1, TO HAVE SECURITY AND PRIVACY FILM APPLIED, SEE A7.3. ALL GLAZING CONTAINING SECURITY AND PRIVACY

SELECTED BY ARCHITECT AND OWNER. THIS SHEET IS ONLY TO SHOW

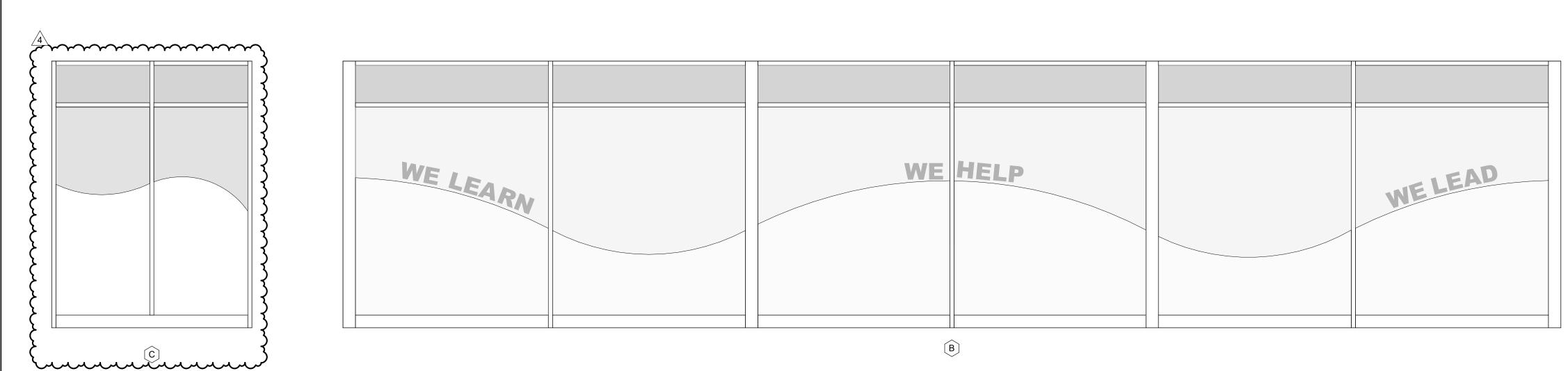
FILM NOT SHOWN ON THIS SHEET IS TO BE OF A SOLID COLOR

DESIGN INTENT FOR SECURITY AND PRIVACY FILM CONTAINING

BY OWNER AND ARCHITECT.

ADDITIONAL GRAPHICS AND BRANDING.

D



D

GROSS MOTOR WINDOW GRAPHICS

SCALE: 3/8" = 1'-0"

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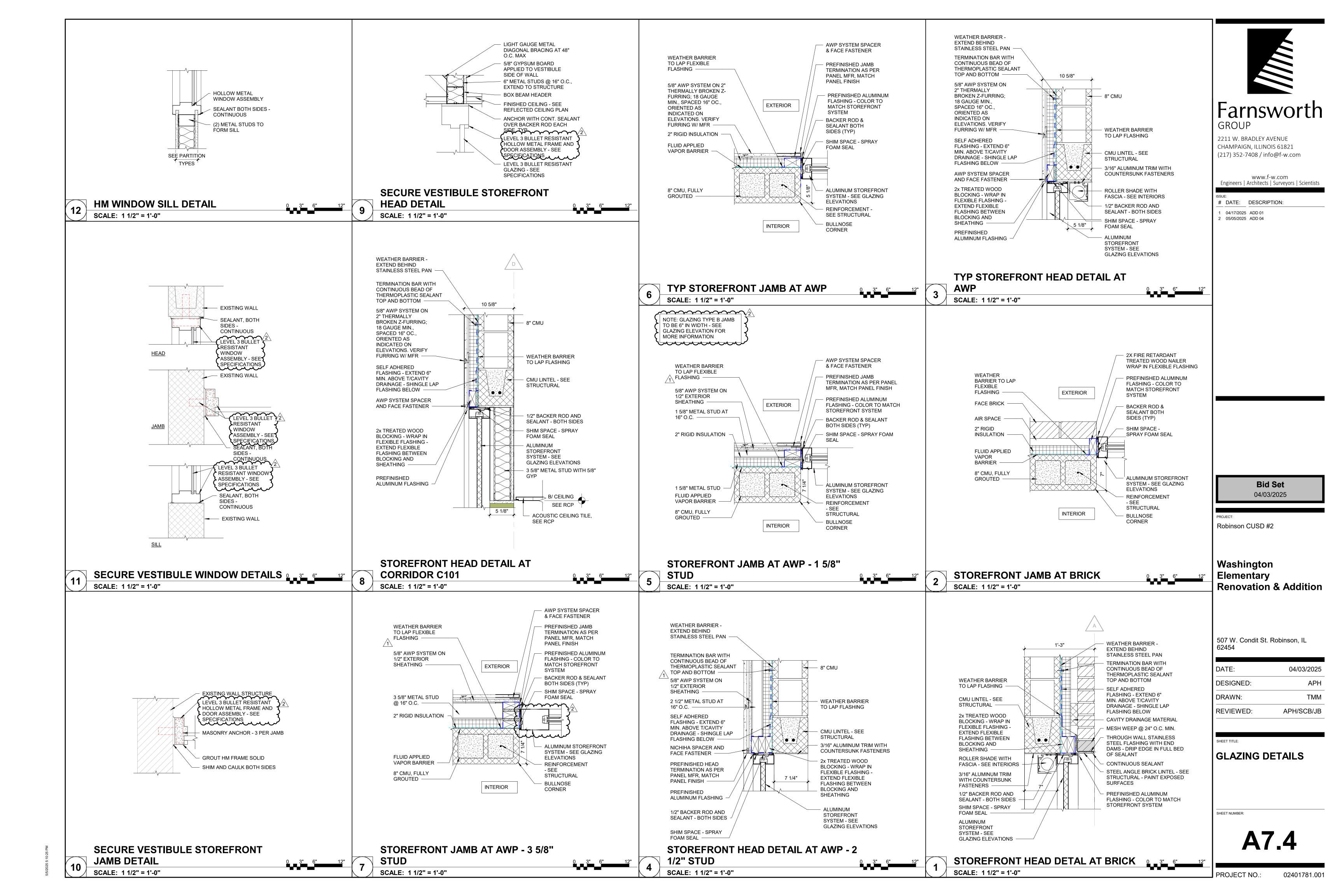
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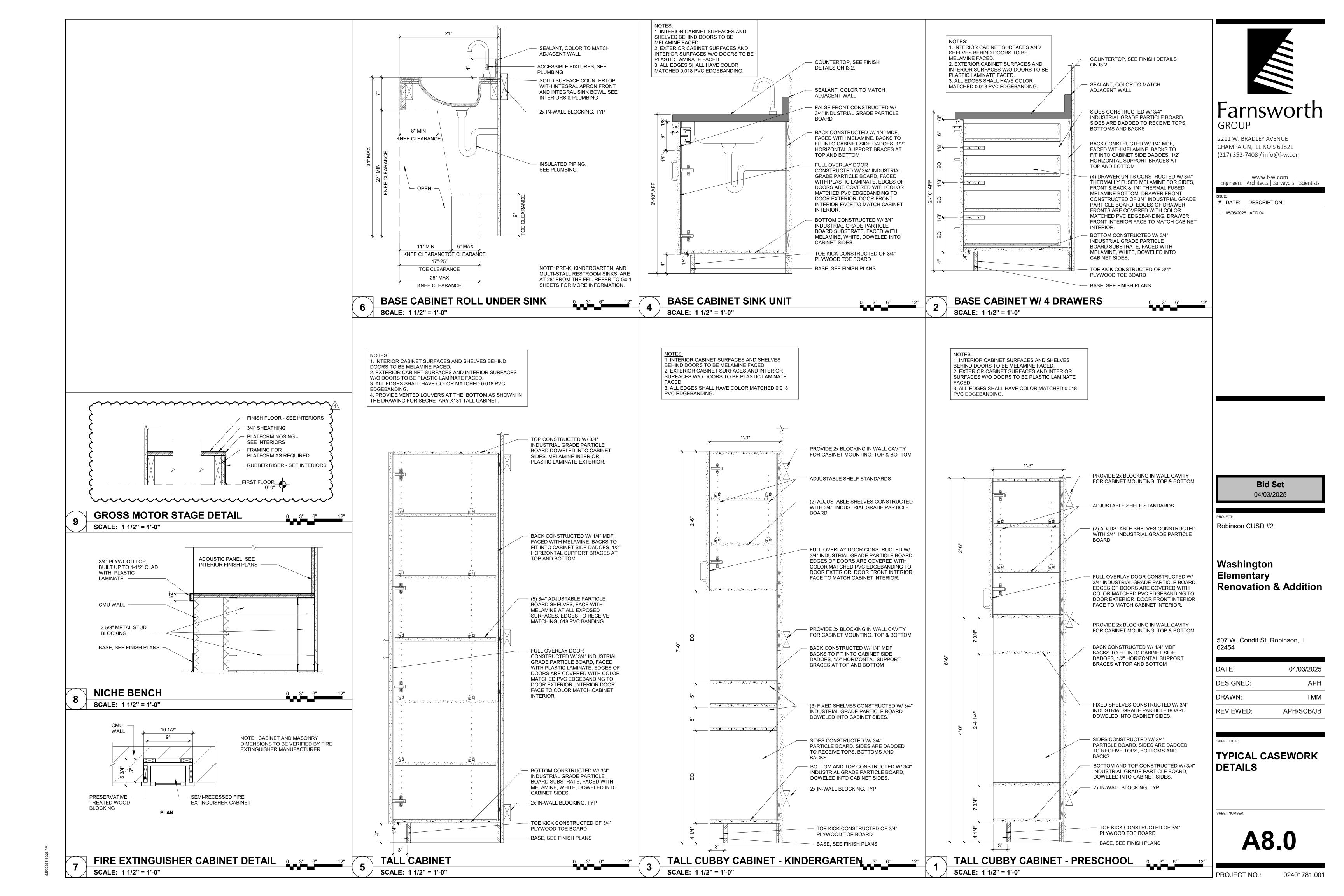
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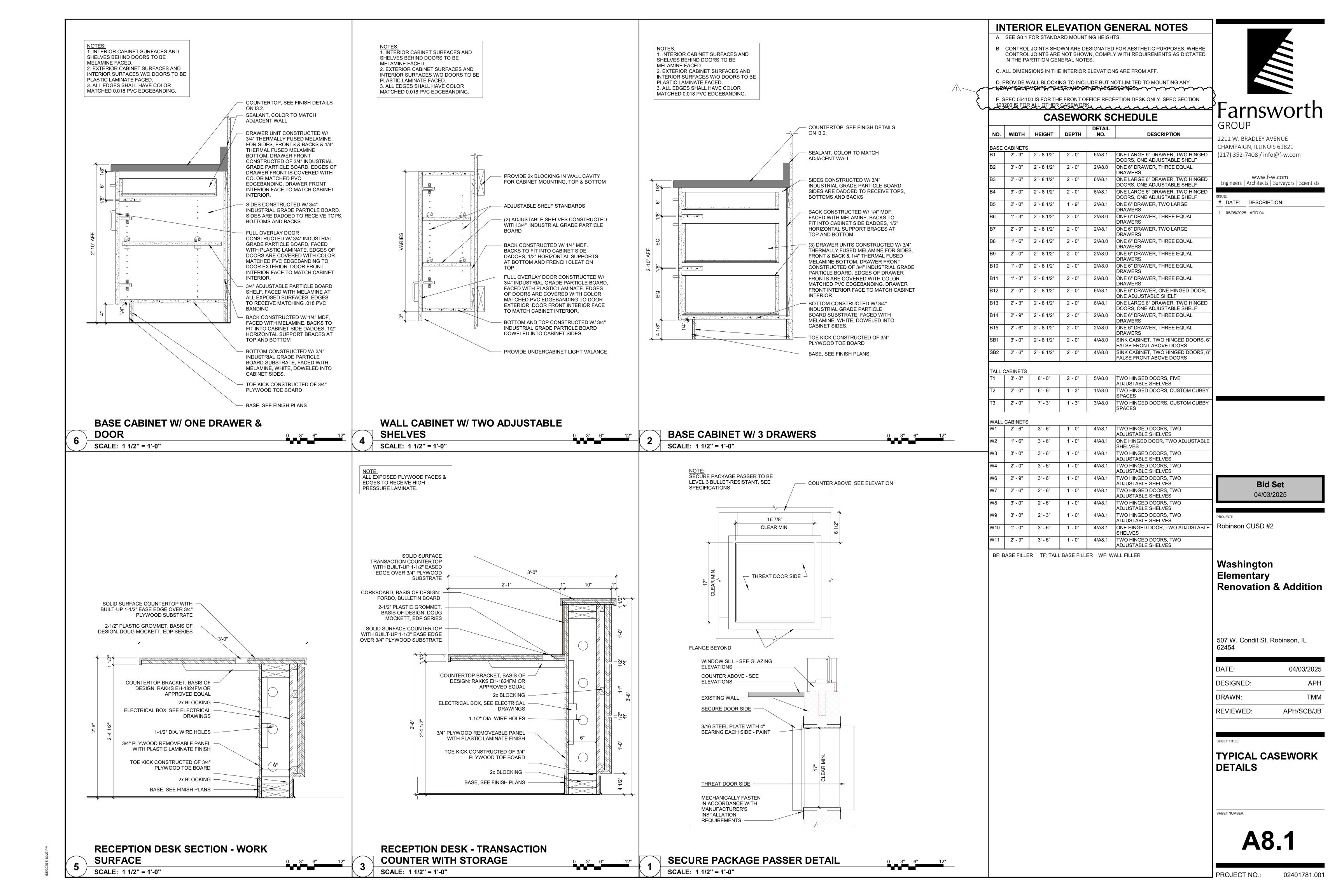
GLAZING **ELEVATIONS** -WINDOW GRAPHICS

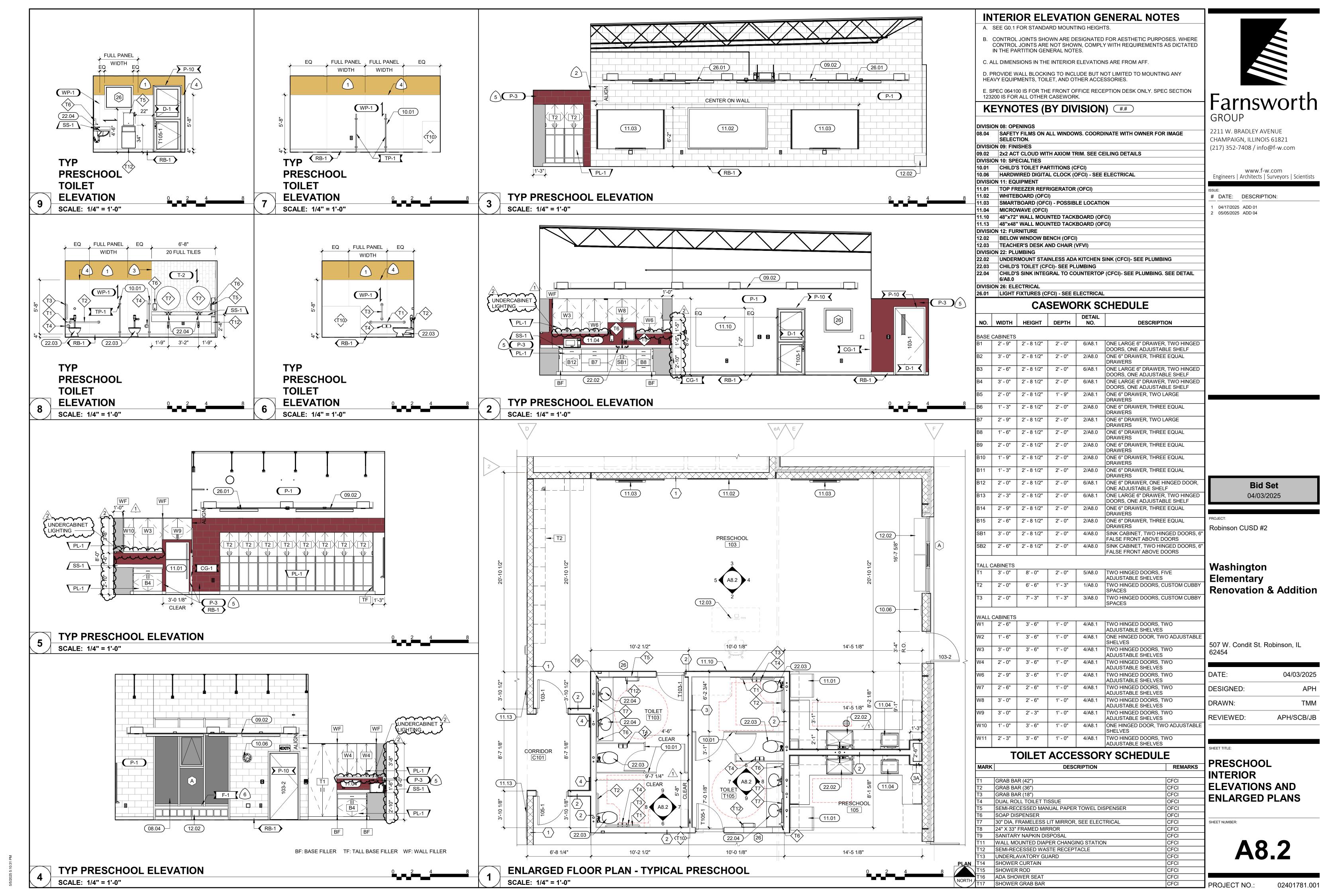
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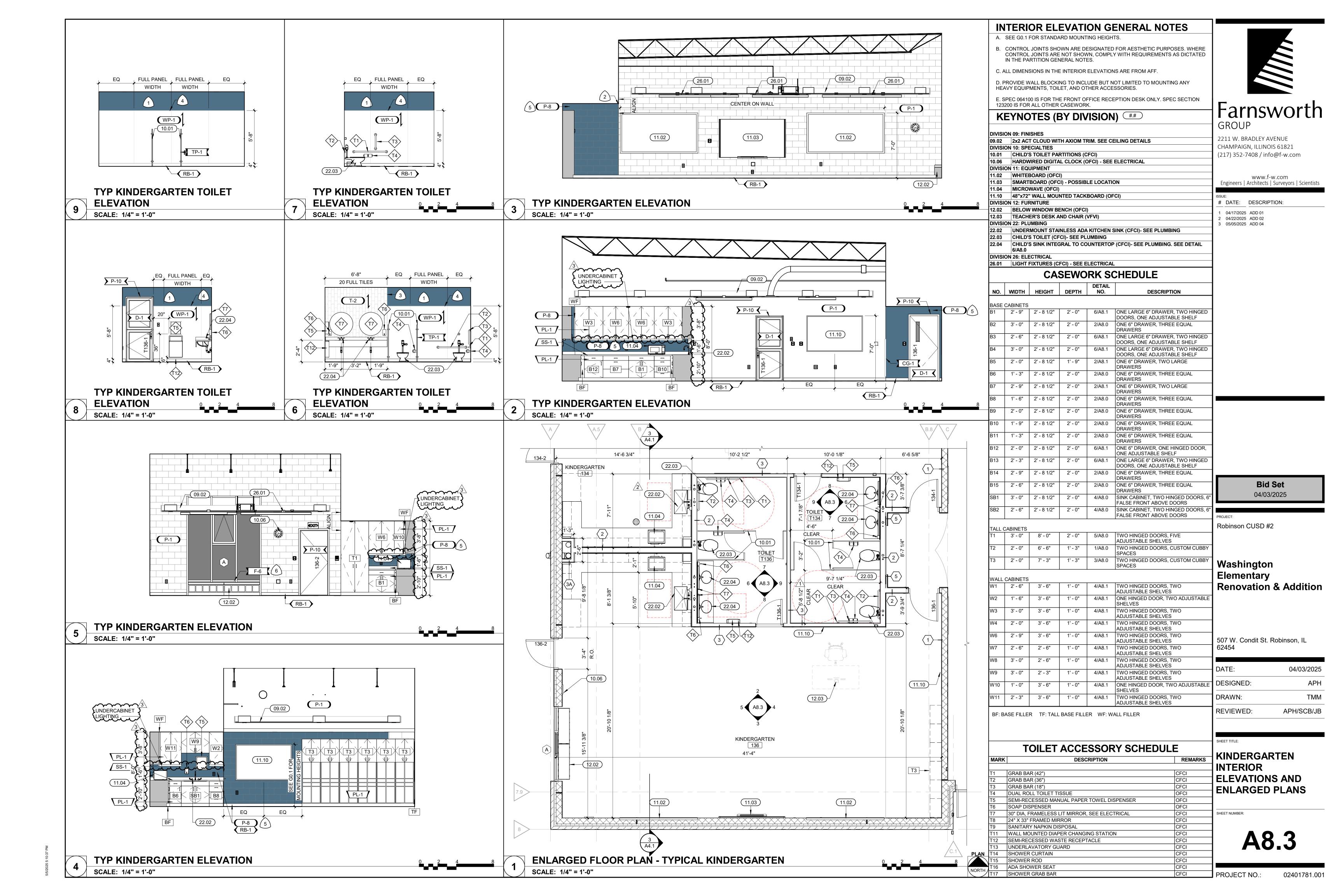
A7.3.1

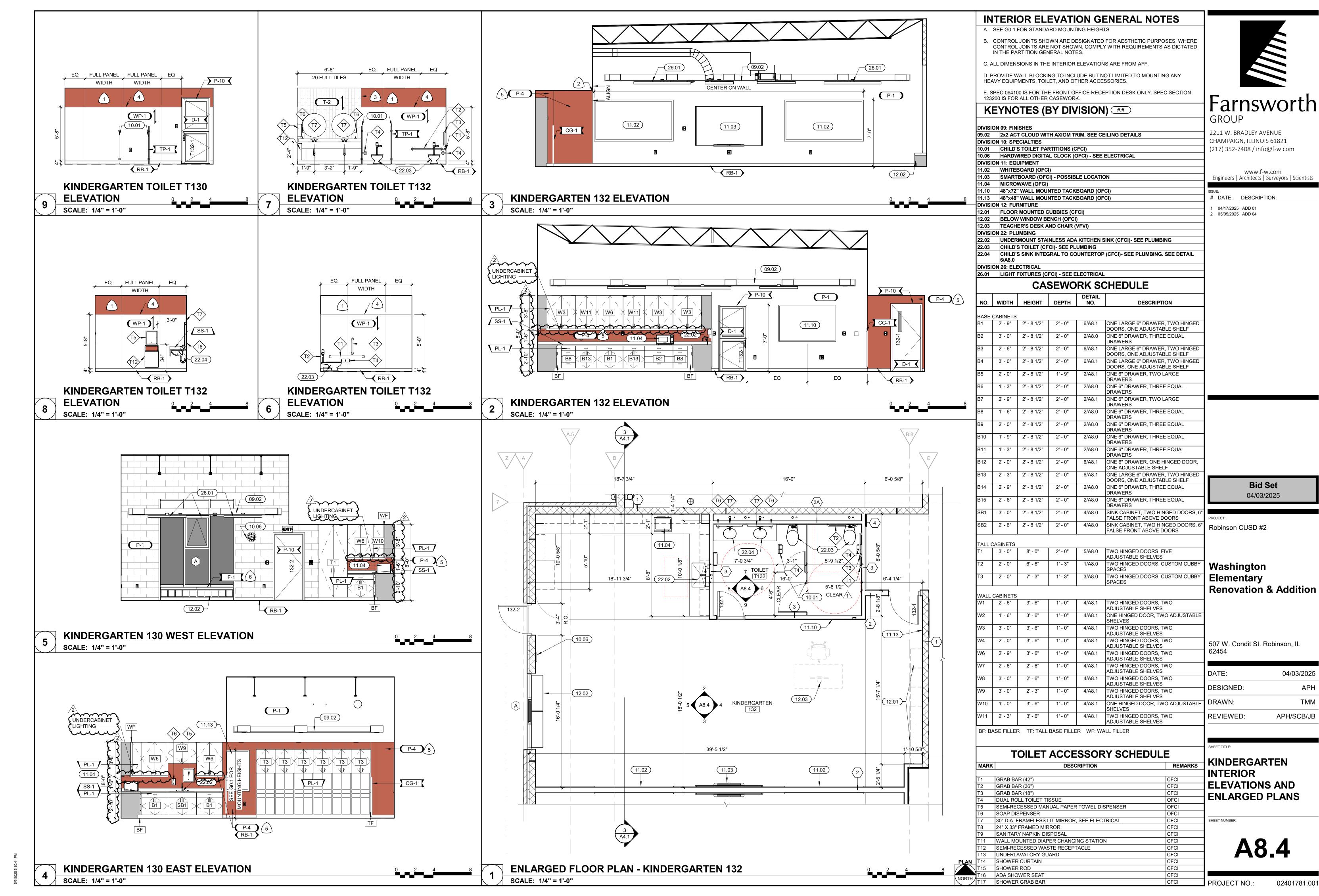


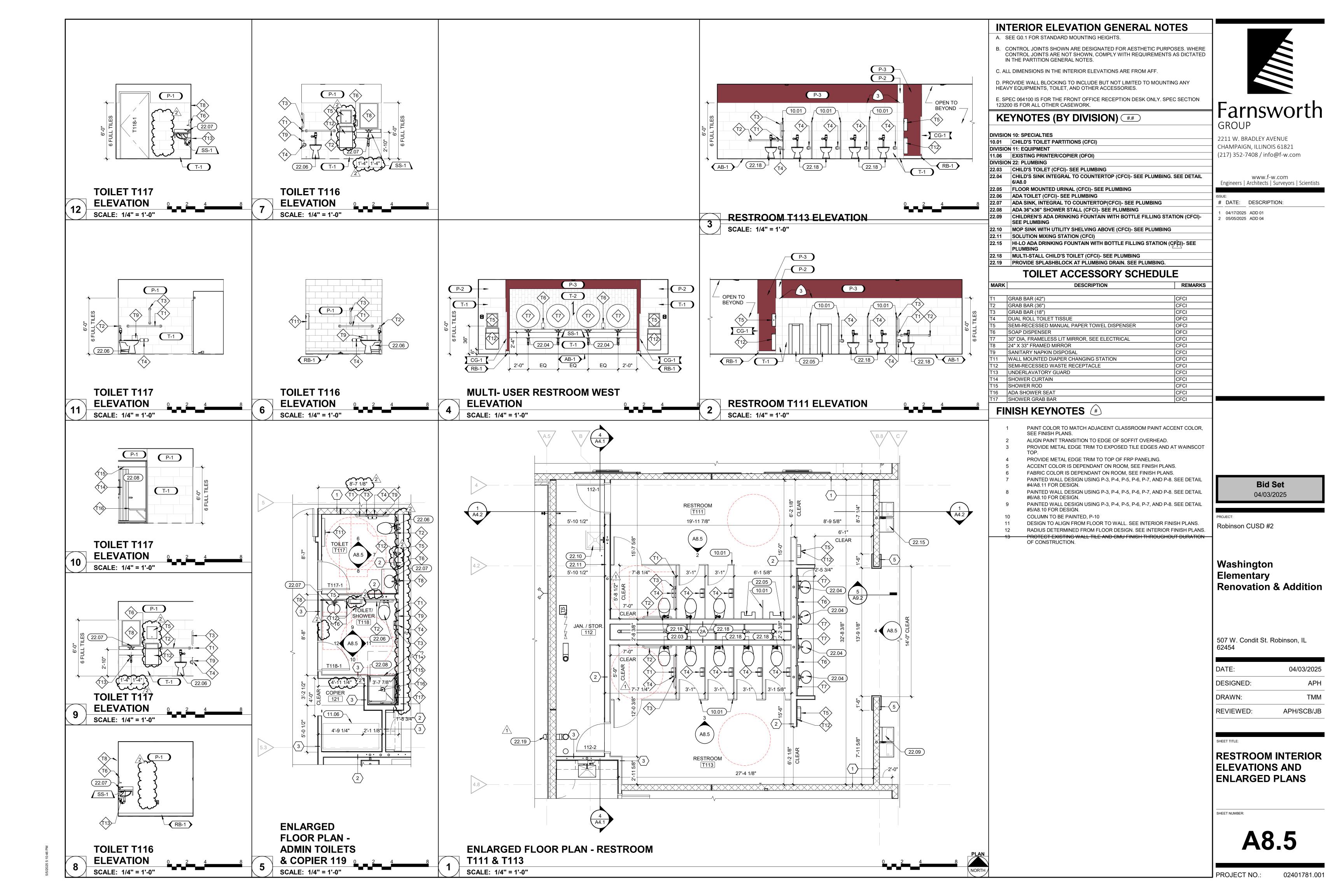


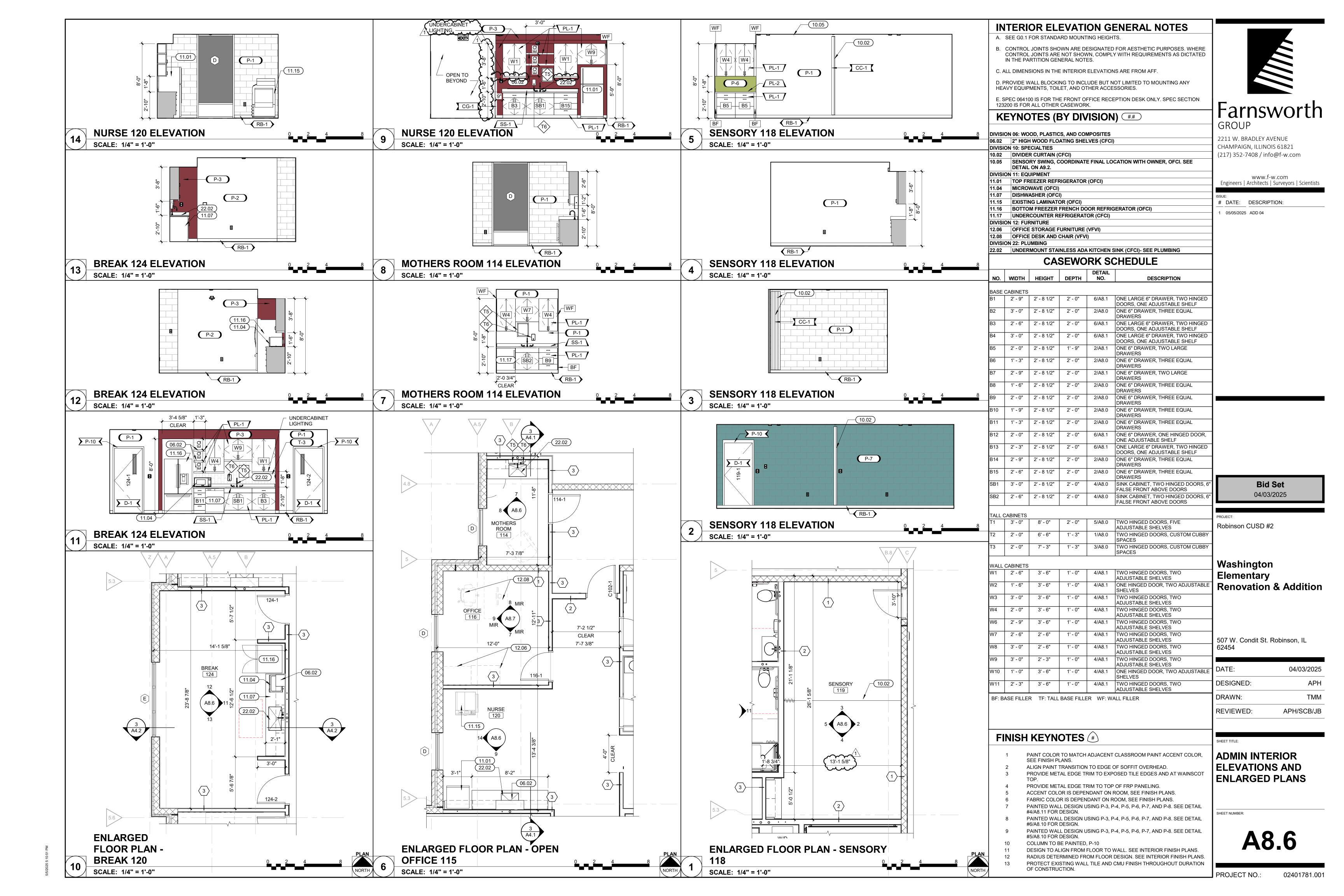


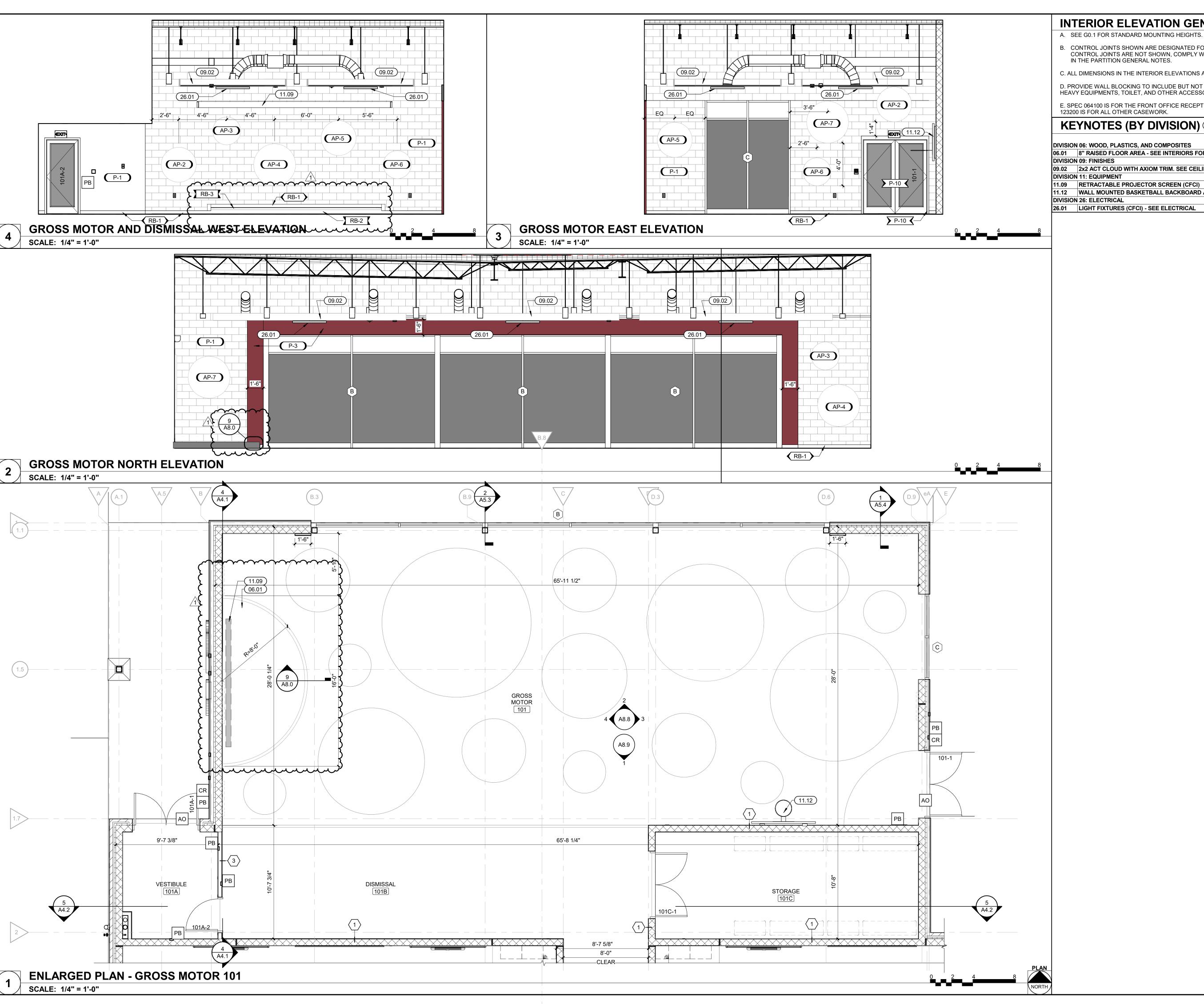












INTERIOR ELEVATION GENERAL NOTES

A. SEE G0.1 FOR STANDARD MOUNTING HEIGHTS.

B. CONTROL JOINTS SHOWN ARE DESIGNATED FOR AESTHETIC PURPOSES. WHERE CONTROL JOINTS ARE NOT SHOWN, COMPLY WITH REQUIREMENTS AS DICTATED IN THE PARTITION GENERAL NOTES.

C. ALL DIMENSIONS IN THE INTERIOR ELEVATIONS ARE FROM AFF.

D. PROVIDE WALL BLOCKING TO INCLUDE BUT NOT LIMITED TO MOUNTING ANY HEAVY EQUIPMENTS, TOILET, AND OTHER ACCESSORIES.

E. SPEC 064100 IS FOR THE FRONT OFFICE RECEPTION DESK ONLY. SPEC SECTION 123200 IS FOR ALL OTHER CASEWORK.

KEYNOTES (BY DIVISION)

DIVISION 06: WOOD, PLASTICS, AND COMPOSITES

06.01 8" RAISED FLOOR AREA - SEE INTERIORS FOR FINISH INFORMATION

09.02 2x2 ACT CLOUD WITH AXIOM TRIM. SEE CEILING DETAILS

11.12 WALL MOUNTED BASKETBALL BACKBOARD AND HOOP (CFCI).

26.01 LIGHT FIXTURES (CFCI) - SEE ELECTRICAL

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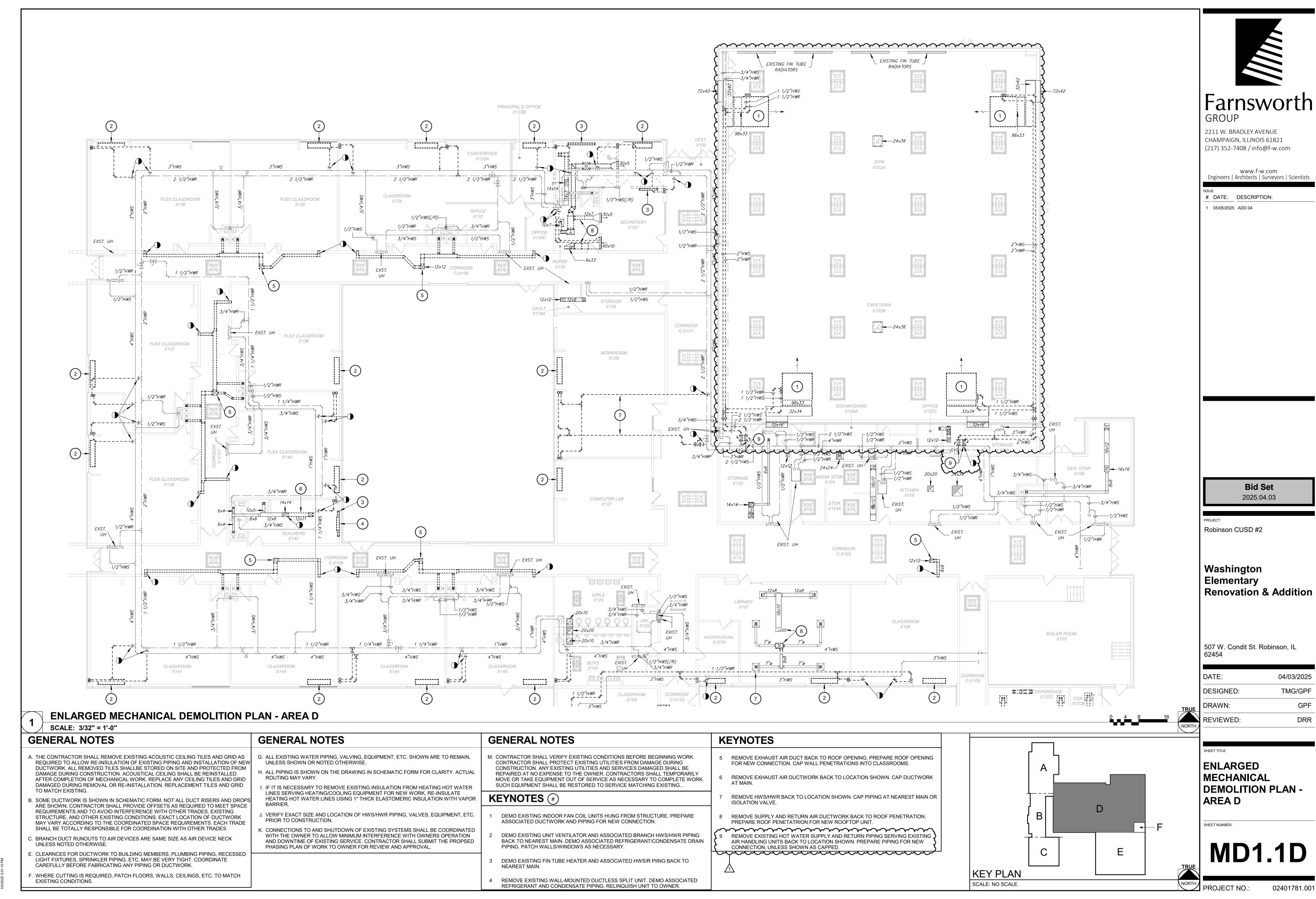
DATE:	04/03/2025
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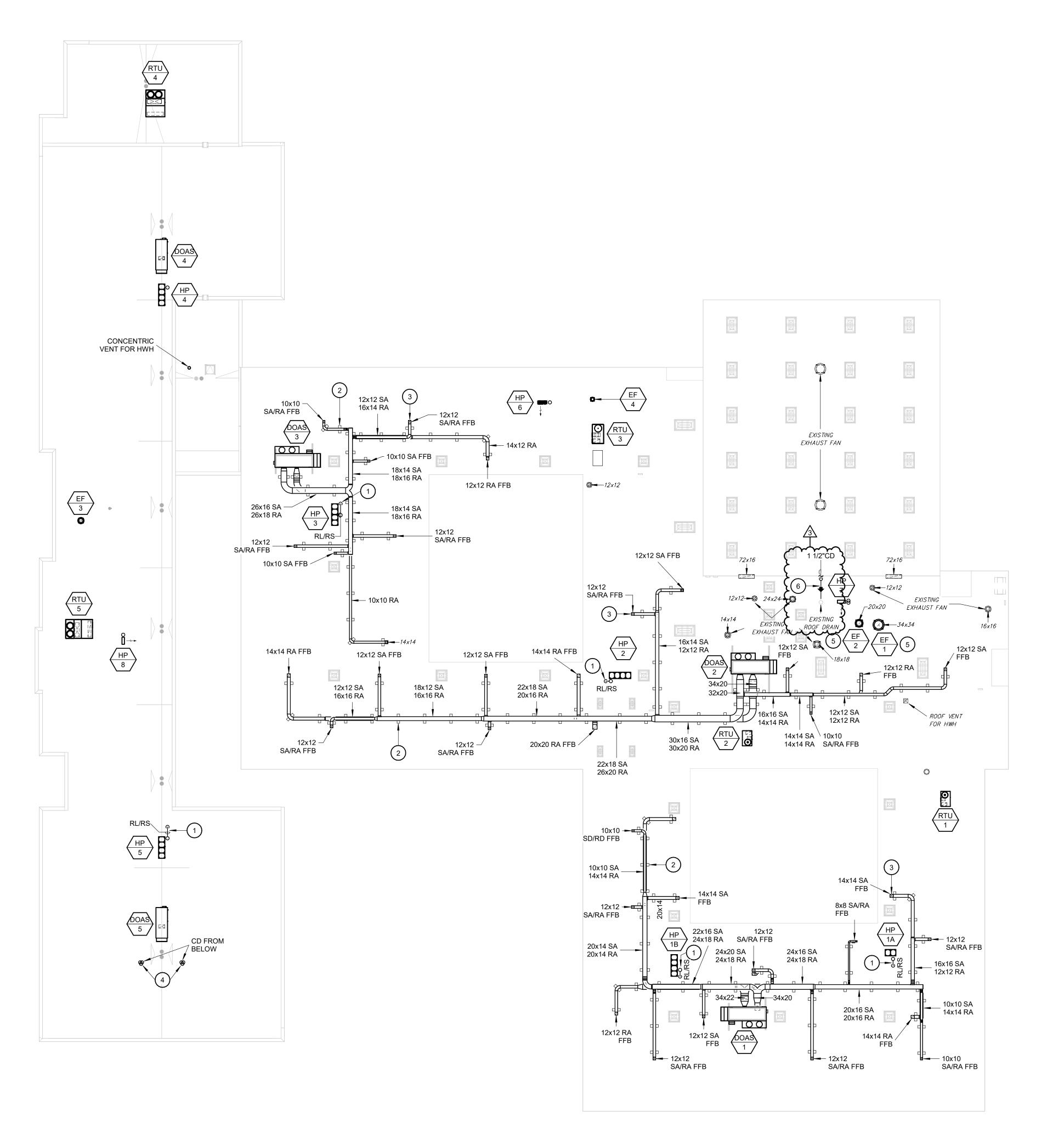
GROSS MOTOR INTERIOR **ELEVATIONS AND ENLARGED PLANS**

SHEET NUMBER:

02401781.001

PROJECT NO.:





GENERAL NOTES

- A. ALL ROOFING WORK INCLUDING BUT NOT LIMITED TO CUTTING, PATCHING, FLASHING, AND OTHER SIMILAR WORK SHALL BE COMPLETED BY ORIGINAL INSTALLER OR ANOTHER RECOGNIZED EXPERIENCED AND SPECIALIZED FIRM AS REQUIRED TO MAINTAIN OWNERS EXISTING ROOF WARRANTY.
- B. SOME DUCTWORK IS SHOWN IN SCHEMATIC FORM. NOT ALL DUCT RISERS AND DROPS ARE SHOWN. CONTRACTOR SHALL PROVIDE OFFSETS AS REQUIRED TO MEET SPACE REQUIREMENTS AND TO AVOID INTERFERENCE WITH OTHER TRADES, EXISTING STRUCTURE, AND OTHER EXISTING CONDITIONS. EXACT LOCATION OF DUCTWORK MAY VARY ACCORDING TO THE COORDINATED SPACE REQUIREMENTS. EACH TRADE SHALL BE TOTALLY RESPONSIBLE FOR COORDINATION WITH OTHER TRADES.
- C. PRIOR TO ORDERING ANY EQUIPMENT OR FABRICATION OF DUCTWORK, THE
- CONTRACTOR SHALL VERIFY ALL MEASUREMENTS AT THE SITE AND MAKE... D. CLEARNCES FOR DUCTWORK TO BUILDING MEMBERS, PLUMBING PIPING, RECESSED LIGHT FIXTURES, SPRINKLER PIPING, ETC. MAY BE VERY TIGHT. COORDINATE

CAREFULLY BEFORE FABRICATING ANY PIPING OR DUCTWORK.

- E. ALL EXISTING EQUIPMENT, ETC. SHOWN ARE TO REMAIN, UNLESS SHOWN OR NOTED
- F. VERIFY EXACT SIZE AND LOCATION OF EQUIPMENT, ETC. PRIOR TO CONSTRUCTION.
- G. CONNECTIONS TO AND SHUTDOWN OF EXISTING SYSTEMS SHALL BE COORDINATED WITH THE OWNER TO ALLOW MINIMUM INTERFERENCE WITH OWNERS OPERATION AND DOWNTIME OF EXISTING SERVICE. CONTRACTOR SHALL SUBMIT THE PROPSED PHASING PLAN OF WORK TO OWNER FOR REVIEW AND APPROVAL.
- H. CONTRACTOR SHALL COMPLY WITH GENERAL CONDITIONS AND PROTECTION PROVISIONS SPECIFIED FOR JOINT OWNER/CONTRACTOR OCCUPANCY WORK AREAS.
- I. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS BEFORE BEGINNING WORK. CONTRACTOR SHALL PROTECT EXISTING UTILITIES FROM DAMAGE DURING CONSTRUCTION. ANY EXISTING UTILITIES AND SERVICES DAMAGED SHALL BE REPAIRED AT NO EXPENSE TO THE OWNER. CONTRACTORS SHALL TEMPORARILY MOVE OR TAKE EQUIPMENT OUT OF SERVICE AS NECESSARY TO COMPLETE WORK. SUCH EQUIPMENT SHALL BE RESTORED TO SERVICE MATCHING EXISTING...

KEYNOTES (#)

- PROVIDE REFRIGERANT PIPE ROOF SUPPORT. REFER TO PROJECT MANUAL FOR SPECIFICATION.
- 2 PROVIDE ROOF DUCT SUPPORTS. REFER TO DETAILS ON SHEET M5.2 FOR MORE INFORMATION. MAXIMUM SPACING AS SPECIFIED IN PROJECT MANUAL. TYPICAL
- 3 SUPPLY AND/OR RETURN/EXHAUST DUCT DROPS DOWN THROUGH ROOF. SEE FIRST FLOOR PLAN FOR CONTINUATION. DUCT DROP SIZES AS NOTED.
- 4 INSTALL PIPE PORTAL STYLE ROOF CURB FOR CONDENSATE DRAIN PENETRATIONS THROUGH ROOF. REFER TO DEATIL #1 ON SHEET M5.2 FOR MORE INFORMATION. ABOVE ROOF ROUTE CONDENSATE DRAIN PIPING TO DRAIN INDIRECTLY TO CLOSEST ROOF DRAIN.
- 5 EXHAUST FAN SHALL BE INTEGRATED AND INTERLOCKED WITH EXISTING KITCHEN HOOD CONTROLS.
- \sim 6 ROUTE CONDENSATE DRAIN FROM INDOOR AIR HANDLING UNITS AND INDRIRECTLY DISCHAGRE TO NEARBY ROOF DRAIN AT LOCATION SHOWN. SEE M2.1D FOR

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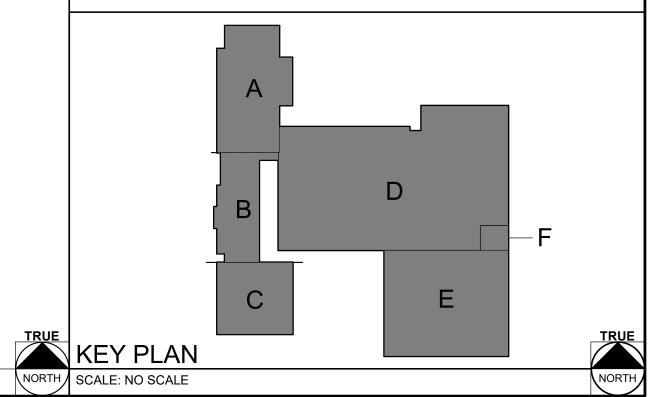
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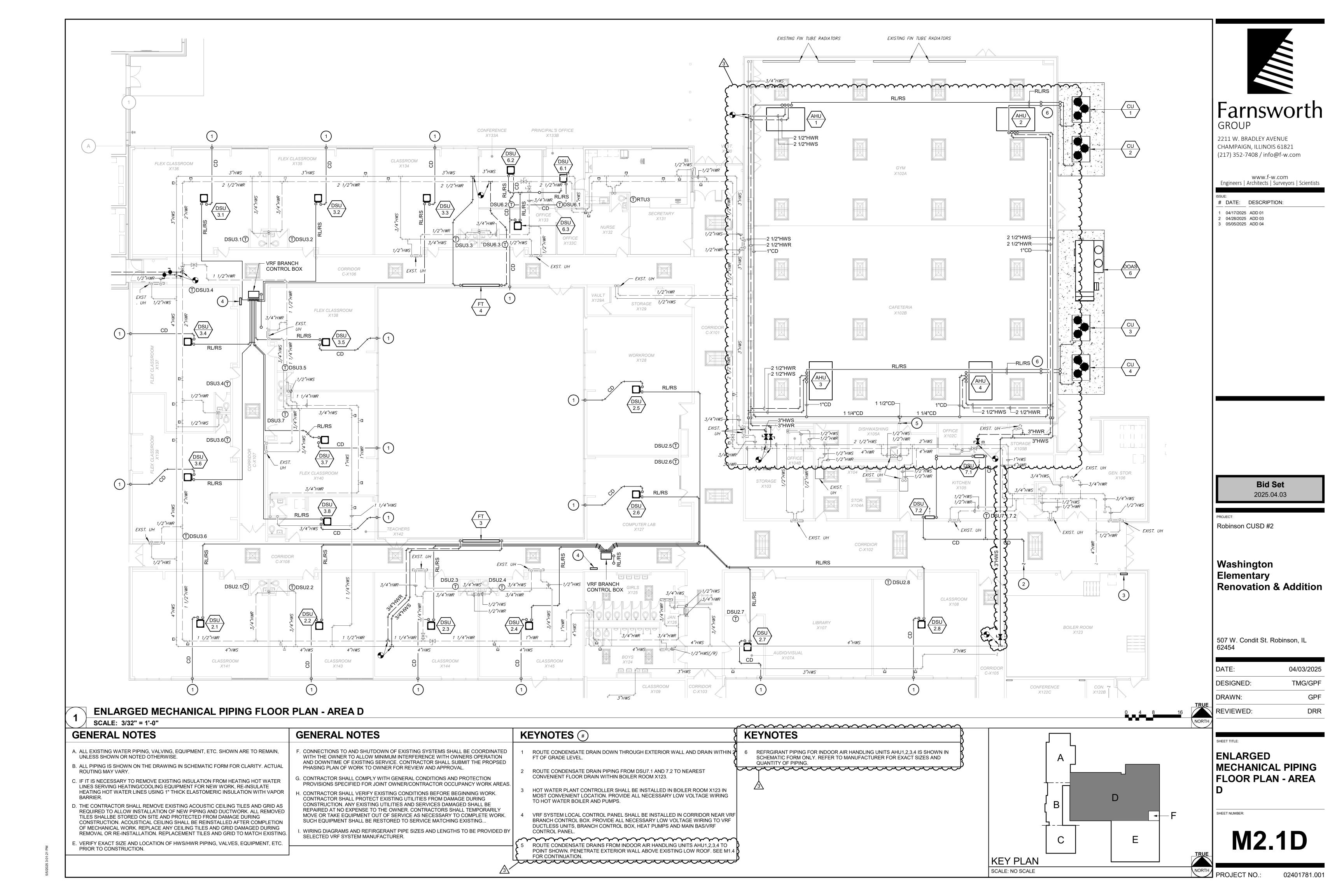


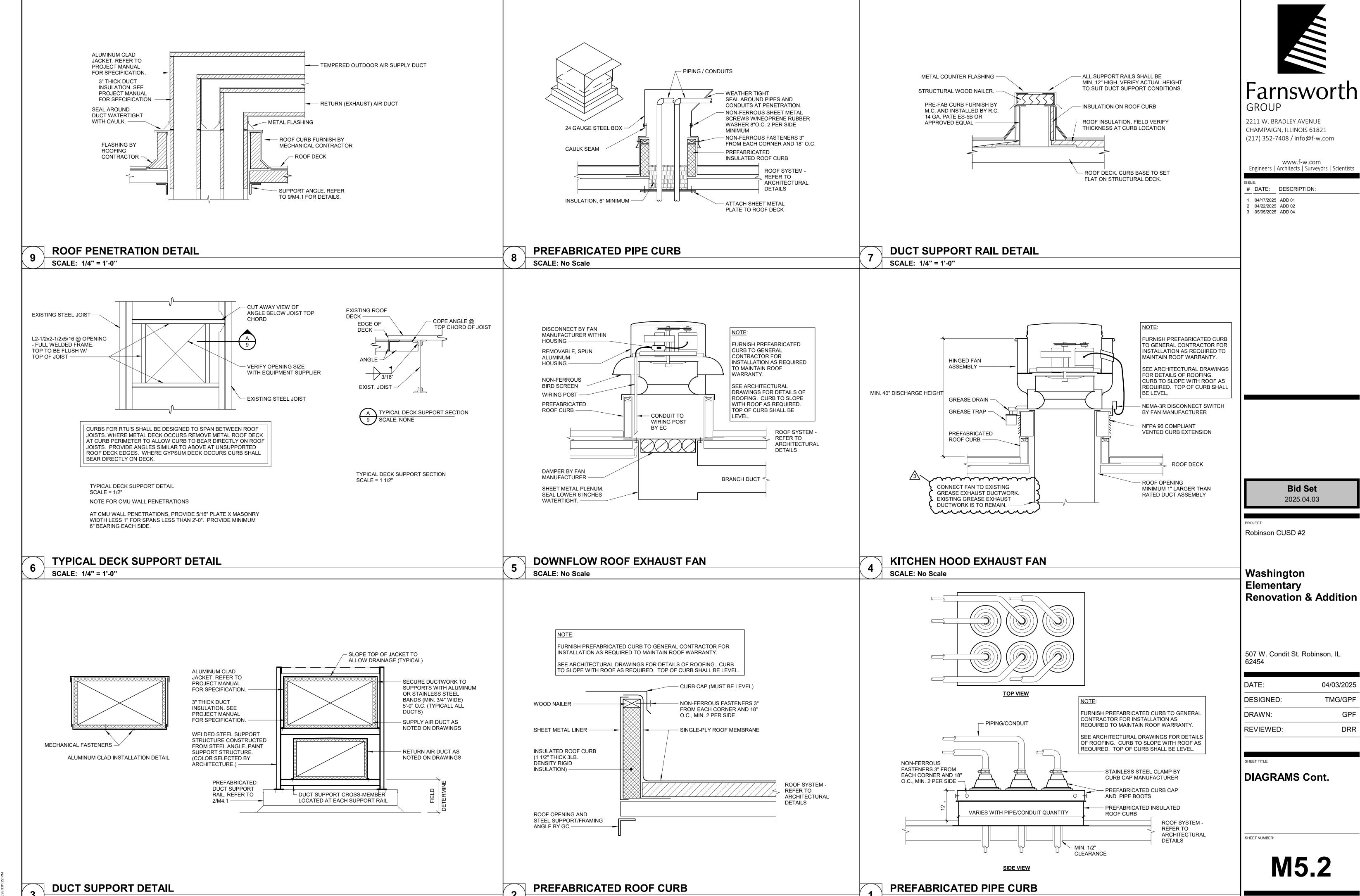
OVERALL ROOF MECHANICAL PLAN

SHEET NUMBER:

02401781.001

OVERALL ROOF MECHANICAL PLAN SCALE: 1" = 20'-0"





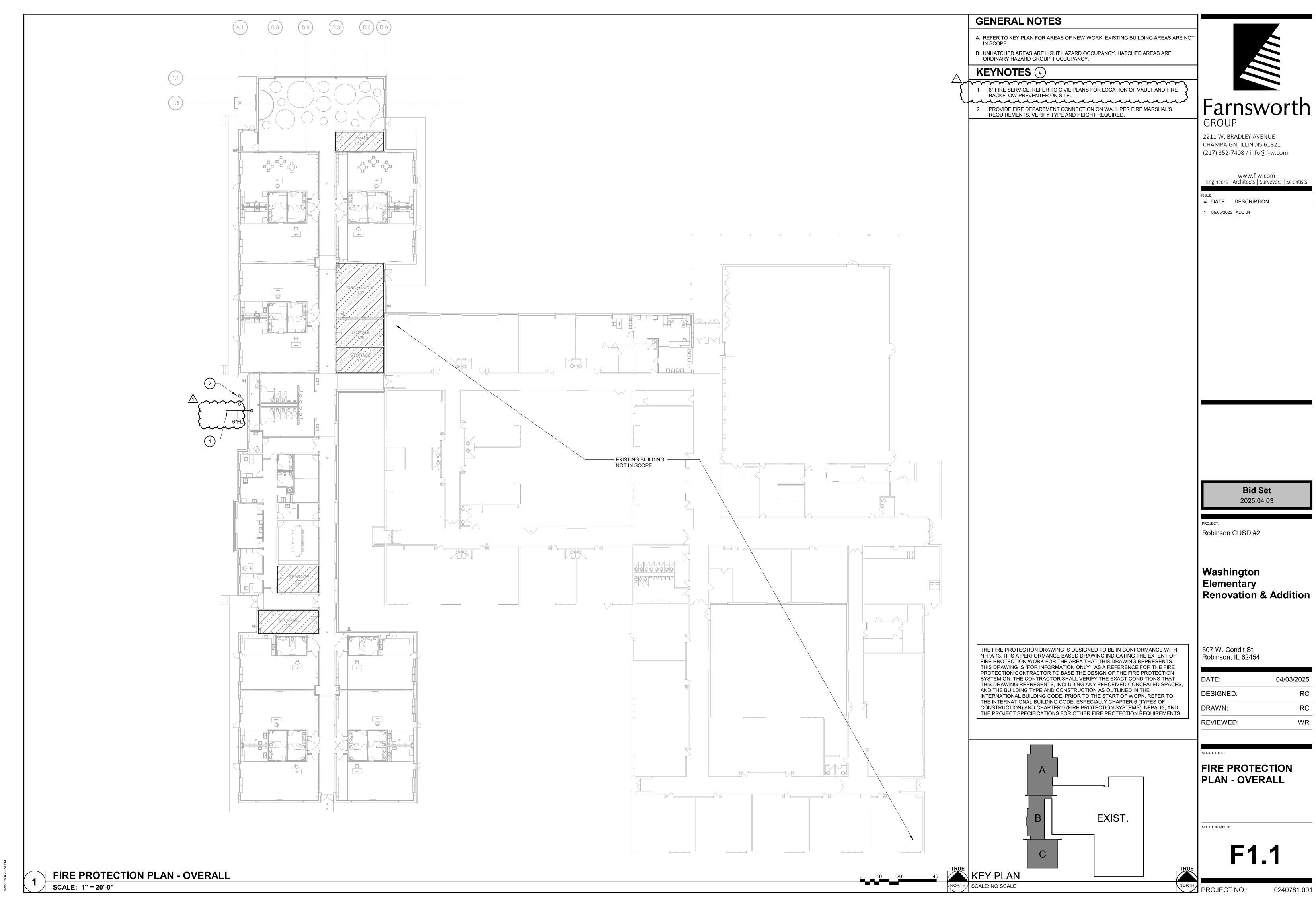
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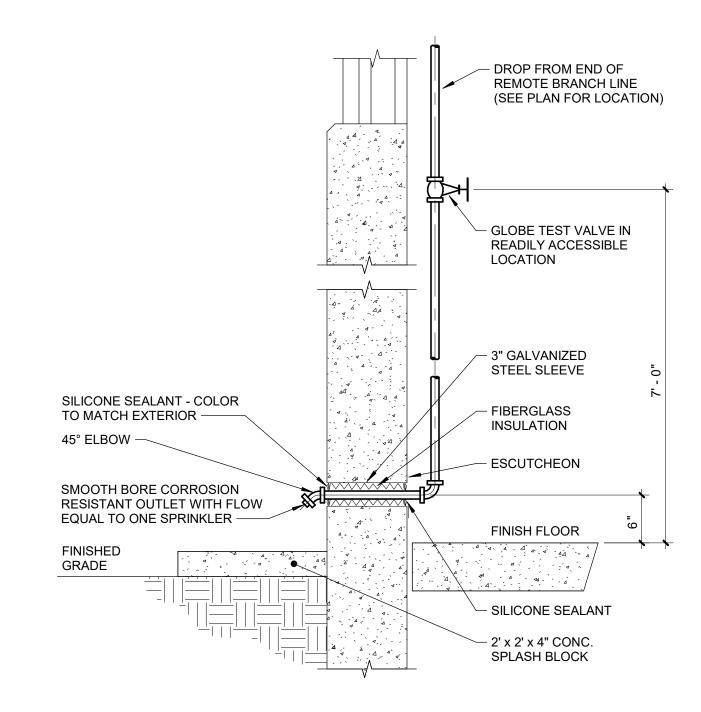
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SCALE: 1/4" = 1'-0"

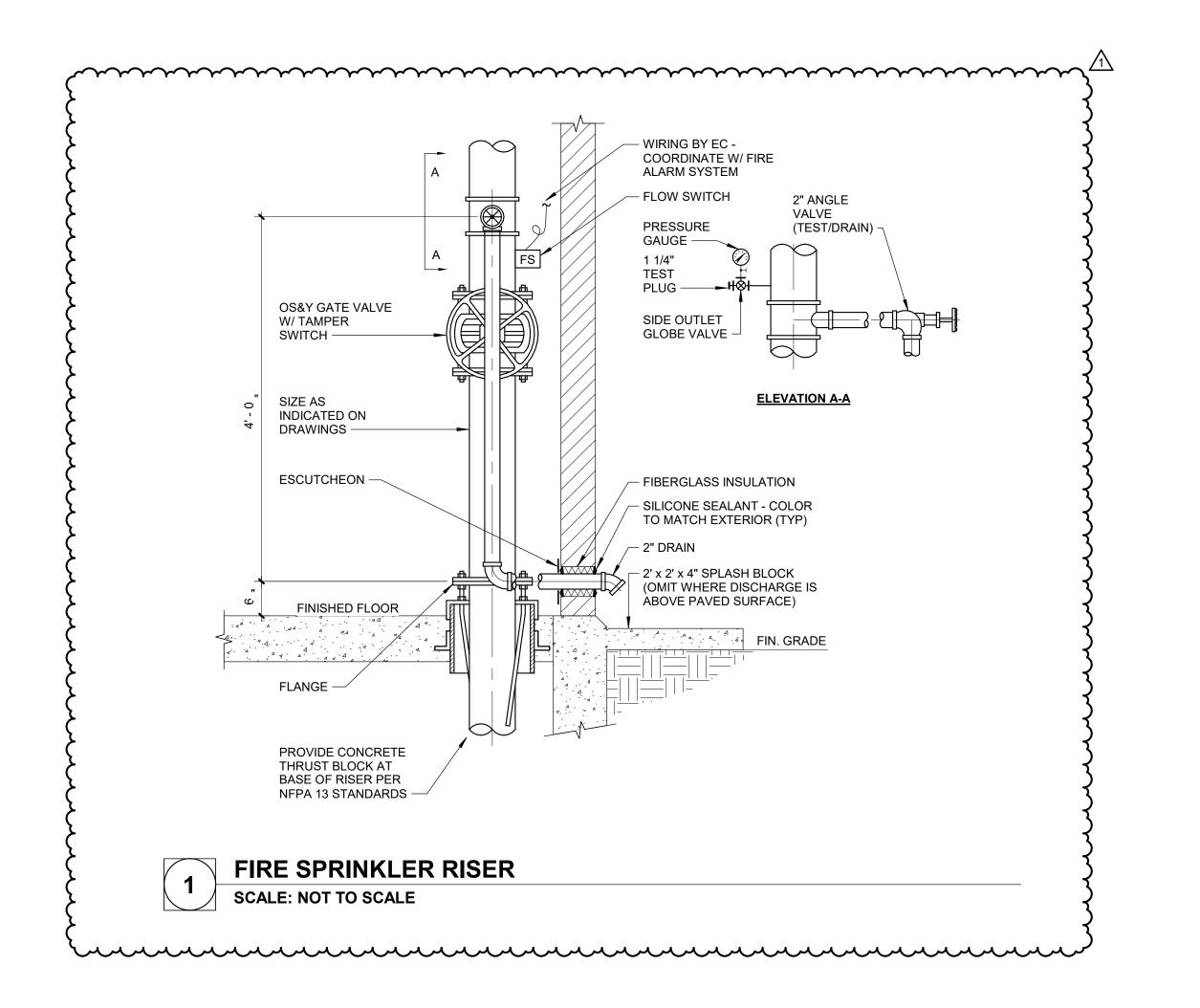
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INSPECTOR TEST AND SYSTEM DRAIN SCALE: NOT TO SCALE





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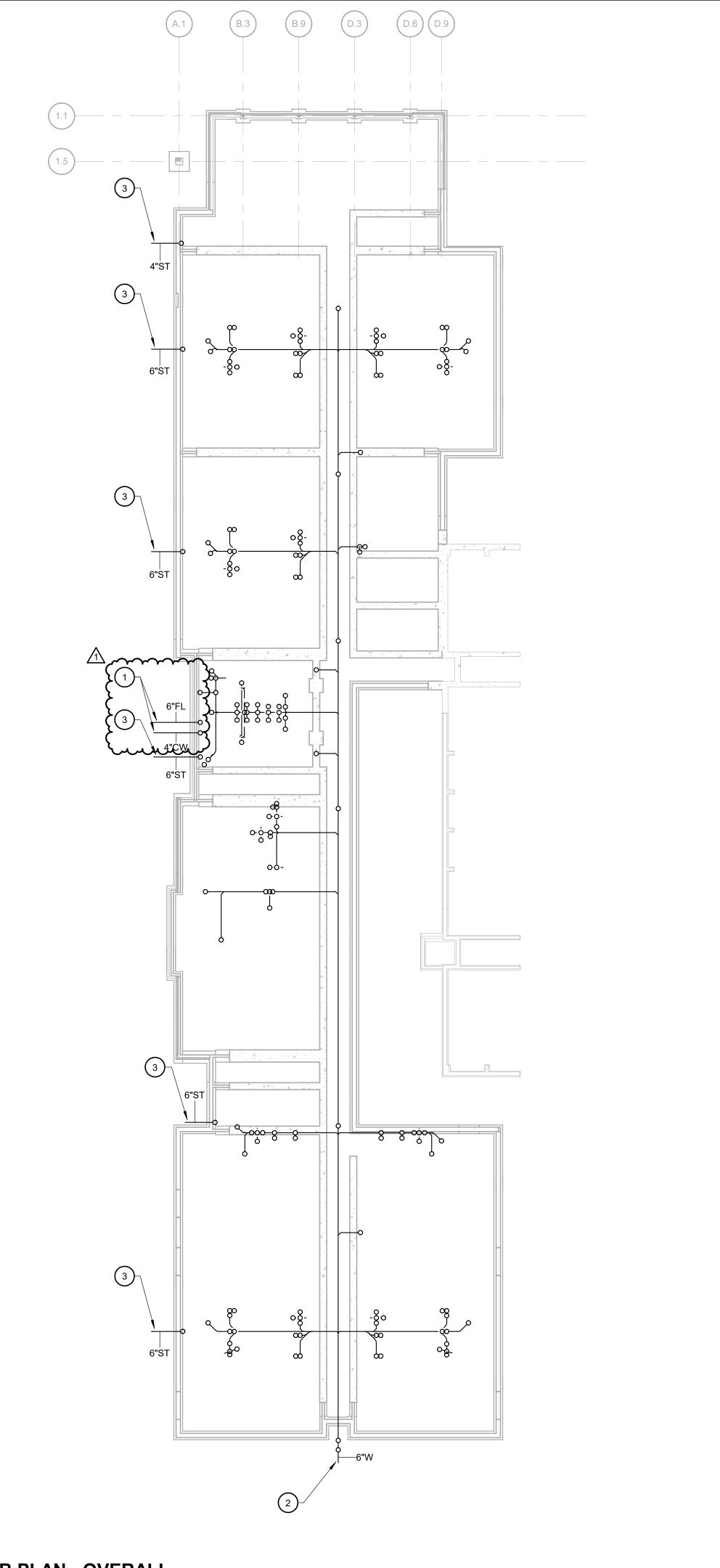
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DIAGRAMS

SHEET NUMBER:



GENERAL NOTES

A. REFER TO CIVIL PLANS FOR CONTINUATION OF UTILITIES ON SITE.

B. REFER TO INDIVIDUAL AREA PLANS FOR ADDITIONAL PIPE SIZING.

KEYNOTES (#)

1 6" FIRE SERVICE AND 4" DOMESTIC WATER SERVICE. REFER TO CIVIL PLANS FOR LOCATION OF VAULT, DOMESTIC WATER METER, AND FIRE BACKFLOW PREVENTER ON SITE.

2 6" SANITARY WASTE. INVERT = 6.50' BFF.

3 STORM INVERT = 3.00' BFF. COORDINATE WITH CIVIL AND STRUCTURAL.



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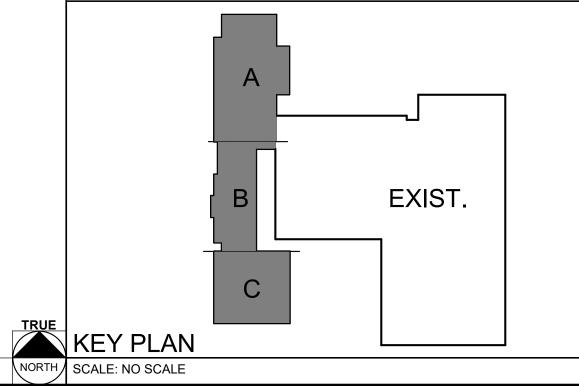
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REVIEWED:	WR



HEET TITLE:

PLUMBING UNDERSLAB PLAN -OVERALL

SHEET NUMBER:

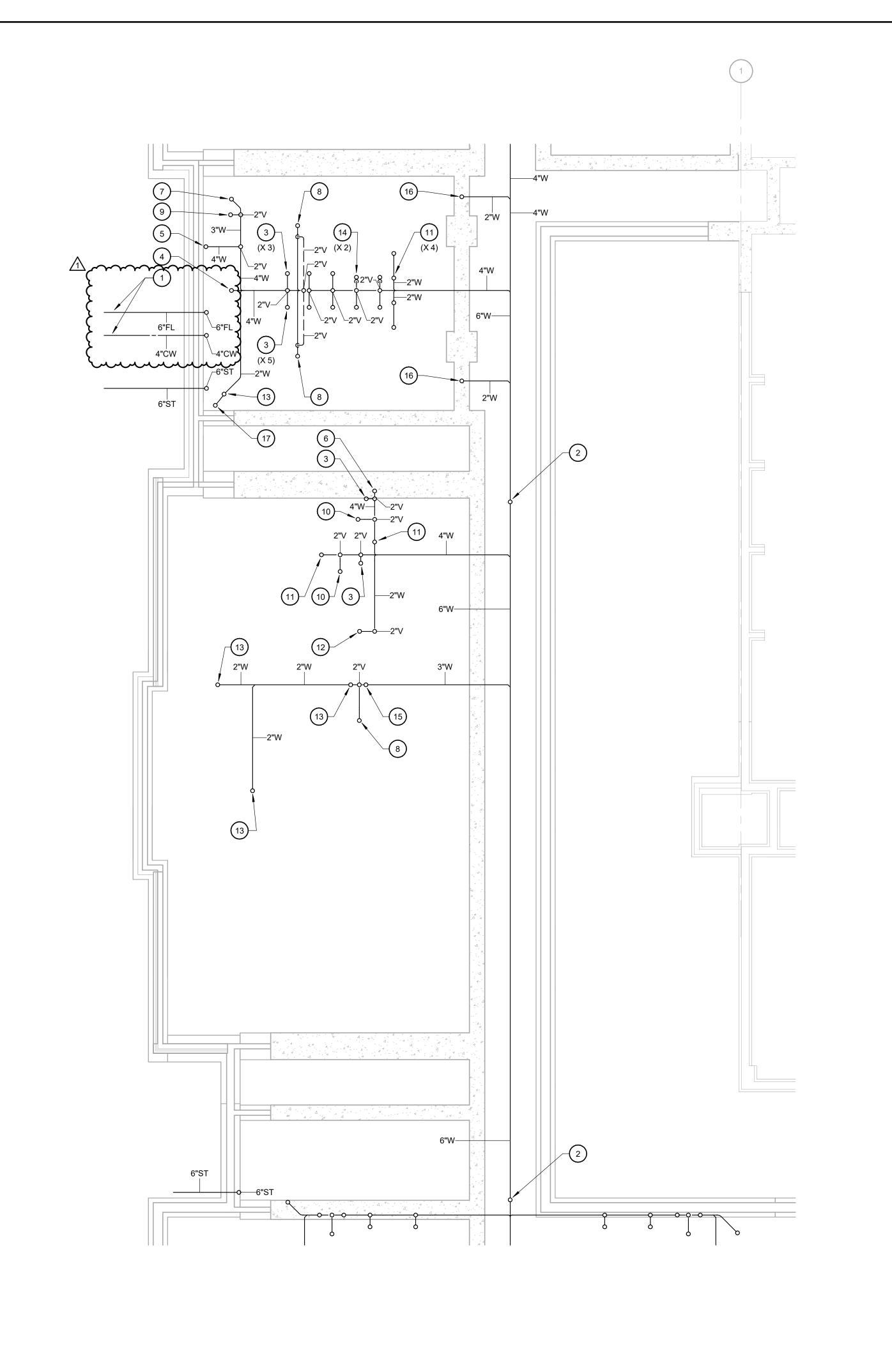
P1.1

0240781.001

PLUMBING UNDERSLAB PLAN - OVERALL

SCALE: 1" = 20'-0"

ROJECT NO ·



GENERAL NOTES

A. REFER TO CIVIL PLANS FOR CONTINUATION OF UTILITIES ON SITE.

KEYNOTES

1 6" FIRE SERVICE AND 4" DOMESTIC WATER SERVICE. REFER TO CIVIL PLANS FOR LOCATION OF VAULT, DOMESTIC WATER METER, AND FIRE BACKFLOW PREVENTER

- 2 6" W UP TO FLOOR CLEANOUT.
- 3 4" W UP TO WATER CLOSET.
- 4 4" W UP TO FLOOR CLEANOUT.
- 5 4" W UP TO FLOOR DRAIN.

6 4" W UP TO WALL CLEANOUT.

- 7 3" W UP TO FLOOR CLEANOUT.
- 9 3" W UP TO MOP SINK.

8 3" W UP TO FLOOR DRAIN.

- 10 2" W UP TO FLOOR DRAIN.
- 11 2" W UP TO LAVATORY.
- 12 2" W UP TO SHOWER.
- 13 2" W UP TO SINK.
- 14 2" W UP TO URINAL.
- 15 2" W UP TO WASHER BOX.
- 16 2" W UP TO WATER COOLER. 17 2" W UP TO HUB DRAIN.

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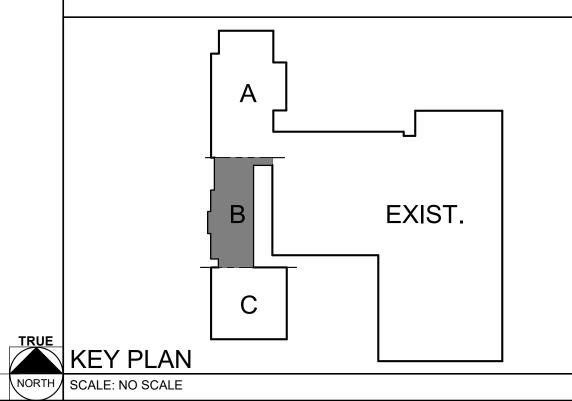
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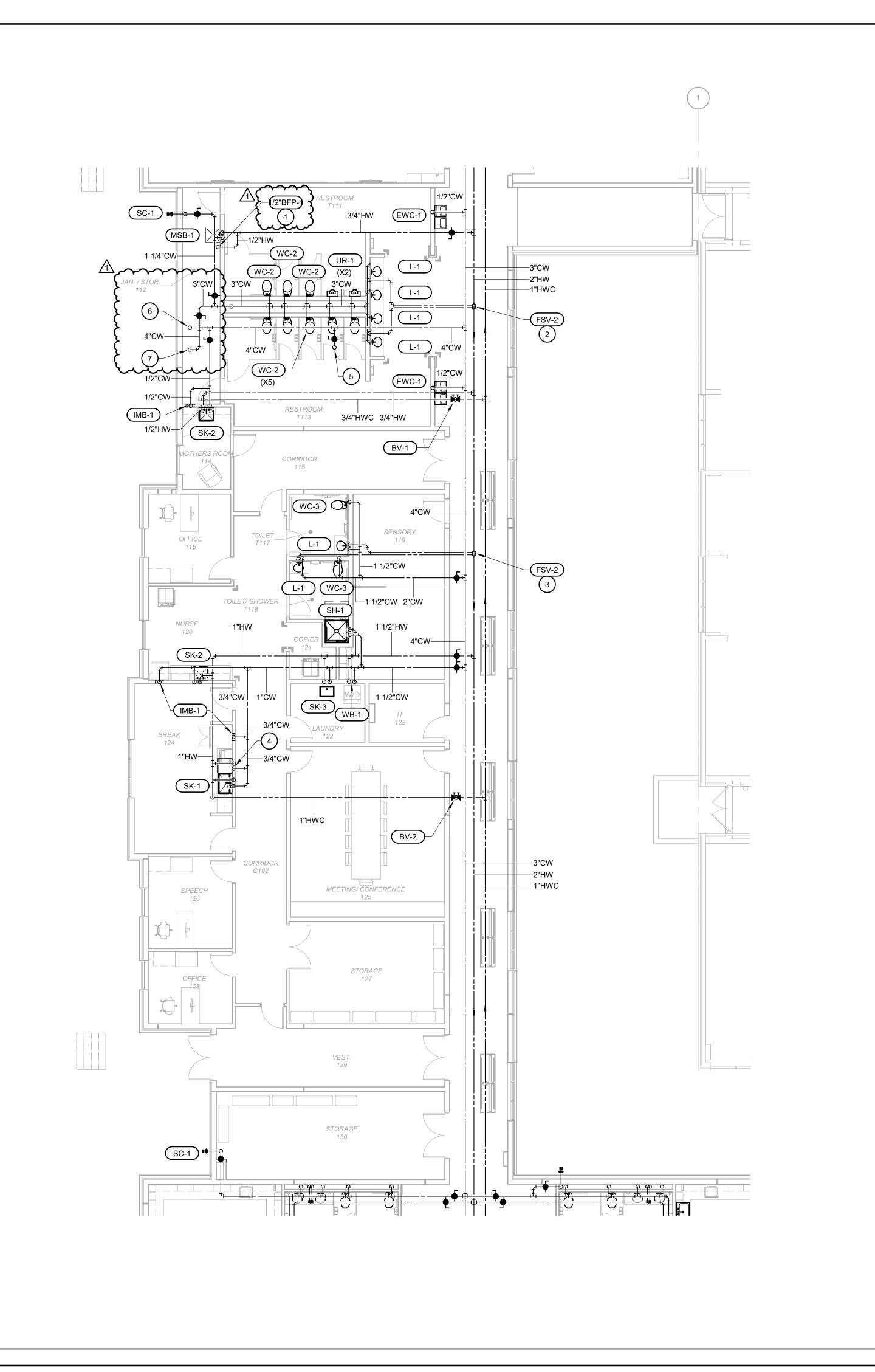
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PLUMBING UNDERSLAB PLAN -AREA B

SHEET NUMBER:



KEYNOTES (#)

- 1 FOR FUTURE CHEMICAL DISPENSER, PROVIDE A SEPARATE 1/2" HW TAP FROM MOP SINK HW SUPPLY LINE WITH SHUTOFF VALVE AND 1/2" BFP-2 MOUNTED AT AN ACCESSIBLE HEIGHT. ROUTE BFP DRAIN TO MOP SINK.
- 2 ROUTE 3/4" FLOW SPLITTER HW BRANCH LOOP TO SUPPLY FOUR LAVATORIES.
- 3 ROUTE 3/4" FLOW SPLITTER HW BRANCH LOOP TO SUPPLY TWO LAVATORIES.
- 4 1/2" HW & CW TO DISHWASHER.
- 5 1" CW UP TO ROOF HYDRANT.
- \cdots 6 6" FIRE UP TO FIRE RISER. REFER TO 1/F5.1.
- 7 PROVIDE ACCESSIBLE SHUTOFF VALVE ON DOMESTIC WATER SERVICE.

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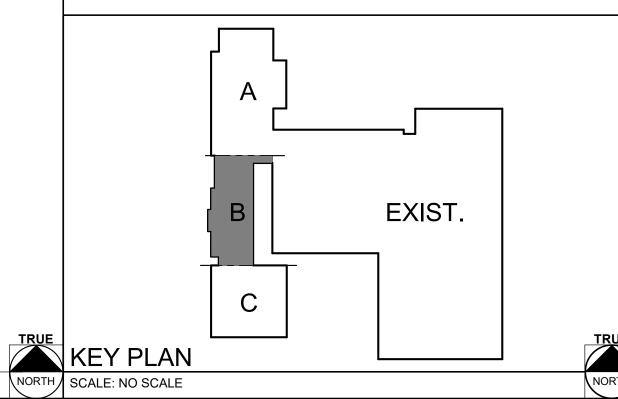
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PLUMBING WATER PLAN - AREA B

SHEET NUMBER:

P1.3B

PLUMBING WATER PLAN - AREA B SCALE: 1/8" = 1'-0"

GAS WATER HEATER SCHEDULE																																			
PLAN MANUFACTURER MOREL LOCATION STORAGE CR		RECOVERY GPH @ BTU/HR	SIU/HR CONN		WATER CA CONN. INTAKE	FLUE DIA.	ELECTRICAL DATA		 				REMARKS																						
MARK	MANOI AOTONEN	MODEL	EGGATION	I														100 DEG.			INPUT				(IN.) SIZE (IN.)			V/PH	FLA	D (IN.)	(IN.)	H (IN.)	DIA. (IN.)	WT. (LB.)	KLWAKKS
GWH1	A.O. SMITH	BTH-500(A)	MECHANICAL 107	119	576	499,900	1-1/2"	1 1/2"	4	4	120/1	5	N/A	N/A	75	33	1850	SEE NOTES																	

NOTES: 1. SET STORAGE TEMPERATURE TO 140°F.

2. PROVIDE WITH ASME RATED EXPANSION TANK EQUAL TO WATTS #DETA-20. 3. PROVIDE WITH CONCENTRIC VENTING KIT AND INSTALL IN ACCORDANCE WITH MANUFACTURER'S GUIDELINES.

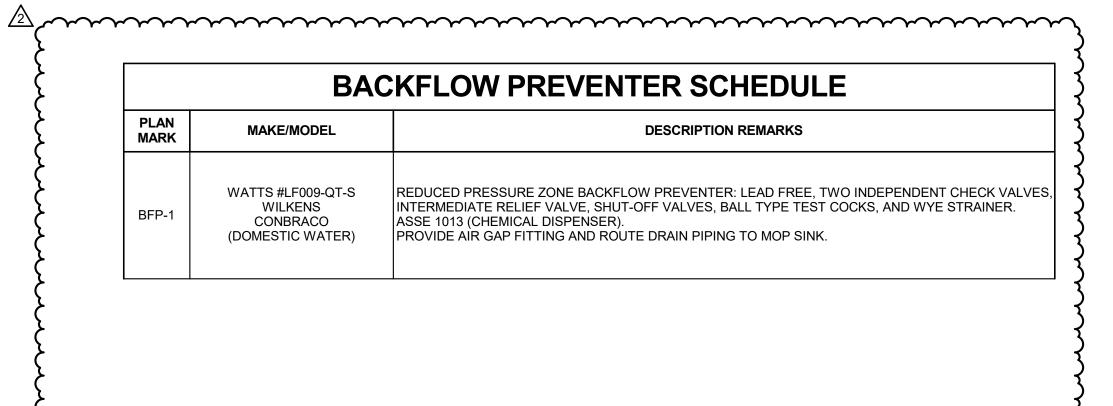
4. PLACE HEATER IN DRAIN PAN ON 4" CONCRETE HOUSEKEEPING PAD. 5. ROUTE PAN DRAIN AND T&P RELIEF LINE TO FLOOR RECEPTOR.

6. PROVIDE WITH CONDENSATE NEUTRALIZER.



CIRCULATING PUMP SCHEDULE												
PLAN	MANUFACTURER	MODEL	LOCATION	LOCATION MOUNTING	MOUNTING	MOUNTING CDM	GPM FEET	MOTOR	ELECTRICAL DATA			REMARKS
MARK	MANOPACTORER	MODEL	LOCATION	WOONTING	GFIVI	HEAD	RPM	HP	V/PH	FLA	REWARKS	
HWCP-1	TACO	#0011-F4	MECHANICAL 107	IN-LINE	5	27	3250	0.15	120/1		SEE NOTES	
	NOTES: 1. PROVIDE WITH AQUASTAT AND TIMECLOCK. 2. MOUNT PUMP POSITION PER MANUFACTURER'S WRITTEN INSTALLATION REQUIREMENTS.											

	THERMOSTATIC MIXING VALVE SCHEDULE									
PLAN MARK	MANUFACTURER	MODEL	GPM	INLET	OUTLET	MOUNTING	REMARKS			
TMV-1	WATTS	LFMMV	0.5-6	1/2"	1/2"	WALL	HIGH TEMP MIXING VALVE: LEAD FREE WITH UNION ENDS AND INLET CHECK VALVES. REFER TO PLUMBING FIXTURE SCHEDULE FOR OUTLET TEMPERATURE SET POINT OF INDIVIDUAL FIXTURES. ASSE1017 (POINT-OF-USE FOR ALL SINKS AND LAVATORIES).			



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BALANCING VALVE SCHEDULE					
PLAN MARK	DESCRIPTION AND REMARKS				
BV-1	HOT WATER RETURN BALANCING VALVE: SELF-BALANCING THERMOSTATIC TYPE, STAINLESS STEEL BODY, NON-ADJUSTABLE, WITH LEAD FREE CONSTRUCTION AND APPROVED FOR POTABLE WATER APPLICATIONS (NSF/ANSI 61, NSF/ANSI 372). ACCEPTABLE MANUFACTURERS: THERM-OMEGA-TECH "CIRCUIT SOLVER" #CSUA-3/4-135-CV1 FOR 3/4" PIPE SIZE AND VALVE CLOSING TEMPERATURE OF 135°F. NOTES/ACCESSORIES: PROVIDE WITH OPTIONAL SHUTOFF VALVES AND CHECK VALVE PER MODEL NUMBER ABOVE. INSTALL PER MANUFACTURER'S INSTRUCTIONS.				
BV-2	HOT WATER RETURN BALANCING VALVE: SELF-BALANCING THERMOSTATIC TYPE, STAINLESS STEEL BODY, NON-ADJUSTABLE, WITH LEAD FREE CONSTRUCTION AND APPROVED FOR POTABLE WATER APPLICATIONS (NSF/ANSI 61, NSF/ANSI 372). ACCEPTABLE MANUFACTURERS: THERM-OMEGA-TECH "CIRCUIT SOLVER" #CSUA-1-135-CV1 FOR 1" PIPE SIZE AND VALVE CLOSING TEMPERATURE OF 135°F. NOTES/ACCESSORIES: PROVIDE WITH OPTIONAL SHUTOFF VALVES AND CHECK VALVE PER MODEL NUMBER ABOVE. INSTALL PER MANUFACTURER'S INSTRUCTIONS.				

DRAIN SCHEDULE							
PLAN MARK	MAKE/MODEL	LOCATION	DESCRIPTION REMARKS				
FD-1	WATTS #FD-100-A5 J.R. SMITH ZURN		FLOOR DRAIN: EPOXY COATED CAST IRON BODY WITH 5" ROUND ADJUSTABLE NICKEL BRONZE STRAINER, INTEGRAL CLAMPING COLLAR, AND BOTTOM OUTLET. PROVIDE WITH BARRIER TYPE TRAP SEAL DEVICE EQUAL TO PROSET "TRAPGUARD".				
FD-2	J.R. SMITH JANITOR 112 BRONZE STRAINER, SEDIMENT BUCKET, MECHANICAL 107		FLOOR DRAIN: EPOXY COATED CAST IRON BODY WITH 8" ROUND ADJUSTABLE HEAVY DUTY NICKEL BRONZE STRAINER, SEDIMENT BUCKET, INTEGRAL CLAMPING COLLAR, AND BOTTOM OUTLET. PROVIDE WITH BARRIER TYPE TRAP SEAL DEVICE EQUAL TO PROSET "TRAPGUARD".				
FD-3	WATTS #SDCP-SDNB J.R. SMITH ZURN	SHOWER	FLOOR DRAIN: EPOXY COATED CAST IRON BODY WITH WITH 4" CHROME PLATED BRASS TOP, INTEGRAL CLAMPING COLLAR, AND BOTTOM OUTLET. PROVIDE WITH BARRIER TYPE TRAP SEAL DEVICE EQUAL TO PROSET "TRAPGUARD".				
RD-1	WATTS #RD-100-B-D-F-K J.R. SMITH MIFAB ZURN	ROOF	ROOF DRAIN: EPOXY COATED CAST IRON BODY WITH COMBINATION MEMBRANE FLASHING CLAMP/GRAVEL STOP, BEARING PAN, DUCTILE IRON LOCKING DOME, AND SOLID BODY EXTENSIONS AS REQUIRED FOR INSULATION THICKNESS. REFER TO THE PLUMBING PLANS FOR PIPE SIZES OF OUTLETS. REFER TO ROOF DRAIN DETAILS ON ARCHITECTURAL DRAWINGS.				
ORD-1	WATTS #RD-100-B-D-F-K-R J.R. SMITH MIFAB ZURN	ROOF	SAME AS RD-1 EXCEPT PROVIDE WITH 2" HIGH EXTERNAL WATER DAM.				
SDO-1	WATTS #RD-940 J.R. SMITH MIFAB ZURN	EXTERIOR WALL	SECONDARY DRAIN OUTLET (DOWNSPOUT NOZZLE): NICKEL BRONZE BODY, PUSH-ON OR NO-HUB CONNECTION, AND DECORATIVE FACE OF WALL FLANGE AT OUTLET NOZZLE. INSTALL AT MINIMUM 12" ABOVE GRADE. PROVIDE SPLASHBLOCK UNDER ALL NOZZLES THAT DISCHARGE OVER GRASSY AREAS.				

CLEANOUT SCHEDULE							
PLAN MARK	MAKE/MODEL	LOCATION	REMARKS				
DCO-1	WATTS #CO-200-RX-4 J.R. SMITH ZURN	EXTERIOR	DOUBLE EXTERIOR CLEANOUT: EPOXY COATED CAST IRON BODY WITH ROUND ADJUSTABLE GASKETED EXTRA HEAVY DUTY DUCTILE IRON TOP AND BRASS PLUG WITH GASKET.				
FCO-1	WATTS #CO-200-R J.R. SMITH ZURN	FINISHED AREAS	FLOOR CLEANOUT: EPOXY COATED CAST IRON BODY WITH ROUND ADJUSTABLE NICKEL BRONZE COVER, ANCHOR FLANGE, AND PLUG WITH GASKET.				
WCO-1	WATTS J.R. SMITH ZURN	FINISHED AREAS	WALL CLEANOUT: CAST IRON FERRULE WITH TAPERED BRONZE COUNTERSUN PLUG: WATTS #CO-460. 9" SQUARE STAINLESS STEEL SECURED SMOOTH ACCESS COVER WITH NICKE BRONZE FRAME: WATTS #CO-300-S. PROVIDE ON WASTE LINE OF ALL SINKS AND LAVATORIES, SAME SIZE AS WASTLINE.				

	FLOW SPLITTER VALVE SCHEDULE					
PLAN MARK	DESCRIPTION AND REMARKS					
F0\/4	FLOW SPLITTER VALVE: ONE PIECE BRASS BODY DYNAMIC FLOW SPLITTER HAVING VENTURI PRINCIPLE INTERNALS TO ALLOW MAJORITY OF CIRCULATED FLOW IN FULL SIZE PASS THROUGH WHILE DIVERTING SOME FLOW TO FIXTURE LOOP. LEAD FREE CONSTRUCTION AND APPROVED FOR POTABLE WATER APPLICATIONS (NSF/ANSI 61, NSF/ANSI 372). ACCEPTABLE MANUFACTURERS: KEMPER KHS #6510602500 FOR 1" HW SUPPLY MAIN.					
FSV-1	NOTES/ACCESSORIES: PROVIDE WITH OPTIONAL STOP VALVES. FLOW SPLITTER SHALL MATCH MAIN HW SUPPLY SIZE PER MODEL NUMBER ABOVE. BRANCH LOOP PIPING SHALL BE 3/4". INSTALL PER IECC TABLE C404.5.1 MAXIMUM ALLOWABLE PIPING LENGTHS FROM NEAREST SOURCE OF HEATED WATER TO TERMINATION OF FIXTURE SUPPLY PIPE. INSTALL PER MANUFACTURER'S INSTRUCTIONS.					
	FLOW SPLITTER VALVE: ONE PIECE BRASS BODY DYNAMIC FLOW SPLITTER HAVING VENTURI PRINCIPLE INTERNALS TO ALLOW MAJORITY OF					

CIRCULATED FLOW IN FULL SIZE PASS THROUGH WHILE DIVERTING SOME FLOW TO FIXTURE LOOP. LEAD FREE CONSTRUCTION AND APPROVED FOR POTABLE WATER APPLICATIONS (NSF/ANSI 61, NSF/ANSI 372).

FSV-2 ACCEPTABLE MANUFACTURERS: KEMPER KHS #6510605000 FOR 2" HW SUPPLY MAIN.

NOTES/ACCESSORIES: PROVIDE WITH OPTIONAL STOP VALVES. FLOW SPLITTER SHALL MATCH MAIN HW SUPPLY SIZE PER MODEL NUMBER ABOVE. BRANCH LOOP PIPING SHALL BE 3/4". INSTALL PER IECC TABLE C404.5.1 MAXIMUM ALLOWABLE PIPING LENGTHS FROM NEAREST SOURCE OF HEATED WATER TO TERMINATION OF FIXTURE SUPPLY PIPE. INSTALL PER MANUFACTURER'S INSTRUCTIONS.

TABLE NICKEL BRONZE RAPGUARD".		Farnsworth GROUP 2211 W. BRADLEY AVENUE
TABLE HEAVY DUTY NICKEL AND BOTTOM OUTLET. RAPGUARD".		CHAMPAIGN, ILLINOIS 61821 (217) 352-7408 / info@f-w.com www.f-w.com Engineers Architects Surveyors Scientists
PLATED BRASS TOP, RAPGUARD".		ISSUE:
MBRANE FLASHING D SOLID BODY EXTENSIONS LANS FOR PIPE SIZES OF IGS.		
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Bid Set 2025.04.03

Robinson CUSD #2

Washington Elementary Renovation & Addition

507 W. Condit St. Robinson, IL 62454

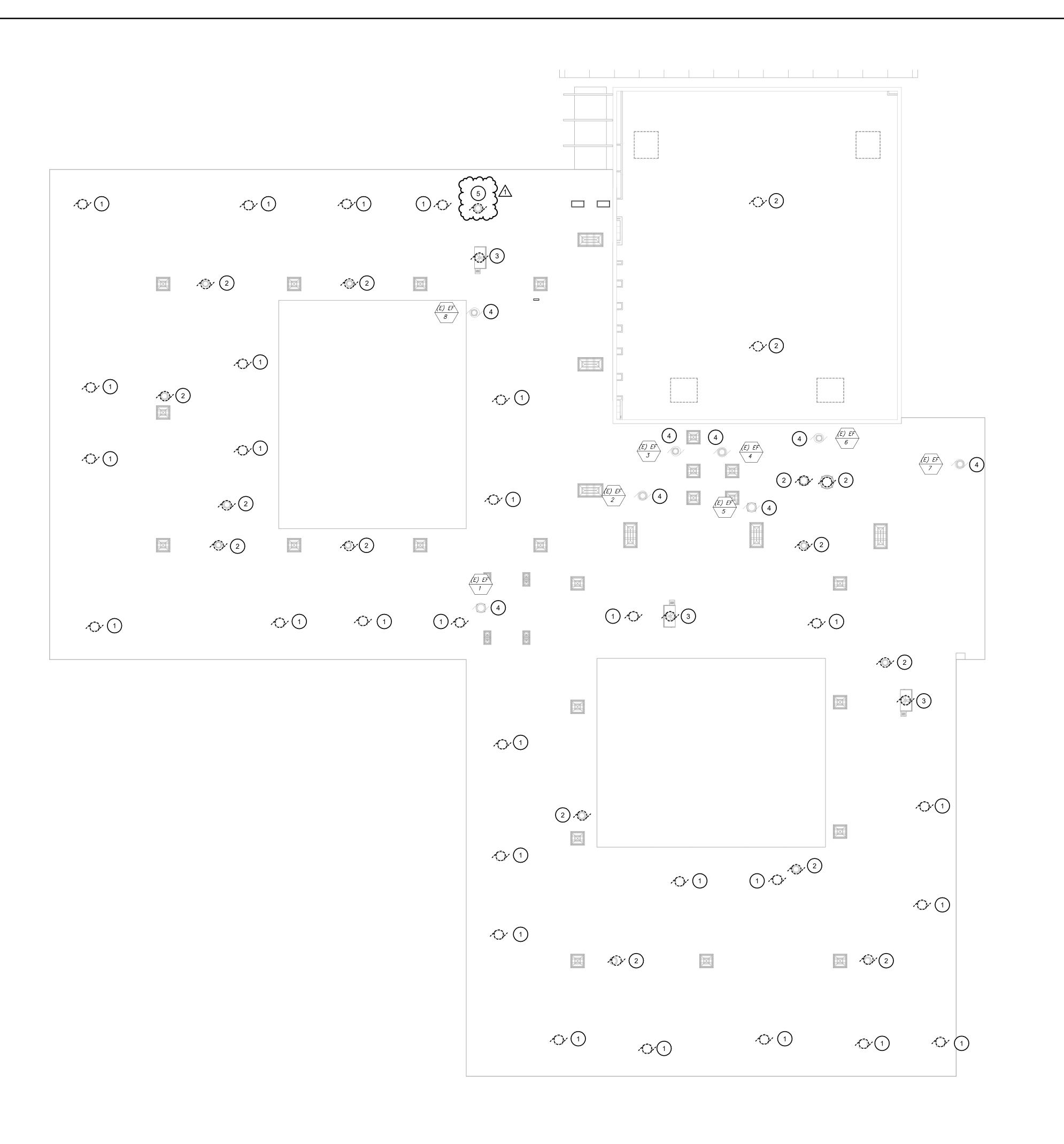
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DESIGNED:	RC
DRAWN:	RC
REVIEWED:	WR

SHEET TITLE:

SCHEDULES

SHEET NUMBER:

0240781.001



GENERAL NOTES

A. NOT USED

KEYNOTES

- 1 DISCONNECT POWER TO EXISTING CONDENSING UNIT. REMOVE CONDUIT AND CONDUCTOR BACK TO NEAREST JUNCTION BOX. COORDINATE REMOVAL WITH MC.
- 2 DISCONNECT POWER TO EXISTING EXHAUST FAN. REMOVE CONDUIT AND CONDUCTOR BACK TO NEAREST JUNCTION BOX. COORDINATE REMOVAL WITH MC.
- 3 DISCONNECT POWER TO EXISTING ROOFTOP UNIT. REMOVE CONDUIT AND CONDUCTOR BACK TO NEAREST JUNCTION BOX. COORDINATE REMOVAL WITH MC
- 4 EXISTING EXHAUST FAN TO REMAIN, CONNECT TO CIRCUITS AS SHOWN ON NEW

5 DISCONNECT POWER TO EXISTING EXHAUST FAN. SALVAGE CONDUIT AND CONDUCTORS FOR CONNECTION TO NEW EXHAUST FAN.



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Washington Elementary Renovation & Addition

507 W. Condit St. Robinson, IL 62454

DATE:	04/03/2025
DESIGNED:	TJS/RCW
DRAWN:	RCW/DGM
REVIEWED:	Approver

ROOF ELECTRICAL DEMOLITION PLAN

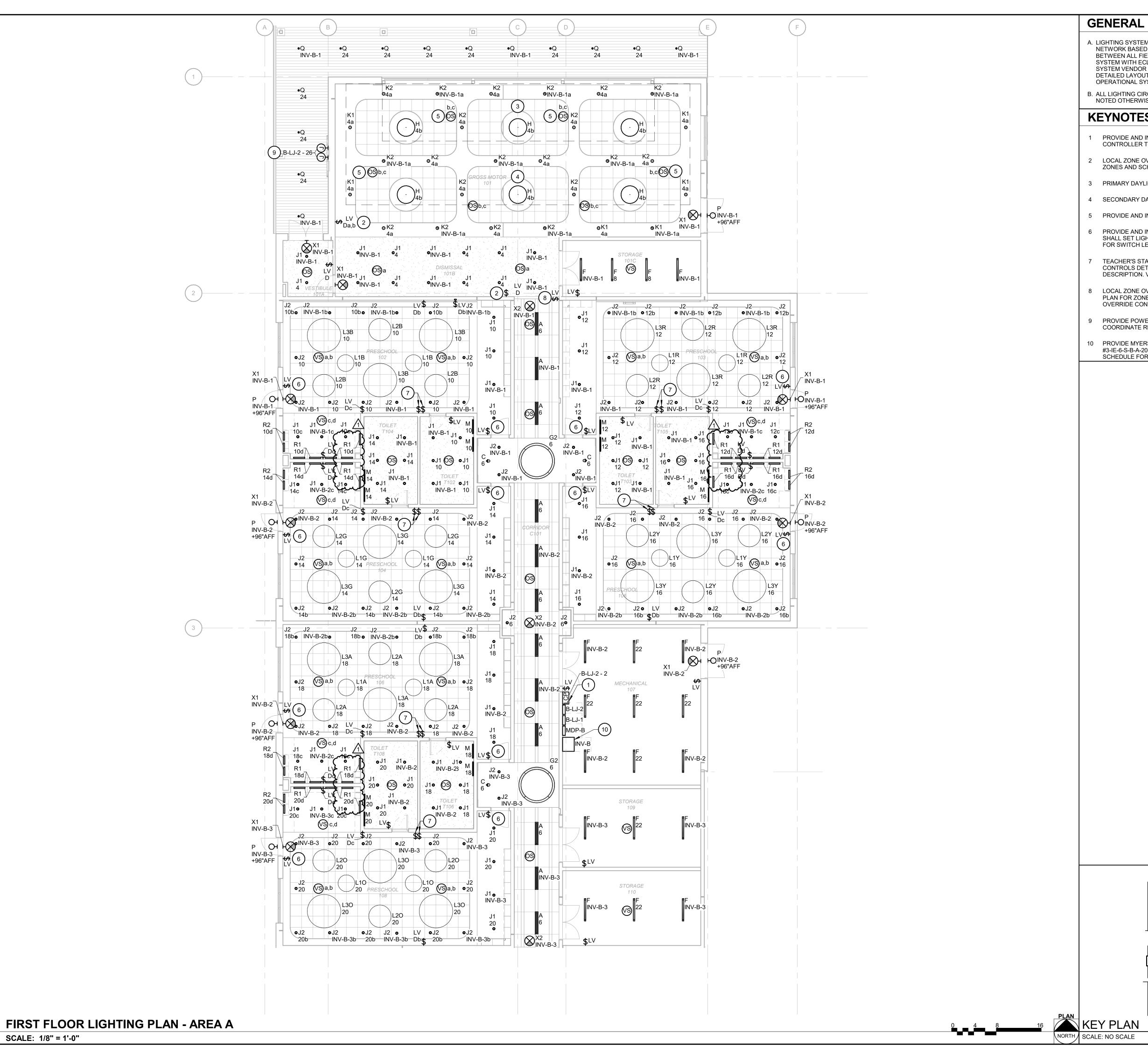
SHEET NUMBER:

ED1.4

ELECTRICAL ROOF DEMOLITION PLAN

SCALE: 1/16" = 1'-0"

PROJECT NO.:



GENERAL NOTES

- A. LIGHTING SYSTEM CONTROLS ARE DIAGRAMMATIC AND ARE GENERIC. PROVIDE NETWORK BASED LIGHTING CONTROL SYSTEM. PROVIDE CAT 5 CONTROL WIRING BETWEEN ALL FIELD MOUNTED RELAY DEVICES. BASIS OF DESIGN IS ACUITY NLIGHT SYSTEM WITH ECLIPSE LIGHTING CONTROLLER. SUCCESSFUL LIGHTING CONTROL SYSTEM VENDOR SHALL THOROUGHLY EXAMINE PLANS AND PROVIDE COMPLETE AND DETAILED LAYOUT DRAWINGS AND BILL OF MATERIALS TO PROVIDE A COMPLETE AND OPERATIONAL SYSTEM.
- B. ALL LIGHTING CIRCUITS SHOWN ON THIS SHEET ARE FED FROM PANEL B-LJ-2 UNLESS NOTED OTHERWISE.

KEYNOTES (#)

- PROVIDE AND INSTALL ACUITY NLIGHT ECLYPSE CONTROLLER. PROGRAM CONTROLLER TO CONTROL LUMINAIRES AS NOTED.
- 2 LOCAL ZONE OVERRIDE SWITCH FOR ALL HOURS. SEE LIGHTING ZONE PLAN FOR ZONES AND SCHEDULING. PROVIDE DIMMING CONTROL DURING ALL HOURS.
- 3 PRIMARY DAYLIGHT ZONE
- 4 SECONDARY DAYLIGHT ZONE.
- 5 PROVIDE AND INSTALL COMBINATION OCCUPANCY AND DAYLIGHT SENSOR.
- 6 PROVIDE AND INSTALL ACUITY WALLPOD #nPODM WH FOR ON/OFF CONTROL. "ON" SHALL SET LIGHTS FOR SWITCH LEGS a AND b TO 100%. "OFF" SHALL SET LIGHTS FOR SWITCH LEGS a,b, AND c TO 0%.
- TEACHER'S STATION LIGHTING CONTROLS. SEE TEACHER'S STATION LIGHTING CONTROLS DETAIL ON SHEET E6.1 FOR MORE DETAILS AND CONTROL DESCRIPTION. VERIFY ALL CONTROLS WITH OWNER DURING COMISSIONING.
- 8 LOCAL ZONE OVERRIDE SWITCH FOR "CLOSED" HOURS ONLY. SEE LIGHTING ZONE PLAN FOR ZONES AND SCHEDULING OF "CLOSED" HOURS. DO NOT PROVIDE OVERRIDE CONTROL DURING "OPEN" HOURS.
- 9 PROVIDE POWER TO EXTERIOR BUILDING SIGNAGE ABOVE AND BELOW CANOPY. COORDINATE REQUIREMENTS WITH SIGN PROVIDER.
- 10 PROVIDE MYERS EMERGENCY POWER SYSTEMS ILLUMINATOR IE #3-IE-6-S-B-A-20-10. PROVIDE 3#8, 1#8G, 1"C FROM PANEL MDP-B. SEE PANEL SCHEDULE FOR CIRCUIT NUMBER.

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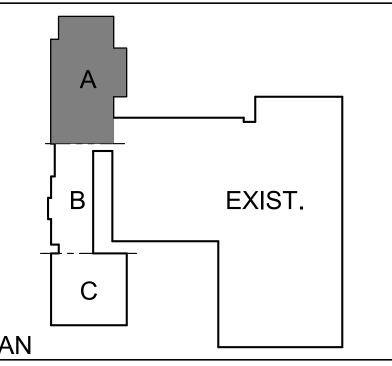
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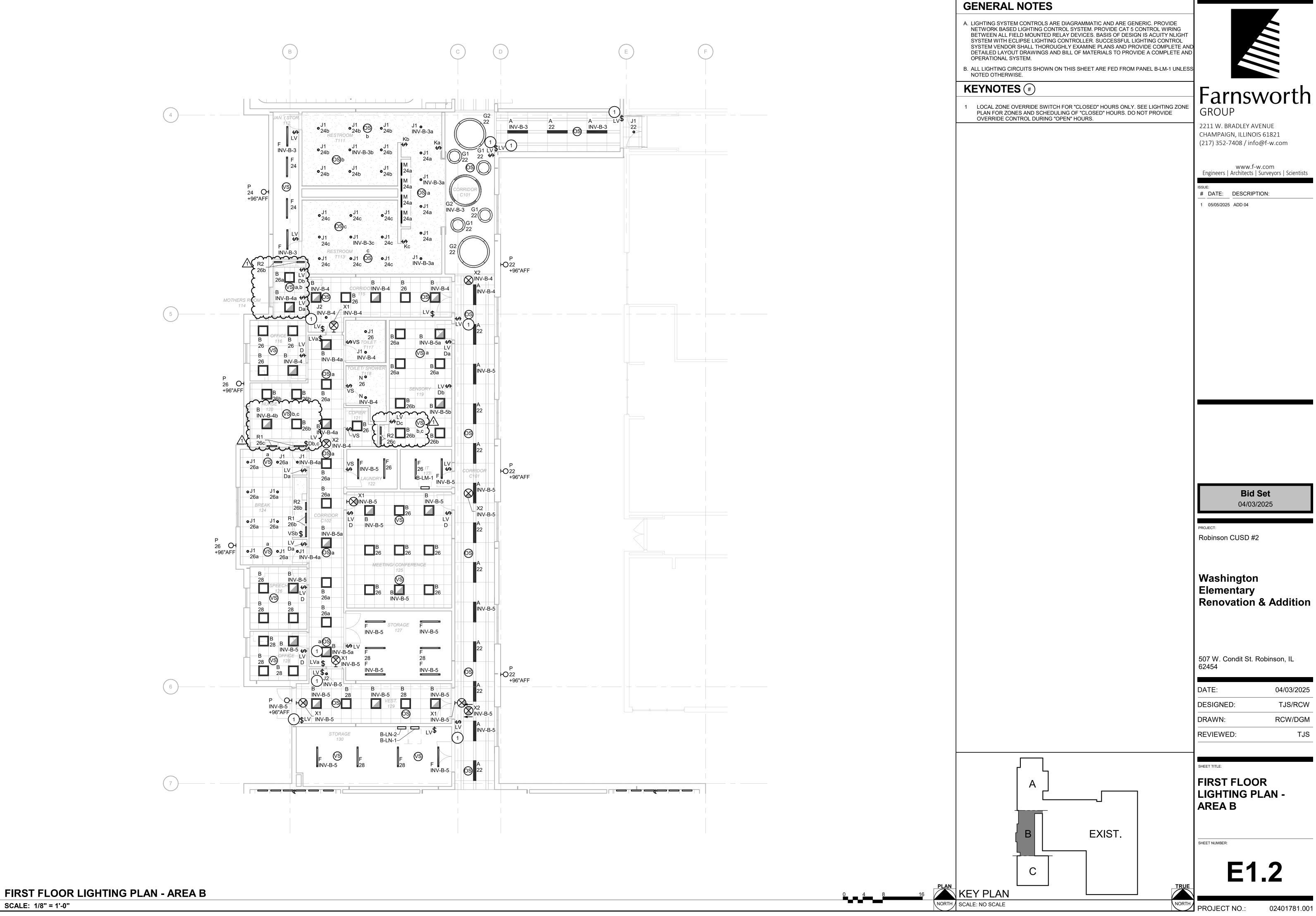
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REVIEWED:	TJS



FIRST FLOOR LIGHTING PLAN -AREA A

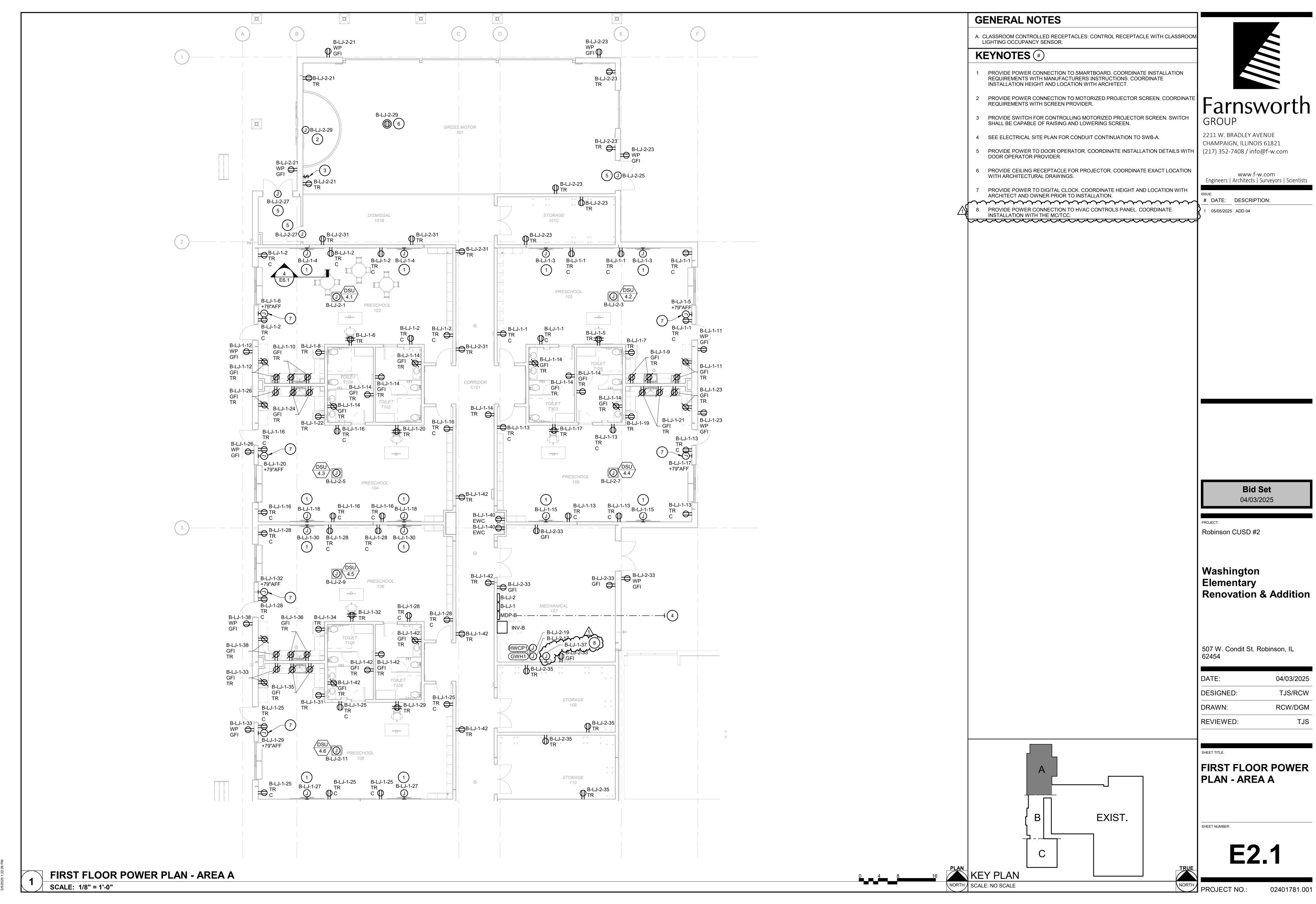
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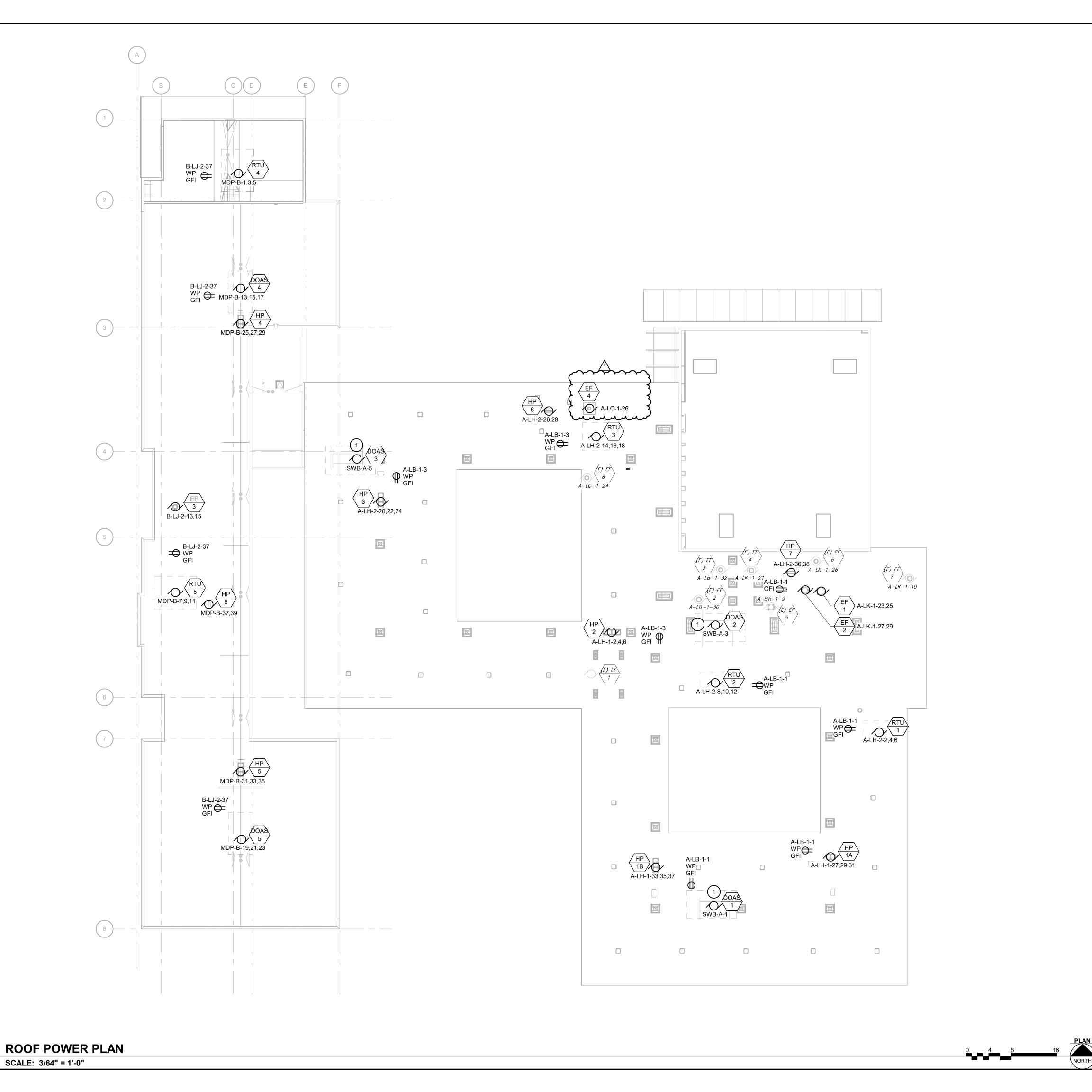
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SCALE: 1/8" = 1'-0"

TJS





GENERAL NOTES

A. NOT USED

KEYNOTES (#)

1 TEMPORARILY FEED EQUIPMENT FROM EXISTING DISTRIBUTION PANEL (E)MDP. SEE TEMPORARY ELECTRICAL CONNECTIONS SHEET FOR DETAILS.



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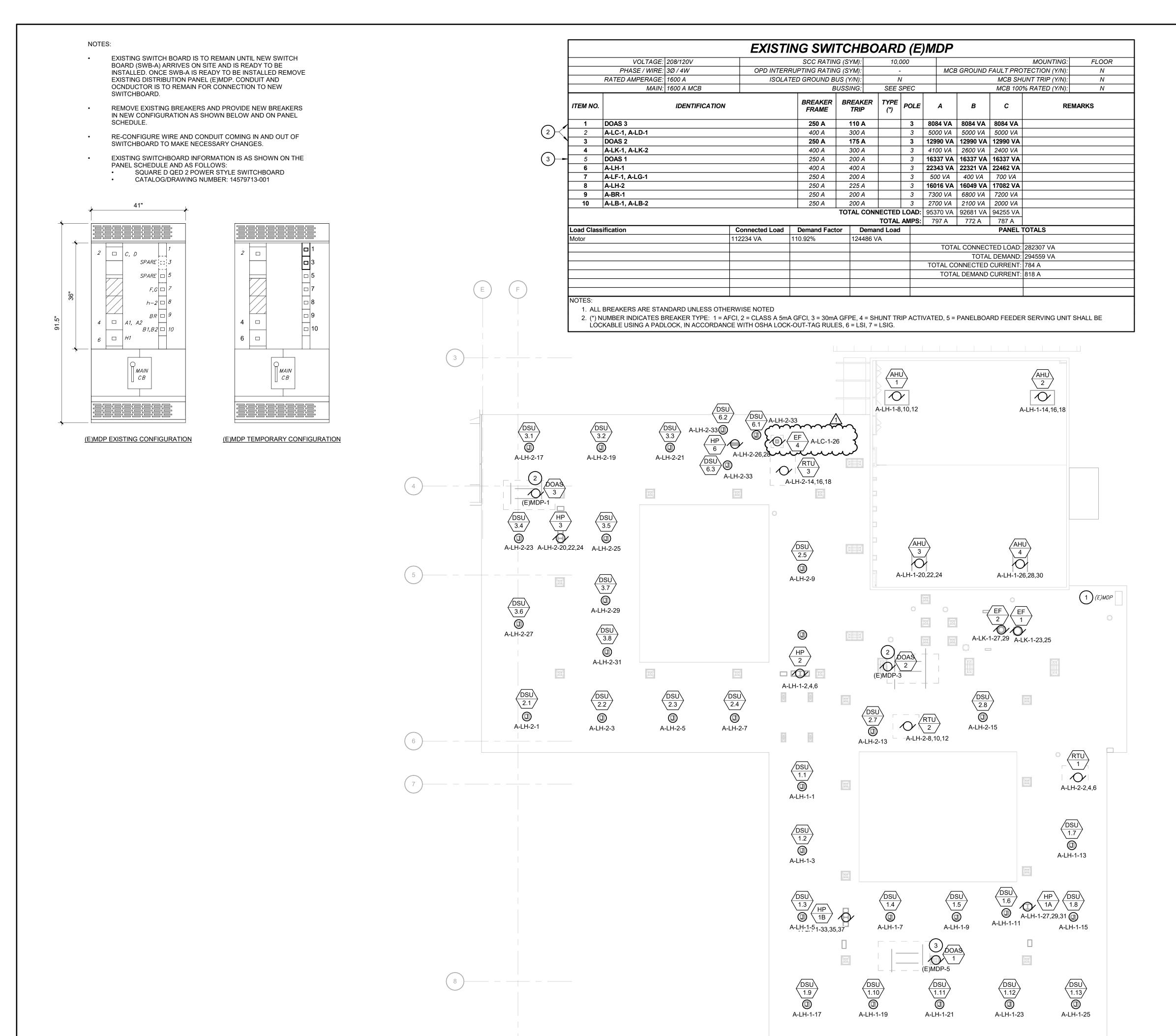
507 W. Condit St. Robinson, IL 62454

DATE:	04/03/2025
DESIGNED:	TJS/RCW
DRAWN:	RCW/DGM
REVIEWED:	TJS

ELECTRICAL ROOF PLAN

SHEET NUMBER:

02401781.001



GENERAL NOTES

- A. PROVIDE ELECTRICAL CONNECTIONS TO ALL EQUIPMENT SHOWN ON SHEET PRIOR TO THE INSTALLATION OF SWB-A. THREE DOAS UNITS WILL BE "TEMPORARILY" CONNECTED TO THE EXISTING (E)MSB WHILE SWB-A IS BEING PURCHASED AND INSTALLED. ALL OTHER CONNECTIONS (CONNECTIONS NOT DIRECTLY TO (E)MSB) ARE THE FINAL CONNECTIONS. CONNECTIONS SHALL BE MADE BEFORE SCHOOL BEGINS IN THE FALL SO THAT THE HVAC SYSTEM IS FULLY OPPERATION PRIOR TO SCHOOL...
- B. REVIEW ELECTRICAL CONNECTIONS SHOWN ON E2.1 AND E2.5. E2.1 SHOWS FINAL CONNECTIONS FOR THE ENTIRE NEW HVAC SYSTEM IN ITS FINAL CONSTRUCTION STATE. E2.5 SHOWS CONNECTIONS NEDDED TO BE MADE PRIOR TO THE START OF THE NEXT SCHOOL YEAR. AN ATTEMPT HAS BEEN MADE TO MINIMIZE RE-WORK BY HAVE THE BRANCH CIRCUITS COMPLETED DURING THE TEMPORARY PHASE MATCH THE FINAL CONSTRUCTION PHASE. DOAS 1, 2, AND 3 ARE THE ONLY PEICES OF EQUIPMENT WHICH CIRCUITS WILL NEED TO BE MOVED DURING THE FINAL CONSTRUCTION PHASE.

KEYNOTES (#)

- 1 EXISTING DISTRIBUTION PANEL IS LOCATED ON FIRST FLOOR IN GEN. STOR. X106. (E)MDP IS TO REMAIN UNTIL SWB-A IS AVAILABLE AND READY TO BE INSTALLED.
- 2 EQUIPMENT WILL BE TEMPORARILY FED FROM EXISTING DISTRIBUTION PANEL (E)MDP UNTIL THE NEW SWITCHBOARD SWB-A HAS BEEN INSTALLED. RE-USE NEW BREAKERS INSTALLED IN (E)MDP IN SWB-A. SEE EQUIPMENT DATA SCHEDULE FOR CONDUIT AND CONDUCTOR SIZE.
- 3 EQUIPMENT WILL BE TEMPORARILY FED FROM EXISTING DISTRIBUTION PANEL (E)MDP UNTIL THE NEW SWITCHBOARD SWB-A HAS BEEN INSTALLED. RE-USEEXISTING BREAKER IN (E)MDP. PROVIDE NEW BREAKER IN SWB-A. SEE EQUIPMENT DATA SCHEDULE FOR CONDUIT AND CONDUCTOR SIZE.

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Washington

Weehington	PANEL TYPE	LOCATION	EXISTING NAME	NEW NAME
Washington Elementary	208/120VAC PANELBOARD	KITCHEN X105	A1	A-LK-1
Renovation 8	208/120VAC PANELBOARD	KITCHEN X105	A2	A-LK-2
	208/120VAC PANELBOARD	STORAGE X103	В1	A-LB-1
	208/120VAC PANELBOARD	STORAGE X103	В2	A-LB-2
	208/120VAC PANELBOARD	BOILER ROOM X123	BR	A-BR-1
507 W. Condit St. Ro 62454	208/120VAC PANELBOARD	STORAGE X129	С	A-LC-1
	208/120VAC PANELBOARD	TEACHERS X142	D	A-LD-1
DATE:	208/120VAC PANELBOARD	TEACHERS X117	F	A-LF-1
DESIGNED:	209/120VAC DANELBOARD	CORRIDOR C-X104	G	A I C 1
DRAWN:	208/120VAC PANELBOARD	CORRIDOR C-X104	G	A-LG-1
REVIEWED:	208/120VAC PANELBOARD	GEN. STOR. X106	H1	A-LH-1

JAN. X126

EXIST.

PANEL NAMING SCHEDULE

A-LH-2

KEY PLAN

NORTH SCALE: NO SCALE

507 W. Condit St. Robinson, IL 62454

DATE: 04/03/2025 DESIGNED: TJS/RCW DRAWN: RCW/DGM REVIEWED: TJS

Renovation & Addition

208/120VAC PANELBOARD

TEMPORARY ELECTRICAL CONNECTIONS

SHEET NUMBER:

E2.5

NORTH

) ВҮ	В) ВҮ	ВУ	
ARK	EQUIPMENT	FURNISHED	INSTALLED	LOCATION	OAD	OLTAGE	PHASE	DISC. TYPE	SC. SIZE	FURNISHED	INSTALLED	WIRE & CONDUIT REMARKS
NHU 1	AIR HANDLING UNIT	MC	MC	ROOF	42.5 FLA	5 208	古 3	NF	90	MC ₹	MC	3#2, 1#8G, 1-1/4"C 3
HU 2	AIR HANDLING UNIT	MC	MC	ROOF	42.5 FLA	208	3	NF	90	MC	MC	3#2, 1#8G, 1-1/4"C 3
HU 3 HU 4	AIR HANDLING UNIT AIR HANDLING UNIT	MC MC	MC MC	ROOF ROOF	42.5 FLA 42.5 FLA	208	3	NF NF	90	MC MC	MC MC	3#2, 1#8G, 1-1/4"C 3 3#2, 1#8G, 1-1/4"C 3
CU 1	CONDENSING UNIT	MC	MC	GRADE	92 FLA	208	3	NF	150	MC	MC	3#1/0, 1#6G, 1-1/2"C 3
CU 2 CU 3	CONDENSING UNIT CONDENSING UNIT	MC MC	MC MC	GRADE GRADE	92 FLA 112.8 FLA	208	3	NF NF	150 200	MC MC	MC MC	3#1/0, 1#6G, 1-1/2"C 3 3#3/0, 1#6G, 2"C 3
CU 4	CONDENSING UNIT	MC	MC	GRADE	112.8 FLA	208	3	NF	200	MC	MC	3#3/0, 1#6G, 2"C 3
AS 1 AS 2	DEDICATED OUTDOOR AIR SYSTEM DEDICATED OUTDOOR AIR SYSTEM	MC MC	MC MC	ROOF ROOF	136.2 FLA 108.4 FLA	208 208	3	CB CB	200 175	MC MC	MC MC	3#3/0, 1#6G, 2"C 3 3#2/0, 1#6G, 2"C 3
AS 3	DEDICATED OUTDOOR AIR SYSTEM	MC	MC	ROOF	67.4 FLA	208	3	СВ	110	MC	MC	3#1, 1#6G, 1-1/2"C 3
AS 4 AS 5	DEDICATED OUTDOOR AIR SYSTEM DEDICATED OUTDOOR AIR SYSTEM	MC MC	MC MC	ROOF ROOF	48.9 FLA 52.4 FLA	208	3	CB CB	90	MC MC	MC MC	3#2, 1#8G, 1-1/4"C 3 3#2, 1#8G, 1-1/4"C 3
AS 6	DEDICATED OUTDOOR AIR SYSTEM	MC	MC	GRADE	108.4 FLA	208	3	СВ	175	MC	MC	3#2/0, 1#6G, 2"C 3
SU 1.1 SU 1.2	DUCTLESS SPLIT UNIT DUCTLESS SPLIT UNIT	MC MC	MC MC	X109 X110	0.46 FLA 0.46 FLA	120 120	1	SW	20	EC EC	EC EC	2#12, 1#12G, 3/4"C 2#12, 1#12G, 3/4"C
SU 1.3	DUCTLESS SPLIT UNIT	MC	MC	X111	0.74 FLA	120	1	SW	20	EC	EC	2#12, 1#12G, 3/4"C
SU 1.4 SU 1.5	DUCTLESS SPLIT UNIT DUCTLESS SPLIT UNIT	MC MC	MC MC	X113 X115	0.46 FLA 0.46 FLA	120 120	1	SW	20	EC EC	EC EC	2#12, 1#12G, 3/4"C 2#12, 1#12G, 3/4"C
SU 1.6	DUCTLESS SPLIT UNIT	MC	MC	X117	0.23 FLA	120	1	SW	20	EC	EC	2#12, 1#12G, 3/4"C
SU 1.7 SU 1.8	DUCTLESS SPLIT UNIT DUCTLESS SPLIT UNIT	MC MC	MC MC	X121 X119	0.74 FLA 0.46 FLA	120 120	1	SW	20 20	EC EC	EC EC	2#12, 1#12G, 3/4"C 2#12, 1#12G, 3/4"C
SU 1.9	DUCTLESS SPLIT UNIT	MC	MC	X112	0.74 FLA	120	1	SW	20	EC	EC	2#12, 1#12G, 3/4°C 2#12, 1#12G, 3/4°C
SU 1.10 SU 1.11	DUCTLESS SPLIT UNIT DUCTLESS SPLIT UNIT	MC MC	MC MC	X114 X116	0.46 FLA 0.46 FLA	120 120	1	SW	20	EC EC	EC EC	2#12, 1#12G, 3/4"C 2#12, 1#12G, 3/4"C
SU 1.11	DUCTLESS SPLIT UNIT	МС	MC	X118	0.46 FLA	120	1	SW	20 20	EC	EC	2#12, 1#12G, 3/4 C 2#12, 1#12G, 3/4"C
SU 1.13 SU 2.1	DUCTLESS SPLIT UNIT DUCTLESS SPLIT UNIT	MC MC	MC MC	X120 X143	0.74 FLA 1 FLA	120	1	SW	20	EC	EC EC	2#12, 1#12G, 3/4"C 2#12, 1#12G, 3/4"C
SU 2.1	DUCTLESS SPLIT UNIT	MC		X143 X145	1 FLA	120 120	1	SW	20	EC EC	EC	2#12, 1#12G, 3/4 C 2#12, 1#12G, 3/4"C
SU 2.3	DUCTLESS SPLIT UNIT	MC	MC	X146	0.46 FLA	120	1	SW	20	EC	EC	2#12, 1#12G, 3/4"C
SU 2.4 SU 2.5	DUCTLESS SPLIT UNIT DUCTLESS SPLIT UNIT	MC MC		X147 X128	0.46 FLA 0.74 FLA	120 120	1	SW	20	EC EC	EC EC	2#12, 1#12G, 3/4"C 2#12, 1#12G, 3/4"C
SU 2.6	DUCTLESS SPLIT UNIT	MC	MC	X127	0.46 FLA	120	1	SW	20	EC	EC	2#12, 1#12G, 3/4"C
SU 2.7 SU 2.8	DUCTLESS SPLIT UNIT DUCTLESS SPLIT UNIT	MC MC	MC MC	X107A X108	0.23 FLA 0.46 FLA	120 120	1	SW	20	EC EC	EC EC	2#12, 1#12G, 3/4"C 2#12, 1#12G, 3/4"C
SU 3.1	DUCTLESS SPLIT UNIT	MC	MC	X137	1 FLA	120	1	SW	20	EC	EC	2#12, 1#12G, 3/4"C
SU 3.2 SU 3.3	DUCTLESS SPLIT UNIT DUCTLESS SPLIT UNIT	MC MC		X136 X135	0.46 FLA 0.46 FLA	120 120	1	SW	20	EC EC	EC EC	2#12, 1#12G, 3/4"C 2#12, 1#12G, 3/4"C
SU 3.4	DUCTLESS SPLIT UNIT	MC	MC	X139	0.74 FLA	120	1	SW	20	EC	EC	2#12, 1#12G, 3/4°C
SU 3.5 SU 3.6	DUCTLESS SPLIT UNIT DUCTLESS SPLIT UNIT	MC MC	MC MC	X138 X141	0.74 FLA 0.74 FLA	120 120	1	SW	20	EC EC	EC EC	2#12, 1#12G, 3/4"C 2#12, 1#12G, 3/4"C
OSU 3.7	DUCTLESS SPLIT UNIT	MC		X141 X140	1 FLA	120	1	SW	20	EC	EC	2#12, 1#12G, 3/4 C 2#12, 1#12G, 3/4"C
OSU 3.8	DUCTLESS SPLIT UNIT	MC	MC	X142	0.23 FLA	120	1	SW	20	EC	EC	2#12, 1#12G, 3/4"C
DSU 4.1 DSU 4.2	DUCTLESS SPLIT UNIT DUCTLESS SPLIT UNIT	MC MC		102 103	1 FLA 1 FLA	120 120	1	SW	20	EC EC	EC EC	2#12, 1#12G, 3/4"C 2#12, 1#12G, 3/4"C
OSU 4.3	DUCTLESS SPLIT UNIT	MC	MC	104	1 FLA	120	1	SW	20	EC	EC	2#12, 1#12G, 3/4"C
OSU 4.4 OSU 4.5	DUCTLESS SPLIT UNIT DUCTLESS SPLIT UNIT	MC MC	MC MC	105 106	1 FLA 1 FLA	120 120	1	SW	20	EC EC	EC EC	2#12, 1#12G, 3/4"C 2#12, 1#12G, 3/4"C
OSU 4.6	DUCTLESS SPLIT UNIT	MC	MC	108	1 FLA	120	1	SW	20	EC	EC	2#12, 1#12G, 3/4"C
DSU 5.1 DSU 5.2	DUCTLESS SPLIT UNIT DUCTLESS SPLIT UNIT	MC MC		130 131	1 FLA 1 FLA	120 120	1	SW	20	EC EC	EC EC	2#12, 1#12G, 3/4"C 2#12, 1#12G, 3/4"C
OSU 5.3	DUCTLESS SPLIT UNIT	MC	MC	132	1 FLA	120	1	SW	20	EC	EC	2#12, 1#12G, 3/4"C
SU 5.4 SU 5.5	DUCTLESS SPLIT UNIT DUCTLESS SPLIT UNIT	MC MC		133 134	1 FLA 1 FLA	120 120	1	SW	20	EC EC	EC EC	2#12, 1#12G, 3/4"C 2#12, 1#12G, 3/4"C
SU 5.6	DUCTLESS SPLIT UNIT	MC	MC	143	1 FLA	120	1	SW	20	EC	EC	2#12, 1#12G, 3/4"C
SU 6.1 SU 6.2	DUCTLESS SPLIT UNIT DUCTLESS SPLIT UNIT	MC MC	MC MC	X133B X133A	1 FLA 1 FLA	120 120	1	SW	15 15	EC EC	EC EC	2#12, 1#12G, 3/4"C 2#12, 1#12G, 3/4"C
SU 6.3	DUCTLESS SPLIT UNIT	MC	MC	X133	1 FLA	120	1	SW	15	EC	EC	2#12, 1#12G, 3/4"C
SU 7.1 SU 7.2	DUCTLESS SPLIT UNIT DUCTLESS SPLIT UNIT		MC MC	X105 X105	1 FLA 1 FLA	120 120	1	-	-	-	-	1"C PROVIDE 1"C FROM DSU 6.1 TO HP 7 1"C PROVIDE 1"C FROM DSU 6.2 TO HP 7
SU 8.1	DUCTLESS SPLIT UNIT	МС	MC	143	1 FLA	120		-	-	-	-	1"C PROVIDE 1"C FROM DSU 8.1 TO HP 8
EF 1 EF 2	EXHUST FAN EXHUST FAN	MC MC	MC MC	ROOF ROOF	13.8 FLA 5.8 FLA	208 208	1	TT	20	EC EC	EC EC	2#12, 1#12G, 3/4"C 2#12, 1#12G, 3/4"C
[]		~ Me	MCY	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~ <u>}</u>		\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\				~Be~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
EF 4	EXHUST FAN	MC		ROOF	0.5 FLA	120	1 سر ياسر	TT	20 	EC	EC	2#12, 1#12G, 3/4"C
HP 1A	HEAT PUMP	MC	MC	ROOF	44.8 FLA	208	3	NF	90	MC	MC	3#2, 1#8G, 1-1/4"C 3
HP 1B HP 2	HEAT PUMP HEAT PUMP	MC MC		ROOF ROOF	48 FLA 48 FLA	208 208	3	NF NF	100 100	MC MC	MC MC	3#1, 1#8G, 1-1/2"C 3 3#1, 1#8G, 1-1/2"C 3
HP 3	HEAT PUMP	МС	MC	ROOF	48 FLA 48 FLA	208	_	NF NF	100	MC	MC	3#1, 1#8G, 1-1/2 C 3 3#1, 1#8G, 1-1/2 "C 3
HP 4 HP 5	HEAT PUMP	MC	MC MC	ROOF ROOF	48 FLA	208	3	NF NE	100	MC	MC	3#1, 1#8G, 1-1/2"C 3
1P 6	HEAT PUMP HEAT PUMP	MC MC	MC	ROOF	48 FLA 36 FLA	208 208	1	NF NF	100 80	MC MC	MC MC	2#1, 1#8G, 1-1/2"C 3 2#3, 1#8G, "C 3
HP 7	HEAT PUMP	МС	MC	ROOF	23 FLA	208	1	NF	48	MC	MC	2#6, 1#10G, 3/4"C 3
HP 8 CP 1	HEAT PUMP HOT WATER CIRCULATING PUMP	MC PC	MC PC	ROOF MECHANICAL 107	8 FLA 0.15 HP	208 120	1	NF TT	15 20	MC EC	MC EC	2#12, 1#12G, 3/4"C 3 2#12, 1#12G, 3/4"C
TU 1	ROOF TOP UNIT	MC	MC	ROOF	20 FLA	208	3	NF	35	MC	MC	3#8, 1#10G, 3/4"C 3
TU 2 TU 3	ROOF TOP UNIT ROOF TOP UNIT	MC MC	MC MC	ROOF ROOF	20 FLA 26.4 FLA	208 208	3	NF NF	35 45	MC MC	MC MC	3#8, 1#10G, 3/4"C 3 3#6, 1#10G, 1"C 3
TU 4	ROOF TOP UNIT	МС	MC	ROOF	63.2 FLA	208	3	NF	110	MC	MC	3#1, 1#6G, 1-1/2"C 3
PMENT D	ATA NOTES: ROOF TOP UNIT	MC	MC	ROOF	63.2 FLA	208	3	NF	110	MC	MC	3#1, 1#6G, 1-1/2"C 3

2. PROVIDE DISCONNECT LOCKABLE IN ACCORDANCE WITH NEC 110.25. 3. DISCONNECT AT EQUIPMENT PROVIDED AS PART OF PACKAGED UNIT.

4. INERIOIR UNIT ELECTRICALLY FED FROM EXTERIOIR UNIT BY MANUFACTURER PROVIDED CABLE.



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DATE: DESCRIPTION:

1 05/05/2025 ADD 04

04/03/2025

Robinson CUSD #2

Washington Elementary Renovation & Addition

507 W. Condit St. Robinson, IL 62454

DATE:	04/03/2025
DESIGNED:	TJS/RCW
DRAWN:	RCW/DGM
REVIEWED:	TJS

SCHEDULES

SHEET NUMBER:

02401781.001

	VOLTAGE:	208/120V	1				CC	ONNECTE	D LOAD P	ER			Į;	SOLAT	ED GROUND BUS (Y	′/N): N	
	PHASE / WIRE:	3Ø / 4W						PH	ASE						BUSSI	NG: SEE SF	PEC
	RATED AMPERAGE:	150 A					A	E	В	(<u> </u>				MOUNTI	NG: SURFA	CE
	MAIN:	150 A MC	B									МС	B GROU	ND FAI	JLT PROTECTION (Y	′/N): N	
	SCC RATING (SYM):	22kA				247	0 VA	2820	0 VA	240	8 VA				MCB SHUNT TRIP (Y	//N): N	
						2	1 A	24	1 A	20) A			ı	MCB 100% RATED (Y	′/N): N	
СКТ	IDENTIFICATION		TYPE (*)	BKR SIZE	POLES		A		В	(C	POLES	BKR SIZE	TYPE (*)	IDENTIFICA	ATION	скт
1	LIGHTS-RM. 103 & TOILET	s		20 A	1	100	100					1	20 A		LIGHTS-RM. 102		2
3	LIGHTS-RM. 104			20 A	1			100	100			1	20 A		LIGHTS-RM. 101 & T	TOILETS	4
5	LIGHTS-RM. 104			20 A	1					100	100	1	20 A		LIGHTS-NORTH CO	RIDOR	6
7	LIGHTS-WORK RM PRINC			20 A	1	100	100					1	20 A		LIGHTS-ARTS &		8
9	LIGHTS-OFF. SUP. ARTS &	%		20 A	1			100	100			1	20 A		LIGHTS-SECT. WAI	TING-HEALT	10
11	LIGHTS-SPEECH THERAP	Υ		20 A	1					100	100	1	20 A		P.A. TERMINAL CAE	BINET	12
13	LIGHTS-NORTH LIGHTS			20 A	1	100	100					1	20 A		MASTER CLOCK		14
15	REC. ARTS-CRAFTS SPEE	ECH		20 A	1			100	100			1	20 A		REC.RM.101-102 FC)LD	16
17	REC.OFF.SUPPLY			20 A	1					100	100	1	20 A		REC.RM 103-104 PF	ROGRAM BELL	18
19	REC.SPEECH THERAPY-C	ORR.		20 A	1	100	1260					1	20 A		REC. HEALTH & WC		20
21	REC. PRINCIPAL OFFICE	SIGN		20 A	1			900	360			1	20 A		REC. SECRETARY (22
23	REC. SEC Y. WAITING			20 A	1					540	528	√ 1√	~22~~	\sim	EXHAQUTEAN (EXE	E ~~~	~24~
25	REC.VAULT & WATER CO	OLERS		20 A	1	100	0				<u> </u>	1 1 1	20 A		EF - 4		26
27	SPARE			20 A	1			0	400				20 A		DOOR OPERATOR	<u> </u>	28
29	SPARE			30 A	2					0	180	1	20 A		SECRETARY SECU		30
31						0	50					1	20 A		PASS THROUGH SF	PEAKER	32
33 35	UNIT VENTS SPEECH TH	EREPY		30 A	2			100	100	100	100	2	20 A		UNIT VENTS - ART	SPEECH	34 36
37	RCPT SECRETARY 141			20 A	1	360	0										38
39	RCPT SECRETARY 141			20 A	1			360	0			3	50 A		SPARE		40
41	RCPT SECRETARY 141			20 A	1					360	0						42
oad	Classification				Coni	nected L	oad	Demand	Factor	Dem	nand Load	t			PANEL TOTALS		
/lotor						528 VA		125.00			60 VA						
	otacle					4320 VA		100.00	0%		320 VA		TO	OTAL C	CONNECTED LOAD:		
Other	Non-Continuous Load					400 VA		100.00	0%	4	100 VA				TOTAL DEMAND:		
															IECTED CURRENT:		
													TC	TAL D	EMAND CURRENT:	22 A	

2. (*) NUMBER INDICATES BREAKER TYPE: 1 = AFCI, 2 = CLASS A 5mA GFCI, 3 = 30mA GFPE, 4 = SHUNT TRIP ACTIVATED, 5 = PANELBOARD FEEDER SERVING UNIT SHALL BE LOCKABLE USING A PADLOCK, IN ACCORDANCE WITH OSHA LOCK-OUT-TAG RULES, 6 = LSI, 7 = LSIG.

					P	ANE	LBO	ARD	A-LF	-1						
	VOLTAGE: 208/12	0V				С	ONNECTE	D LOAD F	PER				ISOLAT	FED GROUND BUS (Y/N):	N	
	PHASE / WIRE: 3Ø / 4\	V					PH	ASE						BUSSING:	SEE SI	PEC
	RATED AMPERAGE: 150 A					A		В		C	MOUNTING:					SED
	MAIN: 150 A	MLO										MCB GROUND FAULT PROTECTION (Y/N):				
	SCC RATING (SYM): 22kA				200 VA		300	O VA	300) VA		MCB SHUNT TRIP (Y/N):				
					2 A		3	3 A	3	Α				MCB 100% RATED (Y/N):	N	
СКТ	IDENTIFICATION	TYPE (*)	BKR SIZE	POLES	ı	A		В		С	POLES	BKR SIZE	TYPE (*)	IDENTIFICATION	I	СКТ
1	209		20 A	1	100	0					1	20 A		SPARE		2
3	210		20 A	1			100	0			1	20 A		SPARE		4
5	SPARE		20 A	1					0	100	1	20 A		211		6
7	SPARE		20 A	1	0	0					1	20 A		SPARE		8
9	SPEED ROOM		20 A	1			100	0			1	20 A		SPARE		10
11	SPARE		20 A	1					0	100	1	20 A		GREEN HOUSE		12
13	SPARE		20 A	1	0	100					1	20 A		208 PLUGS		14
15	SPARE		20 A	1			0	0			1	20 A		SPARE		16
17	SPARE		20 A	1					0	0	1	20 A		SPARE		18
19	SPARE		20 A	1	0	0					1	20 A	-	SPARE		20
21	C		20 A	1			0	0			1	20 A		SPARE		22
23	SPARE		20 A	1	0				0	0	1	20 A		SPARE		24
25	SPARE		20 A	1	0	0	400				1	20 A		SPARE		26
27	NEW COPIER		20 A	2			100	0	400		2	20 A		SPARE		28
29 31					0	0			100	0	1	20 A		SPARE		30
33	SPARE		20 A	3	U	0	0	0			1	20 A	+	SPARE		34
35	- SPAINE		20 A				0		0	0	1	20 A		SPARE		36
	Lassification			Con	nected L	oad	Demand	Factor		nand Loa	'	20 A		PANEL TOTALS		1 30
<u> </u>				90111		Juu	Domana	1 40101	50.11	iana Eoa				174422 1017420		
									 			T	OTAL (CONNECTED LOAD: 800 V	'A	
									1					TOTAL DEMAND: 800 V		
									1			TOTA	L CON	NECTED CURRENT: 2 A		
												Т	OTAL D	DEMAND CURRENT: 2 A		

1. ALL BREAKERS ARE STANDARD UNLESS OTHERWISE NOTED
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1. ALL BREAKERS ARE STANDARD UNLESS OTHERWISE NOTED

	VOLTAGE: 208	3/120V				C	ONNECTE	D LOAD F	PER				ISOLAT	ED GROUND BUS (Y/N):	N	
	PHASE / WIRE: 3Ø	/ 4W					PH	ASE						BUSSING:	SEE SI	PEC
	RATED AMPERAGE: 200) A				Α		 В						MOUNTING:	RECES	SED
	MAIN: 200										МС	B GROL	JND FA	ULT PROTECTION (Y/N):	N	
	SCC RATING (SYM): 22k				390	0 VA	380	0 VA	3800	0 VA				MCB SHUNT TRIP (Y/N):	N	
					33	3 A	32	2 A	32	2 A				MCB 100% RATED (Y/N):	N	
СКТ	IDENTIFICATION	TYPE	BKR SIZE	POLES		Α.		В	(C	POLES	BKR SIZE	TYPE (*)	` '	1	СК
1	SPACE			1							1			SPACE		2
3	SPACE			1							1			SPACE		4
5	SPACE			1							1			SPACE		6
7	RIC. 106-108 NS CORR. SO. C	COR	20 A	1	100						1			SPACE		8
9	SPARE		20 A	1			0	100			1	20 A		LIGHTS 108		10
11	SPARE		20 A	1					0	100	1	20 A		LIGHTS 106		12
13	SPARE		20 A	1	0	100					1	20 A		LIGHTS 109		14
15	SPARE		20 A	1			0	100			1	20 A		LIGHTS 110		16
17	SPARE		20 A	1					0	100	1	20 A		LIGHTS 109		18
19	RECP. STAFF WORK RM		20 A	1	100	100					1	20 A		LIGHTS 107		20
21	REC 105		20 A	1			100	100			1	20 A		W.R. COPIER		22
23	REC 107 W CORR		20 A	1					100	100	1	20 A		LIGTS WEST CORR		24
25	LIGHTS 107-LOB-COURT		20 A	1	100	100					1	20 A		LIGHTS BOYS GIRLS TO	LETS	26
27	LIGHT SO. CORR.		20 A	1			100	100			1	20 A		LIGHTS 115 + TOILETS		28
29	WATER COOLER SO. CORR		20 A	1					100	100	1	20 A		LIGHTS 111		30
31	REC 109 110 111		20 A	1	100	100					1	20 A		LIGHTS 112		32
33	SPARE		20 A	2			100	100			1	20 A		LIGHTS SOUTH CORR		34
35									100	100	1 1	20 A		LIGHTS 108		36
37					3000	100	0000				1	20 A		LIGHTS STAFF WORK		38
39	KITCHEN UNIT		60 A	3			3000	0	0000		2	20 A		SPARE		40
41				1 0 1			Description		3000	0				DANIEL TOTAL O		42
_oad	Classification			Conr	nected L	oad	Demand	Factor	Dem	nand Loa	ia			PANEL TOTALS		
												Т	OTAL (CONNECTED LOAD: 11500		
														TOTAL DEMAND: 11500) VA	
														NECTED CURRENT: 32 A DEMAND CURRENT: 32 A		

1. ALL BREAKERS ARE STANDARD UNLESS OTHERWISE NOTED

	VOLTAGE:	208/120V				C	ONNECTE	D LOAD F	PER			Į;	SOLAT	ED GROUND BUS (Y/N):	N	
	PHASE / WIRE:	3Ø / 4W					PH	ASE				SEE SF	PEC			
	RATED AMPERAGE:	150 A				A		В						MOUNTING:	RECES	SED
	MAIN:	150 A MLO									МС	N				
	SCC RATING (SYM):	22kA			300 VA		100) VA	400	VA		MCB GROUND FAULT PROTECTION (Y/N): MCB SHUNT TRIP (Y/N):				
	,					A	1	A	4 A			MCB 100% RATED (Y/N):	N N			
скт	IDENTIFICATION	TYPE (*)	BKR SIZE	POLES		A		В	(C	POLES	BKR SIZE	TYPE (*)	IDENTIFICATION		скт
1	SPARE		20 A	1	0	100					1	20 A		EAST/WEST HALL LIGHTS	3	2
3	SPARE		20 A	1			0	0			1	20 A		SPARE		4
5	ROOM 202		20 A	1					100	100	1	20 A		ROOM 204		6
7	SPARE		20 A	1	0	100					1	20 A		ROOM 208		8
9	SPARE		20 A	1			0	100			1	20 A		ROOM 205		10
11	ROOM 201 OUTLETS		20 A	1					100	0	1	20 A		SPARE		12
13	SPARE		20 A	1	0	0					1	20 A		SPARE		14
	SPARE		20 A	1			0	0			1	20 A		SPARE		16
	SPARE		20 A	1					0	0	1	20 A		SPARE		18
	SPARE		20 A	1	0	0					1	20 A		SPARE		20
	SPARE		20 A	1			0	0			1	20 A		SPARE		22
	SPARE		20 A	1					0	100	2	20 A		CORN'S ROOM		24
25					0	100					_					26
	SPARE		20 A	3			0	0	_		2	20 A		SPARE		28
29								_	0	0						30
_oad (Classification		Coni	nected L	oad	Demand	Factor	Dem	and Loa	d			PANEL TOTALS			
									1			T	TAL C	CONNECTED LOAD: 800 V	Δ	
									1			- ' '		TOTAL DEMAND: 800 V		
											TOTAL CONNECTED CURRENT: 2 A					
							TOTAL DEMAND CURRENT: 2 A									

^{1.} ALL BREAKERS ARE STANDARD UNLESS OTHERWISE NOTED

2211 W. BRADLEY AVENUE CHAMPAIGN, ILLINOIS 61821 (217) 352-7408 / info@f-w.com

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DATE: DESCRIPTION:

04/17/2025 ADD 01 2 05/05/2025 ADD 04

04/03/2025

Robinson CUSD #2

Washington Elementary Renovation & Addition

507 W. Condit St. Robinson, IL 62454

DATE:	04/03/2025
DESIGNED:	TJS/RCW
DRAWN:	RCW/DGM
REVIEWED:	TJS
	•

SCHEDULES

SHEET NUMBER:

02401781.001

^{2. (*)} NUMBER INDICATES BREAKER TYPE: 1 = AFCI, 2 = CLASS A 5mA GFCI, 3 = 30mA GFPE, 4 = SHUNT TRIP ACTIVATED, 5 = PANELBOARD FEEDER SERVING UNIT SHALL BE LOCKABLE USING A PADLOCK, IN ACCORDANCE WITH OSHA LOCK-OUT-TAG RULES, 6 = LSI, 7 = LSIG.

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							LBO							i			
	VOLTAGE: 208/12					C	CONNECTE		PER		ISOLATED GROUND BUS (Y/N): N						
	PHASE / WIRE: 3Ø / 4V	V			PHASE									BUSSING:	SEE SI		
	RATED AMPERAGE: 225 A					A		В	(2				MOUNTING:	SURFA	ACE	
	MAIN: 225 A	ИСВ									MC	B GROU	JND FAI	JLT PROTECTION (Y/N):	N		
	SCC RATING (SYM): 22kA					0 VA	722	8 VA	7100	O VA				MCB SHUNT TRIP (Y/N):	N		
					6	61 A) A	59	Α				MCB 100% RATED (Y/N):	N		
СКТ	IDENTIFICATION	TYPE (*)	BKR SIZE	POLES		A		В	(POLES	BKR SIZE	TYPE (*)	IDENTIFICATION	I	СК	
1	CODED RELAY		20 A	1	100	100					1	20 A		HOT WATER HEATER		2	
3	E.N. BUILDING LIGHTS		20 A	1			100	100			1	20 A		HOT WATER CIRC PUMP		4	
5	PARKING POLE LIGHTS		20 A	1					100	100	1	20 A		BOILER RM LIGHTS		6	
	S.W. BUILDING LIGHTS		20 A	1	100	100					1	20 A		UH-1		8	
9	EXHASUT FAN (E)EF 6		20 A	1			528	100			1	20 A		BOILER ROOM RCPT		10	
11	SPARE		20 A	1					0	100	1	20 A		AIR DRYER		12	
13					100	100										14	
	BLR-1		15 A	3			100	100			3	20 A		AIR COMPRESSOR		16	
17									100	100						18	
19	00405		00.4		0	3000		0000			_	00.4		DUMD #4		20	
21	SPARE		30 A	3			0	3000		2000	3	60 A		PUMP #1		22	
23 25	BARBER COLMAN PANEL		20 A	1	100	500			0	3000	1	20 A		BSC COIL		24	
	BLR. RM. EXHASUT FAN		20 A	1 1	100	300	100	0			1	20 A		SPARE		28	
29	INCINERATOR		20 A	1 1			100	0	100	0	1	20 A		SPARE		30	
	PUMP SHUT DOWN ALARM		20 A	1 1	100	3000			100	0	+ '	207		OI AIL		32	
33	TRANE TCP'S		20 A	1 1	100	0000	100	3000			∃ 3	60 A		PUMP #2		34	
35	EM GAS SHUT OFF		20 A	1 1			100	0000	500	3000	∃	0071		. 3.4 1/2		36	
37					0	0										38	
39	SPARE		30 A	3			0	0			3	50 A		SPARE		40	
41									0	0	7					42	
Load Classification Co						oad	Demand	Factor	Dem	and Loa	ad		· ·	PANEL TOTALS			
Motor (528 VA		125.0	0%	6	60 VA							
												T	OTAL C	CONNECTED LOAD: 21628			
														TOTAL DEMAND: 21760	VA		
														NECTED CURRENT: 60 A	-		
												Т	OTAL D	EMAND CURRENT: 60 A			

	VOLTAGE: 208/120	V				C	ONNECTE	D LOAD F	PER			١	1				
	PHASE / WIRE: 3Ø / 4W	1			PHASE							ISOLATED GROUND BUS (Y/N): BUSSING:					
	RATED AMPERAGE: 400 A				А		1	3	(<u> </u>				MOUNTING:	SURF	ACE	
	MAIN: 400 A M	ILO									МС	B GROU	JND FA	ULT PROTECTION (Y/N):	١	1	
	SCC RATING (SYM): 42kA				3772	20 VA	3769	8 VA	3783	8 VA				MCB SHUNT TRIP (Y/N):	١	1	
					31	4 A	31	4 A	31	5 A				MCB 100% RATED (Y/N):	١	I	
СКТ	IDENTIFICATION	TYPE BKR POLES			A	1	3	(C	POLES	BKR SIZE	TYPE (*)	IDENTIFICATION	N	CK		
1	DSU 1.1 - X109 CLASSROOM		20 A	1	55	5757										2	
3	DSU 1.2 - X110 CLASSROOM		20 A	1			55	5757			3	100 A		HEAT PUMP (HP 2)		4	
5	DSU 1.3 - X111 CLASSROOM		20 A	1					88	5757						6	
7	DSU 1.4 - X113 CLASSROOM		20 A	1	55	5098										8	
9	DSU 1.5 - X115 CLASSROOM		20 A	1			55	5098			3	90 A		AIR HANDLING UNIT (AH	U 1)	10	
11	DSU 1.6 - X117 CLASSROOM		20 A	1					28	5098						12	
13	DSU 1.7 - X121 CLASSROOM		20 A	1	88	5098										14	
15	DSU 1.8 - X119 CLASSROOM		20 A	1			55	5098			3	90 A		AIR HANDLING UNIT (AH	U 2)	16	
	DSI 1.9 - X112 CLASSROOM		20 A	1					88	5098						18	
	DSU 1.10 - X114 CLASSROOM		20 A	1	55	5098		5000								20	
	DSU 1.11 - X116 CLASSROOM		20 A	1			55	5098		5000	3	90 A		AIR HANDLING UNIT (AH	U 3)	22	
23	DSU 1.12 - X118 CLASSROOM		20 A	1 1	00	5000			55	5098						24 26	
25 27	DSU 1.13 - X120 CLASSROOM	1	20 A		88	5098	5374	5098			3	90 A		AIR HANDLING UNIT (AH	114)	28	
<u>27</u> 29	HEAT PUMP (HP 1A)		90 A	3			3374	3096	5374	5098		90 A		AIR HANDLING UNIT (AH	04)	30	
31	TEAT FORM (THE TA)		30 A		5374				3374	3030						32	
33					3374		5757	100			1	20 A		TIME CLOCKS		34	
35	HEAT PUMP (HP 1B)		100 A	3			0.01	100	5757	100	1	20 A		TIME CLOCKS		36	
37	(15)		10071		5757	100			0.0.	100	1	20 A		TIME CLOCK / EXIT LIGH	TS	38	
_	SPARE		20 A	1			0	100			1	20 A		EXIT LIGHTS		40	
	FIRE ALARM / CONVENINCE		20 A	1					100	100	1	20 A		EXIT LIGHTS		42	
oad	Classification	-		Coni	nected L	oad	Demand	Factor	Dem	and Loa	id			PANEL TOTALS			
otor		1	11838 VA	١	103.86	3%	11	6156 VA									
VAC					819 VA		100.00	0%	3	319 VA		Т	OTAL (CONNECTED LOAD: 1132			
														TOTAL DEMAND: 1175			
												NECTED CURRENT: 314 A					
												T	OTAL [DEMAND CURRENT: 326 A	١		

	VOLTAGE: 208/1	20V				С	ONNECTE	D LOAD F	ER			N				
	PHASE / WIRE: 3Ø / 4	W					PH	IASE				BUSSING:	SEE SI	PEC		
	RATED AMPERAGE: 225 A				A B C									MOUNTING:	SURFA	ACE
	MAIN: 225 A	MLO									MC	B GROU	ND FA	ULT PROTECTION (Y/N):	N	
	SCC RATING (SYM): 22kA				20229 VA		180	38 VA	1755	51 VA				MCB SHUNT TRIP (Y/N):	N	
					16	69 A	151 A		14	6 A				MCB 100% RATED (Y/N):	N	
СКТ	IDENTIFICATION	TYPE (*)	BKR SIZE	POLES		A	В		(С	POLES	BKR SIZE	TYPE (*)	IDENTIFICATION	1	СКТ
1	DSU 2.1 - X141 CLASSROOM		20 A	1	122	2399										2
3	DSU 2.2 - X143 CLASSROOM		20 A	1			122	2399			3	35 A		ROOF TOP UNIT (RTU 1)		4
5	DSU 2.3 - X144 CLASSROOM		20 A	1					55	2399						6
7	DSU 2.4 - X145 CLASSROOM		20 A	1	55	2399										8
9	DSU 2.5 - X128 CLASSROOM		20 A	1			88	2399			3	35 A		ROOF TOP UNIT (RTU 2)		10
11	DSU 2.6 - X127 CLASSROOM		20 A	1					55	2399						12
13	DSU 2.7 - X107 CLASSROOM		20 A	1	28	3167										14
15	DSU 2.8 - X108 CLASSROOM		20 A	1			55	3167			3	45 A		ROOF TOP UNIT (RTU 3)		16
17	DSU 3.1 - X136 CLASSROOM		20 A	1					122	3167						18
19	DSU 3.2 - X135 CLASSROOM		20 A	1	55	5757					1					20
21	DSU 3.3 - X134 CLASSROOM		20 A	1			55	5757			3	100 A		HEAT PUMP (HP 3)		22
23	DSU 3.4 - X137 CLASSROOM		20 A	1 1					88	5757						24
25	DSU 3.5 - X138 CLASSROOM		20 A	1 1	88	3744		0744			2	80 A		HEAT PUMP (HP 6)		26
27	DSU 3.6 - X139 CLASSROOM		20 A	1			88	3744	400					00405		28
29	DSU 3.7 - X140 CLASSROOM		20 A	1	00				122		1			SPACE		30
31	DSU 3.8 - X142 CLASSROOM		20 A	1 - 1 -	28	0	164				1 1	20 A		FIRE ALARM DOOR OPERATORS		32
~	SPARE	$\frac{1}{2}$	20 A	1			164	0	0	2388	1	20 A		DOOR OPERATORS		36
35 37	SPARE		20 A	1 1	0	2388			U	2300	2	50 A		HEAT PUMP (HP 7)		38
	SPARE A A A A A A A A		20 A	' 1)	2300	0				1			SPACE		40
	ROOF CONVENIENCE OUTLETS	yu	20 A				1 0		1000		1			SPACE		42
					nected L	oad	Demand	Factor		nand Load	_ '_			PANEL TOTALS		72
Motor					53429 VA		108.0			7747 VA	-			174422 1017420		
HVAC					1389 VA		100.0			389 VA		T	OTAL (CONNECTED LOAD: 55818	3 VA	
	177.0								<u> </u>					TOTAL DEMAND: 60136		
												TOTAL	CONI	NECTED CURRENT: 155 A		
												TC	OTAL D	EMAND CURRENT: 167 A	١	

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DATE: DESCRIPTION:

1 04/17/2025 ADD 01 2 05/05/2025 ADD 04

Robinson CUSD #2

Washington Elementary Renovation & Addition

507 W. Condit St. Robinson, IL 62454

DATE:		04/03/2025
DESIG	NED:	TJS/RCW
DRAW	N:	RCW/DGM
REVIE	WED:	TJS

SCHEDULES

SHEET NUMBER:

KEYNOTES

1 INVERTER PANEL SHOWN FOR REFERENCE. PANEL IS INTEGRAL TO INVERTER UNIT.

BUSSING: SEE SPEC

ISOLATED GROUND BUS (Y/N):

	VOLTAGE: 208/1	20\/			CONNECTED LOAD PER ISOLATED GROUND BUS (Y/N):							ATED GROUND BUS (Y/N).	T N	
	PHASE/WIRE: 1Ø/						ASE	_1 \			1001	BUSSING:	SEE S	
	RATED AMPERAGE: 40 A					Α		 В				MOUNTING:	ļ	
	MAIN: 40 A MCB									MCB GF	ROUND	FAULT PROTECTION (Y/N):	N	
	SCC RATING (SYM): 10kA		283	35 VA	128	0 VA		N						
			2	25 A	1:	2 A				MCB 100% RATED (Y/N):	N			
СКТ	IDENTIFICATION	TYPE (*)	BKR SIZE	POLES		A	B POLES BKR TYPE (*)		IDENTIFICATION		СКТ			
1	LTG EM NORTH		20 A	1	970	543			1	20 A		LTG EM NORTH		2
3	LTG NORTH CENTRAL		20 A	1			549	343	1	20 A	LTG EM WEST CENTRAL			4
5	LTH EAST CENTRAL		20 A	1	776	547			~ 1 ~	~20A~	~~~		~~	~~~~
7	LTG EM SOUTH		20 A	1			388	0	1	20 A		SPARE		8
oad C	lassification			Connected	Load	Demand	Factor	Demar	nd Load			PANEL TOTALS		
ightin	g - Continuous			4115 V	Ά	125.0	0%	514	4 VA					
											TOTA	L CONNECTED LOAD: 4115	VA	
										TOTAL DEMAND: 5144	VA			
										TO	OTAL CO	NNECTED CURRENT: 20 A		
											TOTA	L DEMAND CURRENT: 25 A		

2. (*) NUMBER INDICATES BREAKER TYPE: 1 = AFCI, 2 = CLASS A 5mA GFCI, 3 = 30mA GFPE, 4 = SHUNT TRIP ACTIVATED, 5 = PANELBOARD FEEDER SERVING UNIT SHALL BE LOCKABLE USING A PADLOCK, IN ACCORDANCE WITH OSHA LOCK-OUT-TAG RULES, 6 = LSI, 7 = LSIG.

	TITIOL / WIILL.	007741							· IOL						D0001110.		
	RATED AMPERAGE:	100 A				/	4		В	(С				MOUNTING:	SURF	ACE
	MAIN:	100 A ML	_0									MC	B GROL	IND FAI	JLT PROTECTION (Y/N):	N	
	SCC RATING (SYM):	10kA				9020	0 VA	594	5940 VA 7020 VA					MCB SHUNT TRIP (Y/N):	N		
	, ,					77 A		50 A		60 A		1			MCB 100% RATED (Y/N):	N	
СКТ	IDENTIFICATION		TYPE (*)	BKR SIZE	POLES	,	Ą		В		С	POLES	BKR SIZE	TYPE (*)	IDENTIFICATION	N	СКТ
1	RCPT - 103 PRESCHOOL			20 A	1	1080	1080					1	20 A		RCPT - 102 PRESCHOOL		2
3	RCPT - 103 SMARTBOARD	DS .		20 A	1			360	360			1	20 A		RCPT - 102 SMARTBOAF	RDS	4
5	RCPT - 103 TEACHER STA	ATION		20 A	1					540	540	1	20 A		RCPT - 102 TEACHER ST	TATION	6
7	RCPT - 103 REFRIGERATO	OR	2	20 A	1	180	180					1	20 A	2	RCPT - 102 REFRIGERA	TOR	8
9	RCPT - 103 COUNTER			20 A	1			360	360			1	20 A		RCPT - 102 COUNTER		10
11	RCPT - 103 COUNTER			20 A	1					540	540	1	20 A		RCPT - 102 COUNTER		12
13	RCPT - 105 PRESCHOOL			20 A	1	1080	1620					1	20 A		RCPT - RESTROOMS		14
15	RCPT - 105 SMARTBOARD	os		20 A	1			360	1080			1	20 A		RCPT - 104 PRESCHOOL	_	16
17	RCPT - 105 TEACHER STA	ATION		20 A	1					540	360	1	20 A		RCPT - 104 SMARTBOAF	RDS	18
19	RCPT - 105 REFRIGERATO	OR	2	20 A	1	180	540					1	20 A		RCPT - 104 TEACHER ST	TATION	20
21	RCPT - 105 COUNTER			20 A	1			360	180			1	20 A	2	RCPT - 104 REFRIGERA	TOR	22
23	RCPT - 105 COUNTER		2	20 A	1					540	360	1	20 A		RCPT - 104 COUNTER		24
25	RCPT - 108 PRESCHOOL			20 A	1	1080	540					1	20 A		RCPT - 104 COUNTER		26
27	RCPT - 108 SMARTBOARD	DS .		20 A	1			360	1080			1	20 A		RCPT - 106 PRESCHOOL	_	28
29	RCPT - 108 TEACHER STA	ATION		20 A	1					540	360	1	20 A		RCPT - 106 SMART BOA	RDS	30
31	RCPT - 108 REFRIGERATO	OR	2	20 A	1	180	540					1	20 A		RCPT - 106 TEACHER ST	TATION	32
33	RCPT - 108 COUNTER			20 A	1			540	180			1	20 A	2	RCPT - 106 REFRIGERAT	TOR	34
35~	RORI-100COUNTERY	~~	~~	~2 0 }	~~~					360	360	1	20 A		RCPT - 106 COUNTER		36
37	CONTROLS PANEL	, ,		20 A	1	200	540					1	20 A		RCPT - 106 COUNTER		38
39	SPARE			20 A	1)		0	360			1	20 A	2	RCPT - EWC		40
41	SPARE			20 A	1 1)				0	1440	1	20 A		RCPT - CORRIDOR		42
oad	Classification		$\overline{}$	$\overline{}$	Coni	nected Lo	oad	Demand	Factor	Den	nand Loa	d		•	PANEL TOTALS		
Recep					2	21780 VA		72.96	5%	1:	5890 VA						
Other	Non-Continuous Load					200 VA		100.00	0%	:	200 VA		Т	OTAL C	CONNECTED LOAD: 2198	0 VA	
															TOTAL DEMAND: 1609	0 VA	
													TOTA	L CONN	NECTED CURRENT: 61 A		
													T	OTAL D	EMAND CURRENT: 45 A		
	S: ALL BREAKERS ARE STA (*) NUMBER INDICATES B LOCKABLE USING A PAD	REAKER	TYPE:	1 = AFC	CI, 2 = CL	ASS A 5n						ΓIVATED,	5 = PAN	IELBOA	ARD FEEDER SERVING U	NIT SHAL	.L BE

PANELBOARD B-LJ-1

CONNECTED LOAD PER

PHASE

VOLTAGE: 208/120V

1. ALL BREAKERS ARE STANDARD UNLESS OTHERWISE NOTED

PHASE / WIRE: 3Ø / 4W

							LBO	4KD	D-LJ	<u>-</u>						
	VOLTAGE: 208/120	V				C	ONNECTE	D LOAD F	PER		ISOLATED GROUND BUS (Y/N):				N	
	PHASE / WIRE: 3Ø / 4W						PH	ASE			BUSSING:					PEC
	RATED AMPERAGE: 100 A				,	4		В	(2				MOUNTING:	SURFA	√CE
	MAIN: 100 A M	LO									МС	B GROU	IND FAL	JLT PROTECTION (Y/N):	N	
	SCC RATING (SYM): 10kA				524	7 VA	576	6 VA	5334	4 VA			1	MCB SHUNT TRIP (Y/N):	N	
					44	I A	48	3 A	45	5 A			N	//CB 100% RATED (Y/N):	N	
СКТ	IDENTIFICATION	TYPE (*)	BKR SIZE	POLES	,	Ą		В	(C	POLES	BKR SIZE	TYPE (*)	IDENTIFICATION	I	СК
1	DUCTLESS SPLIT UNIT (DSU 4.1)		20 A	1	122	1000					1	20 A		LIGHTING CONTROL PAN	NEL .	2
3	DUCTLESS SPLIT UNIT (DSU 4.2)		20 A	1			122	1189			1	20 A		LTG - GROSS MOTOR 10		4
5	DUCTLESS SPLIT UNIT (DSU 4.3)		20 A	1					122	499	1	20 A		LTG - CORRIDOR C101 N	ORTH	6
7	DUCTLESS SPLIT UNIT (DSU 4.4)		20 A	1	122	60					1	20 A		LTG - RMS 101A,101B		8
9	DUCTLESS SPLIT UNIT (DSU 4.5)		20 A	1			122	743			1	20 A		LTG - PRESCHOOL 102		10
11	DUCTLESS SPLIT UNIT (DSU 4.6)		20 A	1					122	743	1	20 A		LTG - PRESCHOOL 103		12
13	EVIJACIJI FANI (FF 2)		20. 4		218	743					1	20 A		LTG - PRESCHOOL 104		14
15	EXHASUT FAN (EF 3)		20 A	2			218	743			1	20 A		LTG - PRESCHOOL 105		16
17	GAS WATER HEATER #1		20 A	1					600	751	1	20 A		LTG - PRESCHOOL 106		18
19	WATER CIRC PUMP #1		20 A	1	0	743					1	20 A		LTG - PRESCHOOL 108		20
21	RCPT - GROSS MOTOR 101		20 A	1			720	210			1	20 A		LTG - RMS 107,109,110		22
23	RCPT - GROSS MOTOR 101		20 A	1					1260	137	1	20 A		LTG - CANOPY		24
25	DOOR OPERATOR		20 A	1	400	400					1	20 A		LTG - EXTERIOIR BUILDI	NG SIGN	26
27	DOOR OPERATOR		20 A	1			800	0			1	20 A		SPARE		28
29	PROJECTOR SCREEN		20 A	1					380	0	1	20 A		SPARE		30
31	RCPT - CORRIDOR		20 A	1	720	0					1	20 A		SPARE		32
33	RCPT - MRCHANICAL 107		20 A	1			900	0			1	20 A		SPARE		34
35	RCPT - STORAGE 109/110		20 A	1					720	0	1	20 A		SPARE		36
37	RCPT - ROOFTOP		20 A	1	720	0					1	20 A		SPARE		38
39	SPARE		20 A	1			0	0			1	20 A		SPARE		40
41	SPARE		20 A	1					0	0	1	20 A		SPARE		42
_oad	Classification				nected L	oad	Demand			and Loa	d			PANEL TOTALS		
Motor				_	636 VA		117.1			745 VA						
IVAC					1331 VA		100.0			331 VA		T	OTAL C	ONNECTED LOAD: 16347		
	ng - Continuous				7960 VA		125.0			949 VA				TOTAL DEMAND: 18446	S VA	
	otacle				5220 VA		100.0			220 VA				ECTED CURRENT: 45 A		
Other	Non-Continuous Load				1200 VA		100.0	0%	1	200 VA		T	OTAL DI	EMAND CURRENT: 51 A		

2. (*) NUMBER INDICATES BREAKER TYPE: 1 = AFCI, 2 = CLASS A 5mA GFCI, 3 = 30mA GFPE, 4 = SHUNT TRIP ACTIVATED, 5 = PANELBOARD FEEDER SERVING UNIT SHALL BE LOCKABLE USING A PADLOCK, IN ACCORDANCE WITH OSHA LOCK-OUT-TAG RULES, 6 = LSI, 7 = LSIG.

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DATE: DESCRIPTION:

1 05/05/2025 ADD 04

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> Bid Set 04/03/2025

PROJECT:

Robinson CUSD #2

Washington
Elementary
Renovation & Addition

507 W. Condit St. Robinson, IL 62454

DATE:	04/03/2025
DESIGNED:	TJS/RCW
DRAWN:	RCW/DGM
REVIEWED:	TJS

SCHEDULES

SHEET NUMBER:

E5.6





Date: November 27, 2024

To: Andrew C. Hanfland

From: Barbara M. Healy

Re: Hydrant Flow Testing at Washington Elementary School

A flow test was conducted on W. Plum Street south of W. Condit Street.

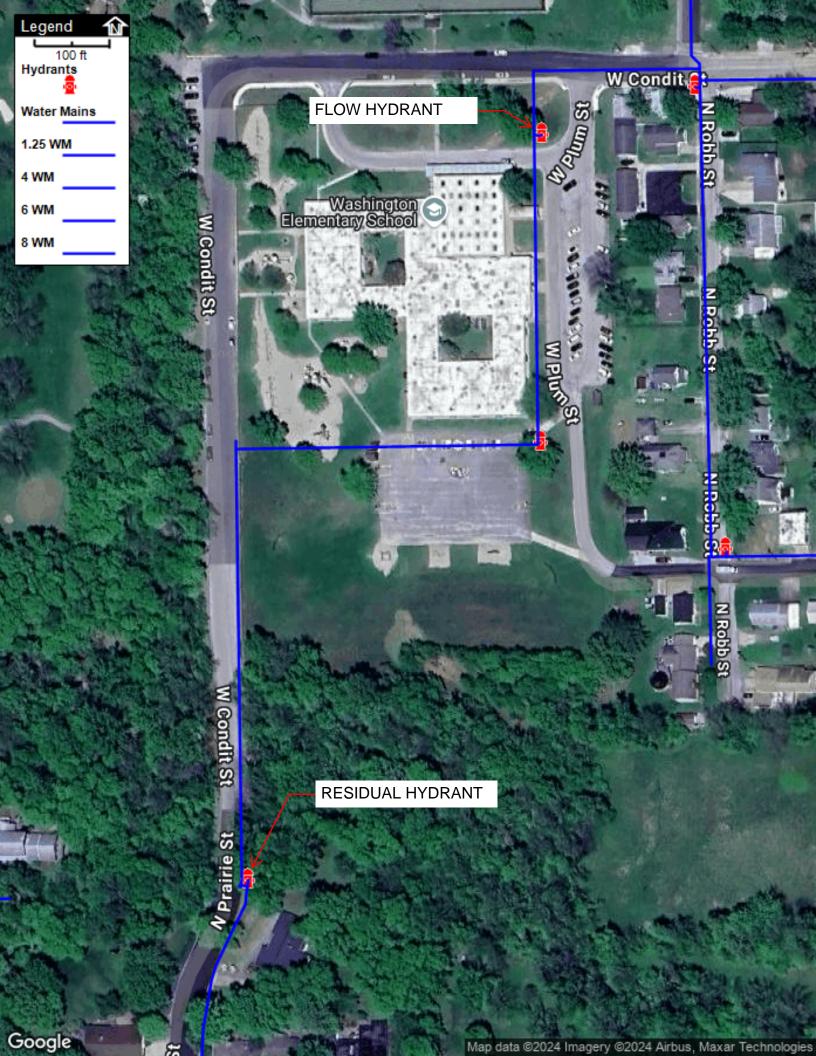
Flow testing was completed on Wednesday, November 27, 2024, at the first hydrant south of the intersection of W. Plum Street and W. Condit Street. The residual hydrant used for testing is the second hydrant south of the flow hydrant on W. Condit Street (see attached map). The hydrant directly south of the flow hydrant, on W. Plum Street, was not used for testing due to being difficult to use. The static pressure measured at the residual hydrant was 40 (pounds per square inch) psi before opening the flow hydrant. Once the flow hydrant was opened, the pressure at the residual hydrant measured 39 psi. At the flow hydrant, the flow measured 950 gallons per minute (gpm).

The test resulted in a flow of 950 gpm at the flow hydrant while maintaining a residual pressure of 30 psi during the flow test compared to 40 psi static pressure at the residual hydrant.

Respectfully Reported,

FARNSWORTH GROUP, INC.

Barbara M. Healy, EIT Engineering Associate



SECTION 07 4646 - FIBER-CEMENT SIDING

PART 1 GENERAL

1.1. SECTION INCLUDES

A. Fiber-cement siding and trim.

1.2. RELATED REQUIREMENTS

- A. Section 07 2500 Weather Barriers: Water-resistive barrier under siding.
- B. Section 07 9200 Joint Sealants: Sealing joints between siding and adjacent construction and fixtures.

PROJECT NUMBER: 02401781.001

1.3. REFERENCE STANDARDS

- A. ASTM A653/A653M Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 2023.
- B. ASTM C1186 Standard Specification for Flat Fiber-Cement Sheets; 2022, with Editorial Revision (2023).

1.4. SUBMITTALS

- A. See Section 01 3000 Administrative Requirements for submittal procedures.
- B. Product Data: Submit manufacturer's data sheets on each product to be used, including:
 - 1. Manufacturer's requirements for related materials to be installed by others.
 - 2. Preparation instructions and recommendations.
 - 3. Storage and handling requirements and recommendations.
 - 4. Installation methods, including nail patterns.
- C. Shop Drawings: Indicate dimensions, layout, joints, construction details, support clips, and methods of anchorage.
- D. Installer's qualification statement.
- E. Maintenance Instructions: Periodic inspection recommendations and maintenance procedures.
- F. Warranty: Submit copy of manufacturer's warranty, made out in Owner's name, showing that it has been registered with manufacturer.
- G. Warranty Documentation for Installation of Building Rainscreen Assembly: Submit installer warranty and ensure that forms have been completed in Owner's name and registered with installer.

1.5. QUALITY ASSURANCE

A. Installer Qualifications: Company specializing in performing work of type specified in this section with not less than three years of experience.

1.6. DELIVERY, STORAGE, AND HANDLING

- A. See Section 01 7419 Construction Waste Management and Disposal for packaging waste requirements.
- B. Deliver and store materials in manufacturer's unopened packaging, with labels intact, until ready for installation.
- C. Store materials under dry and waterproof cover, well ventilated, and elevated above grade on a flat surface.
- D. Protect materials from harmful environmental elements, construction dust, and other potentially detrimental conditions.

Fiber-Cement Siding 07 4646 - 1

1.7. FIELD CONDITIONS

A. Do not install panels when air temperature or relative humidity are outside manufacturer's limits.

PROJECT NUMBER: 02401781.001

1.8. WARRANTY

- A. See Section 01 7800 Closeout Submittals for additional warranty requirements.
- B. Manufacturer Warranty: Provide manufacturer warranty for years as indicated under Fiber-Cement Siding article sub-headings for "Warranty". Complete forms in Owner's name and register with manufacturer.

PART 2 PRODUCTS

2.1. MANUFACTURER

- A. Source Limitations: Obtain siding and components from single manufacturer.
- B. Basis of Design: Nichiha USA, Inc: www.nichiha.com.
- C. Other Acceptable Manufacturers (dependant on meeting Basis of Design and specification criteria):
 - 1. Allura, a division of Plycem USA, Inc: www.allurausa.com
 - 2. James Hardie Building Products, Inc: www.jameshardie.com.
 - 3. Ceraclad: www.ceraclad
 - 4. Substitutions: See Section 01 6000 Product Requirements.

2.2. FIBER-CEMENT SIDING

- A. Panel Siding: Horizontally oriented panels made of cement and cellulose fiber formed under high pressure with integral surface texture, complying with ASTM C1186, Type A, Grade II; with machined edges, for nail attachment.
 - 1. Texture: Simulated Concrete.
 - 2. Length (Height): 18 inches, nominal.
 - 3. Width: 72 inches, nominal.
 - 4. Thickness: 5/8 inch, nominal.
 - 5. Finish: Factory applied topcoat.
 - 6. Color: As selected by Architect/Engineer from manufacturers full range of available colors.
 - 7. Warranty: 30 year limited; transferable.
 - 8. Products:
 - a. Basis of Design: Nichiha USA, Inc; Corbosa, Concrete Series: www.nichiha.com.
 - b. Substitutions: See Section 01 6000 Product Requirements.
- B. Panel Siding: Horizontally oriented panels made of cement and cellulose fiber formed under high pressure with integral surface texture, complying with ASTM C1186, Type A, Grade II; with machined edges, for nail attachment.
 - Texture: Smooth with Shadow Lines.
 - 2. Length (Height): 18 inches, nominal.
 - 3. Width: 72 inches, nominal.
 - 4. Thickness: 5/8 inch, nominal.
 - 5. Finish: Factory applied topcoat.
 - 6. Color: As selected by Architect/Engineer from manufacturers full range of available colors.
 - 7. Products:
 - a. Basis of Design: Nichiha USA, Inc; Latura V Groove, Dimension Series: www.nichiha.com.
 - b. Substitutions: See Section 01 6000 Product Requirements.

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WASHINGTON ELEMENTARY RENOVATION & ADDITION

Panel Siding: Horizontally oriented panels made of cement and cellulose fiber formed under high pressure with integral surface texture, complying with ASTM C1186, Type A, Grade II; with machined edges, for nail attachment.

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- 1. Texture: Simulated cedar grain.
- 2. Length (Height): 18 inches, nominal.
- 3. Width: 72 inches, nominal.
- 4. Thickness: 5/8 inch, nominal.
- 5. Color: As selected by Architect/Engineer from manufacturers full range of available colors.
- 6. Warranty: 30 year limited; transferable.
- 7. Products:
 - Basis of Design: Nichiha USA, Inc; VintageWood, Wood Series: www.nichiha.com.
 - Substitutions: See Section 01 6000 Product Requirements.

2.3. **ACCESSORIES**

- Α. Support for Cladding and Continuous Insulation: Continuous thermal Z-girts.
 - Fiberglass reinforced plastic (FRP) girts that provide cladding attachment support for exterior wall cladding and metal wall panels.
 - 2. Depth: As required for thickness of insulation.
 - 3. Length: 96 inches for girts.
 - 4. Spacing: 16 inches on center, horizontally and vertically, as indicated on drawings.
 - 5. Fasteners: As recommended by clip manufacturer.
 - 6. Products:
 - Advanced Architectural Products; GreenGirt CMH Clips: www.greengirt.com.
 - Substitutions: See Section 01 6000 Product Requirements.
- Furring Strips, Metal: Galvanized metal hat channels and studs. В.
- C. Trim: Same material and texture as siding.
 - Finish: Factory applied primer and topcoat.
- D. Fasteners: Galvanized or corrosion resistant; length as required to penetrate, 1-1/4 inches, minimum.
- E. Sealant: Elastomeric, polyurethane or silyl-terminated polyether/polyurethane, and capable of being painted.
- F. Touch up Paint: Exterior acrylic enamel paint acceptable to siding manufacturer; primer recommended by paint manufacturer.
- G. Accessory/Component Options: (ADD 04)
 - 1. Manufactured Corners with 3 1/2" returns for each profile color.
 - Aluminum trim options: Corner Key, Open Outside Corner, H-Mold, J-Mold, Compression Joint, 2. **Inside Corner**
 - a. Finish: Clear anodized or Primed
 - 3. Essential Flashing System: Starter, Overhang.
 - Finish: Matte black.

2.4. **INSTALLATION COMPONENTS: (ADD 04)**

- A. **Ultimate Clip System:**
 - Ultimate Clip System:
 - Starter Track: FA 700 (10mm rainscreen) 10' (3030mm) (I) galvalume coated steel.

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WASHINGTON ELEMENTARY RENOVATION & ADDITION

Panel Clips: JEL 778 "Ultimate Clip II" (10mm rainscreen for 5/8" AWP) - Zinc-Aluminum-Magnesium alloy coated steel.

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- Joint Tab Attactments (included) used at all AWP 1818 panel to panel vertical
- Corner Clips: JE 777C (10mm rainscreen for 5/8" AWP Manufactured Corners) -- Zinc -Aluminum-Magnesium alloy coated steel.
- d. Single Flange Sealant Backer - FHK 1015 R (10mm) - 6.5' (I) fluorine coate galvalume.
- Double Flange Sealant Backer FHK 1015 R (10mm) 10' (I) fluorine coate galvalume.
- Corrugated Spacer FS 1005 (5mm), FS 1010 (10mm) 4' (I)
- 2. Aluminum Trim (opitional): Paint primed trim as specified in finish schedule.
- Essential Flashing System (optional) galvalume coated steel: 3.
 - Starter main segments (3030mm), inside corners, outside corners
 - Overhang main segments (3030mm), inside corners, outside corners, joint clips
- Fasteners: Corrosion resistant fasteners, such as hot-dipped galvanized screws appropriate to 4. local building codes and practices must be used. Use Stainless Steel fasteners in high humidity and high-moisture regions. Panel manufacturer is not liable for corrosion resistance of fasteners. Do not use aluminum fasteners, staples, or fastners that are not rated or designed for intended use. See manfacturer's instructions for appropriate fasteners for construction method used.
- Flashing: Flash all area specified in manufacturer's instructions. Do not use raw aluminum 5. flashing. Flashing must be galvanized, anodized, or PVC coated.
- Sealant: Sealant shall comply with ASTM C920, Class 35. 6.

PART 3 EXECUTION

3.1. EXAMINATION

- A. Examine substrate, clean and repair as required to eliminate conditions that would be detrimental to proper installation.
- B. Verify that water-resistant barrier has been installed over substrate completely and correctly; see Section 05 4000.
- C. Do not begin until unacceptable conditions have been corrected.
- If substrate preparation is responsibility of another installer, notify Architect/Engineer of D. unsatisfactory preparation before proceeding.

3.2. PREPARATION

- A. Protect surrounding areas and adjacent surfaces during execution of this work.
- B. Install Sheet Metal Flashing:
 - Above door and window trim and casings. 1.
 - 2. Above horizontal trim in field of siding.

INSTALLATION 3.3.

- A. Install in accordance with manufacturer's instructions and recommendations.
 - 1. Read warranty and comply with terms necessary to maintain warranty coverage.
 - 2. Use trim details as indicated on drawings.
 - 3. Touch up field cut edges before installing.
 - 4. Pre-drill nail holes if necessary to prevent breakage.

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B. Over Masonry Walls: Install z-furring of adequate thickness to accept full length of nails and spaced at 16 inches on center. Leave space at top and bottom open; top may be behind soffit; at bottom install insect screen over opening by wrapping a strip of screen over bottom ends of vertical furring strips.

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- C. Allow space for thermal movement between both ends of siding panels that butt against trim; seal joint between panel and trim with specified sealant.
- D. Joints in Horizontal Siding: Avoid joints in lap siding except at corners; where joints are inevitable stagger joints between successive courses.
- E. Joints in Vertical Siding: Install Z-flashing in horizontal joints between successive courses of vertical siding.
- F. Do not install siding less than 6 inches from ground surface, or closer than 1 inch to roofs, patios, porches, and other surfaces where water may collect.
- G. After installation, seal joints except lap joints of lap siding; seal around penetrations, and paint exposed cut edges.
- H. Finish Painting: Within one week after installation, paint siding and trim with one coat primer and two coats finish paint.

3.4. CLEANING

- A. See Section 01 7000 Execution and Closeout Requirements for additional requirements.
- B. Clean faced panels in accordance with manufacturer's maintenance instructions, using cleaning materials and methods acceptable to manufacturer.

3.5. PROTECTION

- A. Protect installed products until Date of Substantial Completion.
- B. Touch-up, repair or replace damaged products before Date of Substantial Completion.

END OF SECTION

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SECTION 08 7100 - DOOR HARDWARE 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.

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1.2 SUMMARY

- A. This Section includes commercial door hardware for the following:
 - 1. Swinging doors.
 - 2. Other doors to the extent indicated.
- B. Door hardware includes, but is not necessarily limited to, the following:
 - 1. Mechanical door hardware.
 - 2. Electromechanical door hardware.
 - 3. Automatic operators.
 - 4. Cylinders specified for doors in other sections.

C. Related Sections:

- 1. Division 08 Section "Hollow Metal Doors and Frames".
- 2. Division 08 Section "Flush Wood Doors".
- 3. Division 08 Section "Bullet Resistant Doors and Frame".
- 4. Division 08 Section "Aluminum-Framed Entrances and Storefronts".
- 5. Division 08 Section "Automatic Door Operators".
- D. Codes and References: Comply with the version year adopted by the Authority Having Jurisdiction.
 - 1. ANSI A117.1 Accessible and Usable Buildings and Facilities.
 - 2. ICC/IBC International Building Code.
 - 3. NFPA 70 National Electrical Code.
 - 4. NFPA 80 Fire Doors and Windows.
 - 5. NFPA 101 Life Safety Code.
 - 6. NFPA 105 Installation of Smoke Door Assemblies.
 - 7. UL/ULC and CSA C22.2 Standards for Automatic Door Operators Used on Fire and Smoke Barrier Doors and Systems of Doors.
 - 8. State Building Codes, Local Amendments.
- E. Standards: All hardware specified herein shall comply with the following industry standards as applicable. Any undated reference to a standard shall be interpreted as referring to the latest edition of that standard:
 - 1. ANSI/BHMA Certified Product Standards A156 Series.
 - 2. UL10C Positive Pressure Fire Tests of Door Assemblies.

- 3. ANSI/UL 294 Access Control System Units.
- 4. UL 305 Panic Hardware.
- 5. ANSI/UL 437- Key Locks.

1.3 SUBMITTALS

A. Product Data: Manufacturer's product data sheets including installation details, material descriptions, dimensions of individual components and profiles, operational descriptions and finishes.

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- B. Door Hardware Schedule: Prepared by or under the supervision of supplier, detailing, fabrication and assembly of door hardware, as well as procedures and diagrams. Coordinate the final Door Hardware Schedule with doors, frames, and related work to ensure proper size, thickness, hand, function, and finish of door hardware.
 - 1. Format: Comply with scheduling sequence and vertical format in DHI's "Sequence and Format for the Hardware Schedule."
 - 2. Organization: Organize the Door Hardware Schedule into door hardware sets indicating complete designations of every item required for each door or opening. Organize door hardware sets in same order as in the Door Hardware Sets at the end of Part 3. Submittals that do not follow the same format and order as the Door Hardware Sets will be rejected and subject to resubmission.
 - 3. Content: Include the following information:
 - a. Type, style, function, size, label, hand, and finish of each door hardware item.
 - b. Manufacturer of each item.
 - c. Fastenings and other pertinent information.
 - d. Location of door hardware set, cross-referenced to Drawings, both on floor plans and in door and frame schedule.
 - e. Explanation of abbreviations, symbols, and codes contained in schedule.
 - f. Mounting locations for door hardware.
 - g. Door and frame sizes and materials.
 - h. Warranty information for each product.
 - 4. Submittal Sequence: Submit the final Door Hardware Schedule at earliest possible date, particularly where approval of the Door Hardware Schedule must precede fabrication of other work that is critical in the Project construction schedule. Include Product Data, Samples, Shop Drawings of other work affected by door hardware, and other information essential to the coordinated review of the Door Hardware Schedule.
- C. Shop Drawings: Details of electrified access control hardware indicating the following:
 - Wiring Diagrams: Upon receipt of approved schedules, submit detailed system wiring diagrams for power, signaling, monitoring, communication, and control of the access control system electrified hardware. Differentiate between manufacturer-installed and field-installed wiring. Include the following:
 - a. Elevation diagram of each unique access controlled opening showing location and interconnection of major system components with respect to their placement in the respective door openings.
 - b. Complete (risers, point-to-point) access control system block wiring diagrams.
 - c. Wiring instructions for each electronic component scheduled herein.

2. Electrical Coordination: Coordinate with related sections the voltages and wiring details required at electrically controlled and operated hardware openings.

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D. Keying Schedule: After a keying meeting with the owner has taken place prepare a separate keying schedule detailing final instructions. Submit the keying schedule in electronic format. Include keying system explanation, door numbers, key set symbols, hardware set numbers and special instructions. Owner must approve submitted keying schedule prior to the ordering of permanent cylinders/cores.

E. Informational Submittals:

1. Product Test Reports: Indicating compliance with cycle testing requirements, based on evaluation of comprehensive tests performed by manufacturer and witnessed by a qualified independent testing agency.

1.4 CLOSEOUT SUBMITTALS

- A. Operating and Maintenance Manuals: Provide manufacturers operating and maintenance manuals for each item comprising the complete door hardware installation in quantity as required in Division 01, Closeout Procedures.
- B. Project Record Documents: Provide record documentation of as-built door hardware sets in digital format (.pdf, .docx, .xlsx, .csv) and as required in Division 01, Project Record Documents.

1.5 QUALITY ASSURANCE

- A. Manufacturers Qualifications: Engage qualified manufacturers with a minimum 5 years of documented experience in producing hardware and equipment similar to that indicated for this Project and that have a proven record of successful in-service performance.
- B. Certified Products: Where specified, products must maintain a current listing in the Builders Hardware Manufacturers Association (BHMA) Certified Products Directory (CPD).
- C. Installer Qualifications: A minimum 3 years documented experience installing both standard and electrified door hardware similar in material, design, and extent to that indicated for this Project and whose work has resulted in construction with a record of successful in-service performance.
- D. Door Hardware Supplier Qualifications: Experienced commercial door hardware distributors with a minimum 5 years documented experience supplying both mechanical and electromechanical hardware installations comparable in material, design, and extent to that indicated for this Project. Supplier recognized as a factory direct distributor by the manufacturers of the primary materials with a warehousing facility in Project's vicinity. Supplier to have on staff a certified Architectural Hardware Consultant (AHC) available during the course of the Work to consult with Contractor, Architect, and Owner concerning both standard and electromechanical door hardware and keying.
- E. Source Limitations: Obtain each type and variety of door hardware specified in this section from a single source unless otherwise indicated.
 - 1. Electrified modifications or enhancements made to a source manufacturer's product line by a secondary or third party source will not be accepted.

2. Provide electromechanical door hardware from the same manufacturer as mechanical door hardware, unless otherwise indicated.

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- F. Each unit to bear third party permanent label indicating compliance with the referenced testing standards.
- G. Keying Conference: Conduct conference to comply with requirements in Division 01 Section "Project Meetings." Keying conference to incorporate the following criteria into the final keying schedule document:
 - 1. Function of building, purpose of each area and degree of security required.
 - 2. Plans for existing and future key system expansion.
 - 3. Requirements for key control storage and software.
 - 4. Installation of permanent keys, cylinder cores and software.
 - 5. Address and requirements for delivery of keys.
- H. Pre-Submittal Conference: Conduct coordination conference in compliance with requirements in Division 01 Section "Project Meetings" with attendance by representatives of Supplier(s), Installer(s), and Contractor(s) to review proper methods and the procedures for receiving, handling, and installing door hardware.
 - Prior to installation of door hardware, conduct a project specific training meeting to instruct the
 installing contractors' personnel on the proper installation and adjustment of their respective
 products. Product training to be attended by installers of door hardware (including
 electromechanical hardware) for aluminum, hollow metal and wood doors. Training will include the
 use of installation manuals, hardware schedules, templates and physical product samples as
 required.
 - 2. Inspect and discuss electrical roughing-in, power supply connections, and other preparatory work performed by other trades.
 - 3. Review sequence of operation narratives for each unique access controlled opening.
 - 4. Review and finalize construction schedule and verify availability of materials.
 - 5. Review the required inspecting, testing, commissioning, and demonstration procedures
- I. At completion of installation, provide written documentation that components were applied according to manufacturer's instructions and recommendations and according to approved schedule.

1.6 DELIVERY, STORAGE AND HANDLING

- A. Inventory door hardware on receipt and provide secure lock-up and shelving for door hardware delivered to Project site. Do not store electronic access control hardware, software or accessories at Project site without prior authorization.
- B. Tag each item or package separately with identification related to the final Door Hardware Schedule, and include basic installation instructions with each item or package.
- C. Deliver, as applicable, permanent keys, cylinders, cores, access control credentials, software and related accessories directly to Owner via registered mail or overnight package service. Instructions for delivery to the Owner shall be established at the "Keying Conference".

1.7 COORDINATION

A. Templates: Obtain and distribute to the parties involved templates for doors, frames, and other work specified to be factory prepared for installing standard and electrified hardware. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing hardware to comply with indicated requirements.

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B. Door and Frame Preparation: Doors and corresponding frames are to be prepared, reinforced and prewired (if applicable) to receive the installation of the specified electrified, monitoring, signaling and access control system hardware without additional in-field modifications.

1.8 WARRANTY

- A. General Warranty: Reference Division 01, General Requirements. Special warranties specified in this Article shall not deprive Owner of other rights Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by Contractor under requirements of the Contract Documents.
- B. Warranty Period: Written warranty, executed by manufacturer(s), agreeing to repair or replace components of standard and electrified door hardware that fails in materials or workmanship within specified warranty period after final acceptance by the Owner. Failures include, but are not limited to, the following:
 - 1. Structural failures including excessive deflection, cracking, or breakage.
 - 2. Faulty operation of the hardware.
 - 3. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
 - 4. Electrical component defects and failures within the systems operation.
- C. Warranty Period: Unless otherwise indicated, warranty shall be one year from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 BUTT HINGES

- A. Hinges: ANSI/BHMA A156.1 butt hinges with number of hinge knuckles and other options as specified in the Door Hardware Sets.
 - 1. Quantity: Provide the following hinge quantity:
 - a. Two Hinges: For doors with heights up to 60 inches.
 - b. Three Hinges: For doors with heights 61 to 90 inches.
 - c. Four Hinges: For doors with heights 91 to 120 inches.
 - d. For doors with heights more than 120 inches, provide 4 hinges, plus 1 hinge for every 30 inches of door height greater than 120 inches.
 - 2. Hinge Size: Provide the following, unless otherwise indicated, with hinge widths sized for door thickness and clearances required:
 - a. Widths up to 3'0": 4-1/2" standard or heavy weight as specified.

- b. Sizes from 3'1" to 4'0": 5" standard or heavy weight as specified.
- 3. Hinge Weight and Base Material: Unless otherwise indicated, provide the following:
 - a. Exterior Doors: Heavy weight, non-ferrous, ball bearing or oil impregnated bearing hinges unless Hardware Sets indicate standard weight.

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- b. Interior Doors: Standard weight, steel, ball bearing or oil impregnated bearing hinges unless Hardware Sets indicate heavy weight.
- 4. Hinge Options: Comply with the following:
 - a. Non-removable Pins: With the exception of electric through wire hinges, provide set screw in hinge barrel that, when tightened into a groove in hinge pin, prevents removal of pin while door is closed; for all out-swinging lockable doors.
- 5. Manufacturers:
 - a. McKinney (MK) TA/T4A Series, 5-knuckle.

2.2 CONTINUOUS HINGES

- A. Continuous Geared Hinges: ANSI/BHMA A156.26 Grade 1-600 continuous geared hinge. with minimum 0.120-inch thick extruded 6063-T6 aluminum alloy hinge leaves and a minimum overall width of 4 inches. Hinges are non-handed, reversible and fabricated to template screw locations. Factory trim hinges to suit door height and prepare for electrical cut-outs.
 - 1. Manufacturers:.
 - a. Pemko (PE).

2.3 POWER TRANSFER DEVICES

- A. Concealed Quick Connect Electric Power Transfers: Provide concealed wiring pathway housing mortised into the door and frame for low voltage electrified door hardware. Furnish with Molex™ standardized plug connectors and sufficient number of concealed wires (up to 12) to accommodate the electrified functions specified in the Door Hardware Sets. Connectors plug directly to through-door wiring harnesses for connection to electric locking devices and power supplies. Wire nut connections are not acceptable.
 - 1. Manufacturers:
 - a. Securitron (SU) EL-EPT Series.
- B. Electric Door Wire Harnesses: Provide electric/data transfer wiring harnesses with standardized plug connectors to accommodate up to twelve (12) wires. Connectors plug directly to through-door wiring harnesses for connection to electric locking devices and power supplies. Provide sufficient number and type of concealed wires to accommodate electric function of specified hardware. Provide a connector for through-door electronic locking devices and from hinge to junction box above the opening. Wire nut connections are not acceptable. Determine the length required for each electrified hardware component for the door type, size and construction, minimum of two per electrified opening.

- Provide one each of the following tools as part of the base bid contract:
 - a. McKinney (MK) Electrical Connecting Kit: QC-R001.
 - b. McKinney (MK) Connector Hand Tool: QC-R003.

2. Manufacturers:

a. McKinney (MK) - QC-C Series.

2.4 DOOR OPERATING TRIM

- A. Flush Bolts and Surface Bolts: Provide products conforming to ANSI/BHMA A156.3 and A156.16, Grade 1.
 - 1. Flush bolts to be furnished with top rod of sufficient length to allow bolt retraction device location approximately six feet from the floor.

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- 2. Furnish dust proof strikes for bottom bolts.
- 3. Surface bolts to be minimum 8" in length and U.L. listed for labeled fire doors and U.L. listed for windstorm components where applicable.
- 4. Provide related accessories (mounting brackets, strikes, coordinators, etc.) as required for appropriate installation and operation.
- 5. Manufacturers:
 - a. Rockwood (RO).
- B. Door Push Plates and Pulls: ANSI/BHMA A156.6 door pushes and pull units of type and design specified in the Hardware Sets. Coordinate and provide proper width and height as required where conflicting hardware dictates.
 - 1. Push/Pull Plates: Minimum .050 inch thick, size as indicated in hardware sets, with beveled edges, secured with exposed screws unless otherwise indicated.
 - 2. Door Pull and Push Bar Design: Size, shape, and material as indicated in the hardware sets. Minimum clearance of 2 1/2-inches from face of door unless otherwise indicated.
 - 3. Offset Pull Design: Size, shape, and material as indicated in the hardware sets. Minimum clearance of 2 1/2-inches from face of door and offset of 90 degrees unless otherwise indicated.
 - 4. Pulls, where applicable, shall be provided with a 10" clearance from the finished floor on the push side to accommodate wheelchair accessibility.
 - 5. Fasteners: Provide manufacturer's designated fastener type as indicated in Hardware Sets. When through-bolt fasteners are in the same location as a push plate, countersink the fasteners flush with the door face allowing the push plate to sit flat against the door.
 - 6. Manufacturers:
 - a. Rockwood (RO).

2.5 CYLINDERS AND KEYING

- A. General: Cylinder manufacturer to have minimum (10) years experience designing secured master key systems and have on record a published security keying system policy.
 - 1. Manufacturers:

- - b. Match Existing, Field Verify.

Sargent Manufacturing (SA).

- c. No Substitution.
- B. Cylinder Types: Original manufacturer cylinders able to supply the following cylinder formats and types:
 - 1. Threaded mortise cylinders with rings and cams to suit hardware application.
 - 2. Rim cylinders with back plate, flat-type vertical or horizontal tailpiece, and raised trim ring.
 - 3. Bored or cylindrical lock cylinders with tailpieces as required to suit locks.
 - 4. Tubular deadlocks and other auxiliary locks.
 - 5. Mortise and rim cylinder collars to be solid and recessed to allow the cylinder face to be flush and be free spinning with matching finishes.

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- 6. Keyway: Match Facility Standard.
- C. Keying System: Each type of lock and cylinders to be factory keyed.
 - 1. Supplier shall conduct a "Keying Conference" to define and document keying system instructions and requirements.
 - 2. Furnish factory cut, nickel-silver large bow permanently inscribed with a visual key control number as directed by Owner.
 - 3. Existing System: Field verify and key cylinders to match Owner's existing system.
- D. Key Quantity: Provide the following minimum number of keys:
 - 1. Change Keys per Cylinder: Three (3).
 - 2. Master Keys (per Master Key Level/Group): Five (5).
- E. Key Registration List (Bitting List):
 - 1. Provide keying transcript list to Owner's representative in the proper format for importing into key control software.
 - 2. Provide transcript list in writing or electronic file as directed by the Owner.

2.6 MORTISE LOCKS AND LATCHING DEVICES

- A. Mortise Locksets, Grade 1 (Heavy Duty): Provide ANSI/BHMA A156.13, Series 1000, Operational Grade 1 Certified Products Directory (CPD) listed mortise locksets. Listed manufacturers shall meet all functions and features as specified herein.
 - 1. Manufacturers:
 - a. Sargent Manufacturing (SA) 8200 Series.

2.7 LOCK AND LATCH STRIKES

A. Strikes: Provide manufacturer's standard strike with strike box for each latch or lock bolt, with curved lip extended to protect frame, finished to match door hardware set, unless otherwise indicated, and as follows:

1. Flat-Lip Strikes: For locks with three-piece antifriction latchbolts, as recommended by manufacturer.

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- 2. Extra-Long-Lip Strikes: For locks used on frames with applied wood casing trim.
- 3. Aluminum-Frame Strike Box: Provide manufacturer's special strike box fabricated for aluminum framing.
- 4. Double-lipped strikes: For locks at double acting doors. Furnish with retractable stop for rescue hardware applications.
- B. Standards: Comply with the following:
 - 1. Strikes for Mortise Locks and Latches: BHMA A156.13.
 - 2. Strikes for Bored Locks and Latches: BHMA A156.2.
 - 3. Strikes for Auxiliary Deadlocks: BHMA A156.36.
 - 4. Dustproof Strikes: BHMA A156.16.

2.8 CONVENTIONAL EXIT DEVICES

- A. General Requirements: All exit devices specified herein shall meet or exceed the following criteria:
 - 1. At doors not requiring a fire rating, provide devices complying with NFPA 101 and listed and labeled for "Panic Hardware" according to UL305. Provide proper fasteners as required by manufacturer including sex nuts and bolts at openings specified in the Hardware Sets.
 - Where exit devices are required on fire rated doors, provide devices complying with NFPA 80 and with UL labeling indicating "Fire Exit Hardware". Provide devices with the proper fasteners for installation as tested and listed by UL. Consult manufacturer's catalog and template book for specific requirements.
 - 3. Except on fire rated doors, provide exit devices with hex key dogging device to hold the pushbar and latch in a retracted position. Provide optional keyed cylinder dogging on devices where specified in Hardware Sets.
 - 4. Devices must fit flat against the door face with no gap that permits unauthorized dogging of the push bar. The addition of filler strips is required in any case where the door light extends behind the device as in a full glass configuration.
 - 5. Lever Operating Trim: Where exit devices require lever trim, furnish manufacturer's heavy duty escutcheon trim with threaded studs for thru-bolts.
 - a. Lock Trim Design: As indicated in Hardware Sets, provide finishes and designs to match that of the specified locksets.
 - b. Where function of exit device requires a cylinder, provide a cylinder (Rim or Mortise) as specified in Hardware Sets.
 - 6. Vertical Rod Exit Devices: Where surface or concealed vertical rod exit devices are used at interior openings, provide as less bottom rod (LBR) unless otherwise indicated. Provide dust proof strikes where thermal pins are required to project into the floor.
 - 7. Narrow Stile Applications: At doors constructed with narrow stiles, or as specified in Hardware Sets, provide devices designed for maximum 2" wide stiles.
 - 8. Dummy Push Bar: Nonfunctioning push bar matching functional push bar.
 - 9. Rail Sizing: Provide exit device rails factory sized for proper door width application.
 - 10. Through Bolt Installation: For exit devices and trim as indicated in Door Hardware Sets.

- B. Conventional Push Rail Exit Devices (Heavy Duty): ANSI/BHMA A156.3, Grade 1 Certified Products Directory (CPD) listed exit devices. Listed manufacturers shall meet all functions and features as specified herein.
 - 1. Electromechanical exit devices shall have the following functions and features:
 - a. Universal Molex plug-in connectors that have standardized color-coded wiring and are field configurable in fail safe or fail secure and operate from 12vdc to 24vdc regulated.

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- b. EcoFlex or equivalent technology that reduces energy consumption up to 92% as certified by GreenCircle.
- c. Options to be available for request-to-exit or enter signaling, latchbolt and touchbar monitoring.
- d. Field configurable electrified trim to fail-safe or fail-secure that operates from 12-24VDC.
- e. Five-year limited warranty for electromechanical features.

2. Manufacturers:

a. Sargent Manufacturing (SA) - 80 Series.

2.9 SURFACE DOOR CLOSERS

- A. All door closers specified herein shall meet or exceed the following criteria:
 - 1. General: Door closers to be from one manufacturer, matching in design and style, with the same type door preparations and templates regardless of application or spring size. Closers to be non-handed with full sized covers.
 - 2. Standards: Closers to comply with UL-10C for Positive Pressure Fire Test and be U.L. listed for use of fire rated doors.
 - 3. Size of Units: Comply with manufacturer's written recommendations for sizing of door closers depending on size of door, exposure to weather, and anticipated frequency of use. Where closers are indicated for doors required to be accessible to the Americans with Disabilities Act, provide units complying with ANSI ICC/A117.1.
 - 4. Closer Arms: Provide heavy duty, forged steel closer arms unless otherwise indicated in Hardware Sets.
 - 5. Closers shall not be installed on exterior or corridor side of doors; where possible install closers on door for optimum aesthetics.
 - 6. Closer Accessories: Provide door closer accessories including custom templates, special mounting brackets, spacers and drop plates as required for proper installation. Provide through-bolt and security type fasteners as specified in the hardware sets.
- B. Door Closers, Surface Mounted (Heavy Duty): ANSI/BHMA A156.4, Grade 1 Certified Products Directory (CPD) listed surface mounted, heavy duty door closers with complete spring power adjustment, sizes 1 thru 6; and fully operational adjustable according to door size, frequency of use, and opening force. Closers to be rack and pinion type, one piece cast iron or aluminum alloy body construction, with adjustable backcheck and separate non-critical valves for closing sweep and latch speed control. Provide non-handed units standard..

1. Manufacturers:

a. Sargent Manufacturing (SA) - 351 Series.

2.10 ELECTROMECHANICAL DOOR OPERATORS

- A. Electromechanical Door Operators (High Traffic): Provide ANSI/BHMA A156.19 Certified Products Directory (CPD) listed low energy operators that are UL325/991 and UL10C certified and comply with requirements for the Americans with Disabilities Act (ADA). Operators shall accommodate openings up to 250 pounds and 48" wide.
 - 1. Provide operators with features as follows:
 - a. Non-handed with push and pull side mounting.
 - b. Activation by push button, hands-free or radio frequency devices.
 - c. Adjustable opening force and closing power.
 - d. Two-year limited warranty.
 - e. Wi-Fi interface where the operator is a secure, password protected WiFi hot spot with no connection to building's IT required.
 - 1) Simple setup with no app required.
 - 2) View status and make adjustments without removing the cover.
 - Built-in logic to support single use restroom applications with no external relay boards, logic modules, position switches required.

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- f. Mounting backplate to simplify and speed up installation.
- g. Integration with access control systems.
- 2. Operators shall have the following functionality:
 - a. Adjustable Hold Open: Amount of time a door will stay in the full open position after an activation.
 - b. Blow Open for Smoke Ventilation: Door opens when signal is received from alarm system allowing air or smoke to flow through opening. Door will stay open until signal from alarm system is stopped.
 - Emergency Interface Relay: Door closes and ignores any activation input until signal is discontinued.
 - d. Infinite Hold Open: Door will hold open at set position until power is turned off.
 - e. Latch Assist: At closed position, after an activation, the door is pulled in. After the door has closed, the door is pulled in to assist with latch release/engagement.
 - f. Obstruction Detection: Door closes if it hits an obstruction while opening; door will reverse to open position if it hits an obstruction while closing. Door will stop once it hits an obstruction and will rest against the obstruction until removed.
 - g. Open Delay: Delays operator opening for locking hardware.
 - h. Outside Wall Switch Disable: When contact is closed, outside wall switch is disabled.
 - i. Power Assist: Senses the door is being opened manually and applies small amount of power to assist the user in opening the door with force less than 5 lbs. The door opens only as far as it is moved manually, then closes once released.
 - j. Power Close: Additional force to assist door closing between 7° and 2°.
 - k. Presence Detector Input: Input for external sensor to detect presence at door open or close position only.
 - I. Push & Go: As the door is manually opened, the operator "senses" movement and opens door to the full-open position.
 - m. Selector Mode Switch: Off disables the signal inputs unless Blow Open is activated, on activates the signal inputs, hold open activates the unit (unless Blow Closed is activated) to the hold open position.

n. Vestibule Delay: When the wall switch is pressed, first door in vestibule will open. Second door will open once vestibule door delay has expired. Delay is adjustable.

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o. Executive Mode Feature: When the door receives an activation signal it opens and remains open until either a second signal is received, or the door is manually moved in closing direction.

3. Manufacturers:

- a. Norton Rixson (NO) 6300 Series.
- B. Electromechanical Sliding Door Operators (Moderate/High Traffic): Provide low energy operators that comply with requirements for the Americans with Disabilities Act (ADA). Operators shall accommodate openings up to 400 pounds and 36" wide. Listed manufacturers shall meet all functions and features as specified herein.
 - 1. Provide operators with functions and features as follows:
 - a. Adjustable 0-24 second open time.
 - b. Three operation modes: auto with open-assist, hold open and lock modes.
 - c. Activation via push button, keypad or wave sensor as specified.
 - d. Customizable DIP switches for power level for lightweight or heavy doors, slam-shut functionality and beeper alerts.

2. Manufacturers:

- a. Pemko (PE) PemkoMatic Series.
- b. No Substitution.

2.11 SURFACE MOUNTED CLOSER HOLDERS

- A. Motion Sensor Closer Holder Devices: ANSI A156.15, Grade 1 multi-point electromechanical closers with a programmable motion sensor allowing the door to open manually and remain open when one or more people travel through the opening. Listed manufacturers shall meet all functions and features as specified herein.
 - 1. Provide closer holders with functions and features as follows:
 - a. UL-cUL listed and UL10C compliant for positive pressure up to 3-hours.
 - b. Selectable hold open time and sensitivity.
 - c. Sensor that detects movement in both directions.
 - d. Push or pull side mounting with the closer mounted on the frame.
 - e. Standard separate and independent latch, sweep, and backcheck intensity valves.
 - f. Two-year limited warranty.

2. Manufacturers:

- a. Norton Rixson (NO) 7100SZ Series.
- b. LCN Door Closers (LC) 4310/4410HSA Series.
- c. No Substitution.

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- В. Electromagnetic Door Holders: ANSI A156.15, Grade 1 electromagnetic door holder/releases with a minimum 25 to 40 pounds holding power and fail-safe operation; power failure releases door to close.
 - 1. Manufacturers:
 - LCN Door Closers (LC) SEM7800 Series. a.
 - b. Norton Rixson (RF) - 900 Series.
 - Sargent Manufacturing (SA) 1560 Series. c.
 - d. No Substitution.

2.12 ARCHITECTURAL TRIM

A. **Door Protective Trim**

- 1. General: Door protective trim units to be of type and design as specified below or in the Hardware
- 2. Size: Fabricate protection plates (kick, armor, or mop) not more than 2" less than door width (LDW) on stop side of single doors and 1" LDW on stop side of pairs of doors, and not more than 1" less than door width on pull side. Coordinate and provide proper width and height as required where conflicting hardware dictates. Height to be as specified in the Hardware Sets.
- 3. Where plates are applied to fire rated doors with the top of the plate more than 16" above the bottom of the door, provide plates complying with NFPA 80. Consult manufacturer's catalog and template book for specific requirements for size and applications.
- 4. Protection Plates: ANSI/BHMA A156.6 protection plates (kick, armor, or mop), fabricated from the following:
 - a. Stainless Steel: 300 grade, 050-inch thick.
- 5. Options and fasteners: Provide manufacturer's designated fastener type as specified in the Hardware Sets. Provide countersunk screw holes.
- 6. Manufacturers:
 - Rockwood (RO). a.

2.13 DOOR STOPS AND HOLDERS

- General: Door stops and holders to be of type and design as specified below or in the Hardware Sets. A.
- В. Door Stops and Bumpers: ANSI/BHMA A156.16, Grade 1 door stops and wall bumpers. Provide wall bumpers, either convex or concave types with anchorage as indicated, unless floor or other types of door stops are specified in Hardware Sets. Do not mount floor stops where they will impede traffic. Where floor or wall bumpers are not appropriate, provide overhead type stops and holders.
 - 1. Manufacturers:
 - Rockwood (RO). a.

2.14 ARCHITECTURAL SEALS

A. General: Thresholds, weatherstripping, and gasket seals to be of type and design as specified below or in the Hardware Sets. Provide continuous weatherstrip gasketing on exterior doors and provide smoke, light, or sound gasketing on interior doors where indicated. At exterior applications provide non-corrosive fasteners and elsewhere where indicated.

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- B. Smoke Labeled Gasketing: Assemblies complying with NFPA 105 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for smoke control ratings indicated, based on testing according to UL 1784.
 - 1. Provide smoke labeled perimeter gasketing at all smoke labeled openings.
- C. Fire Labeled Gasketing: Assemblies complying with NFPA 80 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire ratings indicated, based on testing according to UL-10C.
 - 1. Provide intumescent seals as indicated to meet UL10C Standard for Positive Pressure Fire Tests of Door Assemblies, and NFPA 252, Standard Methods of Fire Tests of Door Assemblies.
- D. Sound-Rated Gasketing: Assemblies that are listed and labeled by a testing and inspecting agency, for sound ratings indicated.
- E. Replaceable Seal Strips: Provide only those units where resilient or flexible seal strips are easily replaceable and readily available from stocks maintained by manufacturer.
- F. Manufacturers:
 - 1. Pemko (PE).

2.15 ELECTRONIC ACCESSORIES

- A. Push-Button Switches: Industrial grade momentary or alternate contact, back-lighted push buttons with stainless-steel switch enclosures. 12/24 VDC bi-color illumination suitable for either flush or surface mounting.
 - 1. Manufacturers:
 - a. Alarm Controls (AK) TS Series.
 - b. Securitron (SU) PB Series.
- B. Linear Power Supplies: Filtered and regulated power for electrified hardware. Listed manufacturers shall meet all functions and features as specified herein.
 - 1. Provide power supplies with functions and features as follows:
 - a. 120VAC input with selectable output at 12VDC (6 amp) or 24VDC (3 amp).
 - b. Internal back-up battery (batteries not included) charging circuit.
 - c. Regulated and filtered, fuse protected outputs.
 - d. Each output can be individually turned on and off via a jumper.
 - e. Power status of each output is shown by an LED.

Fire alarm interface; dry contacts NO/NC, 9-33VDC, 3-15mA.

2. Manufacturers:

f.

- a. Sargent (SA) LSP Series.
- b. No Substitution.
- C. Switching Power Supplies: Provide the least number of power supplies at the appropriate amperage level sufficient to exceed the required total draw for the specified electrified hardware and access control equipment.

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D. Intelligent Switching Power Supplies: Provide the least number of power supplies at the appropriate amperage level sufficient to exceed the required total draw for the specified electrified hardware and access control equipment.

1. Manufacturers:

a. Securitron (SU) - AQL Series.

2.16 FABRICATION

A. Fasteners: Provide door hardware manufactured to comply with published templates generally prepared for machine, wood, and sheet metal screws. Provide screws according to manufacturers recognized installation standards for application intended.

2.17 FINISHES

- A. Standard: Designations used in the Hardware Sets and elsewhere indicate hardware finishes complying with ANSI/BHMA A156.18, including coordination with traditional U.S. finishes indicated by certain manufacturers for their products.
- B. Provide quality of finish, including thickness of plating or coating (if any), composition, hardness, and other qualities complying with manufacturer's standards, but in no case less than specified by referenced standards for the applicable units of hardware
- C. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine scheduled openings, with Installer present, for compliance with requirements for installation tolerances, labeled fire door assembly construction, wall and floor construction, and other conditions affecting performance.
- B. Notify architect of any discrepancies or conflicts between the door schedule, door types, drawings and scheduled hardware. Proceed only after such discrepancies or conflicts have been resolved in writing.

3.2 PREPARATION

- A. Hollow Metal Doors and Frames: Comply with ANSI/DHI A115 series.
- B. Wood Doors: Comply with ANSI/DHI A115-W series.

3.3 INSTALLATION

- A. Install each item of mechanical and electromechanical hardware and access control equipment to comply with manufacturer's written instructions and according to specifications.
 - 1. Installers are to be trained and certified by the manufacturer on the proper installation and adjustment of fire, life safety, and security products including: hanging devices; locking devices; closing devices; and seals.

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- B. Mounting Heights: Mount door hardware units at heights indicated in following applicable publications, unless specifically indicated or required to comply with governing regulations:
 - Standard Steel Doors and Frames: DHI's "Recommended Locations for Architectural Hardware for Standard Steel Doors and Frames."
 - 2. DHI TDH-007-20: Installation Guide for Doors and Hardware.
 - 3. Where indicated to comply with accessibility requirements, comply with ANSI A117.1 "Accessibility Guidelines for Buildings and Facilities."
 - 4. Provide blocking in drywall partitions where wall stops or other wall mounted hardware is located.
- C. Retrofitting: Install door hardware to comply with manufacturer's published templates and written instructions. Where cutting and fitting are required to install door hardware onto or into surfaces that are later to be painted or finished in another way, coordinate removal, storage, and reinstallation of surface protective trim units with finishing work specified in Division 9 Sections. Do not install surface-mounted items until finishes have been completed on substrates involved.
- D. Push Plates and Door Pulls: When through-bolt fasteners are in the same location as a push plate, countersink the fasteners flush with the door face allowing the push plate to sit flat against the door.
- E. Thresholds: Set thresholds for exterior and acoustical doors in full bed of sealant complying with requirements specified in Division 7 Section "Joint Sealants."
- F. Storage: Provide a secure lock up for hardware delivered to the project but not yet installed. Control the handling and installation of hardware items so that the completion of the work will not be delayed by hardware losses before and after installation.

3.4 ADJUSTING

A. Initial Adjustment: Adjust and check each operating item of door hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate as intended. Adjust door control devices to compensate for final operation of heating and ventilating equipment and to comply with referenced accessibility requirements.

3.5 CLEANING AND PROTECTION

A. Protect all hardware stored on construction site in a covered and dry place. Protect exposed hardware installed on doors during the construction phase. Install any and all hardware at the latest possible time frame.

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- B. Clean adjacent surfaces soiled by door hardware installation.
- C. Clean operating items as necessary to restore proper finish. Provide final protection and maintain conditions that ensure door hardware is without damage or deterioration at time of owner occupancy.

3.6 DOOR HARDWARE SETS

- A. The hardware sets represent the design intent and direction of the owner and architect. They are a guideline only and should not be considered a detailed hardware schedule. Discrepancies, conflicting hardware and missing items should be brought to the attention of the architect with corrections made prior to the bidding process. Omitted items not included in a hardware set should be scheduled with the appropriate additional hardware required for proper application and functionality.
 - 1. Quantities listed are for each pair of doors, or for each single door.
 - 2. The supplier is responsible for handing and sizing all products.
 - 3. Where multiple options for a piece of hardware are given in a single line item, the supplier shall provide the appropriate application for the opening.

Hardware Sets

Set: 1.0

Doors: 101-1, 101A-1, 129-1, C101-2

1	Continuous Hinge	CFM83SLI or F-HD1 SER		PE
1	Continuous Hinge	CFM83SLI or F-HD1		PE
1	Mullion	L980A	US28	SA
1	Rim Exit Device, Exit Only	55 56 AD8510 EO x Less Pull	US32D	SA
1	Rim Exit Device, Exit Only	AD8510 EO 113 x Less Pull	US32D	SA
2	Cylinder (Mullion)	980C1	US26D	SA
2	Pull	RM201 Mtg-Type 1XHD	US32D	RO
2	Surface Closer	TB 351 CPS	EN	SA
1	Automatic Opener	6331	689	NO
2	Sweep	3452APK		PE
1	Threshold	2005AT FHSL14SS		PE
1	ElectroLynx Harness	QC-C*** As Req'd		MK
1	ElectroLynx Harness	QC-C***P Per Door Size		MK

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2	Actuator Switch	671	NO
1	Power Supply	AQL	SU
1	Card Reader	Provided by Security Contractor	OT

Notes: Exit device with electric latch retraction on one leaf for access control and use with the automatic operator. Credential reader, request to exit by security contractor. Door is normally closed, latched and secured. Valid credential for ingress, free egress at all times. Co-ordinate with security and electrical. Perimeter weatherstrip by the aluminum door / frame supplier.

Set: 2.0

Doors: X101-3X

1	Continuous Hinge	CFM83SLI or F-HD1 SER		PE
1	Continuous Hinge	CFM83SLI or F-HD1		PE
2	Rim Exit Device, Exit Only	AD8510 EO 113 x Less Pull	US32D	SA
2	Pull	RM201 Mtg-Type 1XHD	US32D	RO
2	Surface Closer	351 CPS	EN	SA
2	Sweep	3452APK		PE
1	Threshold	2005AT FHSL14SS		PE
1	Power Supply	AQL		SU

Notes: Exit device with electric latch retraction on one leaf for access control. Door is normally closed, latched and secured. Free egress at all times. Perimeter weatherstrip by the aluminum door / frame supplier.

Set: 3.0

Doors: X101-4X

1	Continuous Hinge	CFM83SLI or F-HD1 SER		PE
1	Continuous Hinge	CFM83SLI or F-HD1		PE
1	Rim Exit Device, Exit Only	55 56 AD8510 EO x Less Pull	US32D	SA
1	Rim Exit Device, Exit Only	AD8510 EO 113 x Less Pull	US32D	SA
2	Pull	RM201 Mtg-Type 1XHD	US32D	RO
2	Surface Closer	351 CPS	EN	SA
1	Automatic Opener	6331	689	NO
2	Sweep	3452APK		PE
1	Threshold	2005AT FHSL14SS		PE
1	ElectroLynx Harness	QC-C*** As Req'd		MK
1	ElectroLynx Harness	QC-C***P Per Door Size		MK
2	Actuator Switch	671		NO

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1	Power Supply	AQL	SU
1	Card reader	Provided by Security Contractor	OT

Notes: Exit device with electric latch retraction on one leaf for access control and use with the automatic operator. Credential reader, request to exit by security contractor. Door is normally closed, latched and secured. Valid credential for ingress, free egress at all times. Co-ordinate with security and electrical. Perimeter weatherstrip by the aluminum door / frame supplier. Remote release controls are to be compatible with existing control modules. There are two existing control modules, one to be located at each desk. Coordinate with existing security system/supplier as required. (ADD 01)

Set: 4.0

Doors: 107-2

1	Continuous Hinge	CFM83HD1		PE
1	Continuous Hinge	CFM83HD1 SER		PE
1	Mullion	L980S	PC	SA
2	Rim Exit Device, Storeroom	8804 ETNJ	US32D	SA
1	Cylinder (Mullion)	980C1	US26D	SA
2	Surface Closer	351 CPS	EN	SA
2	Kick Plate	K1050 10" CSK BEV	US32D	RO
1	Gasketing	303APKTST		PE
1	Rain Guard	346C TKSP		PE
2	Sweep	3452APK		PE
1	Threshold	2005AT FHSL14SS		PE

Notes: Exit device. Door is normally closed, latched and secured. Free egress at all times.

<u>Set: 5.0</u>

Doors: 102-2, 103-2, 104-2, 105-2, 106-2, 108-2, 131-2, 132-2, 133-2, 134-2, 135-2, 136-2

1	Continuous Hinge	CFM83HD1		PE
1	Rim Exit Device, Exit Only	8810 EO	US32D	SA
1	Surface Closer	351 CPS	EN	SA
1	Kick Plate	K1050 10" CSK BEV	US32D	RO
1	Gasketing	303APKTST		PE
1	Rain Guard	346C TKSP		PE
1	Sweep	3452APK		PE
1	Threshold	2005AT FHSL14SS		PE

Notes: No door hardware on the outside.

Set: 6.0

6	Hinge, Full Mortise	TA2714 4-1/2" x 4-1/2"	US26D	MK
2	Flush Bolt	555	US26D	RO
1	Dust Proof Strike	570	US26D	RO
1	Storeroom/Closet Lock	8204 ONJ	US26D	SA
2	Wall Stop	409	US32D	RO
2	Silencer	608-RKW		RO

Set: 7.0

Doors: 115-1

6	Hinge, Full Mortise	TA2714 4-1/2" x 4-1/2"	US26D	MK
2	Push / Pull Set	RM251 Mtg-Type 12XHD Mtg-Type 11XHD	US32D	RO
2	Surface Closer	351 O/P	EN	SA
2	Wall Stop	409	US32D	RO
2	Silencer	608-RKW		RO

Set: 8.0

Doors: 129-2

4	Hinge, Full Mortise	TA2714 4-1/2" x 4-1/2"	US26D	MK
2	Hinge, Full Mortise	TA2714 QC 4-1/2" x 4-1/2"	US26D	MK
2	Push / Pull Set	RM251 Mtg-Type 12XHD Mtg-Type 11XHD	US32D	RO
2	Surface Closer	351 O/P	EN	SA
2	Wall Stop	409	US32D	RO
1	Automatic Opener	6331	689	NO
2	Actuator Switch	671		NO
1	ElectroLynx Harness	QC-C*** As Req'd		MK
1	ElectroLynx Harness	QC-C***P Per Door Size		MK
1	Power Supply	AQL		SU

Notes: Exit device with electric latch retraction for use with automatic operator. Coordinate with electrical.

Set: 9.0

Doors: C-X106-1

6 Hinge, Full Mortise, Hvy Wt T4A3786 4-1/2" x 4-1/2" US26D MK

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2	Surface Vert Rod Exit, Passage	12 8715 ETNJ	US32D	SA
2	Surface Closer	351 O/P	EN	SA
2	Electromagnetic Holder	998M	689	RF
1	Gasketing	S88BL		PE

Notes: Magnetic door holders to be wired to the alarm system to release the doors for closing in case of an emergency.

Set: 10.0

Doors:	11	2-1,	11	2-2	, 12	23-1
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3	Hinge, Full Mortise	TA2714 4-1/2" x 4-1/2"	US26D	MK
1	Storeroom/Closet Lock	8204 ONJ	US26D	SA
1	Surface Closer	351 O/P	EN	SA
1	Wall Stop	409	US32D	RO
1	Silencer	608-RKW		RO

Set: 11.0

Doors: 119-1, 125-1, 125-2, C102-1, C102-2, X132-1

3	Hinge, Full Mortise	TA2714 4-1/2" x 4-1/2"	US26D	MK
1	Office/Entry Lock	8205 ONJ	US26D	SA
1	Surface Closer	351 O/P	EN	SA
1	Wall Stop	409	US32D	RO
1	Silencer	608-RKW		RO

Set: 12.0

Doors: 116-1, 126-1, 128-1

3	Hinge, Full Mortise	TA2714 4-1/2" x 4-1/2"	US26D	MK
1	Office/Entry Lock	8205 ONJ	US26D	SA
1	Wall Stop	409	US32D	RO
1	Silencer	608-RKW		RO

Set: 13.0

Doors: 101A-2

2	Hinge, Full Mortise	TA2714 4-1/2" x 4-1/2"	US26D	MK
1	Hinge, Full Mortise	TA2714 QC 4-1/2" x 4-1/2"	US26D	MK
1	Rim Exit Device, Classroom	55 56 8813 ETNJ	US32D	SA
1	Automatic Opener	6331	689	NO

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1	Kick Plate	K1050 10" CSK BEV	US32D	RO
1	Wall Stop	409	US32D	RO
1	Silencer	608-RKW		RO
1	ElectroLynx Harness	QC-C*** As Req'd		MK
1	ElectroLynx Harness	QC-C***P Per Door Size		MK
2	Actuator Switch	671		NO
1	Power Supply	AQL		SU

Notes: Exit device with electric latch retraction for use with the automatic operator.

Set: 14.0

Doors: 124-1, 124-2

3	Hinge, Full Mortise	TA2714 4-1/2" x 4-1/2"	US26D	MK
1	Passage Latch	8215 ONJ	US26D	SA
1	Surface Closer	351 O/P	EN	SA
1	Wall Stop	409	US32D	RO
1	Silencer	608-RKW		RO

Set: 15.0

Doors: 122-1

3	Hinge, Full Mortise	TA2714 4-1/2" x 4-1/2"	US26D	MK
1	Classroom Lock	8237 ONJ	US26D	SA
1	Wall Stop	409	US32D	RO
3	Silencer	608-RKW		RO

Set: 16.0

Doors: 102-1, 103-1, 104-1, 105-1, 106-1, 108-1, 131-1, 132-1, 133-1, 134-1, 135-1, 136-1

3	Hinge, Full Mortise	TA2714 4-1/2" x 4-1/2"	US26D	MK
1	Classroom Lock	V21 8237 ONJ	US26D	SA
1	Surface Closer	351 O/P	EN	SA
1	Kick Plate	K1050 10" CSK BEV	US32D	RO
1	Wall Stop	409	US32D	RO
3	Silencer	608-RKW		RO

Notes: Classroom Indicators on both sides.

Set: 17.0

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Doors: 114-1, T117-1, T118-1

3	Hinge, Full Mortise	TA2714 4-1/2" x 4-1/2"	US26D	MK
1	Privacy Lock w/ Indicator	V21 8265 ONJ	US26D	SA
1	Surface Closer	351 O/P	EN	SA
1	Wall Stop	409	US32D	RO
1	Silencer	608-RKW		RO

Set: 18.0 (ADD 04)

Doors: T102-1, T103-1, T104-1, T105-1, T106-1, T108-1, T131-1, T132-1, T133-1, T134-1, T135-1, T136-1

4	Hinge, Full Mortise	TA2714 4-1/2" x 4-1/2"	US26D	MK
2	Wall Stop	409	US32D	RO
1	Gasketing	S88BL		PE
1	Surface Bolt	630-4	US26D	RO
1	Passage Latch	8215 ONJ	US26D	SA

Notes: Passage Lockset.

Set: 19.0

Doors: X101-3

1	Continuous Hinge	CFM83SLF-HD1		PE
1	Continuous Hinge	CFM83SLF-HD1 EL-EPT		PE
2	Rim Exit Device, Exit Only	AD8510 EO 113 x Less Pull	US32D	SA
2	Surface Closer	TB 351 CPS	EN	SA
2	Kick Plate	K1050 10" CSK BEV	US32D	RO
2	Security Lite Kit	BR-7 22" x 60" TORX GT-118	BPR	NG

Notes: Level 3 Bullet Resistant Opening. Entry by key when locked. Free egress at all times.

Set: 20.0

Doors: X101-4

1	Continuous Hinge	CFM83SLF-HD1		PE
1	Continuous Hinge	CFM83SLF-HD1 EL-EPT		PE
1	Rim Exit Device, Exit Only	55 56 AD8510 EO x Less Pull	US32D	SA
1	Rim Exit Device, Exit Only	AD8510 EO 113 x Less Pull	US32D	SA
1	Surface Closer	TB 351 CPS	EN	SA
1	Automatic Opener	6331	689	NO
2	Kick Plate	K1050 10" CSK BEV	US32D	RO

1	ElectroLynx Harness	QC-C006P	MK
1	ElectroLynx Harness	QC-C3000P	MK
2	Actuator Switch	671	NO
1	Power Supply	AQL	SU
2	Door Release	TS-18	AK

Notes: Level 3 Bullet Resistant Opening. Card reader by the security contractor. Entry by valid input at reader to retract the latch, remote release by reception, or manual key when locked. Free egress at all times. release buttons for each admin desk.

END OF SECTION 087100

SECTION 08 4313 - ALUMINUM-FRAMED STOREFRONTS PART 1 GENERAL

1.1. SECTION INCLUDES

- A. Aluminum-framed storefront, with vision glass.
- B. Infill panels of metal.
- C. Aluminum doors and frames.
- D. Weatherstripping.

1.2. RELATED REQUIREMENTS

- A. Section 08 7100 Door Hardware: Hardware items other than specified in this section.
- B. Section 08 8000 Glazing: Glass and glazing accessories.

1.3. REFERENCE STANDARDS

- A. AAMA CW-10 Care and Handling of Architectural Aluminum from Shop to Site; 2015.
- B. AAMA 501.2 Quality Assurance and Diagnostic Water Leakage Field Check of Installed Storefronts, Curtain Walls, and Sloped Glazing Systems; 2015.
- C. AAMA 503 Voluntary Specification for Field Testing of Newly Installed Storefronts, Curtain Walls and Sloped Glazing Systems; 2014.
- D. AAMA 611 Specification for Anodized Architectural Aluminum; 2024.
- E. AAMA 1503 Voluntary Test Method for Thermal Transmittance and Condensation Resistance of Windows, Doors and Glazed Wall Sections; 2009.
- F. AAMA 2604 Voluntary Specification, Performance Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels (with Coil Coating Appendix); 2022.
- G. ASTM A36/A36M Standard Specification for Carbon Structural Steel; 2019.
- H. ASTM A123/A123M Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products; 2017.
- I. ASTM B209/B209M Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate; 2021a.
- J. ASTM B221 Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes; 2021.
- K. ASTM B221M Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes (Metric); 2021.
- L. ASTM E283/E283M Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Skylights, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen; 2019.
- M. ASTM E330/E330M Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference; 2014 (Reapproved 2021).
- N. ASTM E331 Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference; 2000 (Reapproved 2023).
- O. ASTM E1105 Standard Test Method for Field Determination of Water Penetration of Installed Exterior Windows, Skylights, Doors, and Curtain Walls, by Uniform or Cyclic Static Air Pressure Difference; 2015 (Reapproved 2023).

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SSPC-Paint 20 - Zinc-Rich Coating (Type I - Inorganic, and Type II - Organic); 2019.

ADMINISTRATIVE REQUIREMENTS 1.4.

- A. Coordinate with installation of other components that comprise the exterior enclosure.
- B. Preinstallation Meeting: Conduct a preinstallation meeting one week before starting work of this section; require attendance by all affected installers.

SUBMITTALS 1.5.

- See Section 01 3000 Administrative Requirements for submittal procedures. A.
- В. Product Data: Provide component dimensions, describe components within assembly, anchorage and fasteners, glass and infill, internal drainage details.
- C. Shop Drawings: Indicate system dimensions, framed opening requirements and tolerances, affected related work, expansion and contraction joint location and details, and field welding required.
- D. Selection Samples: Manufacturer's color charts indicating full range of available colors and textures of infill panels and color annodized finish systems.
- E. Verification Samples: Submit two samples 12x12 inches in size illustrating color and finish of infill panel assembly.
- F. Design Data: Provide framing member structural and physical characteristics, engineering calculations, and dimensional limitations.
- G. Hardware Schedule: Complete itemization of each item of hardware to be provided for each door, cross-referenced to door identification numbers in Contract Documents.
- Н. Field Quality Control Submittals: Report of field testing for water penetration and air leakage.
- ١. Designer's qualification statement.
- J. Manufacturer's qualification statement.
- K. Installer's qualification statement.
- L. Warranty: Submit manufacturer warranty and ensure forms have been completed in Owner's name and registered with manufacturer.

1.6. **QUALITY ASSURANCE**

- Α. Designer Qualifications: Design structural support framing components under direct supervision of a Professional Structural Engineer experienced in design of this Work and licensed in the State of Illinois.
- В. Manufacturer Qualifications: Company specializing in performing work of type specified and with at least three years of documented experience.
- C. Installer Qualifications: Company specializing in performing work of type specified and with at least three years of documented experience.

1.7. DELIVERY, STORAGE, AND HANDLING

- A. Handle products of this section in accordance with AAMA CW-10.
- В. Protect finished aluminum surfaces with wrapping. Do not use adhesive papers or sprayed coatings that bond to aluminum when exposed to sunlight or weather.

1.8. FIELD CONDITIONS

A. Do not install sealants when ambient temperature is less than 40 degrees F. Maintain this minimum temperature during and 48 hours after installation.

1.9. WARRANTY

- A. See Section 01 7800 Closeout Submittals for additional warranty requirements.
- B. Correct defective Work within a five year period after Date of Substantial Completion.
- C. Provide five year manufacturer warranty against failure of glass seal on insulating glass units, including interpane dusting or misting. Include provision for replacement of failed units.
- D. Provide 20 year manufacturer warranty against excessive degradation of exterior finish. Include provision for replacement of units with excessive fading, chalking, or flaking.

1.10. MAINTENANCE SERVICE

- A. Entrance Door Hardware:
 - Maintenance Tools and Instructions: Furnish a complete set of specialized tools and maintenance instructions as needed for Owner's continued adjustment, maintenance, and removal and replacement of entrance door hardware.
 - 2. Initial Maintenance Service: Beginning at Substantial Completion, provide six months' full maintenance by skilled employees of entrance door hardware Installer. Include quarterly preventive maintenance, repair or replacement of worn or defective components, lubrication, cleaning, and adjusting as required for proper entrance door hardware operation at rated speed and capacity. Provide parts and supplies the same as those used in the manufacture and installation of original equipment.

PART 2 PRODUCTS

- 2.1. BASIS OF DESIGN -- FRAMING FOR INSULATING GLAZING
 - A. Front-Set Style, Thermally-Broken:
 - 1. Dual Thermal Barrier.
 - 2. Vertical & Horizontal Mullion Dimensions: 2 inches wide by 4-1/2 inches deep.
 - a. Location: See drawings.
 - 3. Vertical & Horizontal Mullion Dimensions: 6 inches wide by 4-1/2 inches deep (ADD 04).
 - a. Location: In Gross Motor 101. See drawings.
- 2.2. BASIS OF DESIGN -- FRAMING FOR MONOLITHIC GLAZING
 - A. Center-Set Style, Not Thermally-Broken:
 - Vertical Mullion Dimensions: 2 inches wide by 4 1/2 inches deep.
 - Location: See drawings.
- 2.3. BASIS OF DESIGN -- SWINGING DOORS
 - A. Medium Stile, Insulating Glazing, Thermally-Broken:
 - 1. Thickness: 2-1/4 inches.
- 2.4. ALUMINUM-FRAMED STOREFRONT
 - A. Aluminum-Framed Storefront: Factory fabricated, factory finished aluminum framing members with infill, and related flashings, anchorage and attachment devices.
 - 1. Glazing Rabbet: For 1 inch insulating glazing.
 - 2. Glazing Rabbet: For 1/4 inch monolithic glazing.
 - 3. Finish: Class I color anodized.
 - a. Factory finish all surfaces that will be exposed in completed assemblies.
 - b. Touch-up surfaces cut during fabrication so that no natural aluminum is visible in completed assemblies, including joint edges.

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- c. Coat concealed metal surfaces that will be in contact with cementitious materials or dissimilar metals with bituminous paint.
- 4. Finish Color: As selected by Architect from manufacturer's standard line.
- 5. Fabrication: Joints and corners flush, hairline, and weatherproof, accurately fitted and secured; prepared to receive anchors and hardware; fasteners and attachments concealed from view; reinforced as required for imposed loads.
- 6. Construction: Eliminate noises caused by wind and thermal movement, prevent vibration harmonics, and prevent "stack effect" in internal spaces.
- 7. System Internal Drainage: Drain to the exterior by means of a weep drainage network any water entering joints, condensation occurring in glazing channel, and migrating moisture occurring within system.
- 8. Expansion/Contraction: Provide for expansion and contraction within system components caused by cycling temperature range of 170 degrees F over a 12 hour period without causing detrimental effect to system components, anchorages, and other building elements.
- 9. Movement: Allow for movement between storefront and adjacent construction, without damage to components or deterioration of seals.
- 10. Perimeter Clearance: Minimize space between framing members and adjacent construction while allowing expected movement.
- Maintain continuous air barrier and/or vapor retarder seal throughout assembly, primarily in line with inside pane of glazing and inner sheet of infill panel, and heel bead of glazing compound.

B. Performance Requirements

- Wind Loads: Design and size components to withstand the specified load requirements without damage or permanent set, when tested in accordance with ASTM E330/E330M, using loads 1.5 times the design wind loads and 10 second duration of maximum load.
 - a. Member Deflection: Limit member deflection to 1/175 in any direction, with full recovery of glazing materials.
- 2. Water Penetration Resistance on Manufactured Assembly: No uncontrolled water on interior face, when tested in accordance with ASTM E331 at pressure differential of 8 psf.
- 3. Air Leakage: 0.06 cfm/sq ft maximum leakage of storefront wall area when tested in accordance with ASTM E283/E283M at 1.57 psf pressure difference.
- 4. Condensation Resistance Factor of Framing: 50, minimum, measured in accordance with AAMA 1503.
- 5. Overall U-value Including Glazing: 0.38 Btu/(hr sq ft deg F), maximum.

2.5. COMPONENTS

- A. Aluminum Framing Members: Tubular aluminum sections, thermally broken with interior section insulated from exterior, drainage holes and internal weep drainage system.
 - 1. Glazing Stops: Flush.
- B. Glazing: See Section 08 8000.
- C. Infill Panels: Insulated, aluminum, with edges formed to fit glazing channel and sealed.
 - 1. Total Nominal Thickness: 1 inch.
 - 2. Face Sheet: 4 mm thick.
 - 3. Exterior substrate: Cement board.
 - 4. Reinforcement Layer: Manufacturer's standard reinforced thermoset plastic.
 - 5. Core: Polyisocyanurate insulation core.

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- Interior substrate: Tempered hardboard.
- 7. Back Sheet: 4 mm thick.
- 8. Finish: Match existing infill panels.
- 9. Exterior Finish: High performance organic coatings.
- 10. Interior Finish: High performance organic coatings.
- 11. Products:
 - Basis of Design: Mapes Architectural Panels; Mapes-R Infill Panels: a. www.mapespanels.com.
 - b. Nudo Products, Inc; Endurex 500: www.nudo.com.
 - Substitutions: See Section 01 6000 Product Requirements. c.
- D. Swing Doors: Glazed aluminum.
 - 1. Thickness: 1-3/4 inches - Interior non-insulated doors.
 - 2. Thickness; 2 1/4 inches - Exterior insulated doors.
 - Top Rail: 4 inches wide.
 - 4. Vertical Stiles: 4-1/2 inches wide.
 - 5. Bottom Rail: 10 inches wide.
 - 6. Glazing Stops: Square.
 - 7. Finish: Same as storefront.
- E. Operable Sash: Aluminum project-out awning; finished to match storefront; turn handle latch with manufacturer's standard insect screen.

MATERIALS 2.6.

- A. Extruded Aluminum: ASTM B221 (ASTM B221M).
- B. Sheet Aluminum: ASTM B209/B209M.
- C. Structural Steel Sections: ASTM A36/A36M; galvanized in accordance with requirements of ASTM A123/A123M.
- Fasteners: Stainless steel. D.
- E. Exposed Flashings: Aluminum sheet, 20 gauge, 0.032 inch minimum thickness; finish to match framing members.
- F. Concealed Flashings: Galvanized steel, 26 gauge, 0.0179 inch minimum base metal thickness.
- G. Sealant for Setting Thresholds: Non-curing butyl type.
- Н. Glazing Gaskets: Type to suit application to achieve weather, moisture, and air infiltration requirements.
- ١. Glazing Accessories: See Section 08 8000.
- J. Touch-Up Primer for Galvanized Steel Surfaces: SSPC-Paint 20, zinc rich.

2.7. FINISHES

- A. Class I Color Anodized Finish: AAMA 611 AA-M12C22A42 Integrally colored anodic coating not less than 0.7 mils thick.
- B. Infill Panels: High Performance Organic Coating: AAMA 2604; multiple coats, thermally cured fluoropolymer system.
- C. Color: As selected by Architect/Engineer from manufacturer's standard range.
- Touch-Up Materials: As recommended by coating manufacturer for field application.

2.8. HARDWARE

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- For each door, include weatherstripping and sill sweep strip.
- В. Other Door Hardware: See Section 08 7100.
- C. Weatherstripping at exterior doors: Wool pile, continuous and replaceable; provide on all doors.
- D. Silencers at interior doors: Provide silencers at stops to prevent metal-to-metal contact. Install three silencers on strike jamb of single-door frames and two silencers on head of frames for pairs of doors.
- E. Sill Sweep Strips at exterior doors: Resilient seal type, retracting, of neoprene; provide on all doors.

PART 3 EXECUTION

3.1. EXAMINATION

- A. Verify dimensions, tolerances, and method of attachment with other work.
- В. Verify that storefront wall openings and adjoining water-resistive and/or air barrier seal materials are ready to receive work of this section.

3.2. **INSTALLATION**

- Install wall system in accordance with manufacturer's instructions. A.
- В. Attach to structure to permit sufficient adjustment to accommodate construction tolerances and other irregularities.
- C. Provide alignment attachments and shims to permanently fasten system to building structure.
- D. Align assembly plumb and level, free of warp or twist. Maintain assembly dimensional tolerances, aligning with adjacent work.
- E. Provide thermal isolation where components penetrate or disrupt building insulation.
- F. Install sill flashings. Turn up ends and edges; seal to adjacent work to form water tight dam.
- G. Where fasteners penetrate sill flashings, make watertight by seating and sealing fastener heads to sill flashing.
- Н. Pack fibrous insulation in shim spaces at perimeter of assembly to maintain continuity of thermal barrier.
- I. Install operating sash.
- J. Set thresholds in bed of sealant and secure.
- K. Install hardware using templates provided.
 - 1. See Section 08 7100 for hardware installation requirements.
- L. Install glass and infill panels using glazing method required to achieve performance criteria; see Section 08 8000.
- M. Do not install infill panels that are observed to be defective, including warped, bowed, dented, scratched and delaminating components.
- N. Touch-up minor damage to factory applied finish; replace components that cannot be satisfactorily repaired.

3.3. **TOLERANCES**

- A. Maximum Variation from Plumb: 0.06 inch per 3 feet non-cumulative or 0.06 inch per 10 feet, whichever is less.
- В. Maximum Misalignment of Two Adjoining Members Abutting in Plane: 1/32 inch.

3.4. FIELD QUALITY CONTROL

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- A. See Section 01 4000 Quality Requirements for independent field testing and inspection requirements, and requirements for monitoring quality of specified product installations.
- B. Provide field testing of installed storefront system by independent laboratory in accordance with AAMA 503 during construction process and before installation of interior finishes.
 - 1. Perform a minimum of two tests in each designated area as indicated on drawings.
 - 2. Conduct tests in each area prior to 10 percent and 50 percent completion of this work.
 - 3. Field test for water penetration in accordance with ASTM E1105 with uniform static air pressure difference (Procedure A) not less than 4.18 psf.
 - a. Maximum allowable rate of water penetration in 15-minute test is 0.5 ounce that is not contained in an area with provisions to drain to exterior, or collected on surface of interior horizontal framing member.
- C. Repair or replace storefront components that have failed designated field testing, and retest to verify performance complies with specified requirements.

3.5. ADJUSTING

A. Adjust operating hardware and sash for smooth operation.

3.6. CLEANING

- A. Remove protective material from pre-finished aluminum surfaces.
- B. Wash down surfaces with a solution of mild detergent in warm water, applied with soft, clean wiping cloths, and take care to remove dirt from corners and to wipe surfaces clean.

3.7. PROTECTION

A. Protect installed products from damage until Date of Substantial Completion.

END OF SECTION

SECTION 09 6500 - RESILIENT FLOORING

PART 1 GENERAL

1.1. SECTION INCLUDES

- A. Resilient tile flooring.
- B. Resilient base.
- C. Resilient stair accessories.
- D. Installation accessories.

1.2. RELATED REQUIREMENTS

A. Section 09 0561 - Common Work Results for Flooring Preparation: Removal of existing floor coverings, cleaning, and preparation.

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1.3. REFERENCE STANDARDS

- A. ASTM F1700 Standard Specification for Solid Vinyl Floor Tile; 2020.
- B. ASTM F1861 Standard Specification for Resilient Wall Base; 2021.

1.4. SUBMITTALS

- A. See Section 01 3000 Administrative Requirements for submittal procedures.
- B. Product Data: Provide data on specified products, describing physical and performance characteristics; including sizes, patterns and colors available; and installation instructions.
- C. Verification Samples: Submit two samples, 6 by 6 inch in size, minimum, illustrating color and pattern for each resilient flooring product specified.
- D. Installer's Qualification Statement.
- E. Maintenance Data: Include maintenance procedures, recommended maintenance materials, and suggested schedule for cleaning, stripping, and re-waxing.
- F. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
 - 1. See Section 01 6000 Product Requirements, for additional provisions.
 - 2. Extra Flooring Material: 10 square feet of each type and color.
 - 3. Extra Wall Base: 25 linear feet of each type and color.
 - 4. Extra Stair Materials: Quantity equivalent to 5 percent of each type and color.

1.5. QUALITY ASSURANCE ADD 04

1.6. DELIVERY, STORAGE, AND HANDLING

- A. Upon receipt, immediately remove any shrink-wrap and check materials for damage and the correct style, color, quantity and run numbers.
- B. Store all materials off of the floor in an acclimatized, weather-tight space.
- C. Maintain temperature in storage area between 55 degrees F and 90 degrees F.

1.7. FIELD CONDITIONS

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

PART 2 PRODUCTS

2.1. TILE FLOORING

A. Luxury Vinyl Tile - Type LVT-1: Printed film type, with transparent or translucent wear layer; acoustic

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- interlayer or backing.Manufacturers:
 - a. Allied Tile; Paramount Woodgrain Collection, www.alliedtile.com.
- 2. Minimum Requirements: Comply with ASTM F1700, Class III.
- 3. Plank Tile Size: 7.2 by 48 inch.
- 4. Wear Layer Thickness: 0.020 inch.
- Total Thickness: 0.10 inch.
- 6. Tile Edge: Straight.
- B. Luxury Vinyl Tile Type LVT-2, LVT-3, LVT-4, LVT-5, LVT-6, LVT-7: Printed film type, with transparent or translucent wear layer; acoustic interlayer or backing.
 - 1. Manufacturers:
 - a. AVA Flooring; 2SPRK,www.avaflor.com.
 - 2. Minimum Requirements: Comply with ASTM F1700, Class III.
 - 3. Square Tile Size: 18 by 18 inch, nominal.
 - 4. Wear Layer Thickness: 0.022 inch.
 - 5. Total Thickness: 0.10 inch.
 - 6. Tile Edge: Straight.
- C. Rubber Tile: Type RUB-1, RUB-4, RUB-5 Recycled SBR (styrene butadiene rubber) and colored EPDM (ethylene propylene diene monomer) and recycled Nike shoe rubber granules with urethane binder.
 - 1. Manufacturers:
 - a. Hero Flooring; 3Force; www.heroflooring.com.
 - 2. Thickness: 6mm.
 - 3. Tile Edge: Straight.
 - 4. Color: As indicated on drawings. ADD 04
- D. Rubber Tile: Type RUB-2, RUB-3, RUB-6, RUB-7 Recycled SBR (styrene butadiene rubber) and colored EPDM (ethylene propylene diene monomer) and recycled Nike shoe rubber granules with urethane binder.
 - 1. Manufacturers:
 - a. Hero Flooring; Razzo; www.heroflooring.com.
 - 2. Thickness: 6mm.
 - 3. Tile Edge: Straight.
 - 4. Color: As indicated on drawings. ADD 04

2.2. STAIR COVERING

- A. Stair Risers Type [RB-2]: Full height and width of tread in one piece, matching treads in material and color.
 - 1. Manufacturers:
 - a. Johnsonite, a Tarkett Company: www.johnsonite.com/#sle.
 - 2. Thickness: 0.080 inch.
- B. Stair Nosings Type [RB-3]: 1-1/2 inch horizontal return, 1-1/8 inch vertical return, raidius for stage edge. ADD 04
 - 1. Manufacturers:
 - a. Johnsonite, a Tarkett Company: www.johnsonite.com/#sle.
 - 2. Material: Rubber.

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3. Color: As scheduled.

2.3. RESILIENT BASE

A. Resilient Base - Type RB-1: ASTM F1861, Type TS, rubber, vulcanized thermoset; style as scheduled.

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- Manufacturers:
 - a. Johnsonite, a Tarkett Company; Baseworks: www.johnsonite.com/#sle.
- 2. Height: 4 inches.
- 3. Thickness: 0.125 inch.
- 4. Finish: Satin.

2.4. ACCESSORIES

- A. Subfloor Filler: White premix latex; type recommended by adhesive material manufacturer.
- B. Primers, Adhesives, and Seam Sealer: Waterproof; types recommended by flooring manufacturer.
- C. Adhesive for Vinyl and Rubber Flooring; types recommended by flooring manufacturer
- D. Moldings, Transition and Edge Strips: Metal.
 - 1. Manufacturers:
 - a. Schluter Systems; VINPRO; www.schlutersystems.com.
 - b. Substitutions: See Section 01 6000 Product Requirements.
- E. Sealer and Wax: Types recommended by flooring manufacturer.

2.5. WATER JET CUTTING SERVICES

- A. For products and areas indicated, provide waterjet cutting to achienve seamless radius transitions for luxury vinyl flooring of different types.
- B. Verify all dimensions before final cutting.
- C. Number all tiles and provide installation map/guide for installers.

PART 3 EXECUTION

3.1. EXAMINATION

- A. Verify that surfaces are flat to tolerances acceptable to flooring manufacturer, free of cracks that might telegraph through flooring, clean, dry, and free of curing compounds, surface hardeners, and other chemicals that might interfere with bonding of flooring to substrate.
- B. Verify that wall surfaces are smooth and flat within the tolerances specified for that type of work, are dust-free, and are ready to receive resilient base.
- C. Cementitious Subfloor Surfaces: Verify that substrates are ready for resilient flooring installation by testing for moisture and alkalinity (pH).
 - 1. Test in accordance with Section 09 0561.
 - 2. Obtain instructions if test results are not within limits recommended by resilient flooring manufacturer and adhesive materials manufacturer.
 - 3. Follow moisture and alkalinity remediation procedures in Section 09 0561.

3.2. PREPARATION

A. Prepare floor substrates for installation of flooring in accordance with Section 09 0561.

3.3. INSTALLATION - GENERAL

- A. Starting installation constitutes acceptance of subfloor conditions.
- B. Install in accordance with manufacturer's written instructions.

C. Scribe flooring to walls, columns, cabinets, floor outlets, and other appurtenances to produce tight joints.

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- D. Install flooring in recessed floor access covers, maintaining floor pattern.
- E. Waterjet cut flooring: Align flooring pattern according to the design intent shown in the drawings. Follow numbered installation guide and map from waterjet cutting manufacturer. Lay tiles out before installing. Provide adjustments and scribe as required. Install in accordance to manufacturer's written instructions.

3.4. INSTALLATION - TILE FLOORING

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

3.5. INSTALLATION - RESILIENT BASE

- A. Fit joints tightly and make vertical. Maintain minimum dimension of 18 inches between joints.
- B. Install base on solid backing. Bond tightly to wall and floor surfaces.

3.6. INSTALLATION - STAIR COVERINGS

A. Adhere over entire surface. Fit accurately and securely.

END OF SECTION

SECTION 09 6566 - RESILIENT ATHLETIC FLOORING NEW SPEC SECTION - ADD 04 PART 1 GENERAL

1.1. SECTION INCLUDES

A. Fluid-applied polyurethane flooring over rubberized base mat.

1.2. REFERENCE STANDARDS

A. ASTM D412 - Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers--Tension; 2016 (Reapproved 2021).

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B. ASTM D2240 - Standard Test Method for Rubber Property--Durometer Hardness; 2015 (Reapproved 2021).

1.3. ADMINISTRATIVE REQUIREMENTS

A. Preinstallation Meeting: Convene a preinstallation meeting one week before starting work of this section; require attendance by all affected installers; review preparation and installation procedures and coordination and scheduling necessary for related work.

1.4. SUBMITTALS

- A. See Section 01 3000 Administrative Requirements, for submittal procedures.
- B. Product Data: Manufacturer's printed data sheets for products specified. Manufacturer's color charts for flooring materials specified and game line paints, indicating full range of colors and textures available.
- C. Verification Samples: Actual flooring material specified, not less than 12 inch square, mounted on solid backing.
- D. Concrete Guidelines: Submit copy of synthetic concrete recommendations for correct preparation, finishing and testing of concrete subfloor surfaces to receive granulated base mat and polyurethane floor system.
- E. Manufacturer's Instructions: Indicate standard and special installation procedures.
- F. Manufacturer's qualification statement.
- G. Installer's qualification statement.
- H. Maintenance Literature: Submit copy of product maintenance instructions.

1.5. QUALITY ASSURANCE

A. Installer Qualifications: Company specializing in performing work of the type specified and with at least five years of documented experience. Submit reference letters attesting that flooring contractor and field personnel have be properly trained to perform work per specifications and manufacturer's installation instructions. Provide a reference list of three individuals for whom installer has worked on projects of similiar size and magnitude.

1.6. DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to project site in unopened containers clearly labeled with manufacturer's name and identification of contents.
- B. Store materials in dry and clean location until needed for installation. During installation, handle in a manner that will prevent marring and soiling of finished surfaces.

1.7. FIELD CONDITIONS

A. Maintain temperature in spaces to receive adhesively installed resilient flooring within range of 70 to 95 degrees F for not less than 48 hours before the beginning of installation and for not less than

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 - 48 hours after installation has been completed. Subsequently, do not allow temperature in installed spaces to drop below 50 degrees F or to go above 100 degrees F.
 - В. Permanent heat, light and ventilation shall be installed and operating during and after installation. Environmental temperatures must average a minimum of 65 degress Fahrenheit for one full week proceeding, throughout and 72 hours following application.
 - C. After floors are finished, area to be kept locked by general contractor to allow curing time for the paint and finish system(s). No other trades are to be allowed on floor until it is accepted in writing by Owner.

1.8. WARRANTY

A. Provide manufacturer's warranty of resilient athletic flooring system for a period of 25 years to be free from manufacturing defects. This warranty is in lieu of all other warranties, expressed or implied including but not limited to any warranty of merchantability or fitness for a particular purpose and of any other obligations on the part of the manufacturer. In the event of a breach of any warranty, the liability of the manufacturer shall be limited to repairing or replacing the specified material and system components supplied by the manufacturer and proven to be defective in manufacture, and shall not include any other damages, either direct or consequential.

PART 2 PRODUCTS

2.1. FLUID-APPLIED ATHLETIC FLOORING

- Α. Manufacturers: All products by the same manufacturer.
 - Robbins Sports Surfaces; Pulastic 90 Classic: www.robbinsfloor.com/#sle.
- В. Polyurethane Flooring Over Rubberized Base Mat, Type SPT-1, SPT-2, SPT-3, SPT-4, SPT-5, SPT-6, SPT-7:
 - 1. Total System Thickness: Minimum 1/4 inch; with minimum 0.07 inch polyurethane.
 - 2. Adhesive: Manufacturer's standard two-component polyurethane adhesive.
 - Shock Pad: Prefabricated rubber mat of recycled rubber granules in polyurethane binder, 7mm 3. thick.
 - Pad Sealer: Manufacturer's standard two-component polyurethane compound designed to 4. seal base mat before application of resin topcoat.
 - Resin: Two-component, solid, pigmented, self-leveling polyurethane without fillers, zero 5. mercury formulation, with properties as follows:
 - Tensile strength: Minimum 1500 psi, per ASTM D412.
 - b. Durometer Hardness, Type A: Minimum of 70, when tested in accordance with ASTM D2240.
 - Ultimate Elongation: Minimum 100 percent, per ASTM D412.
 - 6. Coating: Manufacturer's standard pigmented two-component polyurethane topcoat, matte finish, in color as indicated on drawings. Some colors require additional topcoat applications, see manufacturer's installation manuals for more details.

PART 3 EXECUTION

3.1. EXAMINATION

- A. Examine substrates for conditions detrimental to installation of athletic flooring. Proceed with installation only after unsatisfactory conditions have been corrected.
- В. Verify that surfaces are flat to tolerances acceptable to flooring manufacturer, free of cracks that might telegraph through flooring, clean, dry, and free of curing compounds, surface hardeners, and

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other chemicals that might interfere with bonding of athletic flooring to substrate.

C. Cementitious Subfloor Surfaces: Verify that substrates are ready for resilient flooring installation by testing for moisture and alkalinity (pH).

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1. Obtain instructions if test results are not within limits recommended by resilient flooring manufacturer and adhesive materials manufacturer.

3.2. PREPARATION

- A. Prepare floor substrates as recommended by flooring and adhesive manufacturers.
- B. Concrete: Use leveling compound as necessary to achieve substrate flatness of plus or minus 1/8 inch within 10 ft radius.
- C. Remove coatings that are incompatible with flooring adhesives, using methods recommended by flooring manufacturer.
- D. Broom clean areas to receive athletic flooring immediately before beginning installation.

3.3. INSTALLATION

- A. Starting installation constitutes acceptance of subfloor conditions.
- B. Install in accordance with manufacturer's written instructions.
- C. Fluid-Applied Polyurethane Flooring Over Base Mat:
 - 1. Mix components in strict accordance with manufacturer's written instructions, and apply at manufacturer's recommended rates. Allow sufficient curing time between coatings.
 - 2. Unroll base mat and allow to relax before beginning installation.
 - 3. Apply adhesive to substrate with notched trowel, and roll base mat into fresh adhesive. Do not allow compression fit at any seams. Roll mat with weighted linoleum roller immediately upon application of base mat and again after 45 minutes to insure that base mat is firmly adhered to substrate.
 - 4. Thoroughly mix and apply seal coat to surface of base mat with steel trowel.
 - Apply resin wear layer in number of lifts recommended by manufacturer, applying wet-intowet to achieve a seamless surface. Sand any imperfections in surface after wear layer has cured.
 - 6. Thoroughly mix and apply finish coat with airless sprayer to achieve uniform appearance.
 - Lay out finish coat using tape and taping machine approved by flooring manufacturer. Apply
 finish coat paint with airless sprayer and allow to dry before removing tape. Consult
 architectural drawings for color locations and chosen colors.

3.4. CLEANING

A. Clean flooring using methods recommended by manufacturer.

3.5. PROTECTION

- A. No traffic or other trades shall be allowed on the surface for a period of one week following completion to allow for complete and proper cure of the finish.
- B. Protect finished athletic flooring from construction traffic to ensure that it is without damage upon Date of Substantial Completion.

END OF SECTION

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SECTION 10 1402 - SIGNAGE - EXTERIOR

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.

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1.2. SUMMARY

- A. This Section includes the following:
 - Dimensional characters.
- B. Related Sections include the following:
 - 1. 03 4500 Precast Architectural Concrete.

1.3. REFERENCE STANDARDS

- A. AAMA 611 Specification for Anodized Architectural Aluminum; 2024.
- B. ASTM B209 Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate; 2014.
- C. ASTM B211/B211M Standard Specification for Aluminum and Aluminum-Alloy Rolled or Cold Finished Bar, Rod, and Wire; 2019.
- D. ASTM D4802 Standard Specification for Poly(Methyl Methacrylate) Acrylic Plastic Sheet; 2016.
- E. NAAMM AMP 500-06 Metal Finishes Manual; 2006.
- F. NFPA 70 National Electrical Code; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.

1.4. SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Shop Drawings: Show fabrication and installation details for signs.
 - Show sign mounting heights, locations of supplementary supports to be provided by others, and accessories.
 - 2. Provide message list, typestyles, graphic elements and layout for each sign.
- C. Samples for Initial Selection: Manufacturer's color charts consisting of actual units or sections of units showing the full range of colors available for the following:
 - 1. Aluminum.
 - Acrylic sheet.
- D. Qualification Data: For Installer and fabricator.
- E. Maintenance Data: For signs to include in maintenance manuals.
- F. Warranty: Special warranty specified in this Section.

1.5. QUALITY ASSURANCE

- A. Installer Qualifications: Fabricator of products.
- B. Fabricator Qualifications: Shop 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.
- C. Source Limitations for Signs: Obtain each sign type indicated from one source from a single manufacturer.
- D. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.

1.6. PROJECT CONDITIONS

- A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit installation of signs in exterior locations to be performed according to manufacturers' written instructions and warranty requirements.
- B. Field Measurements: Verify recess openings by field measurements before fabrication and indicate measurements on Shop Drawings.

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1.7. COORDINATION

A. Coordinate placement of anchorage devices with templates for installing signs.

1.8. WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of signs that fail in materials or workmanship within specified warranty period.
 - 1. Failures include, but are not limited to, the following:
 - a. Deterioration of metal and polymer finishes beyond normal weathering.
 - b. Deterioration of embedded graphic image colors and sign lamination.
 - 2. Warranty Period: Five years from date of Substantial Completion.

PART 2 PRODUCTS

2.1. MATERIALS

- A. Aluminum Sheet and Plate: ASTM B209, alloy and temper recommended by aluminum producer and finisher for type of use and finish indicated, and with at least the strength and durability properties of Alloy 5005-H32.
- B. Aluminum Extrusions: ASTM B211/B211M, alloy and temper recommended by aluminum producer and finisher for type of use and finish indicated, and with at least the strength and durability properties of Alloy 6063-T5.
- C. Acrylic Sheet: ASTM D4802, Category A-1 (cell-cast sheet), Type UVA (UV absorbing).

2.2. ILLUMINATED CHARACTERS AND PANELS

- A. Fabricated Channel Characters: Form exposed faces and sides of characters to produce surfaces free from warp and distortion. Include internal bracing for stability and attachment of mounting accessories. Comply with the following requirements:
 - Illuminated fabricated channel letters to have LED illumination including transformers, insulators, and other components. Make provisions for servicing and concealing connections to building electrical system.
 - 2. Aluminum Sheet: Not less than 0.80 inch thick for Aluminum faces, and 0.03 for Aluminum returns.
 - a. Finish: Anodized.
 - b. Color: As selected by Architect from manufacturer's full range.
 - 3. Provide translucent acrylic face sheet of thickness indicated. Attach characters to sheet metal back channels.
 - a. Provide required luminaires to illuminate sign faces evenly.
- B. Dimensional Character Sign Schedule:
 - 1. Sign Type: Fabricated Channel Character
 - a. Character Size: As shown on Exterior Elevations.
 - b. Text/Message: As shown on Exterior Elevations
 - c. Location: As shown on Exterior Elevations.

enclosure.

d. Transformers and other accessories shall be located within the pre-manufactured sign

- 2. Sign Type: Fabricated Channel Shape
 - a. Sign Size: As shown on Exterior Elevations.
 - b. Logo: As shown on Exterior Elevations.
 - c. Location: As shown on Exterior Elevations.
 - d. Transformers and other accessories shall be located within the pre-manufactured sign enclosure.

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2.3. ACCESSORIES

- A. Fasteners and Anchors: Manufacturer's standard as required for secure anchorage of signage, noncorrosive and compatible with each material joined, and complying with the following:
 - 1. Use concealed fasteners and anchors unless indicated to be exposed.
 - 2. For exterior exposure, furnish stainless-steel or hot-dip galvanized devices unless otherwise indicated
 - 3. Exposed Metal-Fastener Components, General:
 - a. Fabricated from same basic metal and finish of fastened metal unless otherwise indicated.
 - 4. Sign Mounting Fasteners:
 - a. Projecting Studs: Threaded studs with sleeve spacer, welded or brazed to back of sign material or screwed into back of sign assembly, unless otherwise indicated.
 - b. Through Fasteners: Exposed metal fasteners matching sign finish, with type of head indicated, installed in predrilled holes.

2.4. FABRICATION

- A. General: Provide manufacturer's standard signs of configurations indicated.
 - Welded Connections: Comply with AWS B2.1/B2.1M standards for recommended practices in shop welding. Provide welds behind finished surfaces without distortion or discoloration of exposed side. Clean exposed welded surfaces of welding flux and dress exposed and contact surfaces.
 - 2. Mill joints to tight, hairline fit. Form joints exposed to weather to exclude water penetration.
 - 3. Preassemble signs in the shop to greatest extent possible. Disassemble signs only as necessary for shipping and handling limitations. Clearly mark units for reassembly and installation, in location not exposed to view after final assembly.
 - 4. Conceal fasteners if possible; otherwise, locate fasteners where they will be inconspicuous.

2.5. FINISHES, GENERAL

- A. Comply with NAAMM AMP 500-06 for recommendations for applying and designating finishes.
- B. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.
- C. Appearance of Finished Work: Variations in appearance of abutting or adjacent pieces are acceptable if they are within one-half of the range of approved Samples. Noticeable variations in the same piece are not acceptable. Variations in appearance of other components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

2.6. ALUMINUM FINISHES

A. Clear Anodic Finish: Manufacturer's standard Class 1 clear anodic coating, 0.018 mm or thicker, over a satin (directionally textured) mechanical finish, complying with AAMA 611.

2.7. ACRYLIC SHEET FINISHES

A. Colored Coatings for Acrylic Sheet: For copy and background and frame colors, provide colored coatings, including inks, dyes, and paints, that are recommended by acrylic manufacturers for optimum adherence to acrylic surface and that are UV and water resistant for five years for application intended.

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PART 3 EXECUTION

3.1. EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of work.
- B. Verify that items, including anchor inserts, and electrical power are sized and located to accommodate signs.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2. INSTALLATION

- A. Locate signs and accessories where indicated, using mounting methods of types described and complying with manufacturer's written instructions.
 - 1. Install signs level, plumb, and at heights indicated, with sign surfaces free of distortion and other defects in appearance.
- B. Dimensional Characters: Mount characters using standard fastening methods to comply with manufacturer's written instructions for character form, type of mounting, wall construction, and condition of exposure indicated. Provide heavy paper template to establish character spacing and to locate holes for fasteners.
 - 1. Projected Mounting: Mount characters at projection distance from wall surface. Coordinate distance with architectural wall panel manufacturer.

3.3. CLEANING AND PROTECTION

A. After installation, clean soiled sign surfaces according to manufacturer's written instructions. Protect signs from damage until acceptance by Owner.

END OF SECTION 10 1401

SECTION 22 0719 - PLUMBING PIPING INSULATION

PART 1 GENERAL

1.1. SECTION INCLUDES

- A. Piping insulation.
- B. Jackets and accessories.

1.2. RELATED REQUIREMENTS

- A. Section 07 8400 Firestopping.
- B. Section 22 1005 Plumbing Piping: Placement of hangers and hanger inserts.

1.3. REFERENCE STANDARDS

- A. ASTM C534/C534M Standard Specification for Preformed Flexible Elastomeric Cellular Thermal Insulation in Sheet and Tubular Form; 2023.
- B. ASTM E84 Standard Test Method for Surface Burning Characteristics of Building Materials; 2023d.
- UL 723 Standard for Test for Surface Burning Characteristics of Building Materials; Current Edition, Including All Revisions.

1.4. SUBMITTALS

- A. See Section 01 3000 Administrative Requirements, for submittal procedures.
- B. Product Data: Provide product description, thermal characteristics, list of materials and thickness for each service, and locations.

PART 2 PRODUCTS

2.1. REGULATORY REQUIREMENTS

A. Surface Burning Characteristics: Flame spread index/Smoke developed index of 25/50, maximum, when tested in accordance with ASTM E84 or UL 723.

2.2. GLASS FIBER

- A. Vapor Barrier Jacket: White Kraft paper with glass fiber yarn, bonded to aluminized film; moisture vapor transmission when tested in accordance with ASTM E96/E96M of 0.02 perm-inches.
- B. Tie Wire: 0.048 inch stainless steel with twisted ends on maximum 12 inch centers.
- C. Vapor Barrier Lap Adhesive: Compatible with insulation.

2.3. JACKETS

- A. PVC Plastic.
 - 1. Jacket: One piece molded type fitting covers and sheet material, off-white color.
 - a. Minimum Service Temperature: 0 degrees F.
 - b. Maximum Service Temperature: 150 degrees F.
 - c. Connections: Brush on welding adhesive.
- B. Aluminum Jacket: ASTM B209 (ASTM B209M) formed aluminum sheet.
 - Finish: Smooth.
 - 2. Joining: Longitudinal slip joints and 2 inch laps.

PART 3 EXECUTION

3.1. EXAMINATION

- A. Verify that piping has been tested before applying insulation materials.
- B. Verify that surfaces are clean and dry, with foreign material removed.

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3.2. INSTALLATION

- A. Install in accordance with manufacturer's instructions.
- B. Exposed Piping: Locate insulation and cover seams in least visible locations.
- C. Glass fiber insulated pipes conveying fluids below ambient temperature:
 - 1. Provide vapor barrier jackets, factory-applied or field-applied. Secure with self-sealing longitudinal laps and butt strips with pressure sensitive adhesive. Secure with outward clinch expanding staples and vapor barrier mastic.

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- 2. Insulate fittings, joints, and valves with molded insulation of like material and thickness as adjacent pipe. Finish with glass cloth and vapor barrier adhesive or PVC fitting covers.
- D. Glass fiber insulated pipes conveying fluids above ambient temperature:
 - 1. Provide standard jackets, with or without vapor barrier, factory-applied or field-applied. Secure with self-sealing longitudinal laps and butt strips with pressure sensitive adhesive. Secure with outward clinch expanding staples.
 - 2. Insulate fittings, joints, and valves with insulation of like material and thickness as adjoining pipe. Finish with glass cloth and adhesive or PVC fitting covers.
- E. Inserts and Shields:
 - 1. Shields: Galvanized steel between pipe hangers or pipe hanger rolls and inserts.
- F. Continue insulation through walls, sleeves, pipe hangers, and other pipe penetrations. Finish at supports, protrusions, and interruptions. At fire separations, refer to Section 07 8400.

3.3. SCHEDULES

- A. Plumbing Systems:
 - 1. Domestic Hot Water Supply and Recirculation:
 - a. Glass Fiber Insulation:
 - 1) Pipe Size Range: 1 1/2 inch and larger.
 - (a) Thickness: 1 1/2 inch.
 - 2) Pipe Size Range: 1 1/4 inch and smaller.
 - (a) Thickness: 1 inch.
 - 2. Domestic Cold Water:
 - a. Glass Fiber Insulation:
 - 1) Pipe Size Range: 1 1/2 inch and larger.
 - (a) Thickness: 1 inch.
 - 2) Pipe Size Range: 1 1/4 inch and smaller.
 - (a) Thickness: 1/2 inch.
 - 3. Roof Drain Bodies (ADD 04):
 - a. Glass Fiber Insulation.
 - b. Thickness: 1 inch.
 - 4. Roof Drainage Above Grade (ADD 04):
 - a. Glass Fiber Insulation.
 - b. Thickness: 1 inch.
 - c. Insulate all horizontal storm piping from the outlet of the drain body.

END OF SECTION