

**DOCUMENT 00 90 00
ADDENDUM**

ADDENDUM NO. [1] Date: February 16, 2021

**RE: WESTERN TECHNICAL COLLEGE
 SPARTA PUBLIC SAFETY EXPANSION
 11177 COUNTY HWY A
 SPARTA, WISCONSIN 54656
 HSR PROJECT NO. 20028**

FROM: HSR Associates, Inc
 100 Milwaukee Street
 La Crosse, WI 54603
 (608) 784-1830

To: Prospective Bidders

This addendum forms a part of the Contract Documents and modifies the original Bidding Documents dated February 2021. Acknowledge receipt of this Addendum in the space provided on the bid form. Failure to do so may subject the Bidder to disqualification.

This Addendum consists of [4] pages, [1] Revised Bid Form, [4] specification sections, Division 22 Specifications reissued (separate file) and [21] 30 x 42 drawings.

CHANGES TO BIDDING REQUIREMENTS AND CONDITIONS OF THE CONTRACT:

1. Pre-bid attendance attached hereto.
2. Section 00 41 00 BID FORM
 - a. Revised Bid Form attached hereto

GENERAL REQUIREMENTS:

3. Section 01 20 00 PRICE AND PAYMENT PROCEDURES
 - a. Clarification: A separate pay application for each Contract written with the Owner shall be required.
4. Section 01 23 00 ALTERNATES
 - a. Revised section attached hereto

CHANGES TO SPECIFICATIONS:

5. Section 03 30 00 CAST-IN-PLACE CONCRETE
 - a. 3.06: Add the following;
 - F. Where topping slab is to be poured over precast plank receiving heating tubing, attach WWF6x6xW1.4xW1.4 flat sheets to precast planks in at least two places minimum (one at each end/opposite corners) to prevent sheets from shifting while installing piping). Heating piping shall be attached to wire sheets by Division 23.

6. Section 08 36 13 SECTIONAL DOORS
 - a. 2.03, B: Change interior pane of glass to tempered. System shall be 5/8 inch insulated with tempered glass inside and out.
 - b. 2.05: Delete paragraph C.
7. Section 09 21 16 GYPSUM BOARD ASSEMBLIES
 - a. 3.08, A: Change "Restroom" to "All".
8. Division 22: Entire Division of specifications attached hereto as a separate file replacing original issue.
9. Section 23 21 11 Valves and Cocks (Revised Section attached hereto)
 - a. Added 2.02, Gate Valves (for Well Water System).
 - b. Edited 2.03, H.
10. Section 23 21 16 Hydronic Specialties (Revised Section attached hereto)
 - a. Added 2.11 Pump Specialties and 3.07 Suction Diffusers.
11. Section 23 55 13 Fuel Fired Duct Heaters
 - a. New Section attached hereto as part of Contract Documents.
12. Section 23 83 16 RADIANT FLOOR SYSTEMS
 - a. 2.03: Remove reference to Fast Trak system. Attach tubing to wire mesh attached to precast plank. Replace entire section.
 - b. 3.06: Delete first sentence and replace with the following: Secure tubing to wire mesh attached to precast plank.
 - i. Delete paragraphs 1 and 2.

CHANGES TO DRAWINGS

13. Sheet A101 FIRST FLOOR PLAN AREA B 30 x 42 attached hereto
 - a. Revisions clouded on Drawing
 - b. North wall of Ambulance parking: The Work on the exterior side of this wall, under the canopy between Grids B1 and B4 shall be included in the Base Bid amount.
14. Sheet A102 SECOND FLOOR PLAN 30 x 42 attached hereto
 - a. Revisions clouded on Drawing
 - b. Work at north wall on DAAT 202 side shall be included in Base Bid amount.
 - c. Work on the Weight Room 200 side of the wall shall be included in the Alternate Bid amount.
15. Sheet A312 WALL SECTIONS (No Drawing reissued)
 - a. 3, 4 and 5A312: Change wall type A2 to A9 over cold formed framing parapet wall. Refer to A600 in this addendum for Wall type A9.
16. Sheet A600 WALL TYPES 30 x 42 attached hereto
 - a. Revisions clouded on Drawing
 - b. Add Wall Type A9.
17. Sheet A601 DOOR SCHEDULE 30 x 42 attached hereto
 - a. Revisions clouded on Drawing.
18. Sheet ID101 FIRST FLOOR FINISH FLOOR PLAN – AREA A 30 x 42 attached hereto
 - a. Revisions clouded on Drawing.

19. Sheet ID102 FIRST FLOOR FINISH FLOOR PLAN – AREA B 30 x 42 attached hereto
 - a. Revisions clouded on Drawing.
20. Sheet ID600 MASTER COLOR SCHEDULE 30 x 42 attached hereto
 - a. Revisions clouded on Drawing
21. Sheet M090 FIRST FLOOR PIPING REMOVAL – A 30 x 42 attached hereto
 - a. Revisions clouded on Drawing
 - b. Added removal keyed notes.
 - c. Added equipment tags.
22. Sheet M091 FIRST FLOOR PIPING REMOVAL – B 30 x 42 attached hereto
 - a. Revisions clouded on Drawing
 - b. Added removal keyed notes.
 - c. Added equipment tags.
23. Sheet M092 SECOND FLOOR PIPING REMOVAL 30 x 42 attached hereto
 - a. Revisions clouded on Drawing
 - b. Added removal notes.
 - c. Added Mechanical Room 2M3 & 2M4 3D View.
24. Sheet M100 FIRST FLOOR PIPING REMODEL – A 30 x 42 attached hereto
 - a. Revisions clouded on Drawing
 - b. Added room names.
25. Sheet M103 ENLARGED MECHANICAL ROOM 2M4 30 x 42 attached hereto
 - a. Revisions clouded on Drawing
 - b. Changed boiler venting to vertical.
26. Sheet M106 SECOND FLOOR DUCTWORK REMODEL 30 x 42 attached hereto
 - a. Revisions clouded on Drawing
 - b. Added return grille “T” to DH-1 return duct.
 - c. Clarified location of ductwork exposed outdoors on AHU-4.
27. Sheet M600 HVAC SCHEDULES 30 x 42 attached hereto
 - a. Revisions clouded on Drawing
 - b. 23 07 13 Duct Insulation and Liner Schedule. Updated insulation for FC-1, DF-1 and MAU-1.
 - c. 23 55 13 Gas-Fired Duct Heaters Schedule. Updated schedule.
28. Sheet M601 HVAC SCHEDULES 30 x 42 attached hereto
 - a. Revisions clouded on Drawing
 - b. 23 37 13 Air Distribution Devices Schedule. Added Type “T” return grille.
 - c. 23 21 23 HVAC Pumps Schedule. Added suction diffusers to Inline CC Vertical pumps.
29. Sheet E201 FIRST FLOOR POWER PLAN – AREA A 30 x 42 attached hereto
 - a. Revisions clouded on Drawing.
 - b. In Corridor #1H8, added missing keyed notes #53 and #54 for Panelboard ‘D’ feeder. Refer to clouded changes dated 2-15-2021.
30. Sheet E301 FIRST FLOOR LOW VOLTAGE PLAN – AREA A 30 x 42 attached hereto
 - a. Revisions clouded on Drawing.
 - b. Existing Electronic Door Card Reader located at entrance door into Storage Room #1S3 has been deleted and will be erased from this plan. Refer to clouded change dated 2-15-2021.
 - c. Refer to Electronic Door Card Reader located at exterior pedestal at Vestibule 1H9. Keyed Note #30 has been added addressing underground exterior communication cable to be installed. Refer to clouded change dated 2-15-2021.

- d. Refer to Student Lounge #116, keyed note #31 has been added to the 6D Data Jack located on East Wall. Refer to clouded change dated 2-15-2021.
31. Sheet E302 FIRST FLOOR LOW VOLTAGE PLAN – AREA B 30 x 42 attached hereto
- a. Revisions clouded on Drawing.
 - b. In Elevator Vestibule 1H13, keyed note #9 has been added. Refer to clouded change dated 2-15-2021.
32. Sheet E303 SECOND FLOOR LOW VOLTAGE PLAN – AREA B 30 x 42 attached hereto
- a. Revisions clouded on Drawing.
 - b. In Corridor #2H2, add One (1) Electronic Door Access Control Card Reader at the door entering Mechanical Room #2M4. Refer to clouded changes dated 2-15-2021.
 - c. Existing Electronic Door Card Reader located at entrance door into Storage Room #2S2 has been deleted and will be erased from this plan. Refer to clouded change dated 2-15-2021.
 - d. In Mechanical Room #2M1, delete keyed note #13. Refer to clouded change dated 2-15-2021.
33. Sheet E501 SCHEDULES 30 x 42 attached hereto
- a. Revisions clouded on Drawing.
 - b. Refer to Lighting Fixture Schedule:
 - a. Added Lighting Fixture Type 'ALB' for ambulance simulation. Refer to clouded change dated 2-15-2021.
 - c. Refer to Motor and Equipment Schedule:
 - a. Refer to Boilers BLR-1 & BLR-2, refer to clouded changes dated 2-15-2021.
34. Sheet E502 SCHEDULES 30 x 42 attached hereto
- a. Revisions clouded on Drawing.
 - b. Refer to Panelboard Schedule H:
 - a. Added One (1) 30/3 circuit breaker to energize TVSS. Refer to clouded change dated 2-15-2021.
 - c. Refer to Panelboard Schedule N:
 - a. Added shunt-trip circuit breakers for Boilers. Refer to clouded change dated 2-15-2021.
 - d. Refer to Panelboard Schedule EM:
 - a. Added new panelboard schedule. Refer to clouded change dated 2-15-2021

PRIOR APPROVALS

- 1. Section 09 65 66 RESILIENT ATHLETIC FLOORING
 - a. Regupol: Aktiv
- 2. Section 10 56 26 MOBILE STORAGE SHELVING
 - a. Aurora Storage Products

END OF DOCUMENT 00 90 00

Pre-Bid Meeting Sign-In Sheet

February 11, 2021

PROJECT: WESTERN TECHNICAL COLLEGE
SPARTA PUBLIC SAFETY EXPANSION
11177 COUNTY HWY A
SPARTA, WISCONSIN 54656
HSR PROJECT NO. 20028

BID OPENING: 2:00 PM, March 2, 2021

Name	Company
1. Doug Ramsey	HSR
2. Michelle Maland	↓
3. Ryan Wilkamy	
4. Ron Knappmiller	
5. Tobin F.	
6. Jake Beran	
7. Mike Hoisington	
8. Mike Roekle	Walter Power Systems / Generac
9. <u>AUSTIN HOFFMAN</u>	<u>FOWLER & HAMMER</u> - bids@fowlerhammer.com
10. Alex Bluske	Five Star Telecom
11. Mike Prindle	Poellinger Inc (subcontractor)
12. Ryan Jilek	Platt Const.
13. Kris Gantsch	Prime Source Plumbing
14. <u>SCOTT STANGEL</u>	Kish & Sons
15. Brian Pinnow	Wieser Brothers
16. <u>Brett Stank</u>	Wieser Brothers
17. Terry Stuka	American
18. Stephen Bish	American
19. <u>PAT Papawich</u>	Galileo

Name

Company

- | | | |
|-----|----------------|---------------------------|
| 20. | Brian Haun | Western Technical College |
| 21. | Ryan Kelnhofen | Merkel Electric |
| 22. | SHANE ADLER | Platt Const. |
| 23. | Chad Smith | Platt Const. |
| 24. | Kevin Kuderer | B+B Elec |
| 25. | Mark Clough | Stanel Electric |
| 26. | Walt Wood | Lax Backhoe Ser. |
| 27. | DALTON LONDE | m&J |
| 28. | Michael Diehl | Brick/Bros. |
| 29. | | |
| 30. | | |
| 31. | | |
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DOCUMENT 00 41 00

BID FORM (Revised)

BIDDER: _____

BID FOR SINGLE PRIME CONTRACT

PROJECT: **WESTERN TECHNICAL COLLEGE
SPARTA PUBLIC SAFETY EXPANSION
11177 COUNTY HWY A
SPARTA, WISCONSIN 54656**

TO: **WESTERN TECHNICAL COLLEGE
PHYSICAL PLANT OFFICE
505 9th STREET NORTH
LA CROSSE, WISCONSIN 54601
ATT: JAY McHENRY – DIRECTOR OF FACILITIES**

BASE BID

The undersigned, having examined the site where the Work is to be executed and become familiar with local conditions affecting the cost of the Work and carefully examined the Project Manual, the Project Drawings, all other Bidding Documents and Addenda thereto prepared by the AE, HSR Associates, Inc., hereby agrees to provide all labor, materials, equipment and services necessary for the complete and satisfactory execution of the ENTIRE WORK, in the time frame stipulated in these contract documents, for the Base Bid stipulated sum of:

_____ Dollars (\$_____ .00)

ALTERNATE BIDS

The undersigned further agrees to perform the alternative portions of the Work as described in the Project Manual, Section 01 23 00 Alternates, for the following additions to the Base Bid sum stipulated above:

Alternate No. 1 Exterior Upgrades

Add _____ Dollars (\$_____ .00)

Alternate No. 2A Interior Renovation

Add _____ Dollars (\$_____ .00)

Alternate No. 2B Restroom Renovation

Add _____ Dollars (\$_____ .00)

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Alternate No. 3 HVAC Remodel (For Base Bid & Alternates #1, #2A, #2B)

Add _____ Dollars (\$_____.00)

Alternate No. 3A HVAC Duct Cleaning

Deduct _____ Dollars (\$_____.00)

Alternate No. 3B Plate Heat Exchanger

Deduct _____ Dollars (\$_____.00)

Alternate No. 3C Flow Meters

Deduct _____ Dollars (\$_____.00)

Alternate No. 3D Infrared Radiant Tube Heaters

Deduct _____ Dollars (\$_____.00)

Alternate No. 3E Well Water Pipe Conversion

Deduct _____ Dollars (\$_____.00)

BIDDER'S CHOICE SUBSTITUTIONS

The following Bidder's Choice Substitution is proposed for your consideration subject to the requirements set forth in Document 00 22 13 Supplementary Instructions to Bidders, Subparagraph 3.3.4:

Substitution No. S1:

For substituting _____

Type, Brand, Catalog No. _____

Manufacturer _____

Deduct from BASE BID _____ Dollars (\$_____.00)

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In submitting this Bid, the undersigned agrees to:

1. Hold this Bid open for **30** days.
2. Accept the provisions of Instructions to Bidders regarding disposition of Bid Security.
3. Enter into and execute an Agreement, if awarded on the basis of this Bid, and to furnish Performance and Labor and Material Payment Bonds according to the Supplementary Conditions.
4. Accomplish work according to the Contract Documents.
5. Complete the work by the time stated in Section 01 10 00 Summary of the Work.

Receipt of the following Addenda and inclusion of their provisions in this Bid is hereby acknowledged:

Addendum No. _____ Dated _____

Addendum No. _____ Dated _____

Addendum No. _____ Dated _____

Addendum No. _____ Dated _____

Addendum No. _____ Dated _____

Attached hereto are the required:

- a. Bid Security
- b. Section 00 45 13 Certificate of Organization and Authority
- c. Section 00 45 17 Non-Collusive Affidavit: An affidavit in proof that the undersigned has not entered into any collusion with any person in respect to this Bid or any other bid or the submitting of bids for the contract for which this bid is submitted.
- d. Section 00 45 19 Certification of Non-segregated Facilities

FIRM NAME: _____

(Affix seal if Corporation)

By: _____

Title: _____

By: _____

Title: _____

Date: _____

Official Address: _____

Telephone: _____

END OF DOCUMENT 00 41 00

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SECTION 01 23 00

ALTERNATES

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Description of Alternates.

1.02 RELATED REQUIREMENTS

- A. Document 00 21 13 - Instructions to Bidders: Instructions for preparation of pricing for Alternates.

1.03 DESCRIPTION

- A. Conditions of the Contract and pertinent portions of Sections in Division One of this Project Manual, apply to the Work of this Section as fully as though repeated herein.
- B. This Section describes the alternates to the project. Refer to the Product/Execution Articles of the Contract Documents for information pertaining to the work of each alternate.
- C. Each proposal under an alternate shall include all incidental work and all adjustments necessary to accommodate the changes. All work shall meet the requirements of the Contract Documents.
- D. Each alternate proposal shall be submitted as an individual cost for the particular alternate and shall be proposed under the premise that no other alternates have been accepted. Should the work of an alternate called for by the Bid Form not affect the cost of the work, "No Change" shall be stated.
- E. Owner may, at his option, vary the scope of the work by authorizing alternates which will add to the work, deduct from the work or substitute materials, equipment or methods.
- F. Immediately following Award of Contract, awarded Contractor shall prepare and distribute to each party involved, notification of the status of each alternate. Indicate whether alternates have been accepted, rejected, or deferred for consideration at a later date. Include a complete description of negotiated modifications to alternates, if any.

1.04 ACCEPTANCE OF ALTERNATES

- A. Alternates quoted on Bid Forms will be reviewed and accepted or rejected at Owner's option. Accepted Alternates will be identified in the Owner-Contractor Agreement.

1.05 SCHEDULE OF ALTERNATES

- A. Alternate No. 1: Exterior Upgrades
 - 1. The following work shall be priced under Alternate No. 1: State the amount to be added to the base bid to complete the remodeling of approximately 18,360 SF of existing exterior wall surface. Work includes, but is not limited to creating new openings in exterior CMU wall, application of furring and foamed-in-place insulation; installation of (4) types of Owner purchased metal panel systems that include mineral wool insulation, sub-framing, panels and related trim; new storefront aluminum windows A, B, C and E, exterior aluminum storefront doors as scheduled, new overhead door 122D; new downspouts replacing existing and installation of salvaged heat tape; Alternate No. 1 Work is contingent upon Wisconsin Technical College State Board approval and will become a separate contract upon approval.

- B. Alternate No. 2A: Interior Renovation
1. The following work shall be priced under Alternate No. 2A: State the amount to be added to the base bid to complete the remodeling of approximately 22,500 SF of space on the 1st floor and 5,400 SF of space on the 2nd floor, with exception of Restrooms in Alternate 2B. Work includes, but is not limited to demolition, wall furring on interior side of exterior walls with drywall returns at new window openings, window sills, interior HM windows, wood doors, casework, resilient, carpet and fluid applied flooring, painting, new wall coverings, suspended ceiling systems and linear metal ceilings, fire protection revisions, and required power, lighting and data revisions including coordination with owner's furniture vendor. Alternate No. 2A Work is contingent upon Wisconsin Technical College State Board approval and will become a separate contract upon approval.
- C. Alternate No. 2B: Restroom Renovation (Mens 1R3 & Womens 1R4)
1. The following work shall be priced under Alternate No. 2B: State the amount to be added to the base bid to remodel approximately 415 SF of existing restroom space. Work includes, but not limited to new solid surface vanities, toilet partitions, tile floors, suspended ceiling system and painted walls.
- D. Alternate No. 3: HVAC Remodel (For areas included in Base Bid & Alternates #1, #2A & #2B)
1. The following work shall be priced under Alternate No. 3: State the amount to be added to the base bid to complete the HVAC Remodel project and complete all related Work shown on the Drawings pertaining to the Base Bid and Alternates #1, #2A and #2B. Work includes, but is not limited to demolition, equipment and ductwork installation, in-floor heat system including under slab insulation, HVAC revisions, coordination with owner's furniture vendor and subcontractors; new generator. Refer to Section 01 10 00 for Owner direct purchases. Alternate No. 3 Work is contingent upon Wisconsin Technical College State Board approval and will become a separate contract upon approval.
- E. Alternate No. 3A: HVAC Duct Cleaning
1. The following work shall be priced under Alternate No. 3A: State the amount to be deducted from the base bid to eliminate duct cleaning in entire building.
- F. Alternate No. 3B: Plate Heat Exchanger
1. The following work shall be priced under Alternate No. 3B: State the amount to be deducted from the base bid to delete Plate Heat Exchanger HX-2. Related branch piping and isolation valves remain in place as shown.
- G. Alternate No. 3C: Flow Meters
1. The following work shall be priced under Alternate No. 3C: State the amount to be deducted from the base bid to eliminate flow meters. Provide isolation valves for future meter installation.
- H. Alternate No. 3D: Infrared Radiant Tube Heaters
1. The following work shall be priced under Alternate No. 3D: State the amount to be deducted from the base bid to remove Radiant Tube Heaters ITH-1 thru 4 from project. Work shall include boosting size of UH-1 & 2 to Model BDP-300.
- I. Alternate No. 3E: Well Water Pipe Conversion
1. The following work shall be priced under Alternate No. 3E: State the amount to be deducted from the base bid to eliminate steel well water pipe conversion to polypropylene.
- J. Alternate No. 4: Emergency Generator
1. The following work shall be priced under Alternate No. 4: State the amount to be deducted from the base bid to eliminate the fire pump emergency generator and related equipment, switches and cabinets. Refer to 3E001, photos 4 and 5 and Emergency Generator Riser Diagram Keynotes for scope of work.

PART 2 PRODUCTS - NOT USED
PART 3 EXECUTION - NOT USED

END OF SECTION

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SECTION 23 21 11

VALVES AND COCKS: MANUAL

PART 1: GENERAL

1.01 RELATED DOCUMENTS

- A. Conditions of the Contract and portions of Division One of this Project Manual apply to this Section as though repeated herein.
- B. The requirements of Section 23 05 00 apply to this Section.

1.02 SUBMITTALS

- A. Submit in accord with Section 01 30 00.
 - 1. Submit each Specifications Section under separate cover to streamline review process. See Section 23 05 00.
 - 2. Shop drawings and descriptive product data describing all material furnished under Part 2 of this Section.

PART 2: PRODUCTS

2.01 VALVES (GENERAL USE)

- A. Heating Water, Chilled Water, and Condenser Water:
 - 1. Check valves, 2 1/2" and smaller, Milwaukee #509/1509, Swing, bronze body and disc, 200# WOG. Suitable for installation in a horizontal or vertical line with flow upward.
 - 2. Check valves, 3" and larger, Crane Model Duo-Chek II, Wafer, Non-Slam, cast iron body, 316 stainless steel plates and springs with Buna-N insert seat, 200# WOG

2.02 GATE VALVES (4" - 10")

- A. Based on Watts Series 405-NRS-RW.
- B. The valve body is epoxy coated internally and externally. The valve is operated by a handwheel. The resilient wedge disc design offers both positive seating and resistance against high differential pressure. Valve is best suited for service in either the fully open or closed position but is suitable for use as a throttling valve. This series is recommended for irrigation, potable water, water distribution service, feed lines and sewage disposal facilities.
- C. ASTM A126 Class B Iron (Flanged x Flanged). ASTM A536 65-45-12 Ductile Iron (Flanged x Groove). Full port flow, low head loss. Epoxy coated, internal and external. Vulcanized encapsulated resilient wedge. In-line serviceable. Boss-tapped and plugged. MSS-SP-70 conformance.
- D. Flanged by flanged valve bodies shall comply with ASTM A126; flanged by grooved valve bodies shall comply with ASTM A536. Valve shall be pressure rated to 200psi (14 bars) CWP with an operating temperature up 140°F. Valve shall have a non-rising stem, full port flow and epoxy coated.

2.03 BALL VALVES (1/2"-2")

- A. Based on products by Jomar, Apollo.
- B. 1/2" – 2" valves to have threaded or soldered ends.

- C. Jomar 100 series valves, 100% lead tested, lifetime leak-proof stem, dezincification resistant brass alloy, triple sealing stem with Viton o-rings and Teflon seal, 600 WOG, blow out proof stem, meets NSF 372, 61-8 and 61 annex G standards, ANSI B1.20.1, wetted surface contains less than .25 lead content, accessories available.
- D. Apollo 70 series valves; Adjustable stem packing gland, blow out proof stem design, chromium plated ball, 100% factory tested, maximum pressure 600 psi CWP, 150 psi SWP, max temperature 500F.
- E. Apollo international valves will not be acceptable.
- F. Provide 1-1/4" stem extensions on all hot water piping insulated with more than 1/2" thick insulation.
- G. Provide 1-1/4" stem extensions on all insulated cold water piping.
 - 1. Include a non-rotating sleeve with cap around the stem extensions on all insulated cold water piping to facilitate vapor barrier seal, similar to:
 - a) Apollo (-11) 2 1/4" "Thermal-Seal" insulating tee handle

H. Contractor shall install ball valve stem extensions as specified.

2.04 BALL VALVES (WATER, AIR) 2-1/2" AND LARGER

- A. Use Butterfly Valves as specified below.

2.05 CAST IRON BUTTERFLY VALVES (WATER)

- A. Based on product by Nibco.
 - 1. Anvil Gruvlok, Apollo, Bray, Crane, Grinnell, Hammond, Keystone, Milwaukee, Mueller Steam specialty (Muessco), Centerline, DeZurik, and Victaulic equals, as acceptable.
 - 2. Anvil Gruvlok Series 7700, Centerline series 200, DeZurik BOS-CL, Keystone Fig. 222, Nibco LD2000 (2-1/2"-12")/LC1000 (14" and above), Bray Series 31H, Victaulic 300 series (2-1/2"-12")/709 series (14"-24"), FNW Fig. 732.
- B. Lug-wafer butterfly valves, 2-1/2" and larger, cast iron body; extended neck; molded in EPDM rubber body seal/liner; Teflon, nylatron, or acetal bearings; aluminum bronze disc; stainless steel shaft; copper upper and lower bushings; brass collar bushing; EPDM rubber stem seal; lugs shall match number of holes in pipe flange.
 - 1. Disk to be bronze, aluminum-bronze, nickel plated ductile iron, cast iron with welded nickel edge, or 316 - stainless steel.
 - 2. Nylon coated ductile iron discs are not acceptable. Polymid or polyamide coated valves are not acceptable.
- C. Valve assembly to be bi-directionally bubble tight to 150 psig with no downstream flange/pipe attached.
- D. Wafer type butterfly valves, are not acceptable.
- E. Provide ten (10) position lever-lock handle operator; valves 8" and larger, use worm gear operator with positive indicator, and adjustable stop.
- F. Maximum pressure to be 150 psi.
- G. Provide 1-3" stem extensions on all hot water piping insulated with more than 1/2" insulation thickness. Valve stem extensions shall allow operators to clear insulation without interference.
- H. Provide 1-3" stem extensions on all insulated cold water piping.
 - 1. Include a non-rotating sleeve with cap around the stem extensions on all insulated cold water piping to facilitate vapor barrier seal, similar to:
 - a) Nibco "NIB-SEAL" insulated-handle with equivalent ball valves or equal

2.06 BUTTERFLY VALVES (WATER, AIR) 2" AND SMALLER

A. Use Ball Valves as specified above.

2.07 DRAIN VALVES

A. Use 3/4 inch ball valve (as specified above) with threaded hose adapter except strainer blowdown valves to be the same size as the blowdown connection.

1. Provide pressure rated hose cap, 150 PSIG @ 180°F, at each drain valve location.
2. Hose cap shall have a chain.

PART 3: EXECUTION

3.01 VALVES (GENERAL USE)

A. Use globe valves where throttling is required and ball/butterfly valves for isolating equipment or main/branch piping. Install valves as indicated, full size of piping.

B. Install all valves with the stem in the upright position. Valves may be installed with the stem in the horizontal position only where space limitations do not allow installation in an upright position or where large valves are provided with chain wheel operators. Where valves 2-1/2" and larger are located more than 12'-0" above mechanical room floors, install valve with stem in the horizontal position and provide a chain wheel operator. Valves installed with the stems down, will not be accepted.

C. Install swing check valves in the horizontal position, unless otherwise shown on drawings, with hinge pin horizontally perpendicular to centerline of pipe. Install for proper direction of flow.

D. Heating/Ventilating/Cooling:

1. Install ball/butterfly valves on steam supply to all equipment, coils and radiation.
2. Install ball/butterfly, or globe valves on water connections, to isolate all hydronic equipment, coils and radiation.
3. Install valves on steam, water and refrigeration piping systems to isolate large zones or circuits and others as indicated on Drawings and Details.

E. Install stem extensions when shipped loose from valve.

F. Prior to flushing of piping systems, place all valves in the full-open position.

3.02 BALL VALVES

A. Piping and valve on cold water piping up to and including the non-rotating sleeve shall be insulated and sealed with vapor barrier mastic.

3.03 GATE VALVES

A. For use only as isolation valves on Well Water System.

3.04 DRAIN VALVES

A. Provide drain valves for complete drainage of all systems. Locations of drain valves include low points of piping systems, equipment locations specified or detailed including reheat coils and all strainer locations, other locations required for drainage of systems.

3.05 BUTTERFLY VALVES

A. For balancing on larger mains; lug wafer type.

B. To isolate equipment or larger mains; lug wafer or two-flange type.

3.06 VALVES (GROOVED PIPING)

- A. Install as recommended by manufacturer.
- B. Butterfly and ball valves: Compressed air, water, approved gas and process.

3.07 SILENT (NON-SLAM) CHECK VALVES

- A. Install in pump discharge, horizontal or vertical, as required.
- B. Do not use with sewage ejectors.

3.08 WHEEL CHAIN CONTROL

- A. All new valves, 2-1/2" and larger, connecting to boiler header (or in connection with chiller condenser and chilled water piping), located more than twelve (12) feet above floor, shall be fitted with wheel, guides and chain.
- B. Chain to extend to within 6 feet of floor.

END OF SECTION 23 21 11

SECTION 23 21 16

HYDRONIC SPECIALTIES – HOT / CHILLED

PART 1: GENERAL

1.01 RELATED DOCUMENTS

- A. Conditions of the Contract and portions of Division One of this Project Manual apply to this Section as though repeated herein.
- B. The requirements of Section 23 05 00 apply to this Section.

1.02 SUBMITTALS

- A. Submit in accord with Section 01 30 00.
 - 1. Submit each Specifications Section under separate cover to streamline review process. See Section 23 05 00.
 - 2. Shop drawings and descriptive product data describing all material furnished under Part 2 of this Section.
 - 3. Include all the Products, including the following in the submittal:
 - a) Balancing Stations.
 - b) Coil Kits.
 - c) Hose Kits.
 - d) Flexible Connections.

PART 2: PRODUCTS

2.01 BALANCING STATIONS (CBV)

- A. Based on product by Tour & Andersson.
 - 1. Anvil Gruvlok, Armstrong, Caleffi, Nibco, and Nexus equals are acceptable.
- B. 2" and smaller: Bronze body construction with threaded or soldered connections. Valves shall be Y-globe style with a "fixed orifice" venturi, connections for portable differential pressure meter with integral seals and multi-turn (minimum 4, 1440°) hand wheel. Differential pressure ports shall be color-coded for high and low pressure. Valves to have adjustable, tamper proof memory stop feature to allow valve to be closed for service and then reopened to set point without disturbing balance position. Valves to have calibrated name plate to assure specific valve settings. Valves to be leak-tight at full rated working pressure.
 - 1. Variable area 90-degree turn ball valves with taps on each side are not acceptable.
- C. 2-1/2" and larger: Use butterfly valves as specified in Section 23 21 11 along with flow sensor specified in this section.
- D. Valves shall be provided with molded insulation to permit access for balance and read-out if available as an accessory.
- E. Valves shall be designed for a minimum 200 psig at 250 degrees F.

2.02 COIL HOOK-UP CONNECTIONS

- A. Victaulic Koil-Kits Series 799 or 79V may be used at coil connections. The kit shall include a Series 786/787/78K circuit balancing valve, Series 78Y Strainer-Ball, Series 78U Union-Port fitting, with Series 78T ball valve and required coil hoses. A Style 793 and/or 794 differential pressure controller shall be provided as required. A meter shall be provided by the valve manufacturer that shall remain with the building owner after commissioning.
 - 1. RWV and Nexus Valve coil kits with static balancing valve is an approved equal.

2.03 HOSE KITS

- A. Stainless steel fire rated braided hose with reinforced EPDM core of diameter and length listed on plans. As manufactured by IMI Flow Design, Griswold Controls, or Nexus Valve.

2.04 FLOW SENSORS

- A. Based on product by B&G.
 - 1. Armstrong, Flow Design Inc., Nibco, Nexus, Taco and Tour & Andersson equals are acceptable.
- B. Flow sensor shall be a cast iron wafer type flow sensor designed for low-pressure drop operation. Pipe sizes 2 1/2" to 12".
- C. Flow sensor shall be equipped with brass readout valves (with integral check valve for taking differential pressure readings across the orifice of the flow sensor).
- D. The flow sensor shall be designed to operate at a maximum working pressure of 300 psig at 250 degrees F. Flow meter shall be furnished with a calibrated nameplate for determining an accurate system flow rate.

2.05 SYSTEM AIR VENTS

- A. Based on products by American Tube and Controls, Armstrong, Bell and Gossett, Hoffman, Keeney, or Thrush.
- B. Manual Ball Valve Vents
 - 1. Provide 1/4" ball valves for manual venting of air handling unit coils and where indicated elsewhere on drawings and details. Reference specifications Section 23 21 11.
- C. Automatic Vents
 - 1. Cast iron body with nonferrous internal parts, designed to vent air automatically with float principle without allowing air to enter the system, rated at not less than 125 psig at 220°F.

2.06 EXPANSION LOOPS (PIPE BENDS)

- A. Provide expansion loops and anchors as indicated on the drawings and details.

2.07 WATER FILTER (WF-1)

- A. Based on product by ClearBlue Filtration.
 - 1. Multi-Round Bag Filter Housing Model BH-1836-0073.
- B. ASME Section VIII, Div. 1 design code with U-Stamp manufactured and certified by LaGrange Products, Inc.
- C. 304 stainless steel housing with a glass bead blast exterior finish. Bottom inlet / opposite bottom outlet fanged connections. Formed support legs minimizes sharp edges for improved safety while servicing filters and provides for stronger paint adhesion. Closure hardware is SA193 B7 eye-bolts and SA194 2H eye nuts. Differential pressure gauge bracket. Hardware and davit system zinc plated black dichromate. Heavy service electropolished 316 Stainless Steel baskets with 9/64" perforations. Viton® O-ring cover and basket seals for higher temperatures and greater media compatibility. Swing bolt closure for fast bag replacement. 150 psi design operating pressure @ 300° F design operating temperature.
 - 1. 4" Inlet and outlet.
 - 2. 2" NPT clean drain, 1/2" NPT dirty drain and 1/2" NPT vent.
 - 3. 1/2" NPT differential pressure gauge ports.

- D. Compatible with commercially available standard size #2 liquid bag filters (7" Dia. x 32"L) with sewn in metal or plastic rings or perforated mesh lined baskets.
 - 1. Based on bag size #2 with a surface area of 4.4 ft² each.
- E. Furnish 50 disposable bag filters, three capable of removing 98% of all solids that are 5 microns or larger in size. Filter media to be suitable for filtering 220 GPM at less than 0.2 psig. Provide a positive seal on each bag to minimize bypass. Assembly to function properly with pressure differentials to 150 psi.

2.08 STRAINERS (GENERAL USE)

- A. Based on products by:
 - 1. Armstrong, Grinnell, Keckley, Metra-Flex, Mueller "Muessco", Nibco, Sarco, Titan FCI, Eaton, Gruvlok and Victaulic equals are acceptable.
- B. Y type; cast iron body; stainless steel screens; bolted or threaded screen retainer tapped for a blow off valve; threaded body in sizes through 2 inch and rated at not less than 175 psi WOG; flanged body in sizes over 2 inch and rated at not less than 125 psi WOG at 240°F. Screen to be 20 mesh for line sizes 2 inch and less, 0.125 inch perforations for line sizes 2-1/2 inch through 4 inch, and 0.25 inch perforations for line sizes 5 inch and larger.
- C. Basket type: Cast iron body with clamped cover; stainless steel screens; body tapped for a blow off valve; 125 psig flanged body for 2 1/2" and larger; 0.125 inch perforations for line sizes 2-1/2 inch through 4 inch, and 0.25 inch perforations for line sizes 5 inch and larger.

2.09 CHILLED WATER BUFFER TANK

- A. The chilled water buffer tank is existing and being reused.

2.10 BOILER BUFFER TANK

- A. The boiler buffer tank is existing and being reused.

2.11 PUMP SPECIALTIES

- A. Suction Diffusers:
 - 1. Based on product by Bell and Gossett.
 - a) Anvil Gruvlok, Armstrong, Taco, Titan Flow Control, Victaulic equals are acceptable.
 - 2. Bell and Gossett Type X with cast iron body, steel orifice cylinder and inlet vanes, fine mesh bronze start-up strainer, stainless steel or galvanized steel normal strainer, bolted flange for strainer removal and cleaning, blowdown connection, inlet pressure gauge connection, rated not less than 125 psi working pressure at not less than 250°F.
 - 3. Include adjustable support foot.
 - 4. Unit outlet shall be sized to match pump inlet, unless pressure drop exceeds 1 psi.

PART 3: EXECUTION

3.01 EXPANSION LOOPS

- A. Install where indicated on the drawings or details, locating anchors and guides as detailed.

3.02 BALANCING STATIONS

- A. Install where indicated on Working Drawings. Valve shall be tight shut-off balancing valve.
- B. Calibrated balancing valves are not to be used as equipment isolation valves.
- C. See Section 23 07 19 HVAC PIPE INSULATION for insulation over calibrated balancing valves.

3.03 FLOW SENSORS

- A. Install where indicated on Working Drawings. Provide tight shut-off balancing valve in conjunction with balancing device.

3.04 SYSTEM AIR VENTS

A. MANUAL BALL VALVE VENTS:

1. For system mains, manual type installed at all high points, accessible with extension piping where required.
2. Install on air handling coils and where indicated elsewhere as shown on drawings and details.

B. AUTOMATIC VENTS:

1. Install on the top of air separators on systems using bladder type expansion tanks. Install at other locations as indicated on the drawings or details. All locations to have a ball valve installed upstream of the vent for maintenance purposes.
2. On systems with compression tanks with air control systems vs. air elimination systems, automatic air vents shall **NOT** be used.

3.05 WATER FILTERS

- A. Install water filter in a bypass arrangement on well water where indicated on the drawings.
- B. Allow sufficient clearance at the top of the unit for filter removal and replacement. Anchor filter support stand to a housekeeping pad.
- C. Install a shutoff valve upstream and downstream of the filter and a flow sensor in the return line. Install a pressure gauge with gauge valves, piped so the pressure differential across the filter can be read.
- D. Install the 50 micron filters after the piping system has been cleaned and flushed.
- E. Install one set of 5 micron filters when the 50 micron filters need replacing. Give the remaining 5 micron filters to the Owner.

3.06 MULTIPURPOSE VALVES (TRIPLE DUTY)

- A. Pumps will not have Triple-Duty Valves, use check valves instead.

3.07 SUCTION DIFFUSERS

- A. Install suction diffusers on all floor-mounted heating water pumps, and at other pumps where indicated.
- B. Provide sufficient space for removal of the strainer.
- C. The Contractor shall remove the start-up strainer, after initial system cleaning, after 20 days of operation.
 1. Remove start-up screens and attach them to the diffuser with a metal tie or zip tie to verify they have been removed.
- D. Install adjustable support foot below the suction diffuser so the weight of the suction piping does not rest on the pump suction connection.
- E. Install a capped drain valve in the blowdown connection with pressure rated hose connection, see Sections 23 21 11 and 23 21 12.
- F. Install a pressure gauge across the suction diffuser, valved so that a single gauge can be used to read the inlet pressure and the outlet pressure across the strainer. Use gauge valves as specified with the gauges. This gauge can be the same one used to read pressures across the pump. Select gauge range appropriate to the system pressures.

- G. Open the drain valve and blowdown the strainer after system cleaning and again after 30 days of operation. If the unit is furnished with a fine mesh startup strainer, remove this strainer after the system has been flushed and cleaned.

3.08 STRAINERS

- A. Install ahead of pumps, (not required if strainer is at air separator), pressure reducing stations, steam traps (except thermostatic), and other equipment (where indicated).
- B. Install all strainers where indicated on the project details, allowing sufficient space for the screens to be removed. Rotate screen retainer where required by the installation so blowdown can remove accumulated dirt from the strainer body.
- C. Provide extension leg with blowdown drain valve and pressure rated hose connection cap, as specified in Sections 23 21 11 and 23 21 12. Valve to be same size as the tapping.
- D. For hot water heating systems, use coarse mesh screen (approx. 1/8 inch). When pumps are provided with suction diffusers, strainers are not required.

END OF SECTION 23 21 16

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SECTION 23 55 13

FUEL FIRED DUCT HEATERS

PART 1: GENERAL

1.01 RELATED DOCUMENTS

- A. Conditions of the Contract and portions of Division One of this Project Manual apply to this Section as though repeated herein.
- B. The requirements of Section 23 05 00 apply to this Section.

1.02 SUBMITTALS

- A. Submit in accord with Section 01 30 00.
 - 1. Shop drawings and descriptive product data describing all material furnished under Part 2 of this Section.

1.03 WARRANTY

- A. Gas fired duct heaters heat exchangers warranted for five years. Remainder of unit heater components warranted for 1 year from startup.

PART 2: PRODUCTS

2.01 GAS-FIRED POWER VENTED DUCT HEATERS

- A. Based on product by Modine.
 - 1. Hastings, Rapid, Reznor, Rupp, Sterling, Temprite, Trane, Weather-Rite equals are acceptable.
- B. Unit to be of model, type, size and capacities listed in schedule on Drawings.
- C. Mechanical Configuration.
 - 1. Furnace(s) section with 80% minimum efficiency provided by an indirect-fired heat exchanger with dimpled tube pattern for efficient heat.
 - 2. Blower section containing a supply blower and motor with bottom support to provide rigidity. The blower connection shall be flexible with 1/4" gasket to prevent sound transmission into the supply ductwork.
 - 3. Electrical section isolated from the supply air stream including a hinged access door. Separate knock-outs shall be provided for both high and low voltage electrical connections. Provisions must be included for side access electrical connections for slab mounted units and bottom electrical connections for roof curb mounted or suspended units.
- D. Indoor Separated Combustion Venting Arrangements.
 - 1. The unit casing shall be designed for the venting/ combustion air arrangement to be separated from the room atmosphere. The unit shall have a factory mounted power exhauster enclosed in the unit casing to prevent the motor from being subjected to the room atmosphere. The unit shall also include a factory mounted differential pressure switch designed to prevent pilot and main burner ignition until positive venting has been proven. A removable gasketed door shall contain both the vent and combustion air connection collars to allow for servicing of the power exhauster.
 - 2. The unit shall include a factory supplied horizontal concentric vent kit allowing for a single penetration of the wall for both the combustion air supply and flue product exhaust.

3. The unit shall include a factory supplied vertical concentric vent kit allowing for a single penetration of the roof for both the combustion air supply and flue product exhaust.
4. The unit shall include two factory supplied vent caps for both the combustion air supply and flue product exhaust.

E. Indoor Unit Casing

1. The duct furnace(s) unit casing shall be constructed of not less than 20 gauge aluminized steel.
2. The blower and cooling sections shall be constructed of not less than 18 gauge aluminized steel.
3. All blower and cooling section exterior casing parts shall be painted with a baked-on gray-green polyester powder paint (7 mil thickness) for corrosion resistance.
4. All blower section access side doors shall have heavy duty, draw tight, quarter turn latches.
5. Blower section shall include 1 inch, 1-1/2 lb density acoustical and thermal insulation. The insulation shall be made of glass fibers bonded with a thermosetting resin and overlaid with a fire-resistant black acrylic coating for additional strength. The acrylic coating must meet the requirements of ASTM C 665 for fungi resistance.
6. The duct furnace(s) shall include separate access doors for the power exhauster, electrical controls, and gas train to allow for simplified service of the unit.
7. All duct furnace(s) doors shall be fully gasketed to prevent infiltration of the room air into the combustion process

F. Furnace Section

1. The heat exchanger(s) shall be made of 20 gauge 409 stainless steel tubes and headers. The thermal efficiency of the unit(s) shall be a minimum of 80% efficient for all air flow ranges. The restrictor shall be sized to maintain the unit(s) efficiency of 80% in the temperature range of 20°F-60°F or 20°F-100°F. Each heat exchanger tube shall be individually and directly flame-fired. The heat exchanger tube shall be contoured and dimpled to provide efficient heat transfer and crimped to allow for thermal expansion and contraction. The flue collector box shall be made of 20 gauge aluminized steel.
2. The heat exchanger(s) seams and duct connections shall be certified to withstand 3.0" W.C. external static pressure without burner flame disturbance.
3. The burner(s) shall be made of the same material as the heat exchanger with a thickness of not less than 28 gauge. Burner(s) shall have non-clogging, slotted ports with a stainless steel separator strip designed for good lighting characteristics without noise of extinction for both natural and propane gas. The burner(s) shall be located for service removal without disconnecting the main gas supply piping.
4. The bottom of the unit shall be angled for draining any condensation to the corners of the unit. The condensation shall be removed through openings in the bottom pan. The drain pan shall be constructed of 20 gauge aluminized steel.
5. The gas manifold(s) piping shall allow for gas piping connection on the side of the unit for slab mounted units and through the unit bottom for roof curb mounted or suspended units. The manifold(s) shall include a ground joint union for ease of servicing of the orifices without removing the burner assembly or main gas valve string.
6. The orifices shall be provided on both natural and propane gas with adjustable air shutters for controlling the primary air mixture. The ignition controller(s) shall be 100% shut-off with continuous retry for natural gas.
7. The solid state ignition system shall intermittently light the pilot each time the system is energized. Once the pilot is proven, the main gas valve shall open and allow gas flow to the main burner.

8. The unit gas controls shall be provided with the following: Electronic Modulation - 4-20 mA External Input. Allows for control of the duct furnace firing rate by a Building Management System (BMS). Utilizes an electronic modulating/regulating gas control, combination gas valve, an ignition control, modulating signal conditioner, and an inverted 4-20 mA input signal provided by a BMS (4 mA being high fire and 20 mA being low fire). The gas controls can modulate the gas flow between 40% and 100% full fire. When the BMS thermostat (supplied by others) is satisfied, the BMS heat contact (supplied by others) opens to cut power to the combination gas valve which prevents gas flow to both the main and pilot burners.
9. A 1/8" manifold pressure tap shall be located after all valves to test the manifold pressure directly before the main burner orifices.
10. The unit shall be provided with a single gas control transformer to step down the supply voltage to 24V.
11. Separate line voltage and low voltage terminal strips shall be provided to prevent the unit from being miswired for premium unit and low voltage terminals for standard units.
12. Automatic reset high limit switch.
13. Provide the following factory installed options:
 - a) A low gas pressure switch(s) prevents the burner from firing if the inlet gas pressure is below the minimum gas pressure.
 - b) A high gas pressure switch(s) which prevents the burner from firing if the manifold gas pressure is above the maximum manifold gas pressure.
 - c) An air flow proving switch shall be an adjustable differential pressure switch to insure air flow across the heat exchanger before allowing the gas controls to be energized.
14. The gas pressure shall be between 6-7" W.C for natural gas. The unit shall be orificed for up to 2000' elevation above sea level.

G. Blower Section.

1. The blower motor type shall be Single-speed, ODP, high efficiency (ODP HE). The motor wiring shall be in flexible metal BX conduit. The motor shall be provided with an adjustable motor sheave to allow for minor adjustment of the blower RPM at the jobsite. The motor shall be controlled by a time delay relay and motor starter.
2. The unit shall contain a single supply blower that is supported from the bottom to prevent the blower flanges supporting the weight of the motor. The blower shall be a double width, double inlet (DWDI), forward curved, belt driven, assembly with:
 - a) Heavy duty, pillow block ball bearings.
 - b) Motor and blower vibration isolation using rubber-in-shear grommets.
 - c) Extended grease lines which include external zerck fittings for applying grease.
3. The unit shall be provided with a filter rack with 2" MERV 8 filters.

H. Mounting Base: The unit shall be provided with a 14 gauge, galvanized steel, rail type mounting base for slab installation with lifting and anchoring holes.

I. Electrical.

1. All electrical components shall carry UL, ETL, or CSA listing.
2. The unit shall be supplied with a disconnect switch to disconnect power to the unit for servicing.
3. A single step down transformer shall be provided for all unit controls.

PART 3: PART 3: EXECUTION

3.01 GENERAL

- A. Install units and connect gas, combustion air and vent piping as instructed by the manufacturer and in compliance with applicable code requirements.
- B. Mount unit off floor of mezzanine with vibration isolation. Level unit.
- C. Pipe all condensate drains full size to nearest floor drain.
- D. Connect combustion air and venting to outside of building as indicated on the drawings and terminate per the manufacturer's instructions.
- E. Wiring of unit under Division 26, Electrical.
- F. All wiring and electrical components required in conjunction with heater gas controls under this Section.
- G. Installation of control wiring shall be supervised by unit supplier.
- H. Gas piping to unit burner by plumbing trade. Provide gas regulators as required.

3.02 START-UP

- A. Unit supplier shall provide check, test and start-up service.

END OF SECTION 23 55 13



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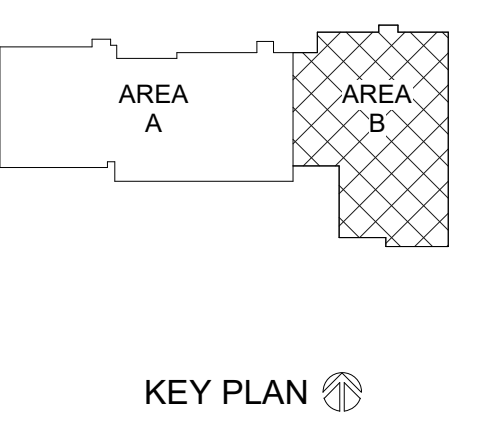
Project Title: **WESTERN TECHNICAL COLLEGE
SPARTA PUBLIC SAFETY EXPANSION**
Project Location: 11177 COUNTY ROAD A
SPARTA, WI 54656
Sheet Title: **FIRST FLOOR PLAN - AREA B**

HSR Project Number: **20028**

Project Date: **FEBRUARY 2021**

Drawn By: **MM/RW/MPL**

Key Plan:



KEY PLAN

No.	Description	Date
A01	ADDENDUM 1	2-15-21

Graphic Scale: **VARIES**

Last Update: **2/15/2021 10:08:44 AM**

A101

PLAN GENERAL NOTES:

- A. REFER TO OVERALL PLANS FOR FIRE RATING LOCATIONS AND ACCESSIBILITY ROUTES.
- B. SEE ID SHEETS FOR FLOOR AND WALL FINISH LAYOUTS.
- C. LOOSE FURNISHINGS EXCEPT AS NOTED SHALL BE PROVIDED AND INSTALLED BY THE OWNER.
- D. FIXED EQUIPMENT IS SHOWN ON THIS PLAN FOR COORDINATION. SEE SHEETS A100 FOR ALL EQUIPMENT NOTES.
- E. UNLESS NOTED OTHERWISE RESTROOM FLOORS SHALL BE SLOPED A MIN. 1/16" - 1/2" TO FLOOR DRAINS - TO "CENTER", IF NO FLOOR DRAINS. PAINT ALL EXPOSED STEEL LINTELS.
- F. EXTEND ALL WALLS TO DECK UNLESS NOTED OTHERWISE. SEE A801 FOR TOP OF WALL DETAILS.
- G. INSTALL BULLNOSE CMU AT ALL OUTSIDE CORNERS W/IO TILE AND AT DOOR JAMBS AS DETAILED. NO BULLNOSE AT WINDOW JAMBS.
- H. SEE A801 FOR WALL CONTROL JOINT DETAILS. SEE PLANS AND ELEVATIONS FOR CJ LOCATIONS. CJ = CONTROL JOINTS.
- I. SEE A80X FOR TYPICAL HEAD FLASHING AND THROUGH-WALL FLASHING ISOMETRIC DETAILS.
- J. SEE STRUCTURAL FOR SLAB CONTROL JOINTS.
- K. GENERAL CONTRACTOR TO PROVIDE CONCRETE EQUIPMENT PADS/CURBS AS REQUIRED FOR MECHANICAL / ELECTRICAL EQUIPMENT. VERIFY SIZE, PROFILE & LOCATION WITH MECHANICAL / ELECTRICAL.
- L. VERIFY EXACT SIZE AND LOCATION OF ALL MECHANICAL / PLUMB AND ELEC. OPENINGS - GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR FINISH AT ALL VISIBLE AREAS. ALL OPENING SHALL BE SEALED AFTER UTILITY INSTALLATION.

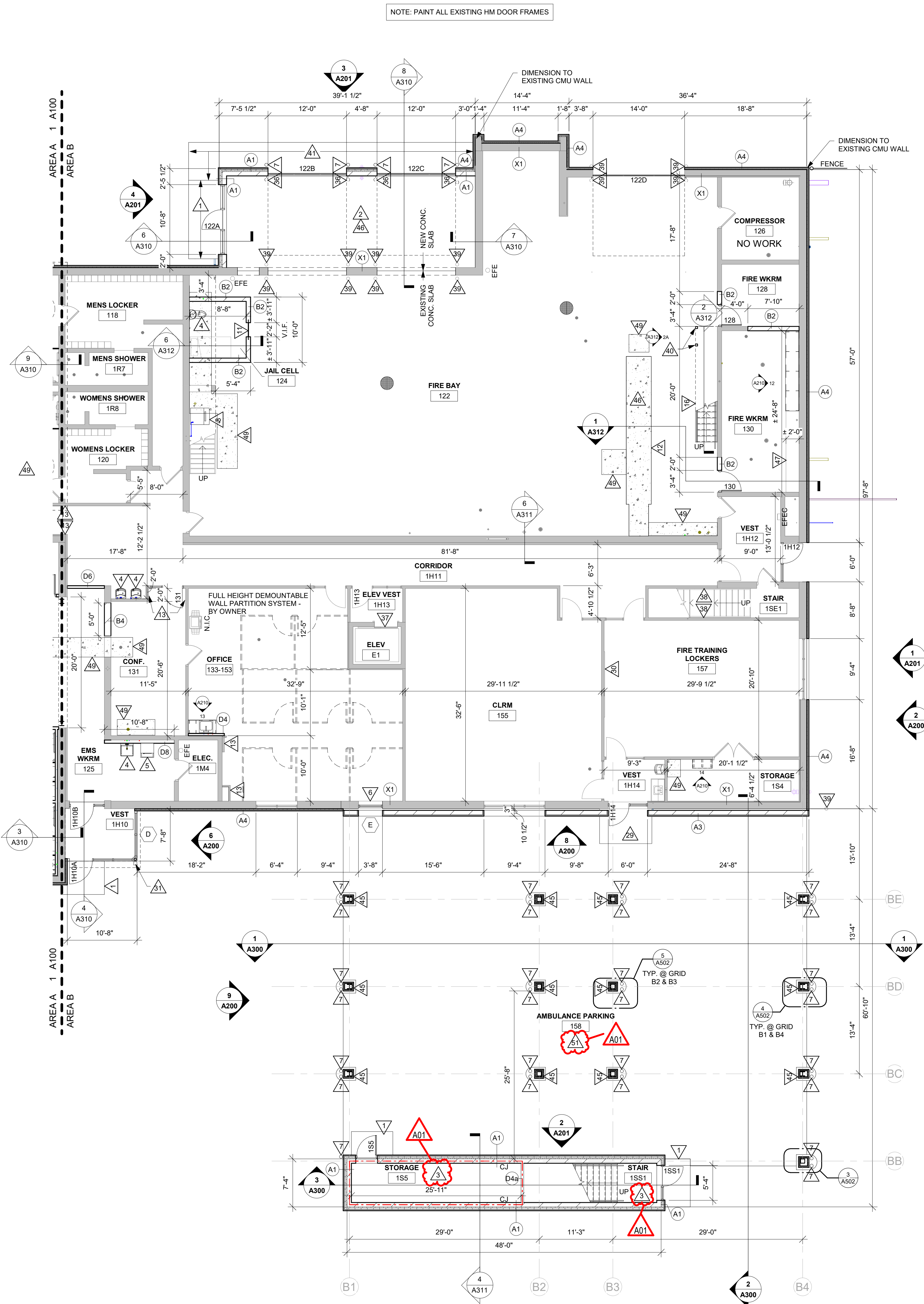
LEGEND:

- (A) SYMBOL INDICATES WALL TYPE - SEE SHEET A600 FOR WALL TYPE DETAILS.
- (A) SYMBOL INDICATES WINDOW TYPE. SEE SHEET A600 FOR WINDOW FRAME ELEVATIONS.
- (A) SYMBOL INDICATES CONSTRUCTION NOTE THIS SHEET
- 1 HOUR WALL
- WALL SECTION
- BUILDING SECTION
- CONCRETE IN-FILL - SEE PLUMBING / STRUCTURAL SHEETS
- WOOD FRAMING IN-FILL - SEE STRUCTURAL SHEETS
- PRECAST CONCRETE IN-FILL - SEE STRUCTURAL SHEETS
- EFE EXISTING FIRE EXTINGUISHER
- EFEFC EXISTING FIRE EXTINGUISHER CABINET

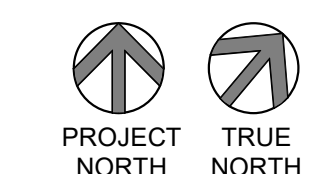
KEY NOTES PLAN

1. INSTALL NEW CONCRETE FROST STOOP - SEE STRUCTURAL SHEETS.
2. INSTALL NEW CONCRETE SLAB-ON-GRADE W/ RADIANT IN-FLOOR HEAT INSTALLATION - SEE MECHANICAL / STRUCTURAL SHEETS.
3. **INSTALL NEW CONCRETE SLAB-ON-GRADE - SEE STRUCTURAL SHEETS.**
4. INSTALL NEW CONCRETE FROST STOOP - SEE STRUCTURAL SHEETS.
5. STACKABLE WASHER / DRYER (N.I.C.) - INSTALLATION BY G.C. - SEE ELECTRICAL & PLUMBING SHEETS.
6. INSTALL NEW SOLID SURFACE WINDOW STOOL - SEE ID SHEETS.
7. INSTALL NEW BOLLARD & CONC. CURB - SEE CIVIL SHEETS.
8. ICE MACHINE (N.I.C.) - HOOK-UPS BY G.C. - SEE ELECTRICAL & PLUMBING SHEETS.
9. INSTALL NEW HIGH DENSITY MOBILE STORAGE UNIT.
10. EXISTING TEACHING STATION (N.I.C.)
11. INSTALL SALVAGED JAIL CELL DOOR.
12. INSTALL NEW SLAB-ON-GRADE OVER PIT INFILL - SEE STRUCTURAL SHEETS.
13. PATCH, PREP & PAINT WALL AT REMOVED WALL / CASEWORK.
14. INSTALL HALF-WALL W/ PARTIAL HEIGHT WALL FRAMING SUPPORT - TOP @ 48" NOMINAL - CAP WALL W/ SOLID SURFACE TOP.
15. MOBILE TEACHING STATION - BY OWNER (N.I.C.)
16. INSTALL NEW METAL STAIR AND RAILING UP TO EXISTING MEZZANINE.
17. PATCH CONCRETE SLAB. DOWEL NEW SLAB TO EXISTING SLAB W/ #4 X 1'-0" DOWELS @ 18" O.C. DRILL & EPOXY IN EXISTING SLAB W/ 4" EMBEDMENT.
18. AMBULANCE SIMULATOR (N.I.C.) - SEE ELECTRICAL SHEETS FOR HOOKUPS. COORDINATE W/ OWNER FOR INSTALLATION.
19. INSTALL WALL MOUNTED HEAD UNIT - OWNER PROVIDED. COORDINATE W/ OWNER FOR FINAL LOCATION. SEE ELECTRICAL SHEETS.
20. TEACHING STATION (N.I.C.)
21. INSTALL CUBICLE CURTAIN ATTACHED TO TRACK ON DROPPED CEILING TILE.
22. NON-OPERABLE DEMONSTRATION FIXTURE - SEE PLUMBING SHEETS.
23. INSTALL CAST STONE BENCH TOP/SEAT. SEE SHEET A01 FOR SLOPE DIRECTION.
24. VENDING MACHINE (N.I.C.) - SEE ELECTRICAL SHEETS.
25. INSTALL OPERABLE WALL PARTITION.
26. PATCH CONCRETE SLAB - SEE STRUCTURAL SHEETS.
27. EXISTING COLUMN TO REMAIN.
28. INSTALL NEW CARD ACCESS ON NEW POST. SET POST IN CONCRETE.
29. EXISTING CONCRETE STOOP AND FOOTINGS TO REMAIN.
30. EXISTING BULLETIN / WHITE BOARD TO REMAIN.
31. INSTALL NEW DOWNSPOUTS & SALVAGED HEAT TAPE AFTER METAL PANEL IS INSTALLED. SEE ELECTRICAL SHEETS FOR HEAT TAPE COORDINATION.
32. INSTALL NEW 6" THICK WITH REINFORCING CONCRETE EQUIPMENT PAD - SEE MECHANICAL SHEETS.
33. INSTALL NEW TACKSTRIP AT 9'-2". SEE NOTE ON PLAN FOR APPROX. LINEAR DIMENSION.
34. INSTALL STAINLESS STEEL HANRAIL SYSTEM W/ MESH INFILL PANEL - SEE ELEVATION 2A102.
35. SEMI RECESSED FIRE EXTINGUISHER CABINET - SEE SPEC.
36. INSTALL NEW BOLLARD - SEE 20A02 FOR DETAIL.
37. PAINT EXISTING ELEVATOR DOORS - SEE MASTER COLOR SCHEDULE.
38. PAINT EXISTING HANDRAILS - SEE MASTER COLOR SCHEDULE.
39. INSTALL NEW PLASTIC BOLLARD COVER TO EXISTING BOLLARDS.
40. 4" TUBE STEEL COLUMN STAIR SUPPORT - PAINT.
41. INSTALL NEW PRECAST PLANK W/ CONCRETE TOPPING - SEE STRUCTURAL SHEETS.
42. MOOPY AND INSTALL SALVAGED GUARDRAIL & TOEKICK. SEE PLAN FOR APPROX. DIMENSIONS - V.I.F.
43. INSTALL NEW WOOD FRAMING SYSTEM - SEE STRUCTURAL SHEETS.
44. THROUGH WALL MECH. LOUVER @ WALL INFILL - COORDINATE W/ MECHANICAL.
45. INSTALL NEW METAL WALL PANEL COLUMN ENCLOSURE - SEE DETAILS A202.
46. APPLY REACTIVE HARDENER/SEALER TO NEW CONCRETE SLAB.
47. PAINT TOP & FRONT FACE OF EXISTING 4" H CONCRETE BASE.
48. WHITE BOARD INTEGRATED IN WALL PANELS - 3'-0" A.F.F. AND 4'-0" HIGH - BY PANEL SUPPLIER.
49. PATCH CONCRETE SLAB TO MATCH ADJACENT SLAB CONSTRUCTION & MATERIAL. SEE PLUMBING SHEETS.
50. INSTALL NEW PRECAST PLANK/TOPPING W/ RADIANT IN-FLOOR HEAT - SEE MECHANICAL SHEETS.
51. **INSTALL NEW CONCRETE PAVEMENT - SEE CIVIL SHEETS.**

NOTE: PAINT ALL EXISTING HM DOOR FRAMES



1 FIRST FLOOR PLAN - AREA B
1/8" = 1'-0"





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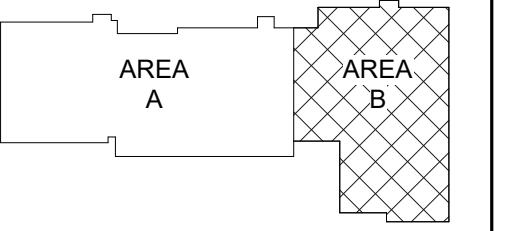
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Project Location: 11177 COUNTY ROAD A
SPARTA, WI 54656
Sheet Title: **SECOND FLOOR PLAN**

HSR Project Number: **20028**

Project Date: **FEBRUARY 2021**

Drawn By: **MM/RW/MPL**

Key Plan:



KEY PLAN

No.	Description	Date
A01	ADDENDUM 1	2-15-21

Graphic Scale: **VARIES**

Last Update: **2/15/2021 10:08:47 AM**

A102

PLAN GENERAL NOTES:

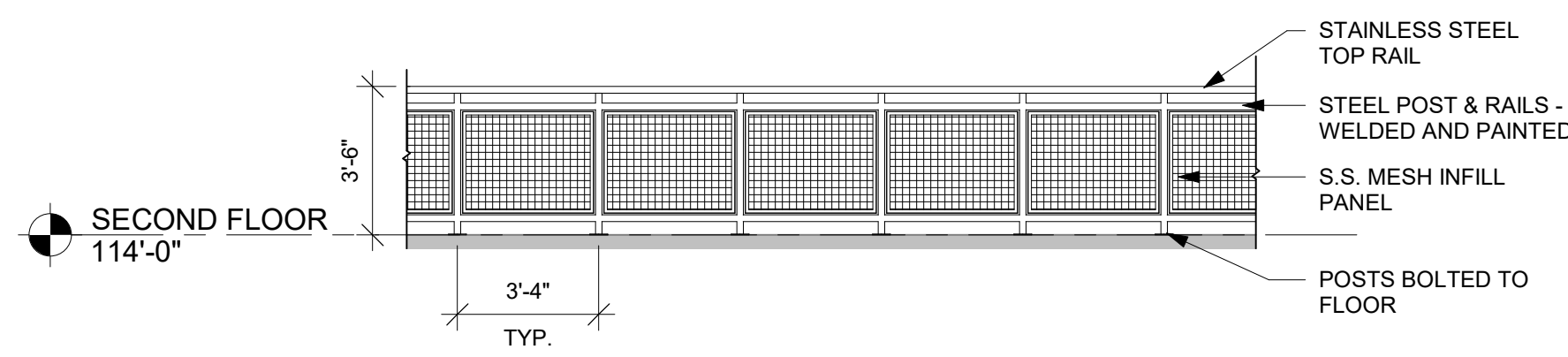
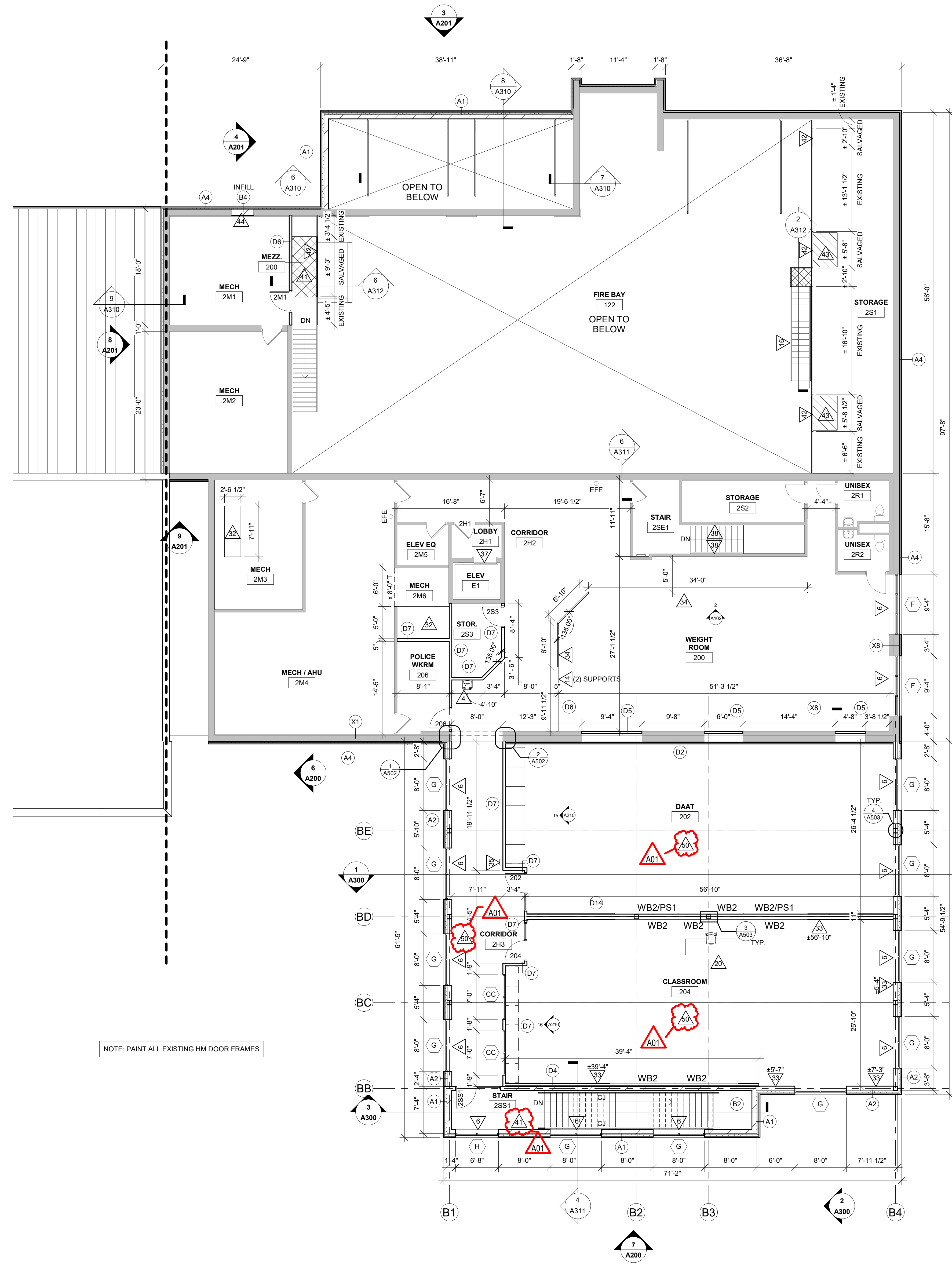
- A. REFER TO OVERALL PLANS FOR FIRE RATING LOCATIONS AND ACCESSIBILITY ROUTES.
- B. SEE ID SHEETS FOR FLOOR AND WALL FINISH LAYOUTS.
- C. LOOSE FURNISHINGS EXCEPT AS NOTED SHALL BE PROVIDED AND INSTALLED BY THE OWNER.
- D. FIXED EQUIPMENT IS SHOWN ON THIS PLAN FOR COORDINATION. SEE SHEETS **A100** FOR ALL EQUIPMENT NOTES.
- E. UNLESS NOTED OTHERWISE RESTROOM FLOORS SHALL BE SLOPED A MIN. 1/16" - 1/2" TO FLOOR DRAINS - TO "CENTER". IF NO FLOOR DRAINS, PAINT ALL EXPOSED STEEL LINTELS.
- F. EXTEND ALL WALLS TO DECK UNLESS NOTED OTHERWISE. SEE **A801** FOR TOP OF WALL DETAILS.
- G. INSTALL BULLNOSE GCMU AT ALL OUTSIDE CORNERS W/IO TILE AND AT DOOR JAMBS AS DETAILED. NO BULLNOSE AT WINDOW JAMBS.
- H. SEE **A801** FOR WALL CONTROL JOINT DETAILS. SEE PLANS AND ELEVATIONS FOR CJ LOCATIONS. CJ = CONTROL JOINTS.
- I. SEE **A801** FOR TYPICAL HEAD FLASHING AND THROUGH-WALL FLASHING ISOMETRIC DETAILS.
- J. SEE STRUCTURAL FOR SLAB CONTROL JOINTS.
- K. GENERAL CONTRACTOR TO PROVIDE CONCRETE EQUIPMENT PADS/CURBS AS REQUIRED FOR MECHANICAL / ELECTRICAL EQUIPMENT. VERIFY SIZE, PROFILE & LOCATION WITH MECHANICAL / ELECTRICAL.
- L. VERIFY EXACT SIZE AND LOCATION OF ALL MECHANICAL / PLUMB AND ELEC. OPENINGS. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR FINISH AT ALL VISIBLE AREAS. ALL OPENING SHALL BE SEALED AFTER UTILITY INSTALLATION.

LEGEND:

- (A) SYMBOL INDICATES WALL TYPE - SEE SHEET **A600** FOR WALL TYPE DETAILS.
- (A) SYMBOL INDICATES WINDOW TYPE. SEE SHEET **A600** FOR WINDOW FRAME ELEVATIONS.
- (A) SYMBOL INDICATES CONSTRUCTION NOTE THIS SHEET
- 1 HOUR WALL
- WALL SECTION
- BUILDING SECTION
- CONCRETE IN-FILL - SEE PLUMBING / STRUCTURAL SHEETS
- WOOD FRAMING IN-FILL - SEE STRUCTURAL SHEETS
- PRECAST CONCRETE IN-FILL - SEE STRUCTURAL SHEETS
- EFE EXISTING FIRE EXTINGUISHER
- EFE/C EXISTING FIRE EXTINGUISHER CABINET

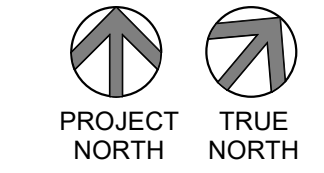
KEY NOTES PLAN

1. INSTALL NEW CONCRETE FROST STOP - SEE STRUCTURAL SHEETS.
2. INSTALL NEW CONCRETE SLAB-ON-GRADE W/ RADIANT IN-FLOOR HEAT & INSULATION - SEE MECHANICAL & STRUCTURAL SHEETS.
3. INSTALL NEW CONCRETE SLAB-ON-GRADE - SEE STRUCTURAL SHEETS.
4. INSTALL NEW PLUMBING FIXTURE - SEE PLUMBING SHEETS.
5. STACKABLE WASHER / DRYER (N.I.C.) - INSTALLATION BY G.C. - SEE ELECTRICAL & PLUMBING SHEETS.
6. INSTALL NEW SOLID SURFACE WINDOW STOOL - SEE ID SHEETS.
7. INSTALL NEW BOLLARD & CONC. CURB - SEE CIVIL SHEETS.
8. ICE MACHINE (N.I.C.) - HOOK-UPS BY G.C. - SEE ELECTRICAL & PLUMBING SHEETS.
9. INSTALL NEW HIGH DENSITY MOBILE STORAGE UNIT.
10. EXISTING TEACHING STATION (N.I.C.)
11. INSTALL SALVAGED JAIL CELL DOOR.
12. INSTALL NEW SLAB-ON-GRADE OVER PIT INFILL - SEE STRUCTURAL SHEETS.
13. PATCH, PREP & PAINT WALL AT REMOVED WALL / CASEWORK.
14. INSTALL HALF-WALL W/ PARTIAL HEIGHT WALL FRAMING SUPPORT - TOP @ 48" NOMINAL - CAP WALL W/ SOLID SURFACE TOP.
15. MOBILE TEACHING STATION - BY OWNER (N.I.C.)
16. INSTALL NEW METAL STAIR AND RAILING UP TO EXISTING MEZZANINE.
17. PATCH CONCRETE SLAB. DOWEL NEW SLAB TO EXISTING SLAB W/ #4 X 1'-0" DOWEL @ 16" O.C. DRILL & EPOXY IN EXISTING SLAB W/ 4" EMBEDMENT.
18. AMBULANCE SIMULATOR (N.I.C.) - SEE ELECTRICAL SHEETS FOR HOOKUPS. COORDINATE W/ OWNER FOR INSTALLATION.
19. INSTALL WALL MOUNTED HEAD UNIT - OWNER PROVIDED. COORDINATE W/ OWNER FOR FINAL INSTALL LOCATION. SEE ELECTRICAL SHEETS.
20. TEACHING STATION (N.I.C.)
21. INSTALL CUBICLE CURTAIN ATTACHED TO TRACK ON DROPPED CEILING TILE.
22. NON-OPERABLE DEMONSTRATION FIXTURE - SEE PLUMBING SHEETS.
23. INSTALL CAST STONE BENCH TOP/SEAT. SEE SHEET **A801** FOR SLOPE DIRECTION.
24. WENDING MACHINE (N.I.C.) - SEE ELECTRICAL SHEETS.
25. INSTALL OPERABLE WALL PARTITION.
26. PATCH CONCRETE SLAB - SEE STRUCTURAL SHEETS.
27. EXISTING COLUMN TO REMAIN.
28. INSTALL NEW CARD ACCESS ON NEW POST. SET POST IN CONCRETE.
29. EXISTING CONCRETE STOOP AND FOOTINGS TO REMAIN.
30. EXISTING BULLETIN / WHITE BOARD TO REMAIN.
31. INSTALL NEW DOWNSPOUTS & SALVAGED HEAT TAPE AFTER METAL PANEL IS INSTALLED. SEE ELECTRICAL SHEETS FOR HEAT TAPE COORDINATION.
32. INSTALL NEW 6" THICK WITH REINFORCING CONCRETE EQUIPMENT PAD - SEE MECHANICAL SHEETS.
33. INSTALL NEW TAPESTRIP AT 9'-2". SEE NOTE ON PLAN FOR APPROX. LINEAR DIMENSION.
34. INSTALL STAINLESS STEEL HANRAIL SYSTEM W/ MESH INFILL PANEL - SEE ELEVATION **2A102**.
35. SEMI RECESSED FIRE EXTINGUISHER CABINET - SEE SPEC.
36. INSTALL NEW BOLLARD - SEE **2A802** FOR DETAIL.
37. PAINT EXISTING ELEVATOR DOORS - SEE MASTER COLOR SCHEDULE.
38. PAINT EXISTING HANDRAILS - SEE MASTER COLOR SCHEDULE.
39. INSTALL NEW PLASTIC BOLLARD COVER TO EXISTING BOLLARDS.
40. 4" TUBE STEEL COLUMN STAIR SUPPORT - PAINT.
41. INSTALL NEW PRECAST PLANK W/ CONCRETE TOPPING - SEE STRUCTURAL SHEETS.
42. MODIFY AND INSTALL SALVAGED GUARDRAIL & TOEKICK. SEE PLAN FOR APPROX. DIMENSIONS - V.I.F.
43. INSTALL NEW WOOD FRAMING SYSTEM - SEE STRUCTURAL SHEETS.
44. THROUGH WALL MECH. LOUVER @ WALL INFILL - COORDINATE W/ MECHANICAL.
45. INSTALL NEW METAL WALL PANEL COLUMN ENCLOSURE - SEE DETAILS **A802**.
46. APPLY REACTIVE HARDENER/SEALER TO NEW CONCRETE SLAB.
47. PAINT TOP & FRONT FACE OF EXISTING 4" H CONCRETE BASE.
48. WHITE BOARD INTEGRATED IN WALL PANELS - 3'-0" A.F.F. AND 4'-0" HIGH - BY PANEL SUPPLIER.
49. PATCH CONCRETE SLAB TO MATCH ADJACENT SLAB CONSTRUCTION & FINISH.
50. INSTALL NEW PRECAST PLANK/TOPPING W/ RADIANT IN-FLOOR HEAT - SEE MECHANICAL & STRUCTURAL SHEETS.
51. INSTALL NEW CONCRETE PARTITION - SEE CIVIL SHEETS.



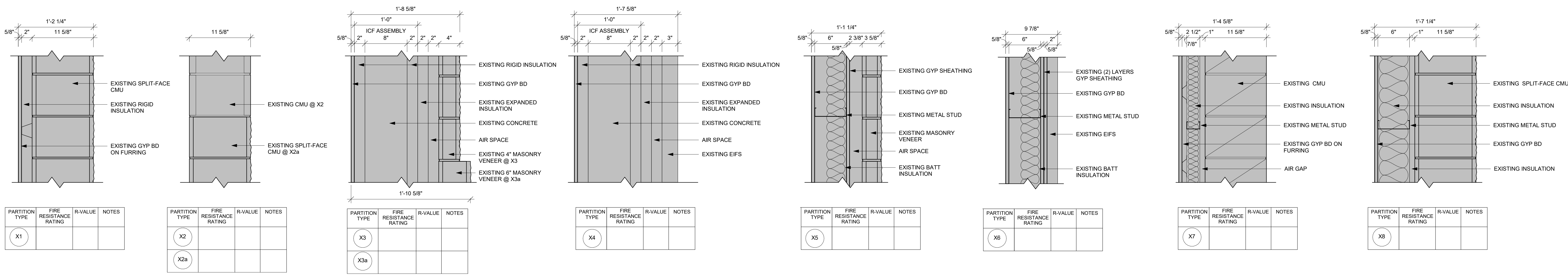
2 RAILING ELEVATION
1/4" = 1'-0"

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

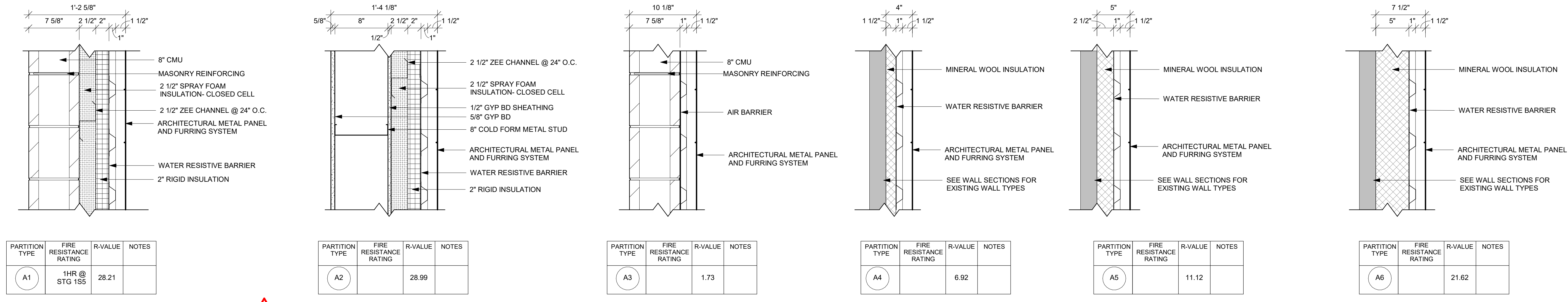




Consultant:



PARTITION TYPE	FIRE RESISTANCE RATING	R-VALUE	NOTES
X1			
X2			
X2a			
X3			
X3a			
X4			
X5			
X6			
X7			
X8			



PARTITION TYPE	FIRE RESISTANCE RATING	R-VALUE	NOTES
A1	1HR @ STG 155	28.21	
A2		28.99	
A3		1.73	
A4		6.92	
A5		11.12	
A6		21.62	

GENERAL WALL TYPE NOTES:

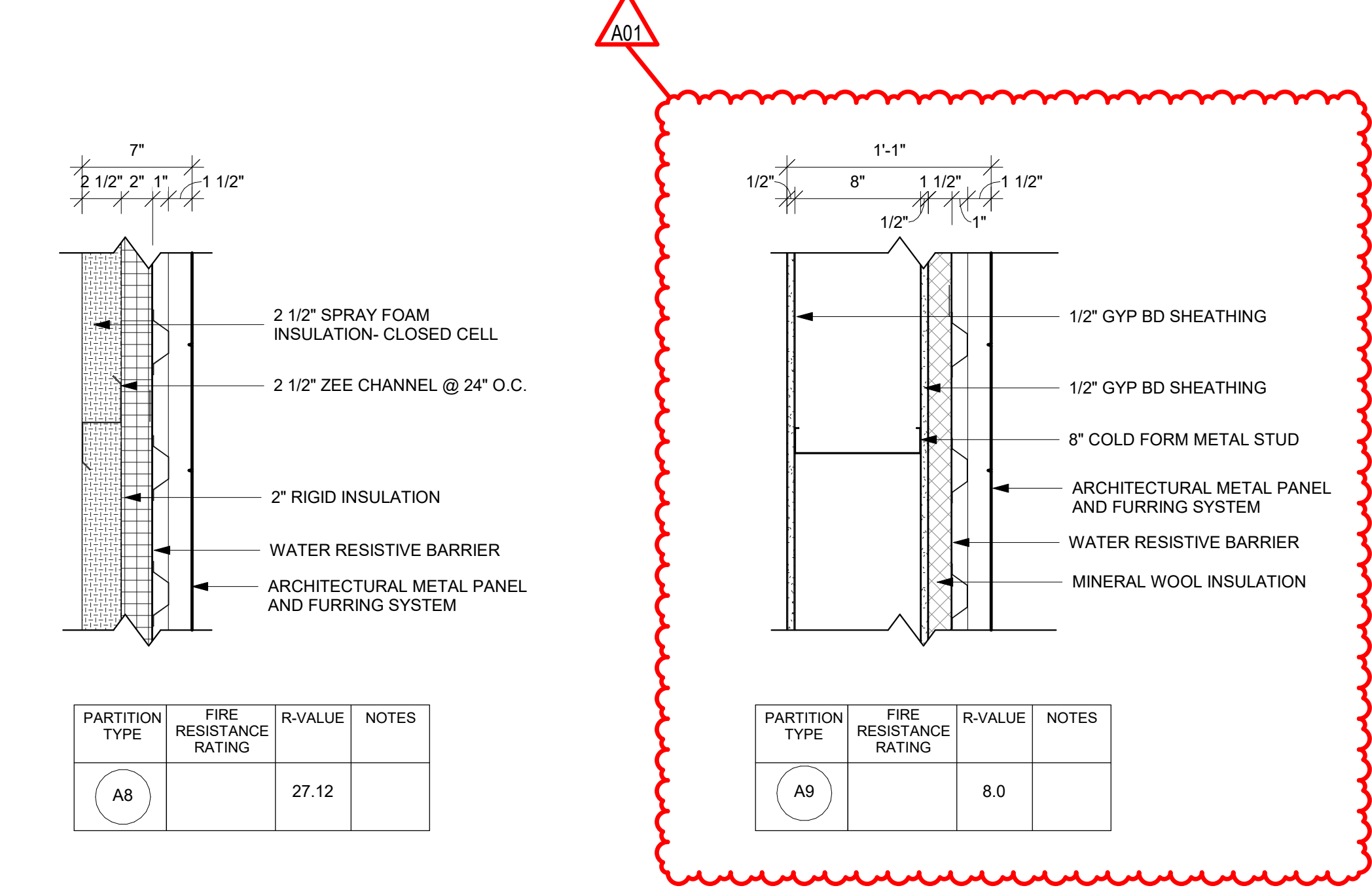
- A REFER TO MASTER COLOR SCHEDULE AND INTERIOR DESIGN SHEETS FOR ADDITIONAL WALL FINISHES.
- B WHERE INTERIOR DESIGN SHEETS INDICATE WALL TILE, INSTALL BACKER BOARD AT WET AND NON-WET LOCATIONS AS LISTED IN 09 21 16
- C NON RATED WALLS, INCLUDING BULKHEADS SHALL HAVE FRAMING EXTENDED TO DECK ABOVE. GYP BOARD SHALL EXTEND TO 4" ABOVE CEILING UNLESS NOTED OTHERWISE. COLUMN FLOORING MAY STOP 4" ABOVE CEILING.
- D EXTEND STUDS, GYP BOARD AND SOUND BLANKET TO DECK ABOVE AT SOUND CONTROL WALLS (INDICATED BY SOUND ATTENUATION BLANKETS, SOUND SEAL NOTE OR STC RATING). LEVEL OF FINISH ABOVE CEILING AS NOTED IN SECTION 09 21 16
- E AT SOUND CONTROL WALLS (INDICATED BY SOUND ATTENUATION BLANKETS, SOUND SEAL NOTE OR STC RATING) APPLY CONTINUOUS BEAD OF ACOUSTICAL SEALANT AT FLOOR/CEILING TRACK STUDS AND STUD AT WALL. APPLY CONTINUOUS BEAD OF ACOUSTICAL SEALANT AT PERIMETER OF GYP BOARD HOLDING EDGE OF GYP BOARD AWAY FROM ADJACENT STRUCTURE NO MORE THAN 3/8". SEAL ALL ME/PWP PENETRATIONS WITH SOUND BLANKET, BACKING, ACOUSTICAL SEALANT AND FIRE STOPPING. AFTER INSTALLING ONE SIDE OF GYP BOARD, APPLY OVERSIZED 2" SOUND BLANKET OVER BACK SIDE OF ELECTRICAL BOXES AND SIMILAR PENETRATIONS. WHERE WALL BOXES OCCUR AT OPPOSITE SIDES, APPLY INSULATION TO BACKSIDE OF WALL BOXES. AT FIRE RATED WALLS REQUIRING SOUND CONTROL, USE PUTTY PADS FOR REQUIRED WALL RATING. REFER TO TOP OF WALL DETAILS FOR INSTALLATION OF ADDITIONAL MATERIALS AT DECK AND APPLICATION OF RATED TOP OF WALL ASSEMBLIES.
- F INSTALL GYPSUM BOARD CONTROL JOINTS AT TOP OF ALL INTERIOR TOP OF DOOR JAMBS TO TOP OF GYPSUM BOARD WALLS. OTHER CONTROL JOINTS TO BE INSTALLED PER PLAN OR AT 30" O.C. MAX. REVIEW LOCATION REQUIREMENTS WITH A/E PRIOR TO START OF INSTALLATION OF GYPSUM BOARD ASSEMBLIES.
- G WHERE FIRE RATED WALLS ARE INDICATED BY WALL TYPE, USE UL OR EQUIVALENT APPROVED RATING SYSTEM INCLUDING TOP OF WALL AND PENETRATIONS.

RATED CMU WALL TABLE:

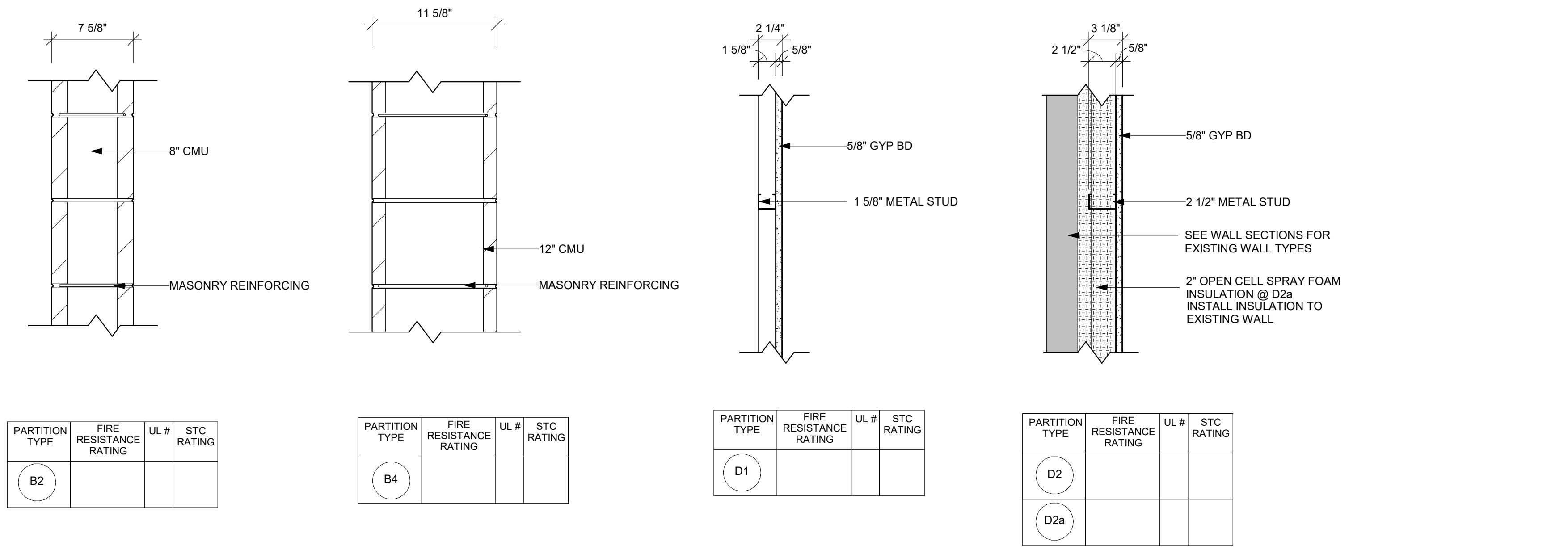
1 HOUR	MINIMUM 2.8 EQUIVALENT WALL THICKNESS
2 HOUR	MINIMUM 4.2 EQUIVALENT WALL THICKNESS

WALL ASSEMBLY R-VALUE COMPONENT TABLE:

COMPONENT	R-VALUE
FILM (INSIDE)	.68
5/8" GYP BOARD	.52
6" MTL STUD	..
8" CMU	1.11
CONCRETE	.08 PER INCH (wall), .11 PER INCH (foundation)
5/8" GYP SHEATH	.69
FILM (OUTSIDE)	.17
RIGID FOAM	5 PER INCH
MINERAL WOOL	4 PER INCH
SPRAY FOAM	(CLOSED CELL) 6.5 PER INCH MINIMUM
SPRAY FOAM	(OPEN CELL) 3 PER INCH MINIMUM
DEAD AIR	.85
BRICK	.44
STONE	.44
MTL PANEL	.62
SEE WALL TYPE FOR TOTAL WALL R-VALUE	

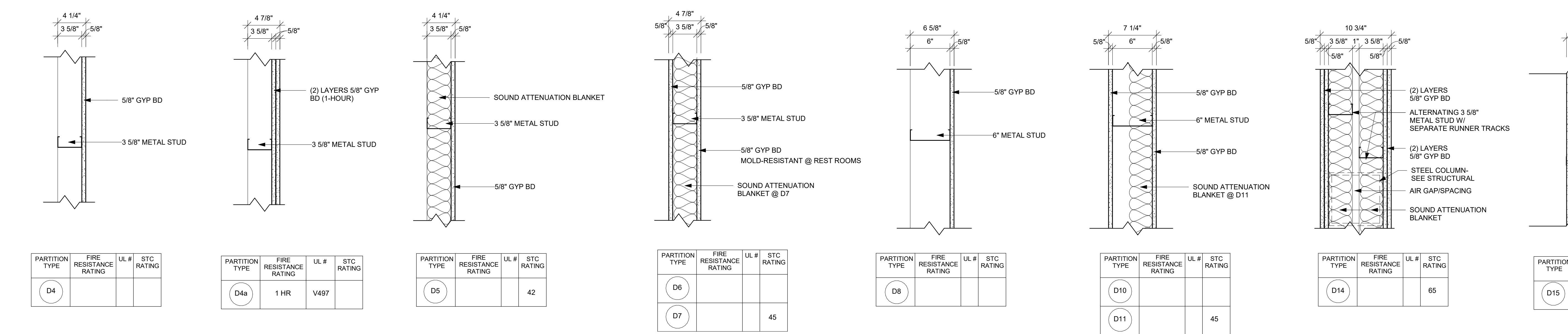


PARTITION TYPE	FIRE RESISTANCE RATING	R-VALUE	NOTES
A7		27.12	
A9		8.0	



PARTITION TYPE	FIRE RESISTANCE RATING	UL #	STC RATING
B2			
B4			
D1			
D2			
D2a			
D4			
D5			
D6			
D7			
D8			
D10			
D11			
D14			
D15			

METAL PANEL TYPE 1- METCO ELEMENT- 8" SILVER/ CHAMPAGNE MIX
 METAL PANEL TYPE 2- METCO ELEMENT- 16" AGED METAL
 METAL PANEL TYPE 3- METCO ELEMENT- 8" WOOD GRAIN
 METAL PANEL TYPE 4- FIRESTONE DELTA CONCEALED FASTENER PANEL 12
 (REFER TO SECTIONS AND ELEVATIONS FOR LOCATIONS)
 METAL PANELS, MINERAL WOOL INSULATION, CLOSURE TRIM AND ACCESSORIES FOR A COMPLETE SYSTEM WILL BE A DIRECT PURCHASE BY THE OWNER AND DELIVERED TO SITE
 INSTALLATION OF METAL PANELS AND RELATED MATERIALS AS DETAILED SHALL BE IN CONTRACT.
 WEATHER BARRIER AND ADDITIONAL FLASHINGS- SELF ADHERING.
 COUNTER/ RECEIVER TYPE SHALL BE PROVIDED AND INSTALLED AS PART OF CONTRACT.



PARTITION TYPE	FIRE RESISTANCE RATING	UL #	STC RATING
D4			
D4a	1 HR	V497	
D5			
D6			
D7			
D8			
D10			
D11			
D14			
D15	1 hr	U415	

Project Title:
 Project Number:
 Project Date:
 Drawn By:
 Key Plan:

20228
 FEBRUARY 2021
 RW/MPL

Revisions:

No.	Description	Date

Graphic Scale:
 VARIES
 Last Update:
 2/15/2021 10:05:54 AM



Consultant:

Project Title:

HSR Project Number: 20028

Project Date: FEBRUARY 2021

Drawn By: RW

Key Plan:

No.	Description	Date
A01	ADDENDUM 1	2-15-21

Graphic Scale: VARIES

Last Update: 2/15/2021 9:18:32 AM

A601

DOOR NO.	DOOR			FRAME				DETAILS				FIRE LABEL	HDWR GROUP	REMARKS	
	W	H	T	MAT'L	DOOR TYPE	GLASS TYPE	MAT'L	FRAME ELEV	DEPTH	HEAD	JAMB				SILL
1C1	6'-0"	7'-0"	1-3/4"	SCWD	C	---	HM	AA	5-7/8"	---	---	---	---	1	1.3,12
1H6A	3'-0"	7'-0"	1-3/4"	SCWD	H	GLT-4	HM	KK	5-7/8"	---	---	---	---	2	1.3,12
1H7A	3'-0"	7'-0"	1-3/4"	ALUM	E	GLT-12	ALUM	LL	4-1/2"	17A503	18A503	19A503	---	3	3.12
1H7B	3'-0"	7'-0"	1-3/4"	ALUM	E	GLT-12	ALUM	LL	4-1/2"	17A503	18A503	19A503	---	3	3.12
1H7C	3'-0"	7'-0"	1-3/4"	ALUM	E	GLT-12	ALUM	LL	4-1/2"	---	---	---	---	4	1.3
1H7D	3'-0"	7'-0"	1-3/4"	ALUM	E	GLT-12	ALUM	LL	4-1/2"	---	---	---	---	4	1.3
1H8A	3'-0"	7'-0"	1-3/4"	ALUM	E	GLT-12	ALUM	TT	4-1/2"	20A503	SIM 19A503	SIM 19A503	---	5	3
1H8B	3'-0"	7'-0"	1-3/4"	ALUM	E	GLT-12	ALUM	TT	4-1/2"	20A503	SIM 19A503	SIM 19A503	---	5	3.10,11
1H8C	3'-0"	7'-0"	1-3/4"	ALUM	E	GLT-12	ALUM	TT	4-1/2"	---	---	---	---	6	1.3
1H8D	3'-0"	7'-0"	1-3/4"	ALUM	E	GLT-12	ALUM	TT	4-1/2"	---	---	---	---	6	1.3
1H9A	3'-0"	7'-0"	1-3/4"	ALUM	E	GLT-12	ALUM	MM	4-1/2"	8A502	11A502	SIM 12A502	---	22	5
1H10B	3'-6"	7'-2"	1-3/4"	ALUM	E	GLT-12	ALUM	HH	4-1/2"	13A502	14A502	15A502	---	8	3.5
1H12	3'-0"	7'-2"	1-3/4"	ALUM	E	GLT-12	ALUM	SS	4-1/2"	---	---	---	---	23	3.5
1H13	3'-0"	7'-2"	1-3/4"	ALUM	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	---	21	3.9
1H14	3'-0"	7'-2"	1-3/4"	ALUM	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	---	9	3.5
1R3	3'-0"	7'-0"	1-3/4"	SCWD	A	---	HM	AA	5-7/8"	---	---	---	---	10	1.3
1R4	3'-0"	7'-0"	1-3/4"	SCWD	A	---	HM	AA	5-7/8"	---	---	---	---	10	1.3
1R5	3'-0"	7'-0"	1-3/4"	SCWD	A	---	HM	AA	5-7/8"	---	---	---	---	10	1.3
1R6	3'-0"	7'-0"	1-3/4"	SCWD	A	---	HM	AA	5-7/8"	---	---	---	---	10	1.3
1S5	3'-0"	7'-0"	1-3/4"	FBGL	A	---	HM	BB	5-3/4"	---	---	---	---	11	5
1S51	3'-0"	7'-0"	1-3/4"	ALUM	E	GLT-12	ALUM	NS	4-1/2"	SIM 7A500	SIM 8A500	SIM 12A502	---	7	5
2H1	3'-0"	7'-0"	1-3/4"	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	---	21	3.9
2M1	3'-0"	7'-0"	1-3/4"	HM	A	---	HM	AA	5-7/8"	---	---	---	---	12	1.3
2S3	3'-0"	7'-0"	1-3/4"	SCWD	A	---	HM	AA	5-7/8"	---	---	---	---	13	1.3
2S51	3'-0"	7'-0"	1-3/4"	ALUM	E	GLT-12	ALUM	QQ	4-1/2"	12A503	13A503	---	---	14	1.3
105A	3'-6"	7'-2"	1-3/4"	ALUM	F	GLT-12	ALUM	EE	4-1/2"	1A504	2A504	3A504	---	15	3.8
109B	3'-6"	7'-2"	1-3/4"	ALUM	F	GLT-12	ALUM	EE	4-1/2"	1A504	2A504	3A504	---	15	3.8
112	4'-8"	7'-0"	1-3/4"	SCWD	D	GLT-12	ALUM	AA	5-7/8"	---	---	---	---	16	1.2,3
113A	3'-0"	7'-0"	1-3/4"	SCWD	A	---	HM	JJ	5-7/8"	---	---	---	---	17	1.3
113B	3'-0"	7'-0"	1-3/4"	SCWD	A	---	HM	JJ	5-7/8"	---	---	---	---	18	3.4
115A	3'-0"	7'-0"	1-3/4"	SCWD	A	---	HM	JJ	5-7/8"	---	---	---	---	17	1.3
115B	3'-0"	7'-0"	1-3/4"	SCWD	A	---	HM	JJ	5-7/8"	---	---	---	---	18	3.4
117A	3'-0"	7'-0"	1-3/4"	SCWD	A	---	HM	JJ	5-7/8"	---	---	---	---	17	1.3
117B	3'-0"	7'-0"	1-3/4"	SCWD	A	---	HM	JJ	5-7/8"	---	---	---	---	18	3.4
119A	3'-0"	7'-0"	1-3/4"	SCWD	A	---	HM	JJ	5-7/8"	---	---	---	---	17	1.3
119B	3'-0"	7'-0"	1-3/4"	SCWD	A	---	HM	JJ	5-7/8"	---	---	---	---	18	3.4
122A	3'-0"	7'-0"	1-3/4"	ALUM	F	GLT-12	ALUM	PP	6"	7A500	8A500	12A502	---	7	5
122B	12'-0"	14'-0"	2"	SECTIONAL	G	---	STEEL	---	---	11A500	12A500	13A500	---	19	6.7,14
122C	12'-0"	14'-0"	2"	SECTIONAL	G	---	STEEL	---	---	11A500	12A500	13A500	---	19	6.7,14
122D	14'-0"	14'-0"	2"	SECTIONAL	G	---	STEEL	---	---	11A500	12A500	13A500	---	19	3.6,7
123	3'-0"	7'-0"	1-3/4"	SCWD	A	---	HM	AA	5-7/8"	---	---	---	---	20	1.3
125	6'-0"	7'-0"	1-3/4"	SCWD	C	---	HM	AA	5-7/8"	---	---	---	---	16	1.3,5
128	3'-0"	7'-0"	1-3/4"	HM	A	---	HM	BB	8-3/4"	6A502	7A502	---	---	20	3
130	3'-0"	7'-0"	1-3/4"	HM	A	---	HM	BB	8-3/4"	6A502	7A502	---	---	20	3
131	3'-0"	7'-0"	1-3/4"	SCWD	A	---	HM	GG	5-7/8"	---	---	---	---	20	1.3
133	3'-0"	7'-0"	1-3/4"	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	---	24	3.5
202	3'-0"	7'-0"	1-3/4"	SCWD	A	---	HM	RR	5-7/8"	---	---	---	---	20	1
204	3'-0"	7'-0"	1-3/4"	SCWD	A	---	HM	RR	5-7/8"	---	---	---	---	20	1
206	3'-0"	7'-0"	1-3/4"	SCWD	A	---	HM	AA	5-7/8"	---	---	---	---	20	1.3

DOOR SCHEDULE GENERAL NOTES

HM = HOLLOW METAL FBGL = FIBERGLASS ALUM = ALUMINUM SCWD = SOLID CORE WOOD DOOR

A. SEE SPECIFICATIONS FOR DOOR HARDWARE GROUPS
B. ALL HM (HOLLOW METAL) DOORS AND FRAMES SHALL BE PAINTED
C. ALL DOUBLE DOORS TO HAVE TWO EQUAL LEAFS UNLESS NOTED OTHERWISE

DOOR TYPES

DOOR FRAME GENERAL NOTES

HM = HOLLOW METAL ALUM = ALUMINUM

A. SEE SHEET A600 FOR ADDITIONAL FRAME TYPES
B. ALL HM (HOLLOW METAL) FRAMES SHALL BE PAINTED.

DOOR FRAME TYPES

DOOR SCHEDULE REMARKS

- USE STANDARD METAL STUD FRAMING METHODS AT HEAD AND JAMBS.
- UNEVEN DOOR LEAVES
- ALTERNATE BID
- DOOR TO BE INTEGRATED INTO OPERABLE WALL PARTITION. DOOR PROVIDED BY WALL MANUFACTURER. DOOR TO INCLUDE PANIC HARDWARE & LOCKABLE CORE
- ELECTRONIC CARD ACCESS AND ELECTRONIC STRIKE REQUIRED.
- OVERHEAD DOOR TO BE MOTORIZED.
- INSULATED GLAZING PER MANUFACTURER STANDARD. SEE SPECIFIED GLASS TYPE IN 08 36 13.
- LARGE FORMAT KICK PLATE TO PROTECT BOTTOM HALF OF DOOR.
- EXISTING DOOR 1H13 & 2H1 - INSTALL MAGNETIC HOLD OPEN
- ELECTRONIC CARD ACCESS, KEYPAD AND ELECTRONIC STRIKE REQUIRED
- PROVIDE CONDUIT RUN FOR HARDWARE - SEE DOOR HARDWARE FOR SPECIFIC HARDWARE TO BE USED.
- REMOVABLE MULLION
- PROVIDE WIRING FOR FUTURE ELECTRIC STRIKE & AUTO OPERATOR
- HIGH LIFT OVERHEAD DOOR

1 ALUM WDO FRAME ELEVATIONS

1/4" = 1'-0"

2 HM WDO FRAME ELEVATION

1/4" = 1'-0"

INTERIOR GENERAL NOTES:

- REFERENCES TO PAINT PERTAIN TO COLOR ONLY; PAINT TYPE SHALL BE IDENTIFIED IN THE ARCHITECTURAL SPECIFICATIONS.
- PNT-1 FIELD PAINT; ACCENT PAINT AS INDICATED. SEE ID SHEETS.
- REFER TO MASTER COLOR SCHEDULE ON ID600 FOR MATERIAL FINISH SPECIFICATIONS, ANNOTATIONS, AND ADDITIONAL INFORMATION.
- TOILET ROOM WALL AND FLOOR GROUT LINES SHALL ALIGN TO CONTINUE PATTERN THROUGHOUT. SEE AXXX FOR ELEVATED PATTERNING.
- VINYL COMPOSITE EDGE (VCE) TO BE INSTALLED AT DISSIMILAR FINISH AREAS. REFER TO ID SHEETS. INSTALL APPROPRIATE EDGE PROFILE TO PROTECT FINISH EDGES. COLOR AS SELECTED BY A/E.
- AT DISSIMILAR FLOORING FINISHES, SET JOINT OF MATERIALS AT CENTER OF DOOR. TRANSITIONS TO BE ADA COMPLIANT.

FINISH KEY PLAN:

SEE ROOM FINISH REMARKS

WALL BASE

6" TILE (TLE-1) BASE WITH TT-2 COVE TRIM AND TT-3 TOP EDGE PROTECTION

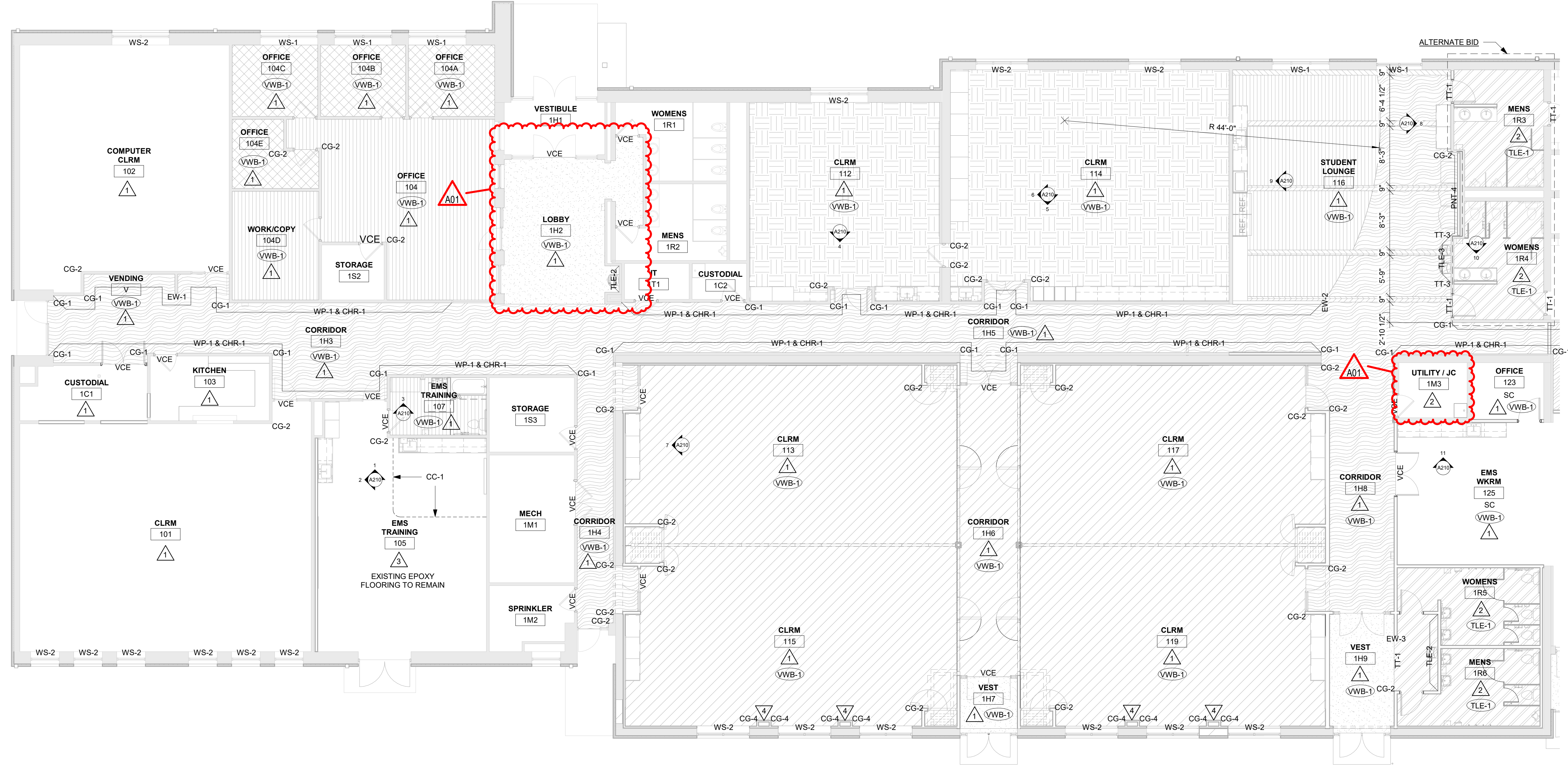
ACCENT PAINT

FINISH LEGEND:

TLE-1	LVT-1	CPT-1
LVT-2	LVT-3	CPT-2 KINETEX
FAF-1	SEE SPECIFICATIONS	WCPT-1
RST-1		
RAF-1		

ROOM FINISH REMARKS

- PAINT ALL WALLS PNT-1. ACCENT AS INDICATED ON PLAN.
- PAINT ALL WALLS PNT-1 EPOXY.
- PAINT ALL WALLS PNT-1 EXCLUDING EXISTING FRP PANELS.
- PAINT COLUMN PNT-3.
- REMOVE EXISTING ELEVATOR FLOOR THRESHOLD AND REINSTALL A THRESHOLD THAT COORDINATES WITH NEW FLOORING.



1 FIRST FLOOR FINISH PLAN - AREA A
1/8" = 1'-0"

Project Title: **WESTERN TECHNICAL COLLEGE SPARTA PUBLIC SAFETY EXPANSION**

Project Location: **11177 COUNTY ROAD A SPARTA, WI 54656**

Sheet Title: **FIRST FLOOR FINISH FLOOR PLAN - AREA A**

HSR Project Number: **20028**

Project Date: **FEBRUARY 2021**

Drawn By: **K.WILL**

Key Plan:

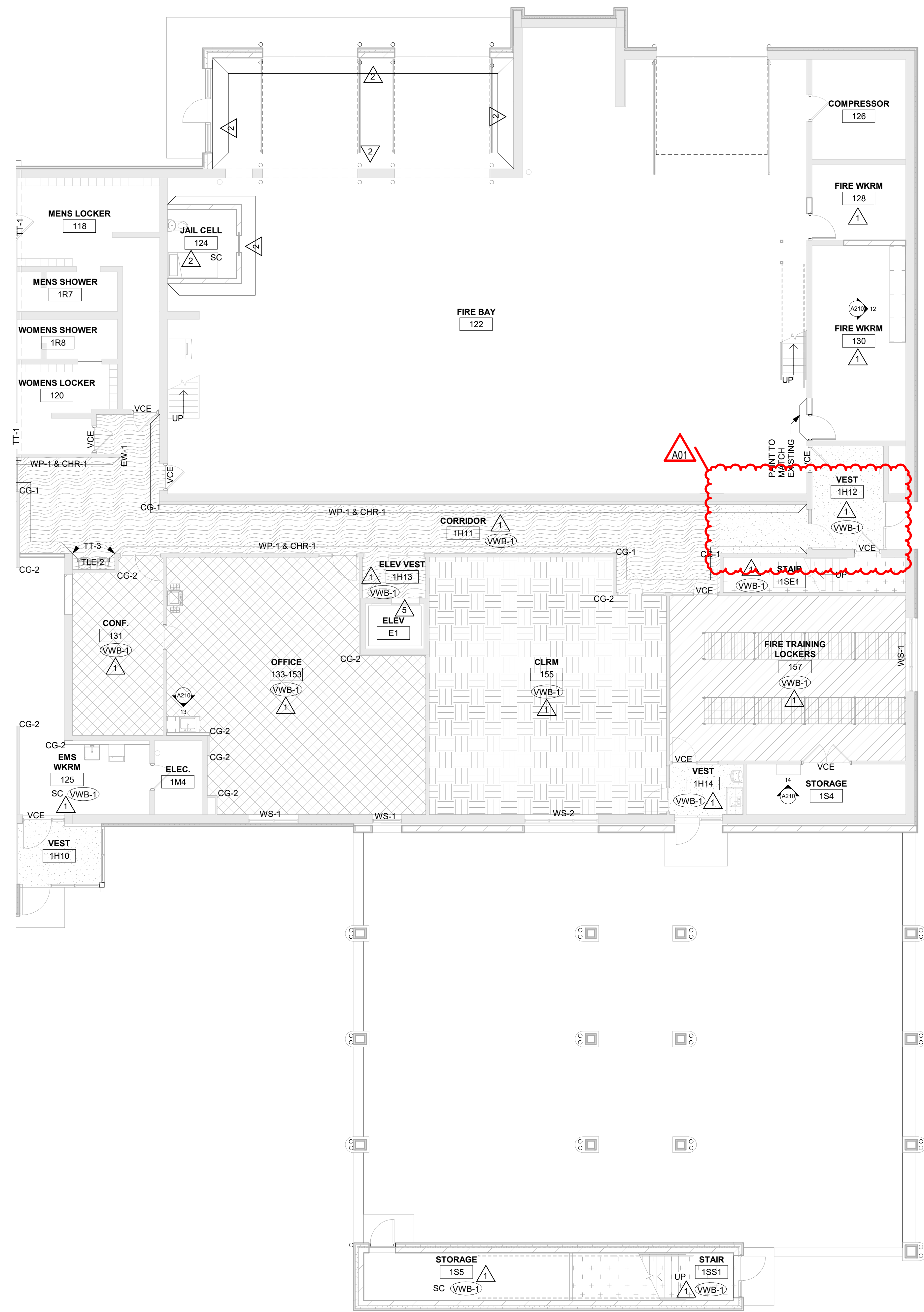
Revisions:

No.	Description	Date
A01	ADDENDUM 1	2-15-21

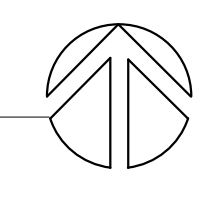
Graphic Scale: **VARIES**

Last Update: **2/15/2021 2:59:21 PM**

ID101



1 FIRST FLOOR FINISH PLAN - AREA B
1/8" = 1'-0"



INTERIOR GENERAL NOTES:

A REFERENCES TO PAINT PERTAIN TO COLOR ONLY; PAINT TYPE SHALL BE IDENTIFIED IN THE ARCHITECTURAL SPECIFICATIONS.

B PNT-1 FIELD PAINT; ACCENT PAINT AS INDICATED. SEE ID SHEETS.

C REFER TO MASTER COLOR SCHEDULE ON ID600 FOR MATERIAL FINISH SPECIFICATIONS, ANNOTATIONS, AND ADDITIONAL INFORMATION.

D TOILET ROOM WALL AND FLOOR GROUT LINES SHALL ALIGN TO CONTINUE PATTERN THROUGHOUT. SEE AXXX FOR ELEVATED PATTERNING.

E VINYL COMPOSITE EDGE (VCE) TO BE INSTALLED AT DISSIMILAR FINISH AREAS. REFER TO ID SHEETS. INSTALL APPROPRIATE EDGE PROFILE TO PROTECT FINISH EDGES. COLORS AS SELECTED BY A/E.

F AT DISSIMILAR FLOORING FINISHES, SET JOINT OF MATERIALS AT CENTER OF DOOR. TRANSITIONS TO BE ADA COMPLIANT.

FINISH KEY PLAN:

SEE ROOM FINISH REMARKS

WVWB-1 WALL BASE

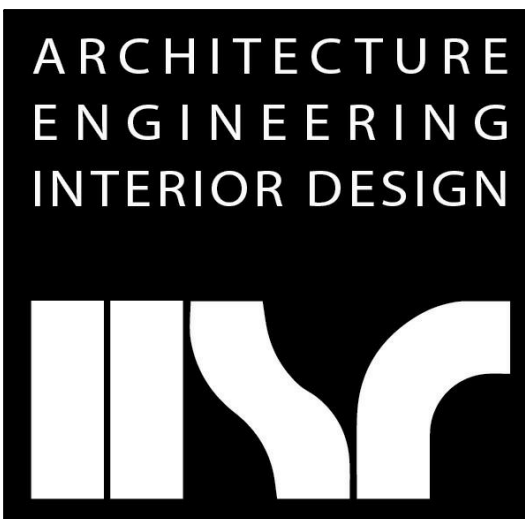
TLE-1 6" TILE (TLE-1) BASE WITH TT-2 COVE TRIM AND TT-3 TOP EDGE PROTECTION

FINISH LEGEND:

TLE-1	LVT-1	CPT-1
LVT-2	CPT-2 KINETEX	
LVT-3	WCPT-1	
FAF-1	SEE SPECIFICATIONS	
RST-1		
RAF-1		

ROOM FINISH REMARKS

- 1 PAINT ALL WALLS PNT-1. ACCENT AS INDICATED ON PLAN.
- 2 PAINT ALL WALLS PNT-1 EPOXY.
- 3 PAINT ALL WALLS PNT-1 EXCLUDING EXISTING FRP PANELS.
- 4 PAINT COLUMN PNT-3.
- 5 REMOVE EXISTING ELEVATOR FLOOR THRESHOLD AND REINSTALL A THRESHOLD THAT COORDINATES WITH NEW FLOORING.



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Consultant:

Project Title: **WESTERN TECHNICAL COLLEGE SPARTA PUBLIC SAFETY EXPANSION**

Project Location: 11177 COUNTY ROAD A SPARTA, WI 54656

Sheet Title: **FIRST FLOOR FINISH FLOOR PLAN - AREA B**

HSR Project Number: **20028**

Project Date: **FEBRUARY 2021**

Drawn By: **K.WILL**

Key Plan:

Revisions:

No.	Description	Date
A01	ADDENDUM 1	2-15-21

Graphic Scale: **VARIES**

Last Update: **2/15/2021 11:33:23 AM**

ID102

MASTER COLOR SCHEDULE									
MANUFACTURER / COLOR		GENERAL LOCATION		REMARKS	MANUFACTURER / COLOR		GENERAL LOCATION		REMARKS
06 41 00 ARCHITECTURAL WOOD CASEWORK					09 65 66 RESILIENT ATHLETIC FLOORING				
PLAM-1 (Plastic Laminate)	<u>Manufacturer:</u> Wilsonart <u>Color:</u> Monticello Maple <u>Finish:</u> Fine Velvet Finish	Field Casework		Comparable Products by Prior Approval	RAF-1 (Resilient Athletic Flooring)	<u>Manufacturer:</u> Ecore <u>Collection:</u> Basic Rolls <u>Pattern:</u> 30 Percent Color <u>Color Name:</u> Blue Jays EL103 <u>Size:</u> 48" Width Rolls <u>Thickness:</u> 8mm	Weight Room 200 and DAAT 202		Comparable Products by Prior Approval
PLAM-2	<u>Manufacturer:</u> Nevamar <u>Color:</u> Veto Proof	Field Countertops		Comparable Products by Prior Approval	09 68 13 TILE CARPETING				
06 61 00 CAST POLYMER					CPT-1 (Carpet Tile)	<u>Manufacturer:</u> Interface <u>Style Name:</u> Ice Breaker <u>Color Name:</u> Grayfox <u>Size:</u> 60cm x 60cm <u>Backing:</u> GlasBac Tile <u>Installation:</u> Nondirectional	Office 133-135 104A, 104B, 104C, and 131		Comparable Products by Prior Approval VCE as Indicated on Plans Color as Selected by A/E
SS-1 (Solid Surface)	<u>Manufacturer:</u> Staron Tempest <u>Color:</u> Horizon <u>Number:</u> FH114	Window Sills Wall Cap in Student Lounge 116 ADA Sink Apron Alt. Bid Counter Mens 1R3 & Womens 1R4		Comparable Products by Prior Approval	CPT-2	<u>Manufacturer:</u> EF Contract <u>Collection:</u> Kinetex <u>Style Name:</u> Imprint <u>Color Name:</u> Raven IMP56 <u>Construction:</u> 100% Solution Dyed Polyester <u>Size:</u> 18" x 36" <u>Installation:</u> Ashlar	112, 114, 155, 204		Comparable Products by Prior Approval VCE as Indicated on Plans Color as Selected by A/E
09 30 00 TILE					WCPT-1 (Walk Off Carpet)	<u>Manufacturer:</u> Patcraft <u>Collection:</u> Walk Forward <u>Style Name:</u> Arrive <u>Color Name:</u> Corridor <u>Construction:</u> Eco Solution Q Nylon Solution Dyed <u>Size:</u> 24" x 24" <u>Backing:</u> EcoWorx Tile <u>Installation:</u> Monolithic	1H14, 1H12, 1H10, 1H9, and 1H7		Comparable Products by Prior Approval VCE as Indicated on Plans Color as Selected by A/E
TLE-1 (Tile)	<u>Manufacturer:</u> Flandre <u>Product:</u> French Clay <u>Color:</u> Cafe <u>Size:</u> 12"x 24" <u>Install:</u> Third Offset	Restroom Floor Tile 6" Tile Base		Comparable Products by Prior Approval	09 90 00 INTERIOR PAINTING				
TLE-2	<u>Manufacturer:</u> Ceramic Tilework's <u>Product:</u> Splash Glass & Stone <u>Color:</u> Mica <u>Size:</u> 12"x12" Sheet	Full Height Tile Behind Drinking Fountains Finish Edge Where Tile Meets Flooring		Comparable Products by Prior Approval	PNT-1	<u>Manufacturer:</u> Sherwin Williams <u>Color:</u> Oyster Bar <u>Color Code:</u> SW 7565	Field Paint Painted Ceiling and Structure on Second Floor See Reflected Ceiling Plan for Parameters		*Or Equal
TLE-3	<u>Manufacturer:</u> Ceramic Tilework's <u>Product:</u> Vestige <u>Color:</u> Gesso <u>Size:</u> 3"x8" <u>Install:</u> Running Bond	Tile Behind Drinking Fountain Student Lounge 116 Finish Edge Where Tile Meets Flooring		Comparable Products by Prior Approval	PNT-2	<u>Manufacturer:</u> Pittsburgh Paint <u>Color:</u> Oyster Shell <u>Color Code:</u> PPG14-13	Hollow Metal Door and Window Frames Handrails and Elevator Doors		*Or Equal
TT-1 (Tile Transition)	<u>Manufacturer:</u> Schluter <u>Style:</u> Reno-U <u>Color:</u> Brushed Nickel	Tile Floor Transitions		Comparable Products by Prior Approval	PNT-3	<u>Manufacturer:</u> Pittsburgh Paint <u>Color:</u> Blue Zephyr <u>Color Code:</u> PPG1042-6	Accent		*Or Equal
TT-2	<u>Manufacturer:</u> Schluter <u>Style:</u> DILEX-AHKA <u>Color:</u> Brushed Nickel	Cove Trim Between Tile Base and Floor Tile		Comparable Products by Prior Approval	PNT-4	<u>Manufacturer:</u> Sherwin Williams <u>Color:</u> Red Tomato <u>Color Code:</u> SW6607	Accent		*Or Equal
TT-3	<u>Manufacturer:</u> Schluter <u>Style:</u> Jolly <u>Color:</u> Brushed Nickel	Edge Trim/Protection Top Edge Trim of Tile Base		Comparable Products by Prior Approval	PNT-5	<u>Manufacturer:</u> Sherwin Williams <u>Color:</u> Black Magic <u>Color Code:</u> SW6991	Ceiling and Structure Paint in Fire Training Lockers 157		*Or Equal
09 65 00 RESILIENT FLOORING/BASE					10 21 18 WINDOW SHADE SYSTEMS				
LVT-1	<u>Manufacturer:</u> Mohawk <u>Collection:</u> Hot and heavy <u>Pattern:</u> Lineate <u>Color:</u> Parallel <u>Size:</u> 9" x 9" <u>Thickness:</u> 5mm <u>Wear Layer:</u> 20mil <u>Install:</u> Ashlar Full Spread Glue	See ID Sheets		Comparable Products by Prior Approval VCE as Indicated on Plans Color as Selected by A/E	WS-1 (Window Shades)	<u>Manufacturer:</u> SWF Contract <u>Product:</u> Manual Roller Shade <u>Style:</u> Double Take T300 <u>Color:</u> Bone/Grey <u>Openness:</u> 3 Percent <u>Fascia:</u> To Be Selected by A/E	104C, 104B, 104A, 116, 200		Comparable Products by Prior Approval
LVT-2	<u>Manufacturer:</u> Mohawk <u>Collection:</u> Hot and Heavy <u>Pattern:</u> Lineate <u>Color:</u> Marker <u>Size:</u> 9" x 9" <u>Thickness:</u> 5mm <u>Wear Layer:</u> 20mil <u>Install:</u> Ashlar Full Spread Glue	See ID Sheets		Comparable Products by Prior Approval VCE as Indicated on Plans Color as Selected by A/E	WS-2	<u>Manufacturer:</u> SWF Contract <u>Product:</u> Manual Roller Shade <u>Style:</u> Enterprise <u>Color:</u> Tan <u>Openness:</u> Blackout Shade <u>Fascia:</u> To Be Selected by A/E	Classrooms See ID Sheets		Comparable Products by Prior Approval
LVT-3	<u>Manufacturer:</u> Mohawk <u>Collection:</u> Hot and heavy <u>Pattern:</u> Lineate <u>Color:</u> Ridged 588 <u>Size:</u> 9" x 9" <u>Thickness:</u> 5mm <u>Wear Layer:</u> 20mil <u>Install:</u> Ashlar Full Spread Glue	See ID Sheets		Comparable Products by Prior Approval VCE as Indicated on Plans Color as Selected by A/E	10 21 23 CUBICAL TRACK AND CURTAIN				
RST-1 (Resilient Stair)	<u>Manufacturer:</u> Nora <u>Product:</u> Satura <u>Color:</u> Grus 5102 <u>Install:</u> Integral Riser and Tread <u>Landings:</u> Roll Good Heat Welded	Riser and Treads to Receive Integral System Landings to Receive Rolled Sheet w/ Heat Welded Seams 1SS1, 1SE1, 2SE1, 2SS1		Comparable Products by Prior Approval	CC-1 (Cubical Curtain)	<u>Manufacturer:</u> Inpro <u>Product:</u> Shield Fabric Cubical Curtain <u>Style:</u> Framework <u>Color:</u> Silver Sand <u>Fabric Width:</u> 72" <u>Fabric Repeat:</u> 12.6"H x 12.1"W	EMS Training 105		Comparable Products by Prior Approval
VWB-1 (Vinyl Wall Base)	<u>Manufacturer:</u> Johnsonite <u>Size:</u> 4" <u>Color:</u> Toast 283 <u>Profile:</u> Cove	Field Wall Base		Comparable Products by Prior Approval	10 26 01 WALL AND DOOR PROTECTION				
					WP-1 (Wall Protection)	<u>Manufacturer:</u> Inpro <u>Product:</u> Palladium Rigid Vinyl Sheet <u>Size:</u> 3'x8' <u>Thickness:</u> .040 <u>Color:</u> Monsoon	Vinyl Trim, Inside Corners, and Dividers to be Provided. See ID Sheets for General Wall Protection Location Shop Drawings must be Provided		Comparable Products by Prior Approval
					CG-1 (Corner Guard)	<u>Manufacturer:</u> Inpro <u>Product:</u> 160 Surface Mount <u>Color:</u> Monsoon <u>Wing:</u> 2" <u>Height:</u> 8'-0"	Install Above Vinyl Wall Base		Comparable Products by Prior Approval
					CG-2	<u>Manufacturer:</u> Inpro <u>Product:</u> 160 Surface Mount <u>Color:</u> Chino <u>Wing:</u> 2" <u>Height:</u> 8'-0"	Install Above Vinyl Wall Base		Comparable Products by Prior Approval
					CG-3	<u>Manufacturer:</u> Inpro <u>Product:</u> 130 Surface Mount 135 Degree Corner <u>Color:</u> Monsoon <u>Width:</u> 3" <u>Height:</u> 8'-0"	Corridor 2H2 Install Above Vinyl Wall Base		Comparable Products by Prior Approval
					CG-4	<u>Manufacturer:</u> Inpro <u>Product:</u> 160 Surface Mount <u>Color:</u> Britany Blue 0135 <u>Wing:</u> 2" <u>Height:</u> 8'-0"	Install Above Vinyl Wall Base Classroom 115 and 119		Comparable Products by Prior Approval
					EW-1 (End Wall)	<u>Manufacturer:</u> Inpro <u>Product:</u> 160D Surface Mount End Wall <u>Color:</u> Monsoon <u>Wing:</u> 2" <u>Height:</u> 8'-0"	Install Above Vinyl Wall Base		Comparable Products by Prior Approval
					EW-2	<u>Manufacturer:</u> Inpro <u>Product:</u> 160D Surface Mount End Wall <u>Color:</u> Monsoon <u>Wing:</u> 2" <u>Height:</u> 4'-4"	Student Lounge 116 Install Above Vinyl Wall Base		Comparable Products by Prior Approval
					EW-3	<u>Manufacturer:</u> Inpro <u>Product:</u> 160D Surface Mount End Wall <u>Color:</u> Chino <u>Wing:</u> 2" <u>Height:</u> 8'-0"	Install Above Vinyl Wall Base Vestibule 1H9		Comparable Products by Prior Approval
					CHR-1 (Chair Rail)	<u>Manufacturer:</u> Inpro <u>Product:</u> 2690 Chair Rail <u>Color:</u> Monsoon <u>Length:</u> 12'-0" Standard <u>Height:</u> 0'-3"	Center of Chair Rail to be Installed 3'-0" A.F.F. End Caps and Inside Corners Needed See ID Sheets for General Location Shop Drawings must be Provided		Comparable Products by Prior Approval



No.	Description	Date
A01	ADDENDUM 1	2-15-21

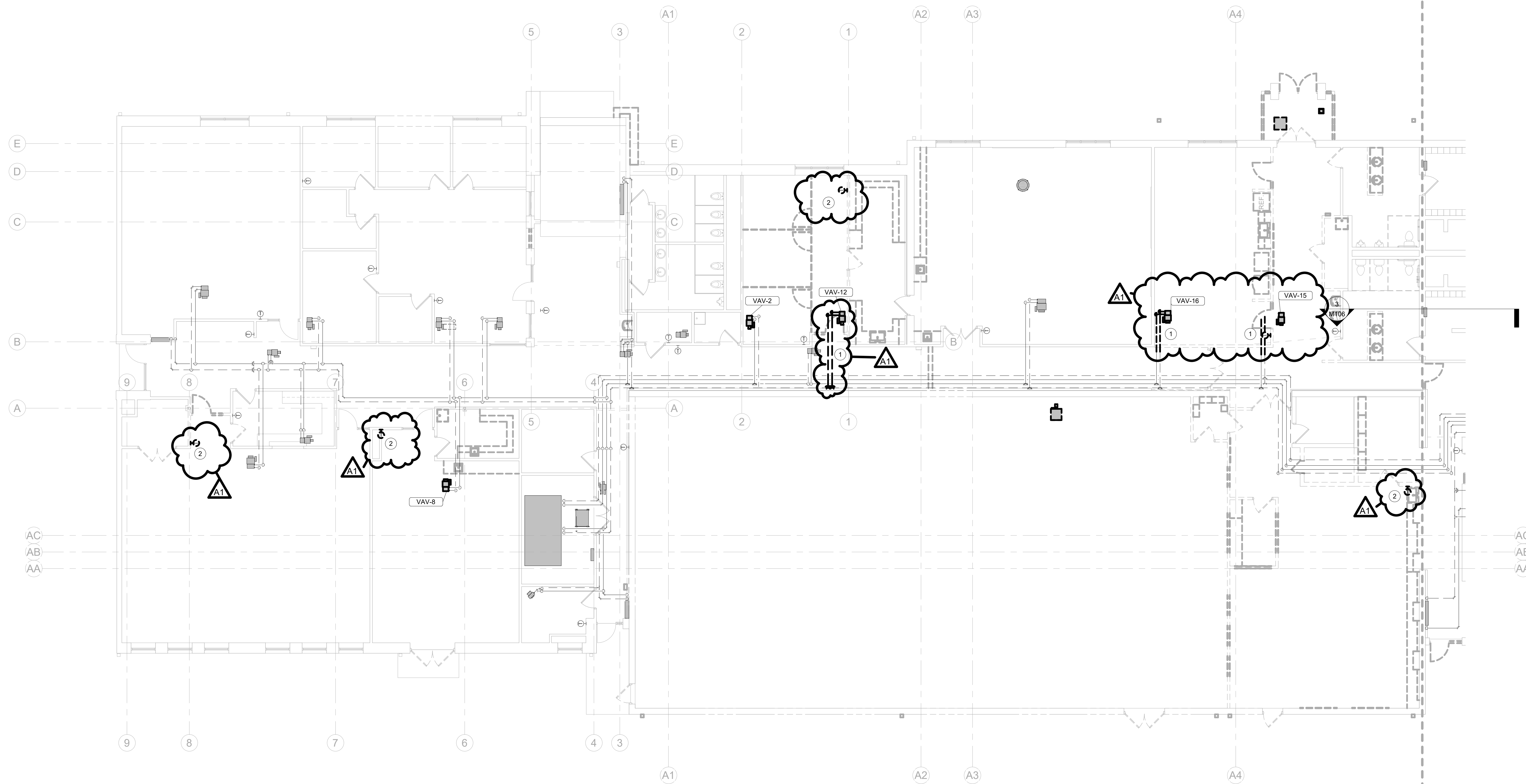
# KEYNOTES - PIPING DEMO	
Number	Description
1	Remove piping as indicated
2	Remove thermostat

ARCHITECTURE
ENGINEERING
INTERIOR DESIGN



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Consultant:



Project Title: WESTERN TECHNICAL COLLEGE
SPARTA PUBLIC SAFETY EXPANSION

Project Location: 11177 COUNTY ROAD A
SPARTA, WI 54656

Sheet Title: FIRST FLOOR PIPING REMOVAL - A

HSR Project Number: HSR # 20028

Project Date: FEBRUARY 2021

Drawn By: JB/SK

Key Plan:



1 MECHANICAL FIRST FLOOR PIPING REMOVAL PLAN - A

1/8" = 1'-0"

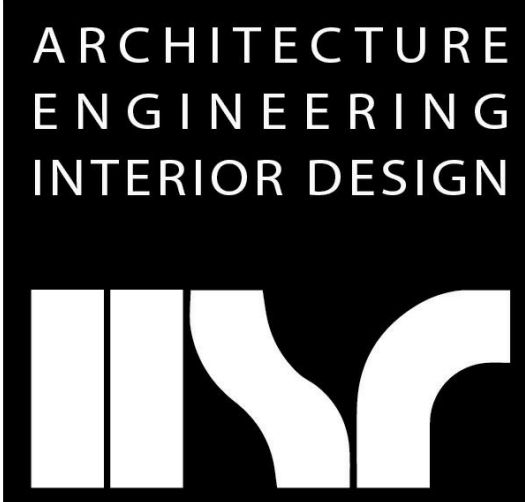
No.	Description	Date
A1	Addendum 1	2/15/21

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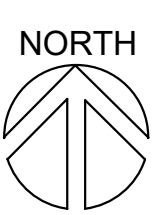
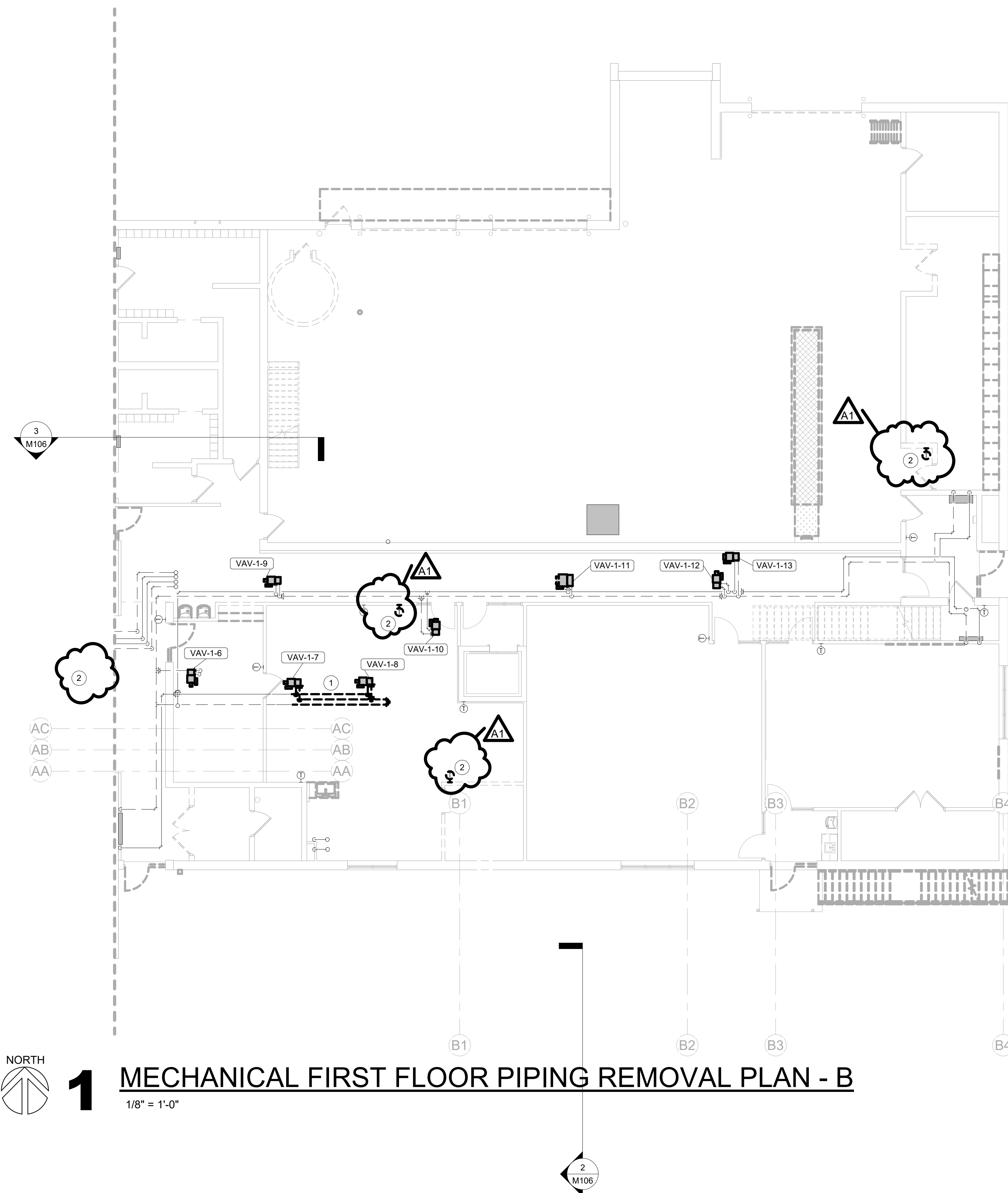
M090

# KEYNOTES - PIPING DEMO	
Number	Description
#	ALL REMOVED ITEMS THAT THE OWNER WANTS SHALL BE REMOVED AND TURNED OVER TO THE OWNER AT DESIGNATED STORAGE SPACE ON SITE. ALL REMAINING ITEMS REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR.
1	Remove piping as indicated
2	Remove thermostat



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Consultant:



1 MECHANICAL FIRST FLOOR PIPING REMOVAL PLAN - B

1/8" = 1'-0"

Project Title: WESTERN TECHNICAL COLLEGE
SPARTA PUBLIC SAFETY EXPANSION

Project Location: 11177 COUNTY ROAD A
SPARTA, WI 54656

Sheet Title: FIRST FLOOR PIPING REMOVAL - B

HSR Project Number: HSR # 20028
Project Date: FEBRUARY 2021
Drawn By: JB/SK

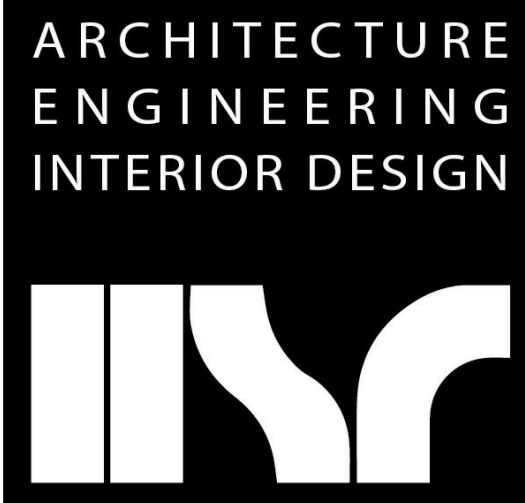
Key Plan:

No.	Description	Date
A1	Addendum 1	2/15/21

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Last Update: 2/15/2021 11:03:03 AM

M091

# KEYNOTES - PIPING DEMO	
Number	Description
1	Remove piping as indicated
2	Remove thermostat



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Consultant:

Project Title: WESTERN TECHNICAL COLLEGE
SPARTA PUBLIC SAFETY EXPANSION
Project Location: 11177 COUNTY ROAD A
SPARTA, WI 54656
Sheet Title: SECOND FLOOR PIPING REMOVAL

HSR Project Number: HSR # 20028

Project Date: FEBRUARY 2021

Drawn By: JB/SK

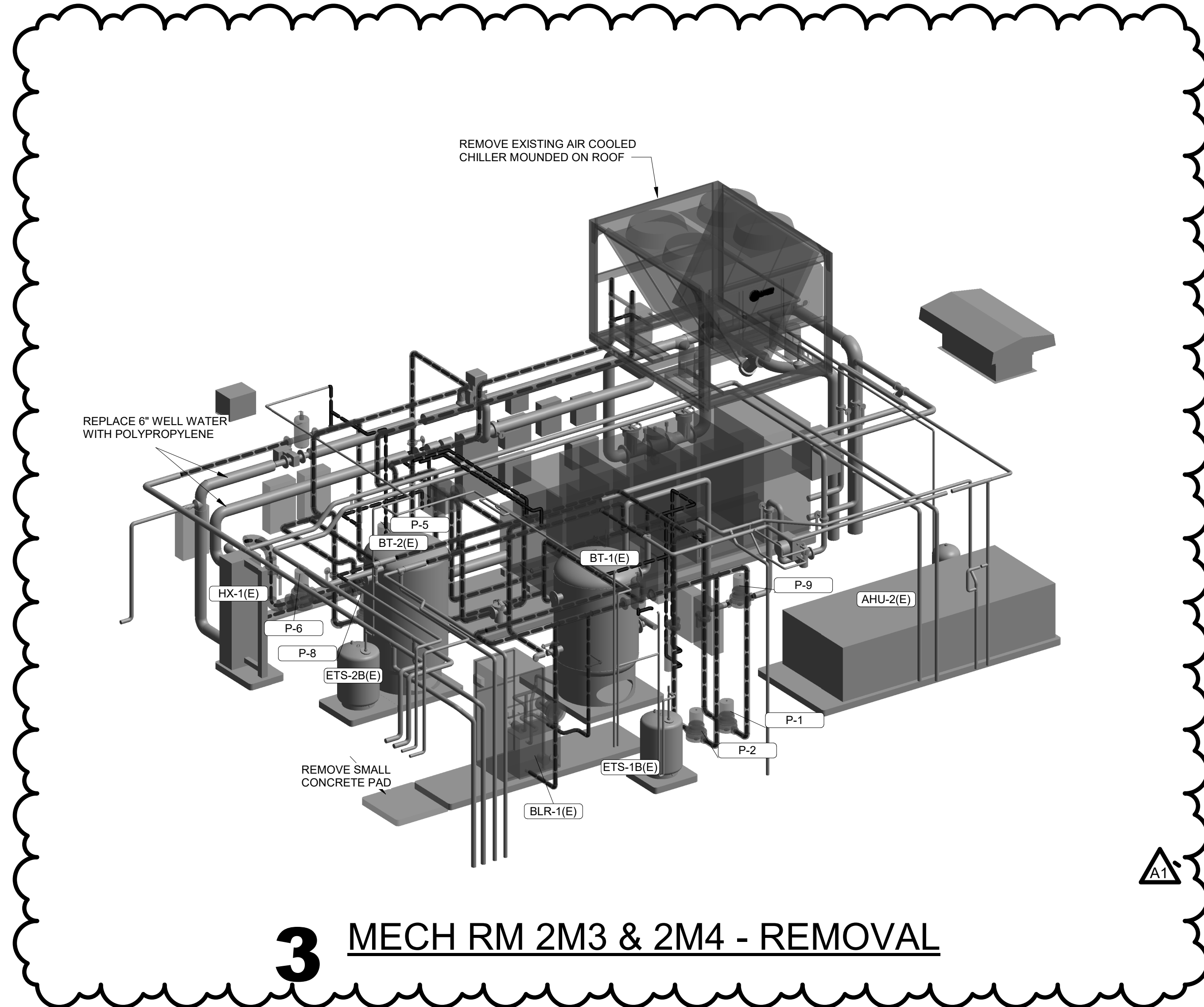
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No.	Description	Date
A1	Addendum 1	2/15/21

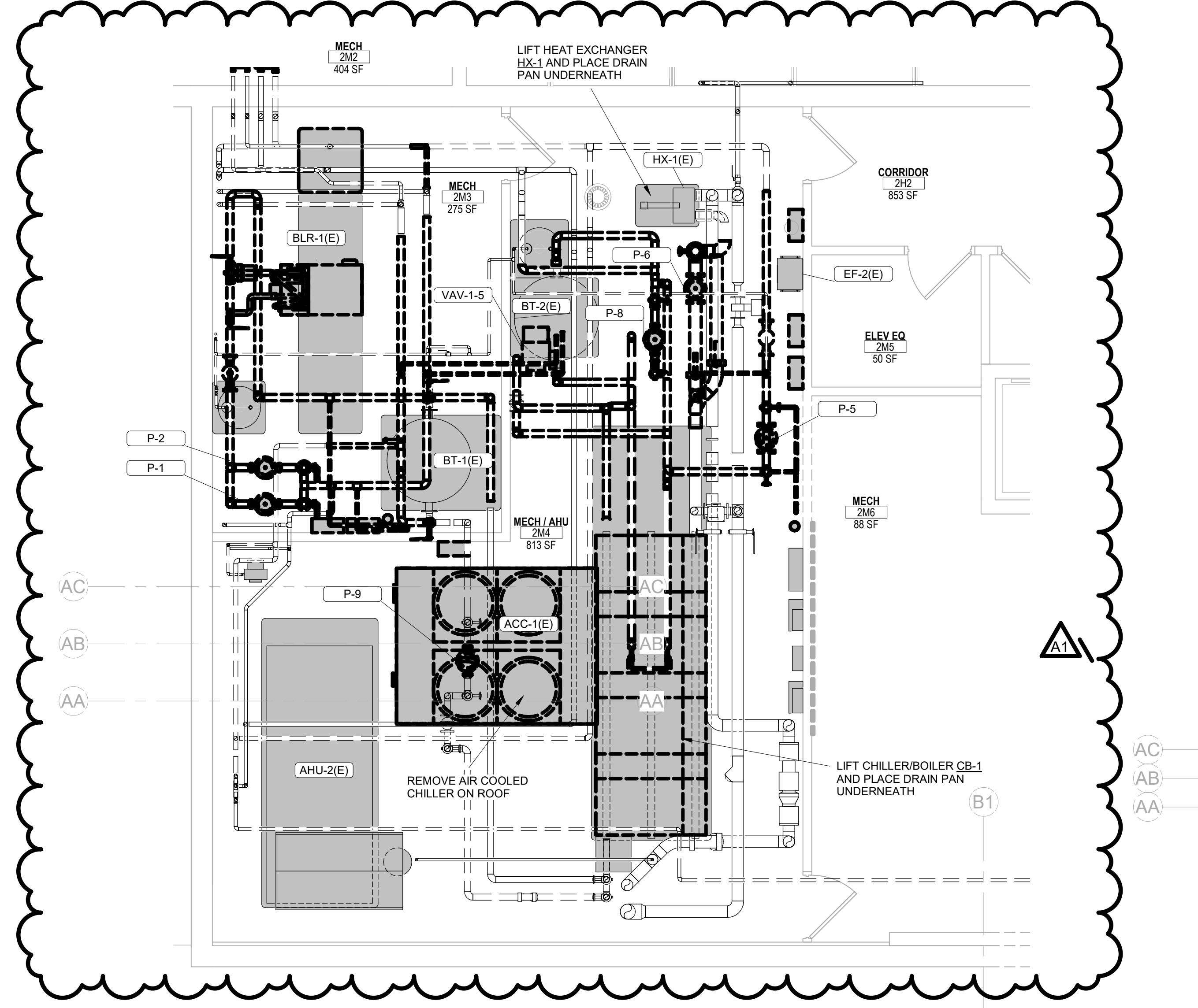
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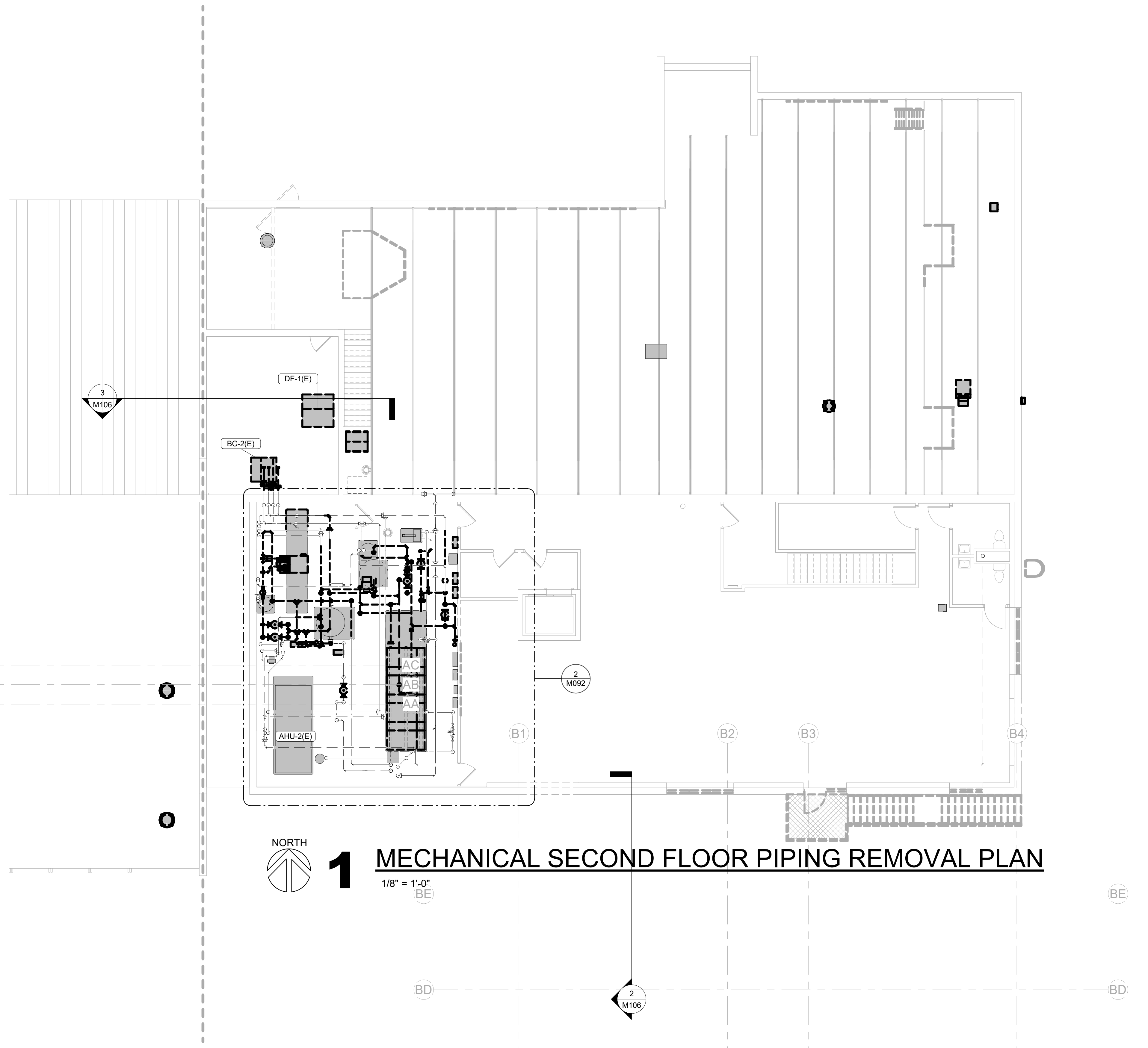
M092



3 MECH RM 2M3 & 2M4 - REMOVAL



2 MECHANICAL ROOM 2M3 & 2M4 ENLARGED REMOVAL PLAN
1/4" = 1'-0"

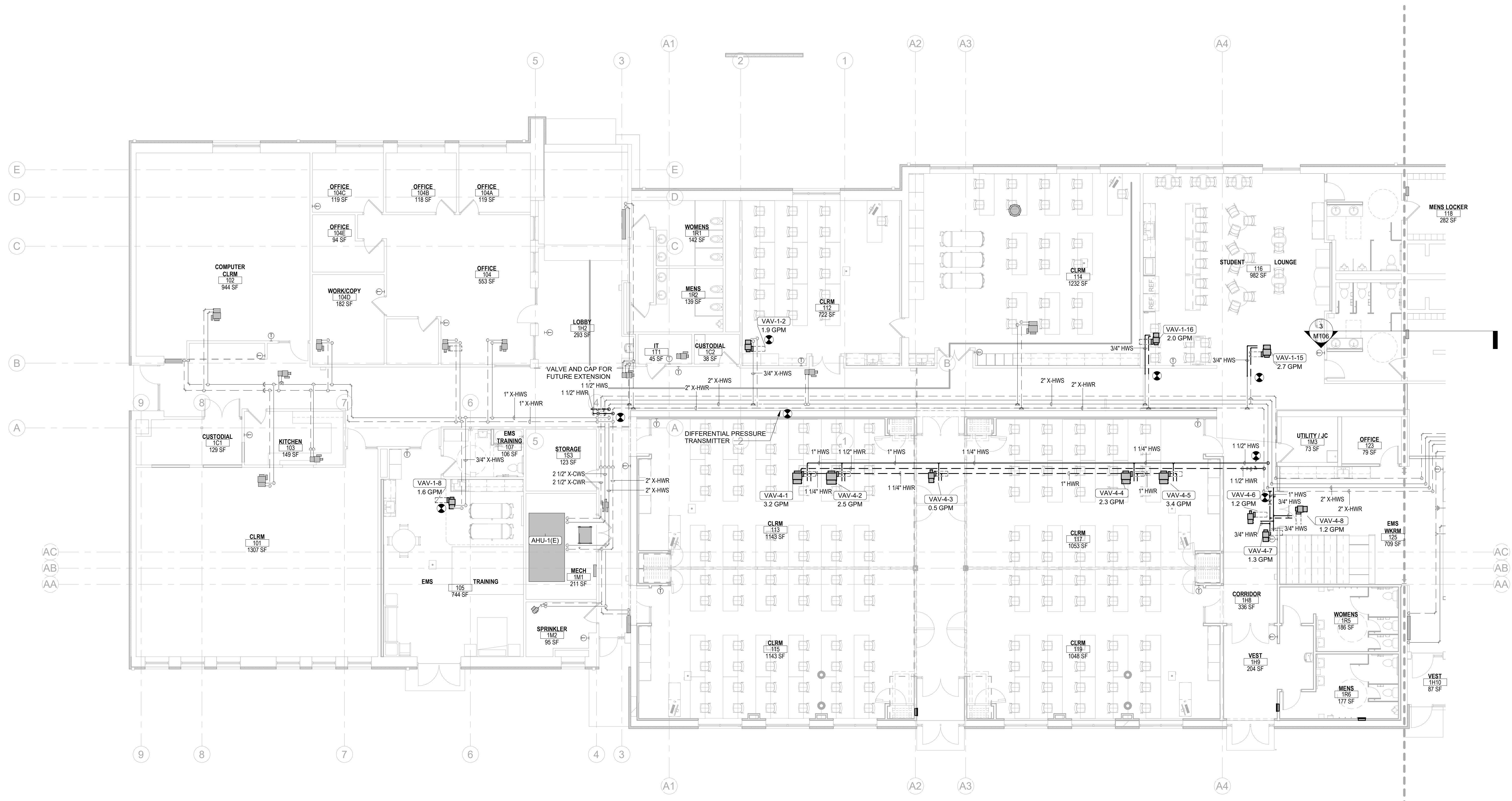


1 MECHANICAL SECOND FLOOR PIPING REMOVAL PLAN
1/8" = 1'-0"





Consultant:



1 MECHANICAL FIRST FLOOR PIPING REMODEL PLAN - A
1/8" = 1'-0"

Project Title: **WESTERN TECHNICAL COLLEGE
SPARTA PUBLIC SAFETY EXPANSION**

Project Location: **11177 COUNTY ROAD A
SPARTA, WI 54656**

Sheet Title: **FIRST FLOOR PIPING REMODEL - A**

HSR Project Number: **HSR # 20028**

Project Date: **FEBRUARY 2021**

Drawn By: **JB/SK**

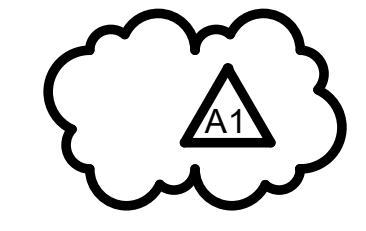
Key Plan:

No.	Description	Date
A1	Addendum 1	2/15/21

Graphic Scale: **VARIES**

Last Update: **2/15/2021 11:03:16 AM**

M100





Consultant:

Project Title: **WESTERN TECHNICAL COLLEGE
SPARTA PUBLIC SAFETY EXPANSION**
Project Location: 11177 COUNTY ROAD A
SPARTA, WI 54656
Sheet Title: **ENLARGED MECHANICAL ROOM 2M4**

HSR Project Number: **HSR # 20028**

Project Date: **FEBRUARY 2021**

Drawn By: **JB/SK**

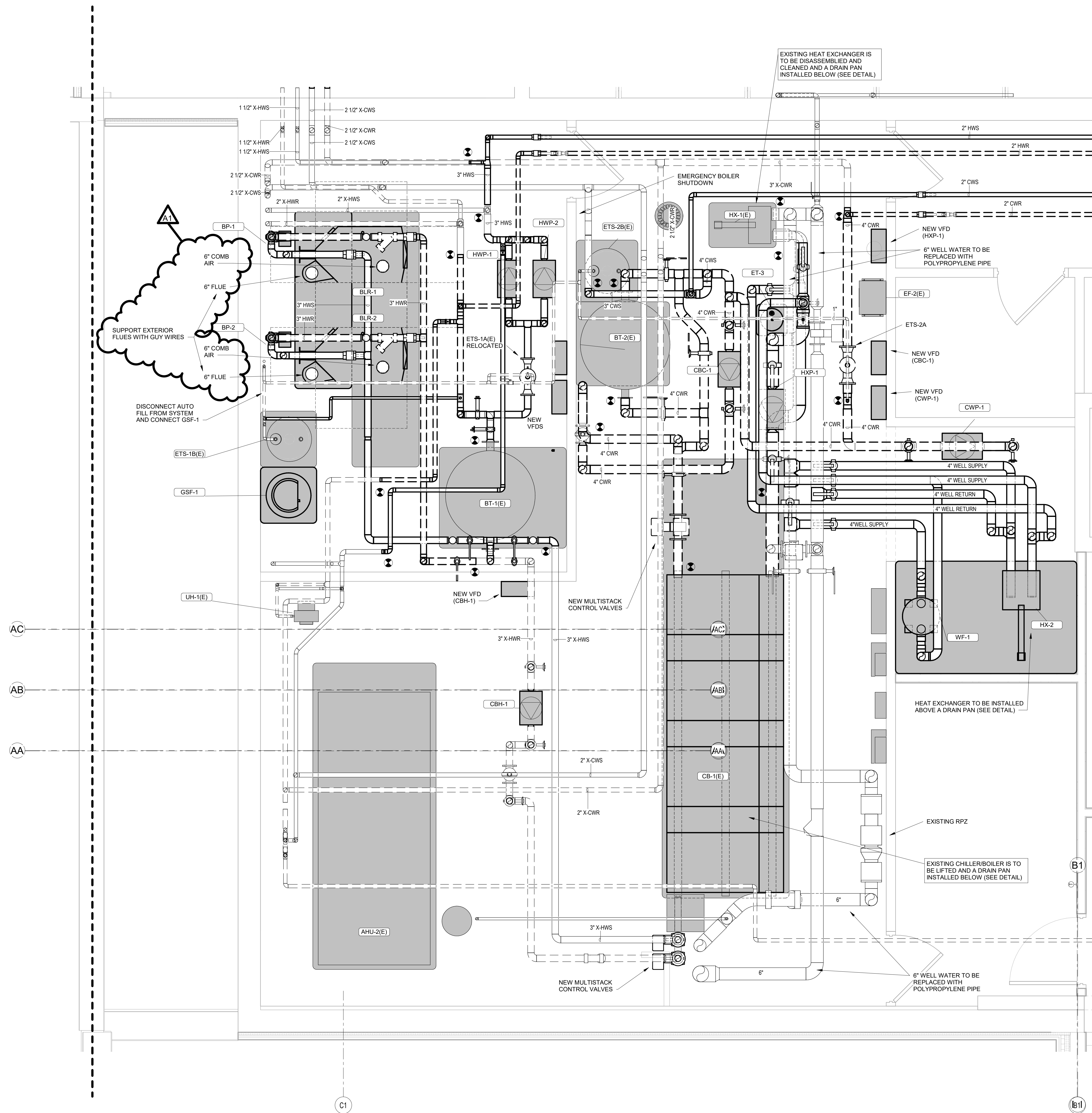
Key Plan:

No.	Description	Date
A1	Addendum 1	2/15/21

Graphic Scale: **VARIES**

Last Update: **2/15/2021 11:03:21 AM**

M103



1 MECHANICAL ROOM 2M3 & 2M4 ENLARGED REMODEL PLAN

1/2" = 1'-0"



Consultant:

Project Title: WESTERN TECHNICAL COLLEGE
SPARTA PUBLIC SAFETY EXPANSION

Project Location: 11177 COUNTY ROAD A
SPARTA, WI 54656

Sheet Title: SECOND FLOOR DUCTWORK REMODEL

HSR Project Number: HSR # 20028

Project Date: FEBRUARY 2021

Drawn By: JB/SK

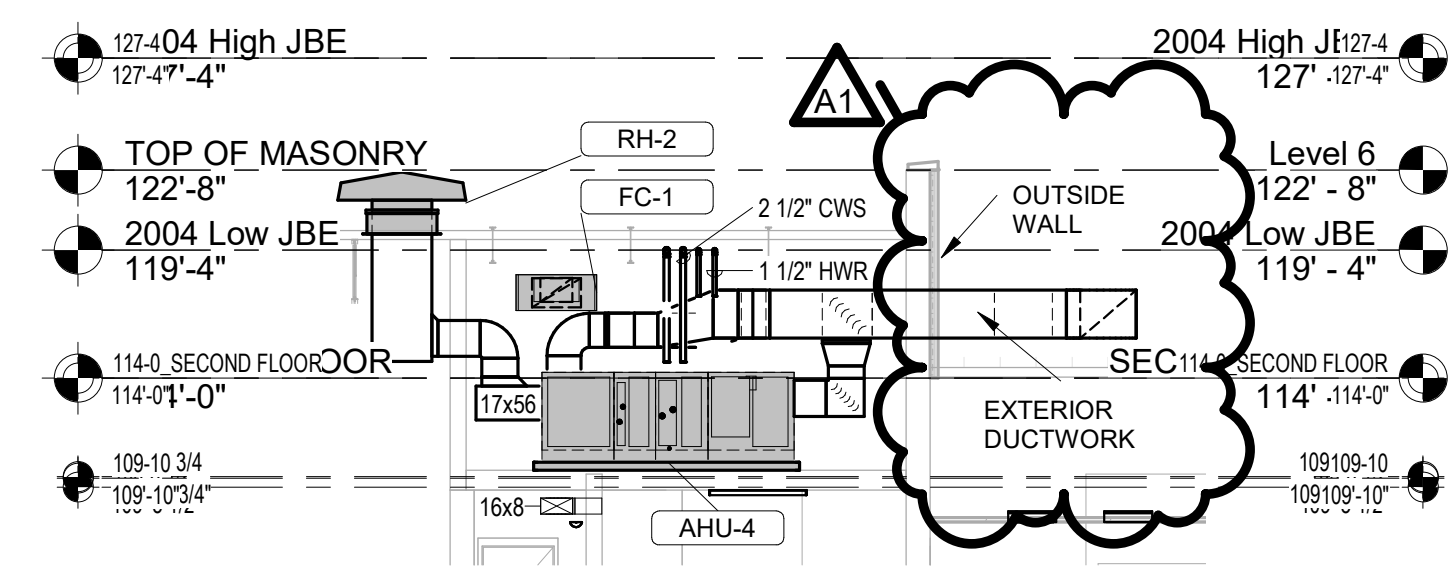
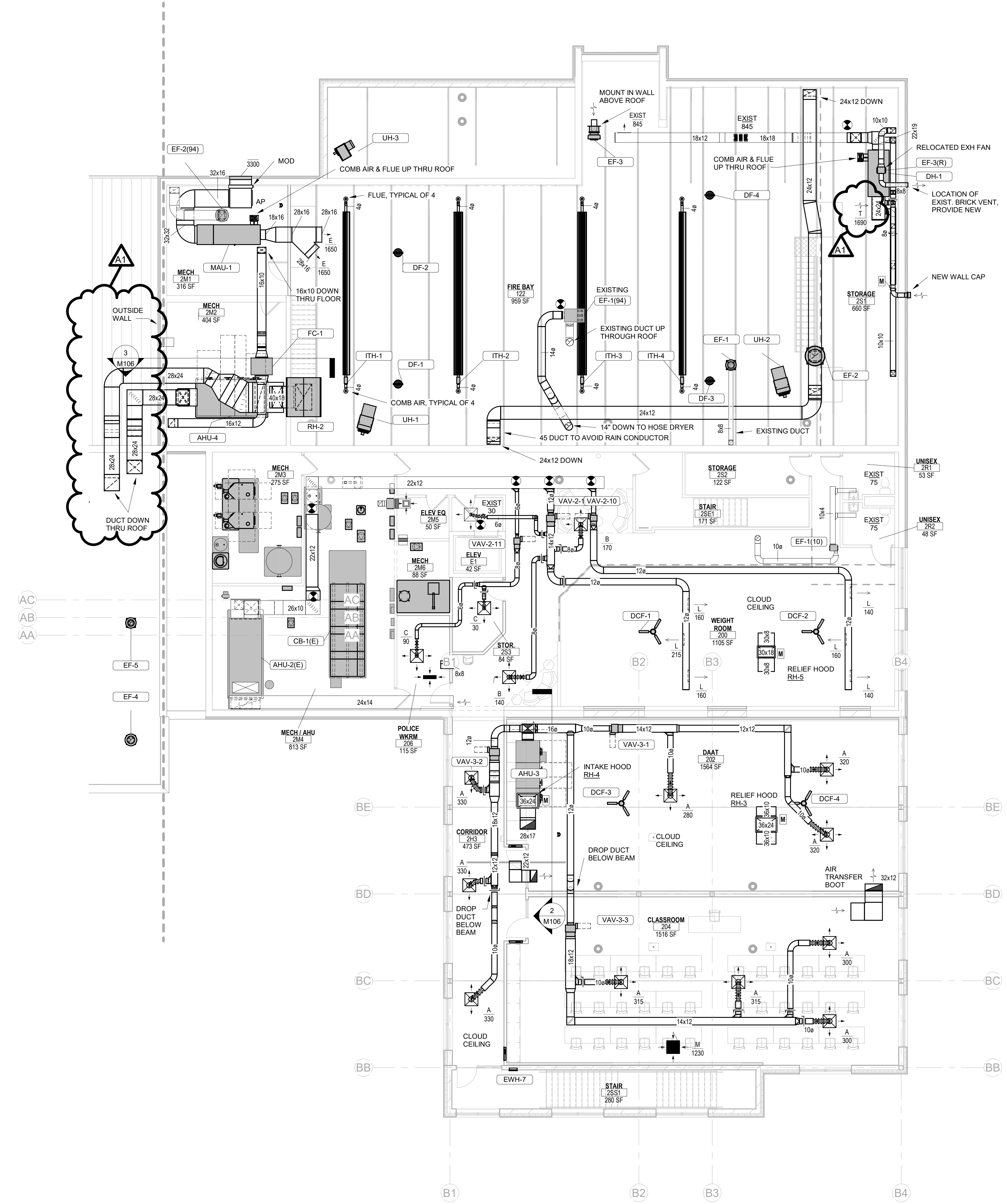
Key Plan:

No.	Description	Date
A1	Addendum 1	2/15/21

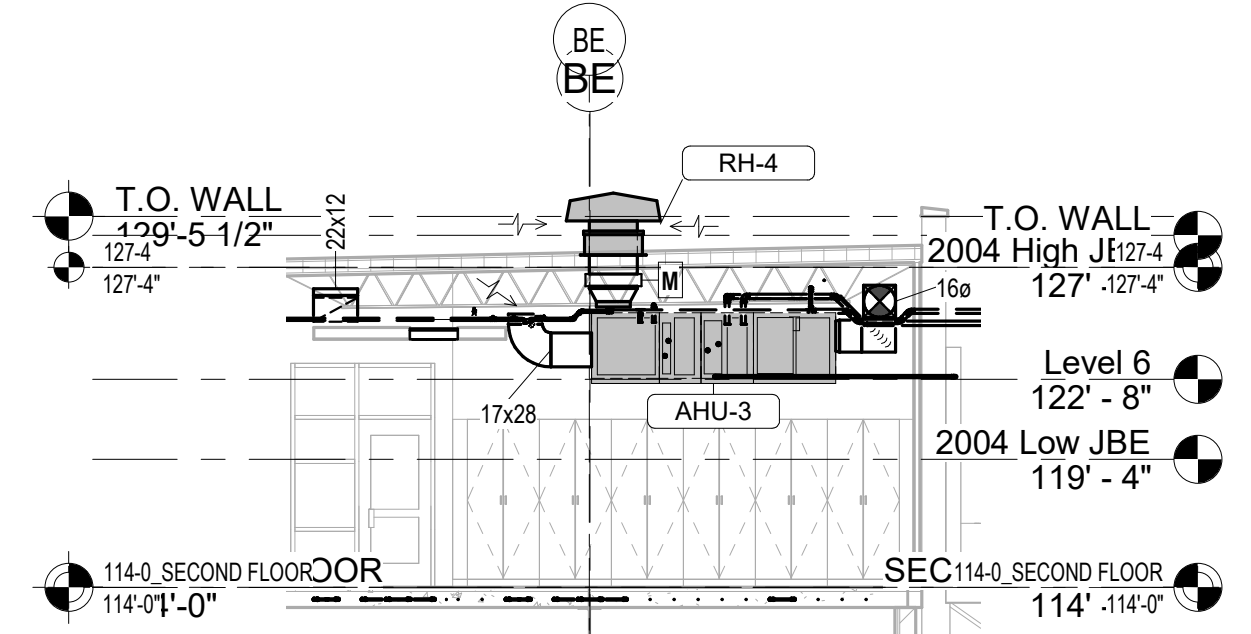
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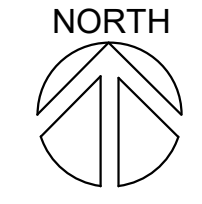
M106



3 SECTION @ AHU-4
1/8" = 1'-0"



2 SECTION @ AHU-3
1/8" = 1'-0"



1 MECHANICAL SECOND FLOOR DUCTWORK REMODEL PLAN
1/8" = 1'-0"



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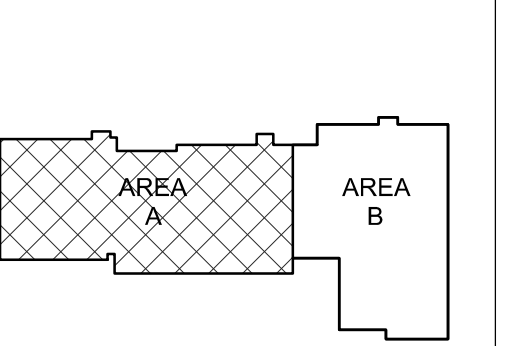
WESTERN TECHNICAL COLLEGE
SPARTA PUBLIC SAFETY EXPANSION
11177 COUNTY ROAD A
SPARTA, WI 54666
FIRST FLOOR POWER PLAN - AREA A

Project Title:
Project Number:
Project Date:
Drawn By:
Key Plan:

HSR # 20028
FEBRUARY 2021
HSR

MECHANICAL 2M2
MECHANICAL 2M4

KEY PLAN



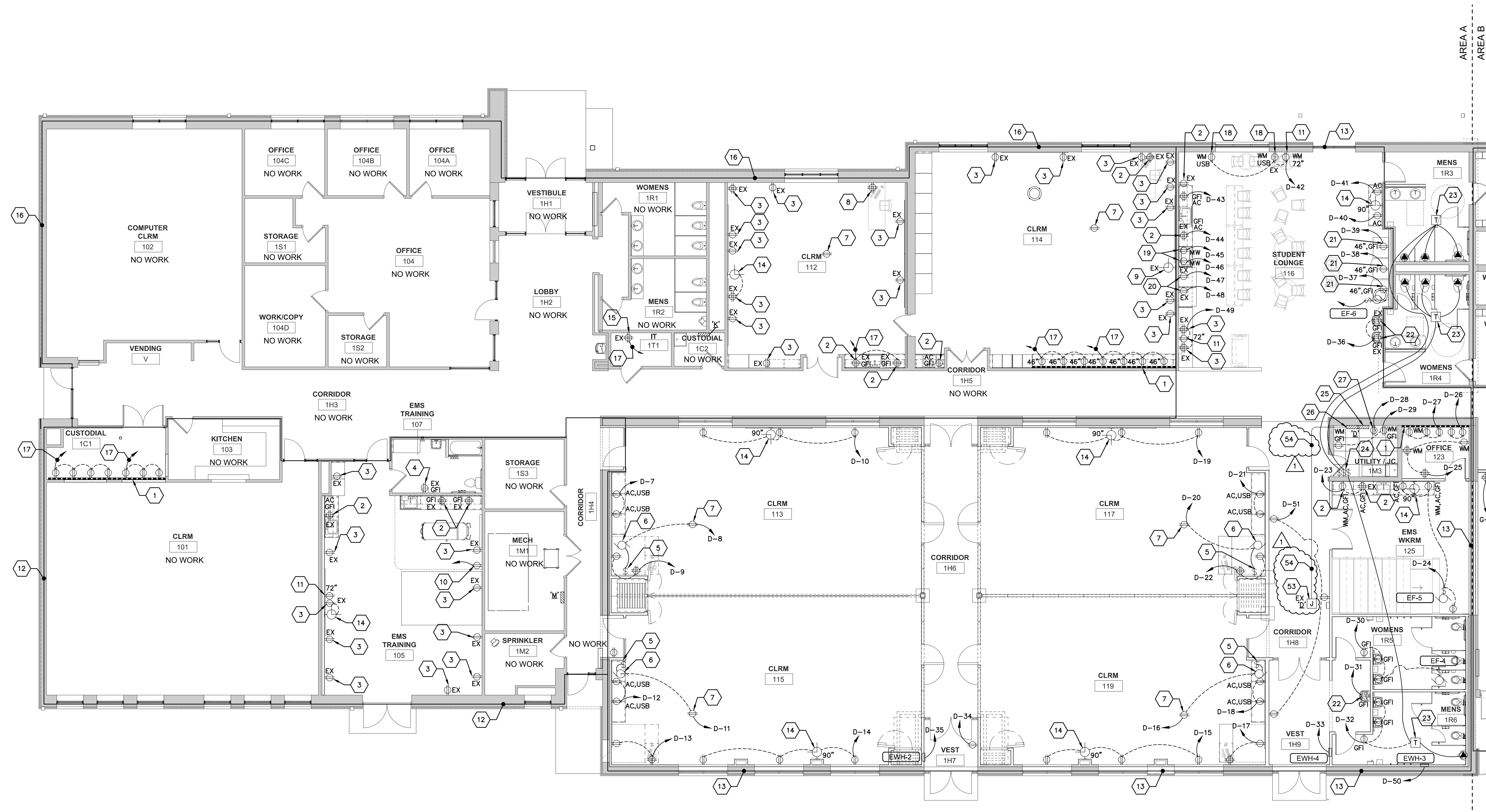
Revisions:

No.	Description	Date
1	ADDENDUM # 1	2-15-21

Graphic Scale:
VARIES

Last Update:
02/15/21

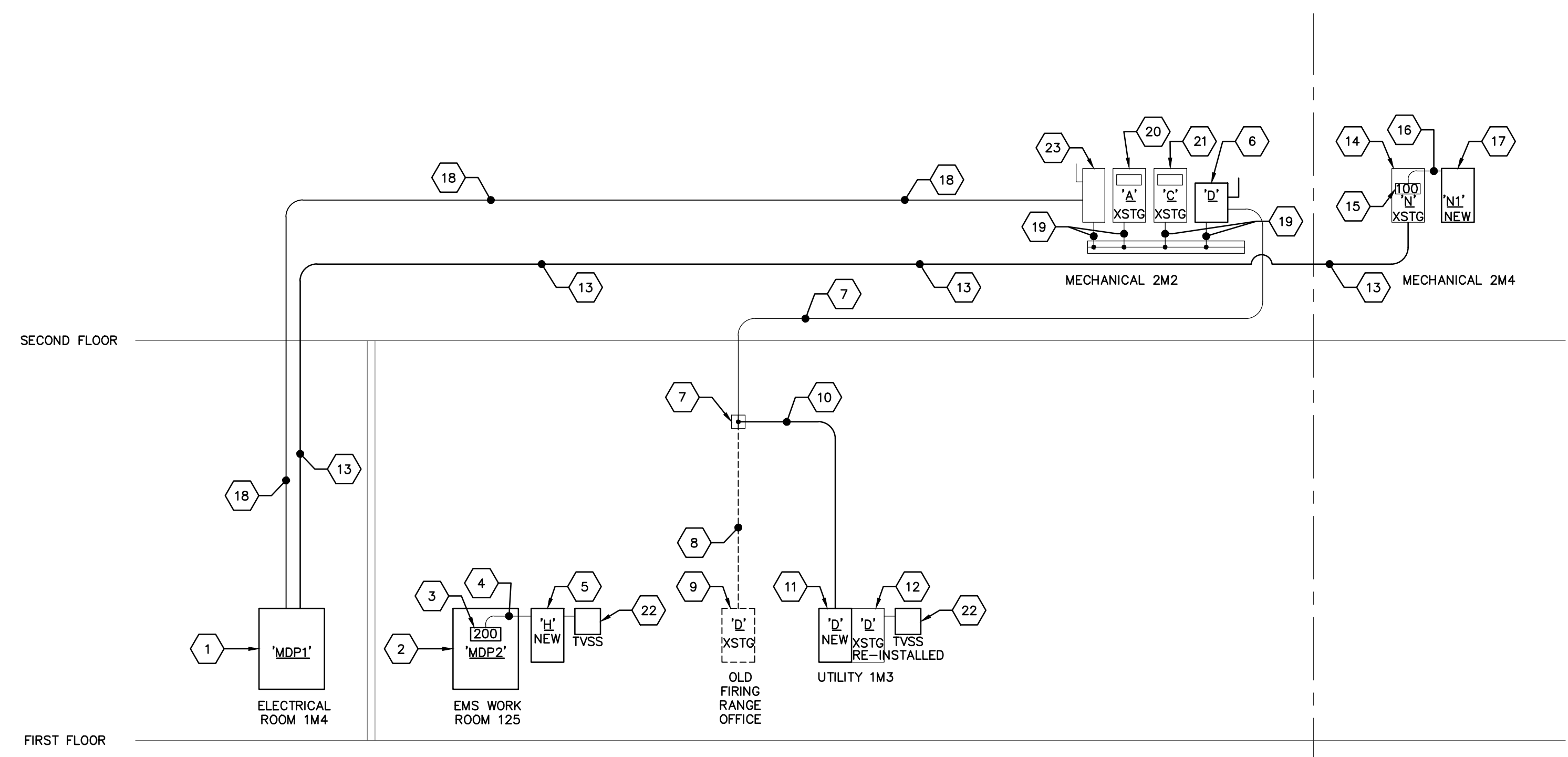
E201



1 FIRST FLOOR POWER PLAN - AREA A
SCALE: 1/8" = 1'-0"
20-07-E-PP01

- KEYED POWER PLAN NOTES:**
1. PROVIDE A WIREMOLD 3000 SERIES SURFACE RACEWAY.
 2. PROVIDE A GFI DUPLEX OR DOUBLE DUPLEX RECEPTACLE AS NOTED AND INSTALL ABOVE COUNTER, REUSE EXISTING JUNCTION BOX AND BRANCH CIRCUIT WIRING TO THE EXTENT POSSIBLE. RAISE EXISTING JUNCTION BOX TO ABOVE COUNTER AS REQUIRED.
 3. PROVIDE A NEW 20 AMP, 120VAC DUPLEX RECEPTACLE TO REPLACE EXISTING, INSTALL IN EXISTING JUNCTION BOX, REUSE EXISTING BRANCH CIRCUIT WIRING TO THE EXTENT POSSIBLE. PROVIDE A NEW STAINLESS STEEL COVER PLATE.
 4. PROVIDE A NEW 20 AMP, 120VAC, GFI DUPLEX RECEPTACLE TO REPLACE EXISTING, INSTALL IN EXISTING JUNCTION BOX, REUSE EXISTING BRANCH CIRCUIT WIRING. PROVIDE A NEW STAINLESS STEEL COVER PLATE.
 5. ELECTRICAL CONTRACTOR SHALL INSTALL UPDOWN SWITCH PROVIDED BY GENERAL CONTRACTOR FOR MOTORIZED VIDEO PROJECTION SCREEN AND MAKE FINAL CONNECTION. COORDINATE WITH GENERAL CONTRACTOR.
 6. MAKE FINAL CONNECTION TO MOTORIZED CEILING MOUNTED VIDEO PROJECTION SCREEN.
 7. PROVIDE A CEILING MOUNTED 20 AMP, 120VAC DUPLEX RECEPTACLE FOR OVERHEAD VIDEO PROJECTOR CORD AND PLUG CONNECTION, COORDINATE EXACT LOCATION WITH WTC IT DEPARTMENT.
 8. PROVIDE A DOUBLE DUPLEX RECEPTACLE IN THIS APPROXIMATE LOCATION FOR TEACHER'S STATION, REWORK EXISTING JUNCTION BOX AS REQUIRED TO ACCOMMODATE DOUBLE DUPLEX RECEPTACLE, REUSE EXISTING JUNCTION BOX CONDUIT, BRANCH CIRCUIT WIRING, ETC. TO THE EXTENT POSSIBLE.
 9. EXISTING CLOCK TO REMAIN AS IS.
 10. PROVIDE A DUPLEX RECEPTACLE IN THIS LOCATION FOR AMBULANCE SIMULATOR CORD AND PLUG CONNECTION, FISH INTO EXISTING GYP BOARD TYPE WALL CONSTRUCTION, PROVIDE A DEDICATED 20 AMP, 120VAC BRANCH CIRCUIT.
 11. PROVIDE A DUPLEX RECEPTACLE FOR WALL MOUNTED MONITOR, COORDINATE EXACT LOCATION WITH WTC IT DEPARTMENT, FISH INTO EXISTING GYP BOARD TYPE WALL CONSTRUCTION OR PROVIDE SURFACE WIREMOLD 500 IF ALLOWED BY WTC FACILITY MAINTENANCE DEPARTMENT, REUSE/EXTEND EXISTING BRANCH CIRCUIT WIRING IN THIS ROOM TO THE EXTENT POSSIBLE.
 12. REUSE EXISTING BRANCH CIRCUIT WIRING TO ENERGIZE NEW DUPLEX RECEPTABLES FED FROM EXISTING PANELBOARD 'N' LOCATED IN MECHANICAL ROOM 1M1 TO THE EXTENT POSSIBLE FOR THIS AREA, PROVIDE ADDITIONAL 20 AMP, 120VAC BRANCH CIRCUITS AS REQUIRED PER NEC CODE.
 13. BRANCH CIRCUIT WIRING TO ENERGIZE NEW DUPLEX RECEPTABLES FED FROM EXISTING PANELBOARD 'D' LOCATED IN UTILITY ROOM 1M3 FOR THIS AREA, PROVIDE BRANCH CIRCUITS AS NOTED.
 14. ELECTRICAL CONTRACTOR SHALL INSTALL A WTC 'STANDARDIZED' LATHEM AIRTIME CLOCK AND BACKBOX AT THIS LOCATION PROVIDED BY WTC FACILITY MAINTENANCE DEPARTMENT (OWNER). INSTALL A LATHEM AIRTIME BACKBOX WITH 120VAC RECEPTACLE PROVIDED BY OWNER, INSTALL A 120VAC LATHEM AIRTIME WIRELESS CLOCK PROVIDED BY OWNER, PROVIDE A 120VAC BRANCH CIRCUIT WIRING AND MAKE FINAL CONNECTION AS REQUIRED.
 15. PROVIDE A DOUBLE DUPLEX RECEPTACLE FOR NEW AV EQUIPMENT RACK, COORDINATE WITH WTC IT DEPARTMENT, PROVIDE A 20 AMP, 120VAC BRANCH CIRCUIT TO PANELBOARD 'K'.
 16. REUSE EXISTING BRANCH CIRCUIT WIRING TO ENERGIZE NEW DUPLEX RECEPTABLES FED FROM EXISTING PANELBOARD 'N' LOCATED IN CUSTODIAL ROOM 1C2 TO THE EXTENT POSSIBLE FOR THIS AREA, PROVIDE ADDITIONAL 20 AMP, 120VAC BRANCH CIRCUITS AS REQUIRED PER NEC CODE.
 17. PROVIDE A 20 AMP, BRANCH CIRCUIT TO THE NEAREST AVAILABLE PANELBOARD SERVING THIS AREA.
 18. PROVIDE A COMBINATION DUPLEX RECEPTACLE/USB CHARGER.
 19. PROVIDE A DUPLEX RECEPTACLE FOR MICROWAVE OVEN, LOCATE RECEPTACLE AS DIRECTED BY WTC FACILITY MAINTENANCE DEPARTMENT, RECEPTACLE SHALL BE LOCATED FOR EASY ACCESS TO CORD AND PLUG CONNECTION.
 20. PROVIDE A DUPLEX RECEPTACLE FOR REFRIGERATOR, REUSE EXISTING JUNCTION BOX TO THE EXTENT POSSIBLE, RAISE EXISTING JUNCTION BOX IF REQUIRED.
 21. PROVIDE A DUPLEX RECEPTACLE FOR VENDING MACHINE, FEED BRANCH CIRCUIT FROM A GFI CIRCUIT BREAKER FOR EASY ACCESS TO RESET GFI PROTECTION.
 22. INSTALL GFI RECEPTACLE FOR ELECTRIC WATER COOLER 'OUTSIDE' OF COOLER FOR EASY ACCESS TO RESET GFI PROTECTION.
 23. ELECTRICAL CONTRACTOR SHALL INSTALL 600A TYPE OF TRANSFORMER FOR PLUMBING VALVE CONTROL, COORDINATE WITH PLUMBING CONTRACTOR, THIS WORK SHALL BE AN 'ADD' ALTERNATE BID, SEE BID FORMS.
 24. PROVIDE A SINGLE POLE SWITCH TO CONTROL AUTOMATIC FLUSH VALVE TRANSFORMERS, CLEARLY LABEL AS DIRECTED BY WTC FACILITY MAINTENANCE DEPARTMENT.
 25. INSTALL A NEW 225 AMP, 120/208VAC, 3-PHASE, 4-WIRE, 42 SPACE, SQUARE 'D' PANELBOARD 'D' IN THIS ROOM, PROVIDE DOUBLE LUGS TO SUB-FEED REINSTALLED EXISTING PANELBOARD 'D'.
 26. REINSTALL EXISTING PANELBOARD 'D' IN THIS LOCATION FEED FROM NEW PANELBOARD 'D' WITH DOUBLE SUB-FEED LUGS.
 27. PROVIDE A DUPLEX RECEPTACLE FOR EXISTING RELOCATED SEPTIC ALARM CORD AND PLUG CONNECTION, REFER TO PHOTO #22/E201.
 28. REUSE EXISTING BRANCH CIRCUIT WIRING TO ENERGIZE NEW DUPLEX RECEPTABLES FED FROM EXISTING PANELBOARD 'N' LOCATED IN MEZZANINE MECHANICAL ROOM 2M2 TO THE EXTENT POSSIBLE FOR THIS AREA, PROVIDE ADDITIONAL 20 AMP, 120VAC BRANCH CIRCUITS AS REQUIRED PER NEC CODE.
 29. REUSE EXISTING BRANCH CIRCUIT WIRING TO ENERGIZE NEW DUPLEX RECEPTABLES AND MOTOR/EQUIPMENT FEED FROM EXISTING PANELBOARDS 'A', 'C', 'C1', 'C2' LOCATED IN MEZZANINE MECHANICAL ROOM 2M2 TO THE EXTENT POSSIBLE FOR THIS AREA, ALSO REUSE EXISTING BRANCH CIRCUIT WIRING FED FROM EXISTING PANELBOARD 'D' LOCATED IN ELECTRICAL ROOM 1M4, PROVIDE ADDITIONAL BRANCH CIRCUITS AS REQUIRED PER NEC CODE FROM THESE PANELBOARDS.
 30. REUSE EXISTING BRANCH CIRCUIT WIRING TO ENERGIZE NEW DUPLEX RECEPTABLES 'F' & 'G' LOCATED IN ELECTRICAL ROOM 1M4 TO THE EXTENT POSSIBLE FOR THIS AREA, PROVIDE ADDITIONAL BRANCH CIRCUITS AS REQUIRED PER NEC CODE. IN ADDITION, NEW PANELBOARD 'W' LOCATED IN EMS WORK ROOM #125 IS AVAILABLE FOR REMODEL WORK.
 31. PROVIDE FOUR (4) 20 AMP, 120VAC, BRANCH CIRCUITS TO PANELBOARDS 'F' OR 'G' TO FEED MODULAR FURNITURE, COORDINATE WITH WTC FACILITY MAINTENANCE DEPARTMENT.
 32. PROVIDE A JUNCTION BOX IN THIS APPROXIMATE LOCATION TO FEED MODULAR FURNITURE, MAKE DIRECT CONNECTION WITH LIQUID TIGHT FLEXIBLE METAL CONDUIT, COORDINATE WITH WTC FACILITY MAINTENANCE DEPARTMENT.
 33. PROVIDE A 30 AMP, 120/208VAC, SINGLE-PHASE 'DRYER' RECEPTACLE FOR STACKED WASHER/DRYER.
 34. INSTALL A SPEED CONTROL SWITCH PROVIDED BY HVAC CONTRACTOR TO CONTROL DESTRIATIFICATION FANS DFC-1, DFC-2, DFC-3 AND DFC-4, PROVIDE A 20 AMP, 120VAC BRANCH CIRCUIT TO EITHER PANELBOARD 'A', 'C', 'C1', 'C2' OR 'G', ELECTRICAL CONTRACTOR SHALL CHOOSE BEST PANELBOARD TO USE.
 35. INSTALL A DUPLEX RECEPTACLE FOR ICE MACHINE, PROVIDE A 20 AMP, 120VAC BRANCH CIRCUIT TO EITHER PANELBOARD 'A', 'C', 'C1', 'C2' OR 'G', ELECTRICAL CONTRACTOR SHALL CHOOSE BEST PANELBOARD TO USE.
 36. PROVIDE A 20 AMP, 120VAC BRANCH CIRCUIT TO PANELBOARD 'A', 'C', OR 'C1' LOCATED ON MEZZANINE MECHANICAL ROOM 2M2.
 37. REUSE EXISTING BRANCH CIRCUIT WIRING FROM PREVIOUSLY REMOVED OVERHEAD DOORS TO FEED NEW OVERHEAD DOORS IN NEW ADDITION IF COMPATIBLE, FIELD VERIFY VOLTAGE AMPERAGE AVAILABLE, OTHERWISE CONNECT OVERHEAD DOORS TO PANELBOARD 'A', 'C', OR 'C1' LOCATED ON MEZZANINE MECHANICAL ROOM 2M2.
 38. PROVIDE A 30 AMP, 208VAC BRANCH CIRCUIT TO PANELBOARD 'A', 'C', OR 'C1' LOCATED ON MEZZANINE MECHANICAL ROOM 2M2.
 39. INSTALL EXISTING WEATHER-PROOF COVER PLATES PREVIOUSLY REMOVED FROM FITNESS ROOM #105 (REFER TO REMOVAL SHEET E202) IN THIS LOCATION, REFER TO PHOTO #22/E201.
 40. TO SPEED CONTROL SWITCH, REFER TO SHEET E202.
 41. REUSE EXISTING BRANCH CIRCUIT WIRING TO ENERGIZE NEW DUPLEX RECEPTABLES AND MOTOR/EQUIPMENT FEED FROM EXISTING PANELBOARD 'N' LOCATED IN MECHANICAL ROOM 2M4 TO THE EXTENT POSSIBLE FOR THIS AREA, PROVIDE ADDITIONAL BRANCH CIRCUITS AS REQUIRED PER NEC CODE FROM THIS PANELBOARD.
 42. PROVIDE NEW BRANCH CIRCUIT WIRING TO ENERGIZE NEW DUPLEX RECEPTABLES AND MOTOR/EQUIPMENT FEED FROM PANELBOARD 'N1' LOCATED IN MECHANICAL ROOM 2M4 FOR THIS AREA, PROVIDE ADDITIONAL BRANCH CIRCUITS AS REQUIRED PER NEC CODE FROM THIS PANELBOARD.
 43. IT SHALL BE REQUIRED TO DISCONNECT THE 450 AMP, 208VAC, 3-PHASE, MULTI-STACK CHILLER FOR THE MECHANICAL CONTRACTOR TO INSTALL A NEW DRIP PAN UNDERNEATH, RECONNECT AFTER NEW DRIP PAN INSTALLED, COORDINATE THROUGHTS WITH MECHANICAL CONTRACTOR.
 44. REUSE EXISTING BRANCH CIRCUIT AT THIS LOCATION TO FEED NEW MOTOR/EQUIPMENT.
 45. PROVIDE A NEW SQUARE 'D', 125 AMP, MAIN LUG ONLY, 42 SPACE, 208VAC, 3-PHASE, 4-WIRE SUB-PANELBOARD IN THIS APPROXIMATE LOCATION, FEED FROM PANELBOARD 'N' WITH A 100% CIRCUIT BREAKER, LABEL PANELBOARD 'N1'.
 46. INSTALL A SPEED CONTROL SWITCH PROVIDED BY HVAC CONTRACTOR TO CONTROL CEILING DESTRIATIFICATION FANS DFC-1, DFC-2, DFC-3 AND DFC-4.
 47. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A CONNECT TRAC FLOOR SYSTEM, PROVIDE SURFACE MOUNTED COMBINATION POWER AND LOW VOLTAGE MODULES AND SURFACE RACEWAY, PROVIDE MODULES WITH COMBINATION DUPLEX RECEPTABLES AND DATA JACKS AS NOTED ON DRAWINGS AND AS REQUIRED BY WTC, CONTACT A CONNECTRAC SALES REPRESENTATIVE FOR MODEL NUMBERS, ETC. THE INTENT IS PROVIDE SURFACE MOUNT CONNECTION ON EXISTING AND/OR NEW CONCRETE FLOOR TO PROVIDE POWER AND LOW VOLTAGE CABLES BETWEEN THE WALL TO A FLOOR MOUNTED COMBINATION POWER/LOW VOLTAGE MODULES.
 48. DISCONNECT, REMOVE AND DISPOSE OF EXISTING 225 AMP, 120/208VAC, 3-PHASE, 42 SPACE, MAIN LUG ONLY 'E' PANELBOARD AND REPLACE WITH A 225 AMP, 120/208VAC, 3-PHASE, 52 SPACE, MLO SQUARE 'D' PANELBOARD, REFER TO PANELBOARD SCHEDULE FOR EXISTING CIRCUIT BREAKER INFORMATION.
 49. PROVIDE A NEW 225 AMP, 120/208VAC, 3-PHASE, 4-WIRE, 42 SPACE, MAIN LUG ONLY SQUARE 'D' PANELBOARD 'H' FEED FROM MDP2 DISTRIBUTION PANELBOARD, USE AN EXISTING 200/3 CIRCUIT BREAKER IN MDP2 TO ENERGIZE NEW PANELBOARD.
 50. PROVIDE A CEILING MOUNTED DUPLEX RECEPTACLE TO MARKER CORD AND PLUG CONNECTION OF MOTOR/EQUIPMENT.
 51. EF-3 HAS BEEN RELOCATED, REUSE EXISTING BRANCH CIRCUIT FROM PREVIOUS LOCATION AND EXTEND TO RELOCATED POSITION.
 52. PROVIDE AN EMERGENCY MUSHROOM TYPE SHUT-OFF SWITCH TO DE-ENERGIZE ALL EXISTING BOILERS AND BOILER PUMPS IN THIS ROOM, CONNECT TO SHUNT-TRIP CIRCUIT BREAKERS IN PANELBOARD 'N', PROVIDE A NEW SHUNT-TRIP CIRCUIT BREAKER IN EXISTING PANELBOARD 'I' IF REQUIRED FOR EXISTING BOILERS TO REMAIN, FIELD VERIFY, COORDINATE WITH HVAC CONTRACTOR.
 53. APPROXIMATE LOCATION OF PREVIOUSLY REMOVED PANELBOARD 'D', PROVIDE A JUNCTION BOX ABOVE SUSPENDED CEILING TO INTERRUPT 200 AMP FEEDER, EXTEND EXISTING 200 AMP FEEDER TO RELOCATED PANELBOARD 'D' IN UTILITY ROOM 1M3, REFER TO ELECTRIC RISER DIAGRAM #2/E201.
 54. EXTEND EXISTING 200 AMP FEEDER FOR RELOCATED EXISTING PANELBOARD 'D' AS INDICATED.

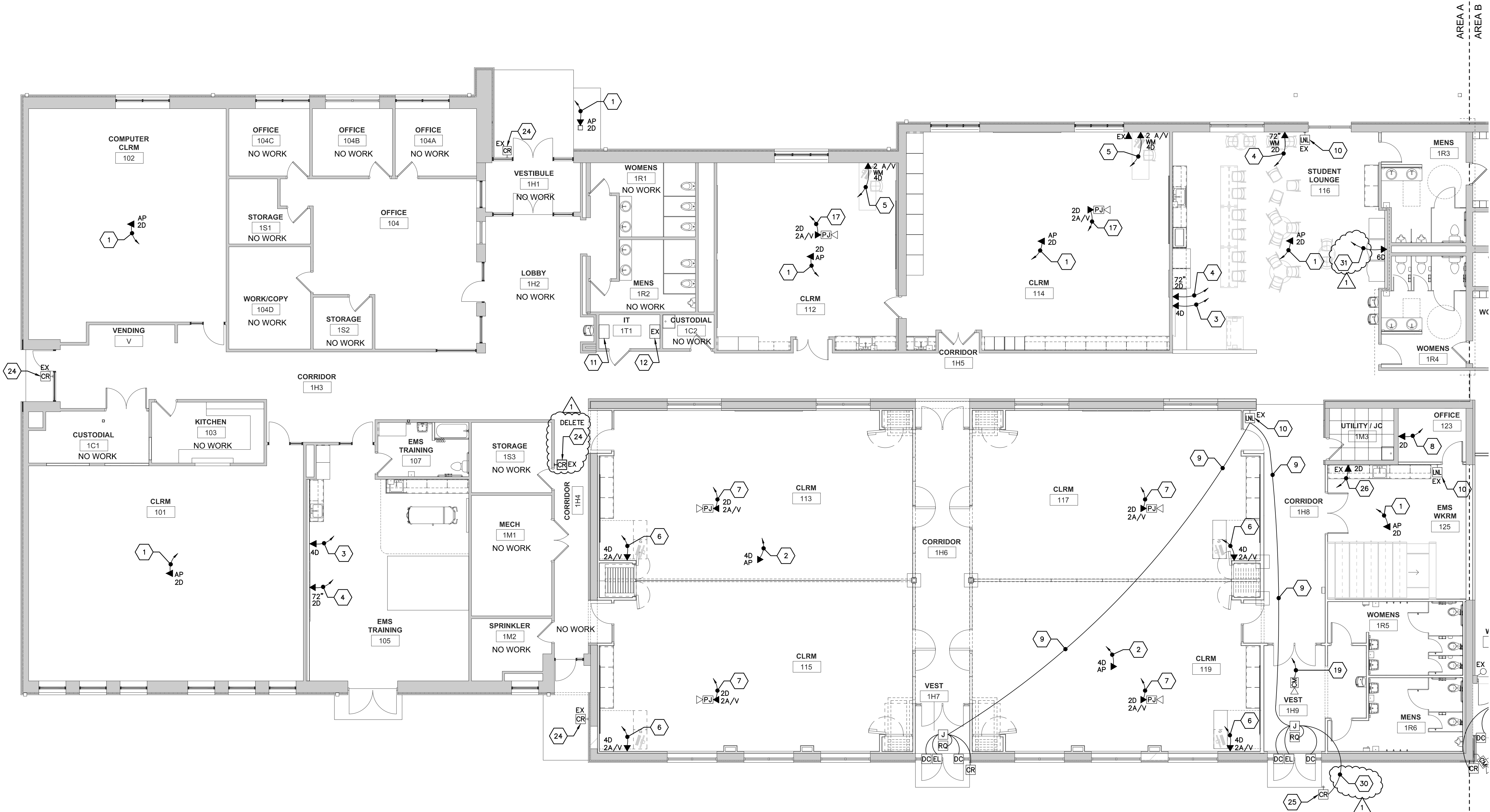
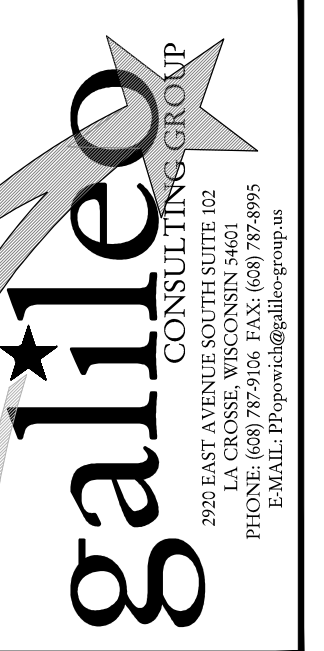
- KEYED ELECTRIC RISER DIAGRAM NOTES:**
1. EXISTING 1200 AMP, 120/208VAC, 3-PHASE, 4-WIRE MAIN DISTRIBUTION PANEL 'MDP1' TO REMAIN AS IS.
 2. EXISTING 800 AMP, 120/208VAC, 3-PHASE, 4-WIRE MAIN DISTRIBUTION PANEL 'MDP2' TO REMAIN AS IS.
 3. USE EXISTING 200/3 CIRCUIT BREAKER IN 'MDP2' TO FEED NEW PANELBOARD 'H'.
 4. PROVIDE 4 #3/0 THWN-2 AND 1 #6 THWN-2 (GND) IN 2" EMT CONDUIT FOR 200 AMP FEEDER.
 5. PROVIDE A NEW 225 AMP, 120/208VAC, 3-PHASE, 4-WIRE, 42 SPACE, MAIN LUG ONLY SQUARE 'D' PANELBOARD 'H'.
 6. EXISTING 200 AMP, 120/208VAC, 3-POLE WITH SOLID NEUTRAL DISCONNECT SWITCH FOR PANELBOARD 'D' TO REMAIN AS IS.
 7. INTERRUPT EXISTING 200 AMP, FEEDER TO PANELBOARD 'D' FOR RELOCATION OF PANELBOARD, PROVIDE A 18"X18"X6" JUNCTION BOX ABOVE SUSPENDED CEILING FOR TERMINATING EXISTING EMT CONDUIT AND FOR SPLICING EXISTING FEEDER CONDUCTORS, RELOCATE EXISTING PANELBOARD 'D' TO UTILITY ROOM #1M3, EXTEND EXISTING 200 AMP, COPPER FEEDER AS REQUIRED, REFER TO POWER SHEET E201.
 8. DISCONNECT AND REMOVE PARTIAL 200 AMP COPPER FEEDER TO ABOVE SUSPENDED CEILING.
 9. RELOCATE EXISTING 225 AMP, 120/208VAC, 3-PHASE, 4-WIRE SQUARE 'D' PANELBOARD TO UTILITY ROOM #1M3.
 10. EXTEND EXISTING 200 AMP, 120/208VAC, 3-PHASE, 4-WIRE COPPER FEEDER TO REINSTALLED LOCATION ON UTILITY ROOM #1M3.
 11. INSTALL A NEW SQUARE 'D', 225 AMP, 120/208VAC, 3-PHASE, 4-WIRE, 42 SPACE, MAIN LUG ONLY PANELBOARD IN UTILITY ROOM #1M3, PROVIDE SUB-FEED LUGS WITH THIS PANELBOARD.
 12. REINSTALL A PREVIOUSLY REMOVED EXISTING SQUARE 'D', 225 AMP, 120/208VAC, 3-PHASE, 4-WIRE PANELBOARD IN UTILITY ROOM #1M3.
 13. EXISTING 225 AMP, 120/208VAC, 3-PHASE, 4-WIRE COPPER FEEDER TO REMAIN AS IS FEEDING EXISTING PANELBOARD 'N'.
 14. EXISTING 225 AMP, 120/208 VAC, 3-PHASE, 4-WIRE, SQUARE 'D' PANELBOARD 'N' TO REMAIN AS IS.
 15. PROVIDE A 100/3 CIRCUIT BREAKER IN PANELBOARD TO FEED SUBPANEL 'N1'.
 16. PROVIDE 4 #3 THWN-2 AND 1 #8 THWN-2 (GND) IN 1-1/4" EMT CONDUIT FOR 100 AMP FEEDER.
 17. PROVIDE A NEW 125 AMP, 120/208VAC, 3-PHASE, 4-WIRE, 42 SPACE, MAIN LUG ONLY PANELBOARD 'N1'.
 18. EXISTING 600 AMP, 120/208VAC, 4-WIRE COPPER FEEDER TO REMAIN AS IS, LABELLED 'OLD SERVICE' IN MDP1.
 19. EXISTING FEEDER TAP CONDUCTORS TO REMAIN AS IS.
 20. EXISTING 225 AMP, 'GENERAL ELECTRIC', 120/208VAC, 4-WIRE, MAIN CKT. BRK. PANELBOARD 'A' SHALL BE DISCONNECTED AND REMOVED, REPLACE EXISTING PANELBOARD WITH A NEW SQUARE 'D', 225 AMP, 120/208VAC, 3-PHASE, 4-WIRE, MAIN CKT. BRK., 52 SPACE (MINIMUM) PANELBOARD, REFER TO PANELBOARD SCHEDULE FOR CIRCUIT BREAKER INFORMATION, THE INTENT IS TO REPLACE THE EXISTING GE PANELBOARD WITH NEW SQUARE 'D' IN SAME LOCATION.
 21. EXISTING 225 AMP, 'GENERAL ELECTRIC', 120/208VAC, 4-WIRE, MAIN CKT. BRK. PANELBOARD 'C' SHALL BE DISCONNECTED AND REMOVED, REPLACE EXISTING PANELBOARD WITH A NEW SQUARE 'D', 225 AMP, 120/208VAC, 3-PHASE, 4-WIRE, MAIN CKT. BRK., 52 SPACE (MINIMUM) PANELBOARD, REFER TO PANELBOARD SCHEDULE FOR CIRCUIT BREAKER INFORMATION, THE INTENT IS TO REPLACE THE EXISTING GE PANELBOARD WITH NEW SQUARE 'D' IN SAME LOCATION.
 22. PROVIDE A TUS 'SUNG' SUPPRESSOR DEVICE AS SPECIFIED.
 23. EXISTING 600/3 DISCONNECT FOR 'OLD SERVICE' TO REMAIN AS IS.



2 PARTIAL ELECTRICAL RISER DIAGRAM
SCALE: 1/8" = 1'-0"
20-07-E-RISER-DIA

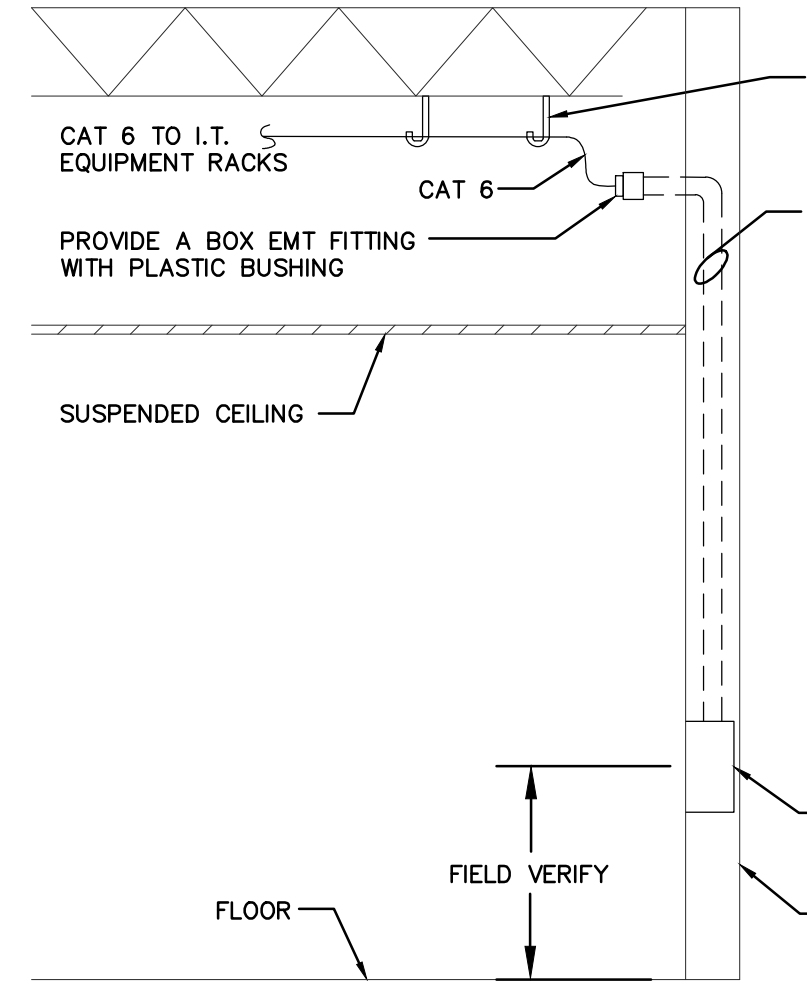


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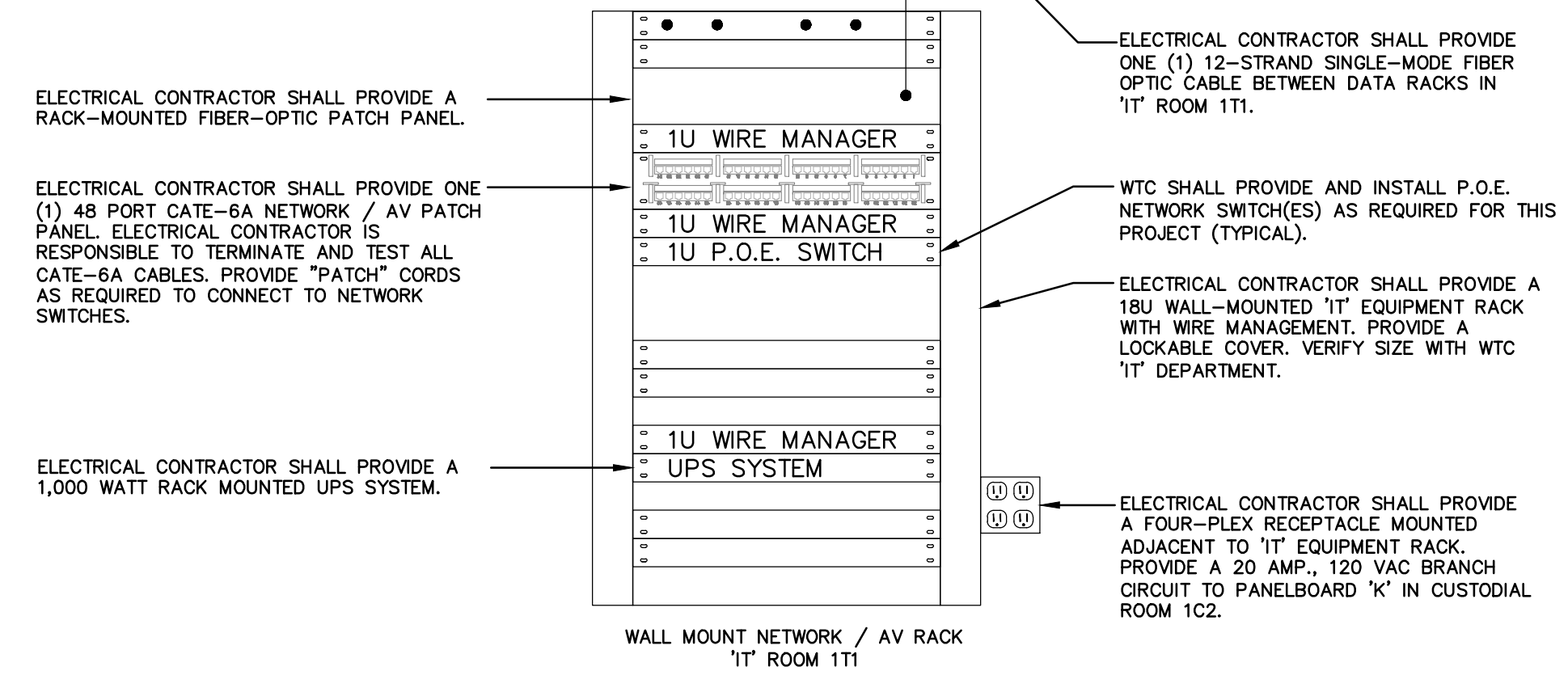


1 FIRST FLOOR LOW VOLTAGE PLAN - AREA A
SCALE: 1/8" = 1'-0"
20-07-E-LV01

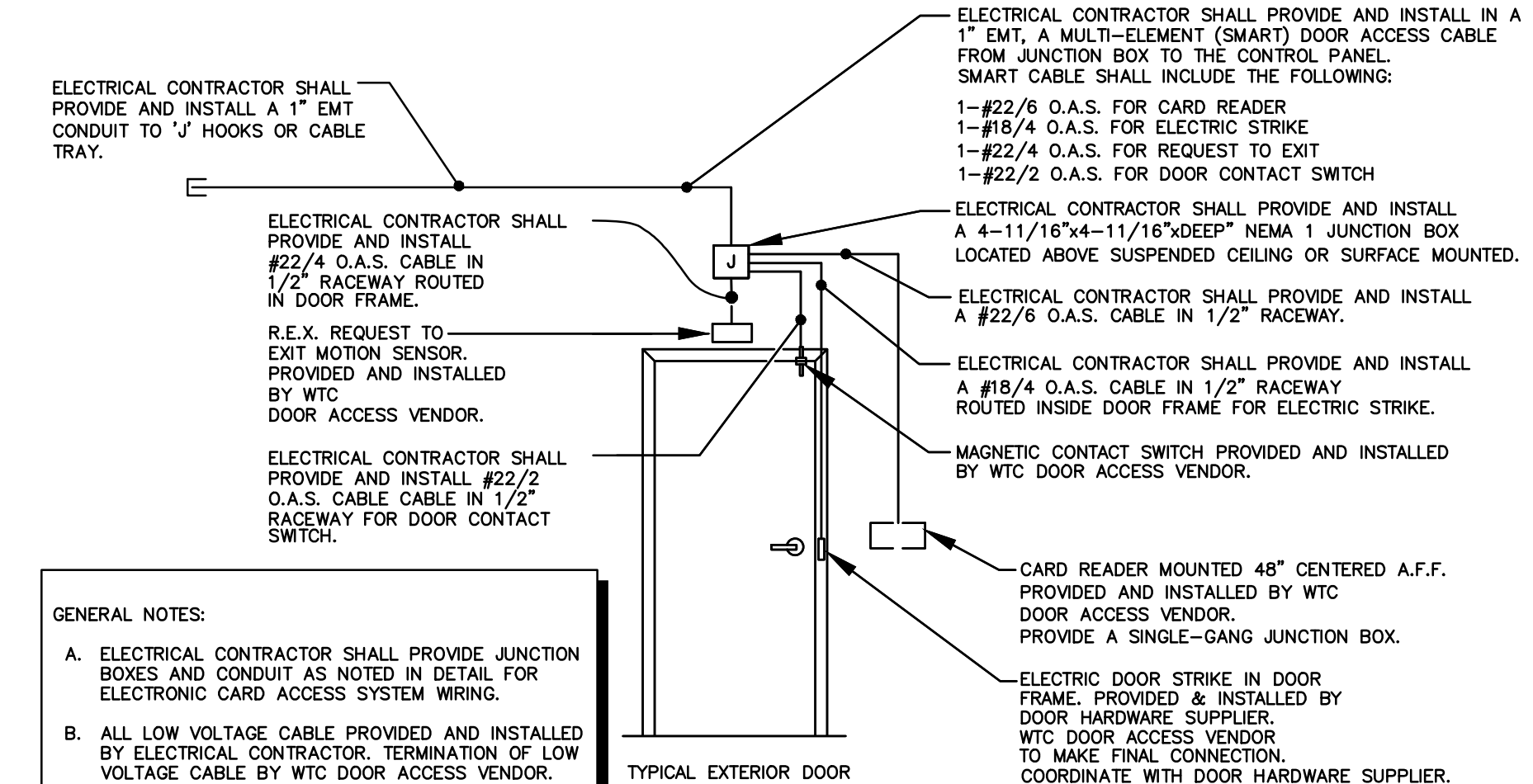
- GENERAL LOW VOLTAGE NOTES:**
- COLOR CODING SHALL BE AS FOLLOWS:
 1. NETWORKING (DATA) = ORANGE DATA JACKS WITH BLUE CAT6A CABLES.
 2. IP PHONE = ORANGE DATA JACKS WITH BLUE CAT6A CABLES
 3. AUDIO/VIDEO (A/V) = GREEN DATA JACKS WITH GREEN CAT6A CABLE
 4. SECURITY CAMERAS = WHITE JACKS WITH WHITE CAT6A CABLE
 5. ELECTRONIC DOOR ACCESS SYSTEM = YELLOW MULTI-ELEMENT SMART CABLE
 6. FAX/ANALOG = PURPLE JACKS WITH PURPLE CAT6A CABLES.
 7. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE TO PROVIDE 1/2" HOOPS AND CONDUIT SLEEVES THROUGH WALLS FOR LOW VOLTAGE CABLE ROUTING AS REQUIRED.
 - ALL** LOW VOLTAGE WIRING SHALL BE PLENUM RATED.
 - ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL 1-HOOK TYPE LOW VOLTAGE CABLE WRITING SUPPORT ON 4'-0" CENTERS ABOVE SUSPENDED ACOUSTIC CEILINGS BETWEEN CONDUIT WALL STUBS AND CABLE TRAY, ETC. ALL LOW VOLTAGE WIRING SHALL BE INDEPENDENTLY SUPPORTED SEPARATE FROM GRID TYPE CEILINGS, NO EXCEPTIONS.
 - ELECTRICAL CONTRACTOR IS RESPONSIBLE TO PROVIDE ALL LOW VOLTAGE WIRING, DATA JACKS, ETC. FOR A COMPLETE SYSTEM FOR THIS PROJECT.
- KEYED LOW VOLTAGE NOTES:**
- APPROXIMATE LOCATION OF NEW WIRELESS ACCESS POINT PROVIDED AND INSTALLED BY WTC IT DEPARTMENT. ELECTRICAL CONTRACTOR SHALL PROVIDE TWO (2) NETWORK CAT6A CABLES BETWEEN WIRELESS ACCESS POINT AND IT NETWORK EQUIPMENT RACK LOCATED IN DATA ROOM #111 OR #262. PROVIDE JUNCTION BOXES AS REQUIRED IN CEILING OR WALL. COORDINATE WITH WTC IT DEPARTMENT.
 - APPROXIMATE LOCATION OF NEW WIRELESS ACCESS POINT PROVIDED AND INSTALLED BY WTC IT DEPARTMENT. ELECTRICAL CONTRACTOR SHALL PROVIDE FOUR (4) CAT6A CABLES BETWEEN WIRELESS ACCESS POINT AND IT NETWORK EQUIPMENT RACKS LOCATED IN DATA ROOM #111. PROVIDE JUNCTION BOXES AS REQUIRED IN CEILING OR WALL. COORDINATE WITH WTC IT DEPARTMENT.
 - ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A FOUR (4) PORT DATA JACK. PROVIDE FOUR (4) NETWORK CAT6A CABLES BETWEEN FOUR PORT DATA JACK AND IT NETWORK EQUIPMENT RACK LOCATED IN DATA ROOM #111 OR #262. PROVIDE A DOUBLE GANG JUNCTION BOX WITH SINGLE GANG MUDRING. STUB TWO (2) 1" EMT CONDUITS TO 7' HOOPS ABOVE SUSPENDED CEILING. VERIFY MOUNTING HEIGHT OF DATA JACKS WITH WTC IT DEPARTMENT PRIOR TO ROUGH-IN.
 - ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A TWO (2) PORT DATA JACK. PROVIDE TWO (2) NETWORK CAT6A CABLES BETWEEN TWO PORT DATA JACK AND IT NETWORK EQUIPMENT RACK LOCATED IN DATA ROOM #111 OR #262. PROVIDE A DOUBLE GANG JUNCTION BOX WITH SINGLE GANG MUDRING. STUB ONE (1) 1" EMT CONDUIT TO 7' HOOPS ABOVE SUSPENDED CEILING. VERIFY MOUNTING HEIGHT OF DATA JACKS WITH WTC IT DEPARTMENT PRIOR TO ROUGH-IN.
 - ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A SIX PORT COMBINATION DATA/AV JACKS AT THIS APPROXIMATE LOCATION FOR TEACHER'S STATION. PROVIDE FOUR (4) NETWORK CAT6A CABLES TO IT NETWORK EQUIPMENT RACK LOCATED IN IT ROOM #111. PROVIDE TWO (2) SHIELDED CAT6A A/V CABLES BETWEEN TEACHER'S STATION DATA/AV JACKS AND OVERHEAD PROJECTOR JUNCTION BOX. PROVIDE SURFACE WIREMOLD JUNCTION BOX AND RACEWAY SIZED AS REQUIRED AND INSTALL ABOVE SUSPENDED CEILING FOR CABLE ROUTING.
 - ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A SIX PORT COMBINATION DATA/AV JACKS AT THIS APPROXIMATE LOCATION FOR TEACHER'S STATION. PROVIDE FOUR (4) NETWORK CAT6A CABLES TO IT NETWORK EQUIPMENT RACK LOCATED IN IT ROOM #111. PROVIDE TWO (2) SHIELDED CAT6A A/V CABLES BETWEEN TEACHER'S STATION DATA/AV JACKS AND A/V EQUIPMENT RACK LOCATED IN IT ROOM #111. PROVIDE A 4"x4"x2-1/8" JUNCTION BOX WITH A DOUBLE-GANG MUDRING AND TWO (2) 1" EMT CONDUITS AND STUB ABOVE SUSPENDED CEILING FOR CABLE ROUTING.
 - ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A FOUR PORT COMBINATION DATA/AV JACKS AT THIS APPROXIMATE LOCATION FOR OVERHEAD PROJECTOR. PROVIDE TWO (2) NETWORK CAT6A CABLES TO IT NETWORK EQUIPMENT RACK LOCATED IN IT ROOM #111. PROVIDE TWO (2) SHIELDED CAT6A A/V CABLES BETWEEN OVERHEAD PROJECTOR JUNCTION BOX AND A/V EQUIPMENT RACK LOCATED IN IT ROOM #111. PROVIDE A 4"x4"x2-1/8" JUNCTION BOX WITH A DOUBLE-GANG MUDRING AND TWO (2) 1" EMT CONDUITS AND STUB ABOVE SUSPENDED CEILING FOR CABLE ROUTING.
 - ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A TWO (2) PORT DATA JACK. PROVIDE TWO (2) NETWORK CAT6A CABLES BETWEEN TWO PORT DATA JACK AND IT NETWORK EQUIPMENT RACK LOCATED IN DATA ROOM #111 OR #262. PROVIDE A DOUBLE GANG JUNCTION BOX WITH SINGLE GANG MUDRING. STUB ONE (1) 1" EMT CONDUIT TO 7' HOOPS ABOVE SUSPENDED CEILING. VERIFY MOUNTING HEIGHT OF DATA JACKS WITH WTC IT DEPARTMENT PRIOR TO ROUGH-IN. REFER TO DETAIL 4/E301.
 - ELECTRICAL CONTRACTOR SHALL PROVIDE A SMART CABLE HOMERUN TO EXISTING ELECTRONIC DOOR ACCESS CONTROLS AS NOTED ON DRAWINGS. SMART CABLE SHALL BE BELDEN, MODEL 985041 OR EQUAL, 16 CONDUCTOR, 4 ELEMENT, ACCESS CONTROL CABLE, 18-04 + 23-3P + 22-02 + 22-04 PLENUM YELLOW COLOR. REFER TO ELECTRONIC DOOR ACCESS CONTROL DETAIL 2/E301.
 - LOCATION OF EXISTING ELECTRONIC DOOR ACCESS CONTROL POWER SUPPLY/CONTROLLER.
 - LOCATION OF EXISTING IT NETWORK EQUIPMENT RACK.
 - ELECTRICAL CONTRACTOR SHALL PROVIDE AN A/V WALL-MOUNTED EQUIPMENT RACK. COORDINATE WITH WTC IT DEPARTMENT. REFER TO DETAIL 3/E301.
 - ELECTRICAL CONTRACTOR SHALL PROVIDE A SMART CABLE HOMERUN TO EXISTING ELECTRONIC DOOR ACCESS CONTROL PANEL LOCATED IN ROOM #103. SMART CABLE SHALL BE BELDEN, MODEL 985041 OR EQUAL, 16 CONDUCTOR, 4 ELEMENT, ACCESS CONTROL CABLE, 18-04 + 23-3P + 22-02 + 22-04 PLENUM YELLOW COLOR. REFER TO ELECTRONIC DOOR ACCESS CONTROL DETAIL 2/E301.
 - ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A TWO (2) PORT DATA JACK. PROVIDE TWO (2) NETWORK CAT6A CABLES BETWEEN TWO PORT DATA JACK AND IT NETWORK EQUIPMENT RACK LOCATED IN DATA ROOM #111 OR #262. PROVIDE A DOUBLE GANG JUNCTION BOX WITH SINGLE GANG MUDRING. STUB ONE (1) 1" EMT CONDUIT TO 7' HOOPS ABOVE SUSPENDED CEILING. VERIFY MOUNTING HEIGHT OF DATA JACKS WITH WTC IT DEPARTMENT PRIOR TO ROUGH-IN. REFER TO DETAIL 4/E301.
 - ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A TWO (2) PORT DATA JACK. PROVIDE TWO (2) NETWORK CAT6A CABLES BETWEEN TWO PORT DATA JACK AND IT NETWORK EQUIPMENT RACK LOCATED IN DATA ROOM #111 OR #262. PROVIDE A DOUBLE GANG JUNCTION BOX WITH SINGLE GANG MUDRING. STUB ONE (1) 1" EMT CONDUIT TO 7' HOOPS ABOVE SUSPENDED CEILING. VERIFY MOUNTING HEIGHT OF DATA JACKS WITH WTC IT DEPARTMENT PRIOR TO ROUGH-IN.
 - ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL AN EIGHT PORT COMBINATION DATA/AV JACKS AT THIS APPROXIMATE LOCATION FOR TEACHER'S PRESENTER STATION. PROVIDE FOUR (4) NETWORK CAT6A CABLES TO IT NETWORK EQUIPMENT RACKS LOCATED IN IT ROOM #262. PROVIDE FOUR (4) SHIELDED CAT6A A/V CABLES BETWEEN TEACHER'S PRESENTER'S STATION DATA/AV JACKS AND OVERHEAD PROJECTORS. INSTALL TWO (2) SHIELDED CAT6A CABLES TO EACH OVERHEAD PROJECTOR. PROVIDE A TWO GANG MASONRY DEEP JUNCTION BOX WITH A DOUBLE-GANG MUDRING AND TWO (2) 1-1/4" EMT CONDUITS AND STUB ABOVE SUSPENDED CEILING FOR CABLE ROUTING.
 - ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A FOUR PORT COMBINATION DATA/AV JACKS AT THIS APPROXIMATE LOCATION FOR OVERHEAD PROJECTOR. PROVIDE TWO (2) NETWORK CAT6A CABLES TO IT NETWORK EQUIPMENT RACK LOCATED IN IT ROOM #262. PROVIDE TWO (2) SHIELDED CAT6A A/V CABLES BETWEEN OVERHEAD PROJECTOR JUNCTION BOX AND A/V EQUIPMENT RACK LOCATED IN IT ROOM #262. PROVIDE A DOUBLE GANG JUNCTION BOX AS REQUIRED FOR DATA/AV WIRING.
 - ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A "CONNECT TRAC" FLOOR SYSTEM. PROVIDE SURFACE MOUNTED COMBINATION POWER AND LOW VOLTAGE MODULES AND SURFACE RACEWAY. PROVIDE MODULES WITH COMBINATION DUPLEX RECEPTACLES AND DATA JACKS AS NOTED ON DRAWINGS AND AS REQUIRED BY WTC. CONTACT A CONTRACTOR SALES REPRESENTATIVE FOR MODEL NUMBERS, ETC. THE INTENT IS PROVIDE SURFACE MOUNTED CONTRACTOR ON EXISTING CONCRETE FLOOR TO PROVIDE POWER AND LOW VOLTAGE CABLES BETWEEN THE WALL TO A FLOOR MOUNTED COMBINATION POWER/LOW VOLTAGE MODULES.
 - ELECTRICAL CONTRACTOR SHALL INSTALL A SECURITY IP CCTV CAMERA WITH BACKBOX PROVIDED BY WTC IT DEPARTMENT IN THIS LOCATION. PROVIDE ONE (1) CAT6A CABLE TO IT NETWORK EQUIPMENT RACK LOCATED IN DATA ROOM #111 OR #262. COORDINATE MOUNTING HEIGHT AND MOUNTING HEIGHT WITH WTC IT DEPARTMENT.
 - PROVIDE A COMBINATION POWER/COMMUNICATION WIREMOLD 4000 SERIES SURFACE RACEWAY.
 - ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A TWO (2) PORT DATA JACK. PROVIDE TWO (2) NETWORK CAT6A CABLES BETWEEN TWO PORT DATA JACK AND IT NETWORK EQUIPMENT RACK LOCATED IN DATA ROOM #111 OR #262 FOR PRINTER/COPPER. PROVIDE A DOUBLE GANG JUNCTION BOX WITH SINGLE GANG MUDRING. STUB ONE (1) 1" EMT CONDUIT TO 7' HOOPS ABOVE SUSPENDED CEILING. VERIFY MOUNTING HEIGHT OF DATA JACKS WITH WTC IT DEPARTMENT PRIOR TO ROUGH-IN.
 - ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A TWO (2) PORT DATA JACK. PROVIDE TWO (2) NETWORK CAT6A CABLES BETWEEN TWO PORT DATA JACK AND IT NETWORK EQUIPMENT RACK LOCATED IN DATA ROOM #111 OR #262 FOR OFFICE COMPUTER WORKSTATION. PROVIDE TWO (2) NETWORK CAT6A CABLES INSIDE MODULAR OFFICE FURNITURE. COORDINATE WITH MODULAR OFFICE FURNITURE MANUFACTURER AND WITH WTC FACILITY DEPARTMENT.
 - PROVIDE WIREMOLD 3000 SERIES SURFACE RACEWAY FOR ROUTING LOW VOLTAGE WIRING. PROVIDE LIQUID TIGHT TYPE FLEXIBLE CONDUIT BETWEEN WIREMOLD JUNCTION BOX AND MAKE DIRECT CONNECTION TO MODULAR OFFICE FURNITURE.
 - EXISTING ELECTRONIC DOOR ACCESS CONTROL, CARD READER TO REMAIN AS IS.
 - EXISTING ELECTRONIC DOOR ACCESS CONTROL "CARD READER" TO BE INSTALLED ON EXTERIOR PEDESTAL. PROVIDE UNDERGROUND CONDUIT AND LOW VOLTAGE WIRING AS REQUIRED BETWEEN ELECTRONIC DOOR ACCESS CONTROL JUNCTION BOX AND PEDESTAL. COORDINATE WITH WTC PLANT FACILITY DEPARTMENT. REFER TO PHOTO #02/001 FOR PEDESTAL EXAMPLE.
 - ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A TWO (2) PORT DATA JACK. PROVIDE TWO (2) NETWORK CAT6A CABLES BETWEEN TWO PORT DATA JACK AND IT NETWORK EQUIPMENT RACK LOCATED IN DATA ROOM #111 OR #262 FOR OFFICE COMPUTER WORKSTATION. REUSE EXISTING JUNCTION BOX AND CONDUIT TO EXTENT POSSIBLE. MAKE EXISTING JUNCTION BOX TO ABOVE COUNTERTOP IF REQUIRED. VERIFY MOUNTING HEIGHT OF DATA JACKS WITH WTC IT DEPARTMENT PRIOR TO ROUGH-IN.
 - ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A FOUR PORT COMBINATION DATA/AV JACKS AT THIS APPROXIMATE LOCATION FOR WALL-MOUNT MONITOR. PROVIDE TWO (2) NETWORK CAT6A CABLES TO IT NETWORK EQUIPMENT RACKS LOCATED IN IT ROOM #111 OR #262. PROVIDE TWO (2) SHIELDED CAT6A A/V CABLES BETWEEN WALL-MOUNT MONITOR JUNCTION BOX AND PRESENTER'S A/V JACKS. PROVIDE SURFACE MOUNTED FLOOR CONNECTOR RACEWAY SYSTEM AS REQUIRED FOR DATA/AV WIRING. COORDINATE WITH WTC DEPARTMENT.
 - PROVIDE 18 GAUGE CONDUIT ON LAMB (SHIELDED) (RACK), EXTERIOR RATED COMMUNICATION CABLE BETWEEN PEDESTAL CARD READER AND CONTROLLER. WEST PENN. AQUASEAL 18/G, MODEL RAQ31386 OR EQUAL.
 - ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A SIX (6) PORT DATA JACK. PROVIDE SIX (6) NETWORK CAT6A CABLES BETWEEN SIX PORT DATA JACK AND IT NETWORK EQUIPMENT RACK LOCATED IN DATA ROOM #111 OR #262. PROVIDE A DOUBLE GANG JUNCTION BOX WITH SINGLE GANG MUDRING. STUB TWO (2) 1" EMT CONDUITS TO 7' HOOPS ABOVE SUSPENDED CEILING. VERIFY MOUNTING HEIGHT OF DATA JACKS WITH WTC IT DEPARTMENT PRIOR TO ROUGH-IN.



4 JUNCTION BOX DETAIL
E301 N.T.S. 20-07-E-J BOX DTL

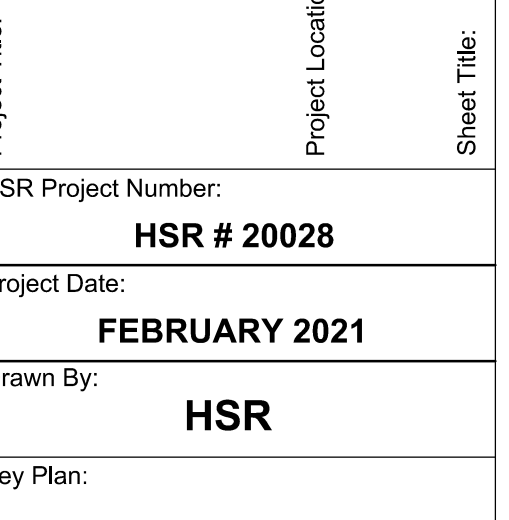


3 EQUIPMENT RACK DETAIL
E301 N.T.S. 20-07-E-COMMUNICATION RACK DTL



2 ELECTRONIC DOOR ACCESS CONTROL DETAIL
E301 N.T.S. 20-07-E-DOOR READ DTL

- GENERAL NOTES:**
- ELECTRICAL CONTRACTOR SHALL PROVIDE JUNCTION BOXES AND CONDUIT NOTED IN DETAIL FOR ELECTRONIC DOOR ACCESS SYSTEM WIRING.
 - ALL LOW VOLTAGE CABLE PROVIDED AND INSTALLED BY ELECTRICAL CONTRACTOR. TERMINATION OF LOW VOLTAGE CABLE BY WTC DOOR ACCESS VENDOR.



Project Title: WESTERN TECHNICAL COLLEGE SPARTA PUBLIC SAFETY EXPANSION
Project Location: 11177 COUNTY ROAD A SPARTA, WI 54666
Sheet Title: FIRST FLOOR LOW VOLTAGE PLAN - AREA A

Project Number: HSR # 20028
Project Date: FEBRUARY 2021
Drawn By: HSR

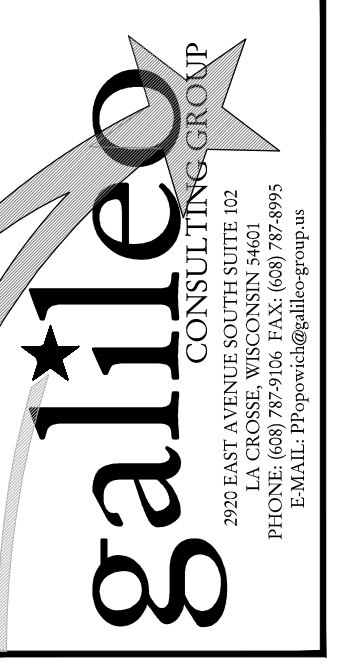
Revisions:

No.	Description	Date
1	ADDENDUM # 1	2-15-21

Graphic Scale: VARIES
Last Update: 02/15/21



Consultant:

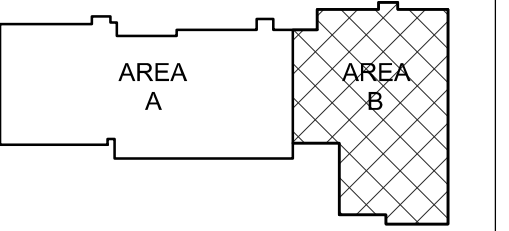


HSR Project Number:
HSR # 20028

Project Date:
FEBRUARY 2021

Drawn By:
HSR

Key Plan:



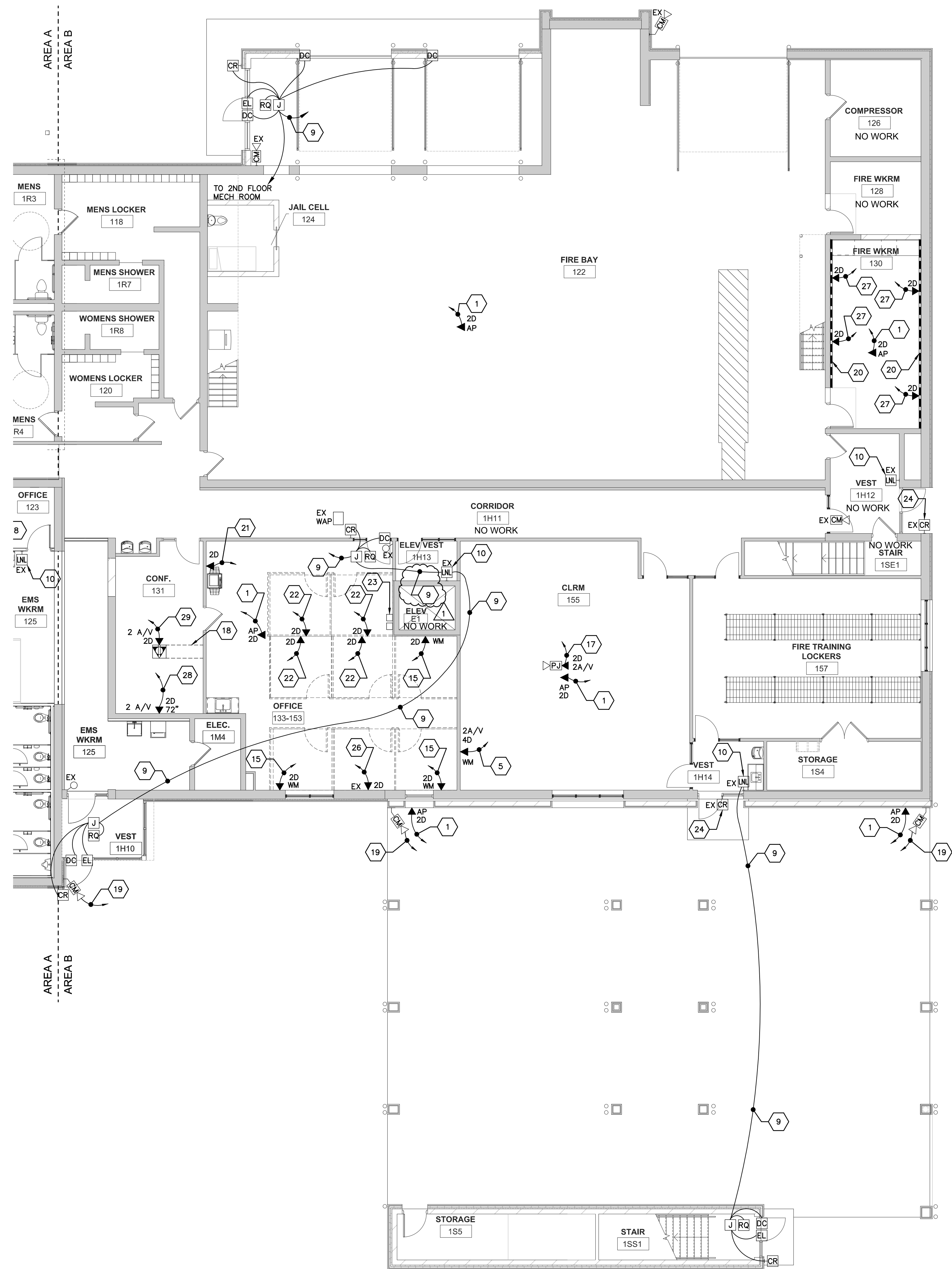
KEY PLAN

No.	Description	Date
1	ADDENDUM # 1	2-15-21

Graphic Scale:
VARIES

Last Update:
02/02/21

E302

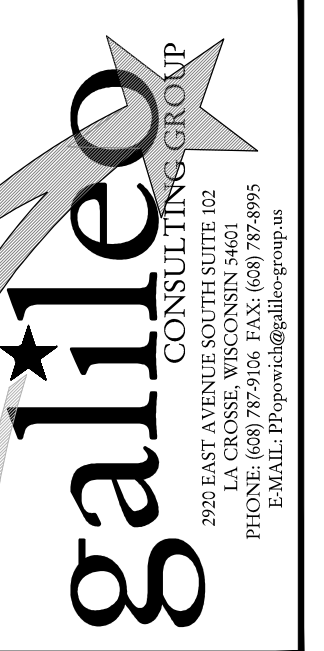


- GENERAL LOW VOLTAGE NOTES:**
- A. COLOR CODING SHALL BE AS FOLLOWS:
1. NETWORKING (DATA) = ORANGE DATA JACKS WITH BLUE CAT6A CABLES.
2. IP PHONE = ORANGE DATA JACKS WITH BLUE CAT6A CABLES.
3. AUDIO/VIDEO (A/V) = GREEN DATA JACKS WITH GREEN CAT6A CABLES.
4. SECURITY CAMERAS = WHITE JACKS WITH WHITE CAT6A CABLES.
5. ELECTRONIC DOOR ACCESS SYSTEM = YELLOW MULTIELEMENT SMART CABLE.
6. FAX/ANALOG = PURPLE JACKS WITH PURPLE CAT6A CABLES.
7. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE TO PROVIDE 'J' HOOKS AND CONDUIT SLEEVES THROUGH WALLS FOR LOW VOLTAGE CABLE ROUTING AS REQUIRED.
 - B. ALL LOW VOLTAGE WIRING SHALL BE 'PLENUM' RATED.
 - C. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL 'J-HOOK' TYPE LOW VOLTAGE CABLE WIRING SUPPORT ON 4'-0" CENTERS ABOVE SUSPENDED ACOUSTIC CEILING BETWEEN CONDUIT WALL STUBS AND CABLE TRAY, ETC. ALL LOW VOLTAGE WIRING SHALL BE INDEPENDENTLY SUPPORTED SEPARATE FROM GRID TYPE CEILING. NO EXCEPTIONS.
 - D. ELECTRICAL CONTRACTOR IS RESPONSIBLE TO PROVIDE ALL LOW VOLTAGE WIRING, DATA JACKS, ETC. FOR A COMPLETE SYSTEM FOR THIS PROJECT.
- KEYED LOW VOLTAGE NOTES:**
1. APPROXIMATE LOCATION OF NEW WIRELESS ACCESS POINT PROVIDED AND INSTALLED BY WTC IT DEPARTMENT. ELECTRICAL CONTRACTOR SHALL PROVIDE TWO (2) NETWORK CAT6A CABLES BETWEEN WIRELESS ACCESS POINT AND IT NETWORK EQUIPMENT RACK LOCATED IN DATA ROOM #111 OR #212. PROVIDE JUNCTION BOXES AS REQUIRED IN CEILING OR WALL. COORDINATE WITH WTC IT DEPARTMENT.
 2. APPROXIMATE LOCATION OF NEW WIRELESS ACCESS POINT PROVIDED AND INSTALLED BY WTC IT DEPARTMENT. ELECTRICAL CONTRACTOR SHALL PROVIDE FOUR (4) CAT6A CABLES BETWEEN WIRELESS ACCESS POINT AND IT NETWORK EQUIPMENT RACK LOCATED IN DATA ROOM #111. PROVIDE JUNCTION BOXES AS REQUIRED IN CEILING OR WALL. COORDINATE WITH WTC IT DEPARTMENT.
 3. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A FOUR (4) PORT DATA JACK. PROVIDE FOUR (4) NETWORK CAT6A CABLES BETWEEN FOUR-PORT DATA JACK AND IT NETWORK EQUIPMENT RACK LOCATED IN DATA ROOM #111 OR #212. PROVIDE A DOUBLE GANG MUDDING STUB ONE 1/2" EMT CONDUIT TO 'J' HOOKS ABOVE SUSPENDED CEILING. VERIFY MOUNTING HEIGHT OF DATA JACKS WITH WTC IT DEPARTMENT PRIOR TO ROUGH-IN.
 4. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A TWO (2) PORT DATA JACK. PROVIDE TWO (2) NETWORK CAT6A CABLES BETWEEN TWO-PORT DATA JACK AND IT NETWORK EQUIPMENT RACK LOCATED IN DATA ROOM #111 OR #212. PROVIDE A DOUBLE GANG MUDDING STUB ONE 1/2" EMT CONDUIT TO 'J' HOOKS ABOVE SUSPENDED CEILING. VERIFY MOUNTING HEIGHT OF DATA JACKS WITH WTC IT DEPARTMENT PRIOR TO ROUGH-IN.
 5. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A SIX-PORT COMBINATION DATA/A/V JACKS AT THIS APPROXIMATE LOCATION FOR TEACHER'S STATION. PROVIDE FOUR (4) NETWORK CAT6A CABLES TO IT NETWORK EQUIPMENT RACK LOCATED IN IT ROOM #111 OR #212. PROVIDE TWO (2) SHIELDED CAT6A A/V CABLES BETWEEN TEACHER'S STATION DATA/A/V JACKS AND OVERHEAD PROJECTOR JUNCTION BOX. PROVIDE SURFACE WIREMOLD JUNCTION BOX AND RACEWAY SIZED AS REQUIRED AND INSTALL ABOVE SUSPENDED CEILING FOR CABLE ROUTING.
 6. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A SIX-PORT COMBINATION DATA/A/V JACKS AT THIS APPROXIMATE LOCATION FOR TEACHER'S STATION. PROVIDE FOUR (4) NETWORK CAT6A CABLES TO IT NETWORK EQUIPMENT RACK LOCATED IN IT ROOM #111. PROVIDE TWO (2) SHIELDED CAT6A A/V CABLES BETWEEN TEACHER'S STATION DATA/A/V JACKS AND A/V EQUIPMENT RACK LOCATED IN IT ROOM #111. PROVIDE A 4"x4"x2-7/8" JUNCTION BOX WITH A DOUBLE-GANG MUDDING AND TWO (2) 1/2" EMT CONDUITS AND STUB ABOVE SUSPENDED CEILING FOR CABLE ROUTING.
 7. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A FOUR-PORT COMBINATION DATA/A/V JACKS AT THIS APPROXIMATE LOCATION FOR OVERHEAD PROJECTOR. PROVIDE TWO (2) NETWORK CAT6A CABLES TO IT NETWORK EQUIPMENT RACK LOCATED IN IT ROOM #111. PROVIDE TWO (2) SHIELDED CAT6A A/V CABLES BETWEEN OVERHEAD PROJECTOR JUNCTION BOX AND A/V EQUIPMENT RACK LOCATED IN IT ROOM #111. PROVIDE A DOUBLE GANG MUDDING STUB ONE 1/2" EMT CONDUIT TO 'J' HOOKS ABOVE SUSPENDED CEILING. VERIFY MOUNTING HEIGHT OF DATA JACKS WITH WTC IT DEPARTMENT PRIOR TO ROUGH-IN. REFER TO DETAIL #E301.
 8. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A TWO (2) PORT DATA JACK. PROVIDE TWO (2) NETWORK CAT6A CABLES BETWEEN TWO-PORT DATA JACK AND IT NETWORK EQUIPMENT RACK LOCATED IN DATA ROOM #111 OR #212. PROVIDE TWO (2) SHIELDED CAT6A A/V CABLES BETWEEN OVERHEAD PROJECTOR JUNCTION BOX AND A/V EQUIPMENT RACK LOCATED IN IT ROOM #111. PROVIDE A 4"x4"x2-7/8" JUNCTION BOX WITH A DOUBLE-GANG MUDDING AND TWO (2) 1/2" EMT CONDUITS AND STUB ABOVE SUSPENDED CEILING FOR CABLE ROUTING.
 9. ELECTRICAL CONTRACTOR SHALL PROVIDE A 'SMART CABLE' HOMERUN TO EXISTING ELECTRONIC DOOR ACCESS CONTROLLER(S) AS NOTED ON DRAWINGS. SMART CABLE SHALL BE BELDEN, MOEDEL, ROSEAFI OR EQUAL, 18 CONDUCTOR, 4 ELEMENT, ACCESS CONTROL CABLE, 18-04 + 22-3P + 22-02 + 22-04 PENUM YELLOW COLOR. REFER TO ELECTRONIC DOOR ACCESS CONTROL DETAIL #E301.
 10. LOCATION OF EXISTING ELECTRONIC DOOR ACCESS CONTROL, POWER SUPPLY/CONTROLLER.
 11. LOCATION OF EXISTING IT NETWORK EQUIPMENT RACK.
 12. ELECTRICAL CONTRACTOR SHALL PROVIDE AN A/V WALL-MOUNTED EQUIPMENT RACK. COORDINATE WITH WTC IT DEPARTMENT. REFER TO DETAIL #E301.
 13. ELECTRICAL CONTRACTOR SHALL PROVIDE A 'SMART CABLE' HOMERUN TO EXISTING ELECTRONIC DOOR ACCESS CONTROL PANEL LOCATED IN ROOM #204. SMART CABLE SHALL BE BELDEN, MOEDEL, ROSEAFI OR EQUAL, 18 CONDUCTOR, 4 ELEMENT, ACCESS CONTROL CABLE, 18-04 + 22-3P + 22-02 + 22-04 PENUM YELLOW COLOR. REFER TO ELECTRONIC DOOR ACCESS CONTROL DETAIL #E301.
 14. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A TWO (2) PORT DATA JACK. PROVIDE TWO (2) NETWORK CAT6A CABLES BETWEEN TWO-PORT DATA JACK AND IT NETWORK EQUIPMENT RACK LOCATED IN DATA ROOM #111 OR #212. PROVIDE A DOUBLE GANG MUDDING STUB ONE 1/2" EMT CONDUIT TO 'J' HOOKS ABOVE SUSPENDED CEILING. VERIFY MOUNTING HEIGHT OF DATA JACKS WITH WTC IT DEPARTMENT PRIOR TO ROUGH-IN. REFER TO DETAIL #E301.
 15. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A TWO (2) PORT DATA JACK. PROVIDE TWO (2) NETWORK CAT6A CABLES BETWEEN TWO-PORT DATA JACK AND IT NETWORK EQUIPMENT RACK LOCATED IN DATA ROOM #111 OR #212. PROVIDE A SINGLE GANG WIREMOLD 7000 SURFACE JUNCTION BOX AND SURFACE RACEWAY. STUB TO 'J' HOOKS ABOVE SUSPENDED CEILING. VERIFY MOUNTING HEIGHT OF DATA JACKS WITH WTC IT DEPARTMENT PRIOR TO ROUGH-IN.
 16. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL AN EIGHT-PORT COMBINATION DATA/A/V JACKS AT THIS APPROXIMATE LOCATION FOR TEACHER/PRESENTER STATION. PROVIDE FOUR (4) NETWORK CAT6A CABLES TO IT NETWORK EQUIPMENT RACK LOCATED IN IT ROOM #212. PROVIDE FOUR (4) SHIELDED CAT6A A/V CABLES BETWEEN TEACHER/PRESENTER STATION DATA/A/V JACKS AND OVERHEAD PROJECTORS. INSTALL TWO (2) SHIELDED CAT6A CABLES TO EACH OVERHEAD PROJECTOR. PROVIDE A TWO-GANG MASONRY DEEP JUNCTION BOX WITH A DOUBLE-GANG MUDDING AND TWO (2) 1-1/4" EMT CONDUITS AND STUB ABOVE SUSPENDED CEILING FOR CABLE ROUTING.
 17. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A FOUR-PORT COMBINATION DATA/A/V JACKS AT THIS APPROXIMATE LOCATION FOR OVERHEAD PROJECTOR. PROVIDE TWO (2) NETWORK CAT6A CABLES TO IT NETWORK EQUIPMENT RACK LOCATED IN IT ROOM #111 OR #212. PROVIDE TWO (2) SHIELDED CAT6A A/V CABLES BETWEEN OVERHEAD PROJECTOR JUNCTION BOX AND TEACHER/PRESENTER'S DATA/A/V JACKS. PROVIDE A DOUBLE GANG MUDDING STUB ONE 1/2" EMT CONDUIT TO 'J' HOOKS ABOVE SUSPENDED CEILING. VERIFY MOUNTING HEIGHT OF DATA JACKS WITH WTC IT DEPARTMENT PRIOR TO ROUGH-IN.
 18. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A 'CONNECT TRAC' FLOOR SYSTEM. PROVIDE SURFACE MOUNTED COMBINATION POWER AND LOW VOLTAGE MODULES AND SURFACE RACEWAY. PROVIDE MODULES WITH COMBINATION DUPLEX RECEPTACLES AND DATA JACKS AS NOTED ON DRAWINGS AND AS REQUIRED BY WTC. CONTACT A CONTRACT SALES REPRESENTATIVE FOR MODEL NUMBERS, ETC. THE INTENT IS PROVIDE SURFACE MOUNTED CONNECTRAC ON EXISTING CONCRETE FLOOR TO PROVIDE POWER AND LOW VOLTAGE CABLES BETWEEN THE WALL TO A FLOOR MOUNTED COMBINATION POWER/LOW VOLTAGE MODULES.
 19. ELECTRICAL CONTRACTOR SHALL INSTALL A SECURITY IP CCTV CAMERA WITH BACKBOX PROVIDED BY WTC IT DEPARTMENT IN THIS LOCATION. PROVIDE ONE (1) CAT6A CABLE TO IT NETWORK EQUIPMENT RACK LOCATED IN DATA ROOM #111 OR #212. COORDINATE MOUNTING LOCATION AND MOUNTING HEIGHT WITH WTC IT DEPARTMENT. PROVIDE A COMBINATION POWER/COMMUNICATION WIREMOLD-4000 SERIES SURFACE RACEWAY.
 20. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A TWO (2) PORT DATA JACK. PROVIDE TWO (2) NETWORK CAT6A CABLES BETWEEN TWO-PORT DATA JACK AND IT NETWORK EQUIPMENT RACK LOCATED IN DATA ROOM #111 OR #212. PROVIDE TWO (2) SHIELDED CAT6A A/V CABLES BETWEEN TWO-PORT DATA JACK AND IT NETWORK EQUIPMENT RACK LOCATED IN DATA ROOM #111 OR #212. PROVIDE A DOUBLE GANG MUDDING STUB ONE 1/2" EMT CONDUIT TO 'J' HOOKS ABOVE SUSPENDED CEILING. VERIFY MOUNTING HEIGHT OF DATA JACKS WITH WTC IT DEPARTMENT PRIOR TO ROUGH-IN.
 21. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A TWO (2) PORT DATA JACK. PROVIDE TWO (2) NETWORK CAT6A CABLES BETWEEN TWO-PORT DATA JACK AND IT NETWORK EQUIPMENT RACK LOCATED IN DATA ROOM #111 OR #212. PROVIDE TWO (2) SHIELDED CAT6A A/V CABLES BETWEEN TWO-PORT DATA JACK AND IT NETWORK EQUIPMENT RACK LOCATED IN DATA ROOM #111 OR #212. PROVIDE A DOUBLE GANG MUDDING STUB ONE 1/2" EMT CONDUIT TO 'J' HOOKS ABOVE SUSPENDED CEILING. VERIFY MOUNTING HEIGHT OF DATA JACKS WITH WTC IT DEPARTMENT PRIOR TO ROUGH-IN.
 22. PROVIDE WIREMOLD 3000 SERIES SURFACE RACEWAY FOR ROUTING LOW VOLTAGE WIRING. PROVIDE LIQUID TIGHT TYPE FLEXIBLE CONDUIT BETWEEN WIREMOLD JUNCTION BOX AND MAKE DIRECT CONNECTION TO MODULAR OFFICE FURNITURE.
 23. PROVIDE WIREMOLD 3000 SERIES SURFACE RACEWAY FOR ROUTING LOW VOLTAGE WIRING. PROVIDE LIQUID TIGHT TYPE FLEXIBLE CONDUIT BETWEEN WIREMOLD JUNCTION BOX AND MAKE DIRECT CONNECTION TO MODULAR OFFICE FURNITURE.
 24. EXISTING ELECTRONIC DOOR ACCESS CONTROL 'CARD READER' TO REMAIN AS IS.
 25. ELECTRONIC DOOR ACCESS CONTROL 'CARD READER' TO BE INSTALLED ON EXTERIOR PEDESTAL. PROVIDE UNDERGROUND CONDUIT AND LOW VOLTAGE WIRING AS REQUIRED BETWEEN ELECTRONIC DOOR ACCESS CONTROL JUNCTION BOX AND PEDESTAL. COORDINATE WITH WTC PLANT FACILITY DEPARTMENT. REFER TO PHOTO #E301 FOR PEDESTAL EXAMPLE.
 26. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A TWO (2) PORT DATA JACK. PROVIDE TWO (2) NETWORK CAT6A CABLES BETWEEN TWO-PORT DATA JACK AND IT NETWORK EQUIPMENT RACK LOCATED IN DATA ROOM #111 OR #212. PROVIDE TWO (2) SHIELDED CAT6A A/V CABLES BETWEEN TWO-PORT DATA JACK AND IT NETWORK EQUIPMENT RACK LOCATED IN DATA ROOM #111 OR #212. PROVIDE A DOUBLE GANG MUDDING STUB ONE 1/2" EMT CONDUIT TO 'J' HOOKS ABOVE SUSPENDED CEILING. VERIFY MOUNTING HEIGHT OF DATA JACKS WITH WTC IT DEPARTMENT PRIOR TO ROUGH-IN.
 27. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A TWO (2) PORT DATA JACK. PROVIDE TWO (2) NETWORK CAT6A CABLES BETWEEN TWO-PORT DATA JACK AND IT NETWORK EQUIPMENT RACK LOCATED IN DATA ROOM #111 OR #212. PROVIDE TWO (2) SHIELDED CAT6A A/V CABLES BETWEEN TWO-PORT DATA JACK AND IT NETWORK EQUIPMENT RACK LOCATED IN DATA ROOM #111 OR #212. PROVIDE A DOUBLE GANG MUDDING STUB ONE 1/2" EMT CONDUIT TO 'J' HOOKS ABOVE SUSPENDED CEILING. VERIFY MOUNTING HEIGHT OF DATA JACKS WITH WTC IT DEPARTMENT PRIOR TO ROUGH-IN.
 28. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A FOUR-PORT COMBINATION DATA/A/V JACKS AT THIS APPROXIMATE LOCATION FOR WALL-MOUNT MONITOR. PROVIDE TWO (2) NETWORK CAT6A CABLES TO IT NETWORK EQUIPMENT RACK LOCATED IN IT ROOM #111 OR #212. PROVIDE TWO (2) SHIELDED CAT6A A/V CABLES BETWEEN WALL-MOUNT MONITOR JUNCTION BOX AND TEACHER/PRESENTER'S DATA/A/V JACKS. PROVIDE A DOUBLE GANG MUDDING STUB ONE 1/2" EMT CONDUIT TO 'J' HOOKS ABOVE SUSPENDED CEILING. VERIFY MOUNTING HEIGHT OF DATA JACKS WITH WTC IT DEPARTMENT PRIOR TO ROUGH-IN.
 29. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A FOUR-PORT COMBINATION DATA/A/V JACKS AT THIS APPROXIMATE LOCATION FOR PRESENTER'S STATION. PROVIDE TWO (2) NETWORK CAT6A CABLES TO IT NETWORK EQUIPMENT RACK LOCATED IN IT ROOM #111 OR #212. PROVIDE TWO (2) SHIELDED CAT6A A/V CABLES BETWEEN WALL-MOUNT MONITOR JUNCTION BOX AND PRESENTER'S A/V JACKS. PROVIDE SURFACE MOUNTED FLOOR CONNECTRAC RACEWAY SYSTEM AS REQUIRED FOR DATA/A/V WIRING. COORDINATE WITH WTC IT DEPARTMENT.
 30. PROVIDE 18 GAUGE/6-CONDUCTOR (18/6) STRANDED SHIELDED, GRAY JACKET, EXTERIOR RATED COMMUNICATION CABLE BETWEEN PEDESTAL CARD READER AND CONTROLLER. WEST PENN. AQUASEAL 18/6, MODEL MAQ3186 OR EQUAL.
 31. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A SIX (6) PORT DATA JACK. PROVIDE SIX (6) NETWORK CAT6A CABLES BETWEEN SIX-PORT DATA JACK AND IT NETWORK EQUIPMENT RACK LOCATED IN DATA ROOM #111 OR #212. PROVIDE A DOUBLE GANG MUDDING STUB ONE 1/2" EMT CONDUIT TO 'J' HOOKS ABOVE SUSPENDED CEILING. VERIFY MOUNTING HEIGHT OF DATA JACKS WITH WTC IT DEPARTMENT PRIOR TO ROUGH-IN.

1 FIRST FLOOR LOW VOLTAGE PLAN - AREA B
E302 SCALE: 1/8" = 1'-0" 20-07-E-LV01



Consultant:



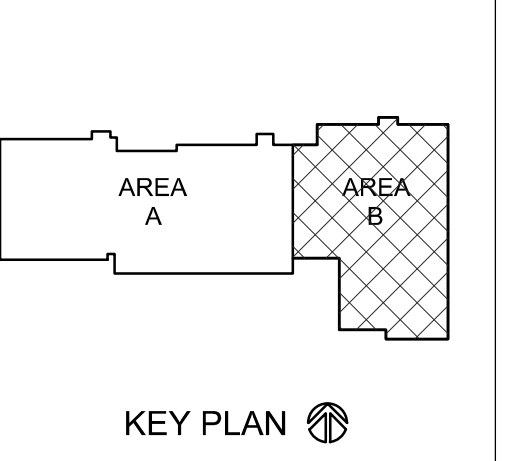
WESTERN TECHNICAL COLLEGE
SPARTA PUBLIC SAFETY EXPANSION

11177 COUNTY ROAD A
SPARTA, WI 54666

Project Title:
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Key Plan:

HSR # 20028
FEBRUARY 2021
HSR

AREA A
AREA B



KEY PLAN

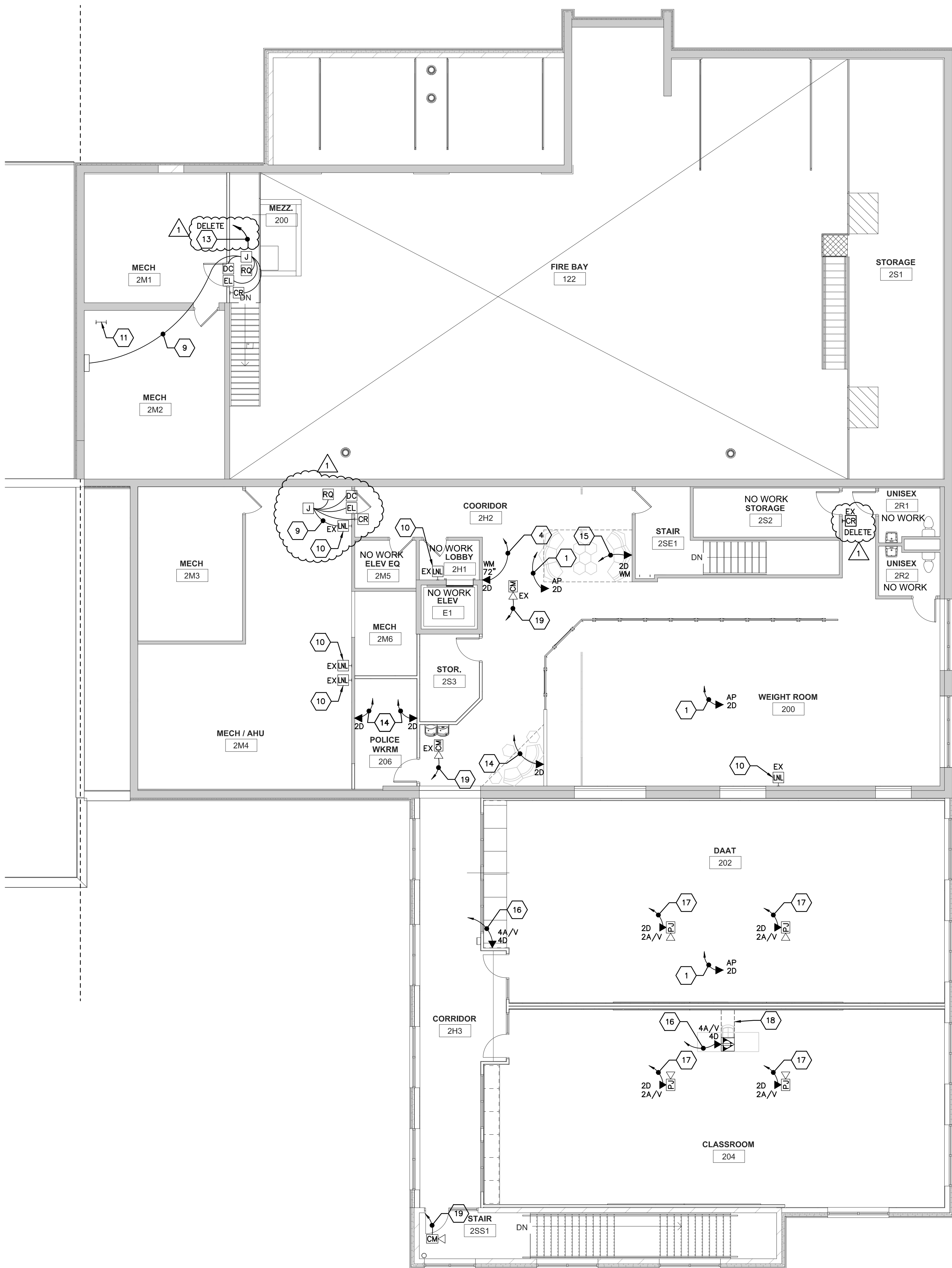
Revisions:

No.	Description	Date
1	ADDENDUM # 1	2-15-21

Graphic Scale:
VARIES

Last Update:
02/02/21

E303



- GENERAL LOW VOLTAGE NOTES:**
1. NETWORKING (DATA) - ORANGE DATA JACKS WITH BLUE CAT6A CABLES.
 2. IP PHONE - ORANGE DATA JACKS WITH BLUE CAT6A CABLES.
 3. AUDIO/VIDEO (A/V) - GREEN DATA JACKS WITH GREEN CAT6A CABLE.
 4. SECURITY CAMERAS - WHITE JACKS WITH WHITE CAT6A CABLE.
 5. ELECTRONIC DOOR ACCESS SYSTEM - YELLOW MULTI-ELEMENT SMART CABLE.
 6. FAX/ANALOG - PURPLE JACKS WITH PURPLE CAT6A CABLES.
 7. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE TO PROVIDE 2" HOODS AND CONDUIT SLEEVES THROUGH WALLS FOR LOW VOLTAGE CABLE ROUTING AS REQUIRED.
 8. ALL LOW VOLTAGE WIRING SHALL BE PLENUM RATED.
 9. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL 1" HOOD TYPE LOW VOLTAGE CABLE WIRING SUPPORT ON 4'-0" CENTERS ABOVE SUSPENDED ACUSTIC CEILINGS BETWEEN CONDUIT WALL STUBS AND CABLE TRAY, ETC. ALL LOW VOLTAGE WIRING SHALL BE INDEPENDENTLY SUPPORTED SEPARATE FROM GRID TYPE CEILINGS, NO EXCEPTIONS.
 10. ELECTRICAL CONTRACTOR IS RESPONSIBLE TO PROVIDE ALL LOW VOLTAGE WIRING, DATA JACKS, ETC. FOR A COMPLETE SYSTEM FOR THIS PROJECT.
- KEYED LOW VOLTAGE NOTES:**
1. APPROXIMATE LOCATION OF NEW WIRELESS ACCESS POINT PROVIDED AND INSTALLED BY WTC IT DEPARTMENT. ELECTRICAL CONTRACTOR SHALL PROVIDE TWO (2) NETWORK CAT6A CABLES BETWEEN WIRELESS ACCESS POINT AND IT NETWORK EQUIPMENT RACK LOCATED IN DATA ROOM #211 OR #2M2. PROVIDE JUNCTION BOXES AS REQUIRED IN CEILING OR WALL. COORDINATE WITH WTC IT DEPARTMENT.
 2. APPROXIMATE LOCATION OF NEW WIRELESS ACCESS POINT PROVIDED AND INSTALLED BY WTC IT DEPARTMENT. ELECTRICAL CONTRACTOR SHALL PROVIDE FOUR (4) CAT6A CABLES BETWEEN WIRELESS ACCESS POINT AND IT NETWORK EQUIPMENT RACK LOCATED IN DATA ROOM #211. PROVIDE JUNCTION BOXES AS REQUIRED IN CEILING OR WALL. COORDINATE WITH WTC IT DEPARTMENT.
 3. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A FOUR (4) PORT DATA JACK. PROVIDE FOUR (4) NETWORK CAT6A CABLES BETWEEN FOUR-PORT DATA JACK AND IT NETWORK EQUIPMENT RACK LOCATED IN DATA ROOM #211 OR #2M2. PROVIDE A DOUBLE GANG JUNCTION BOX WITH SINGLE GANG MIDDING. STUB TWO (2) 1" EMT CONDUITS TO 7' HOODS ABOVE SUSPENDED CEILING. VERIFY MOUNTING HEIGHT OF DATA JACKS WITH WTC IT DEPARTMENT PRIOR TO ROUGH-IN.
 4. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A TWO (2) PORT DATA JACK. PROVIDE TWO (2) NETWORK CAT6A CABLES BETWEEN TWO-PORT DATA JACK AND IT NETWORK EQUIPMENT RACK LOCATED IN DATA ROOM #211 OR #2M2 FOR WALL-MOUNTED MONITOR. PROVIDE A DOUBLE GANG JUNCTION BOX WITH SINGLE GANG MIDDING. STUB ONE (1) EMT CONDUIT TO 7' HOODS ABOVE SUSPENDED CEILING. VERIFY MOUNTING HEIGHT OF DATA JACKS WITH WTC IT DEPARTMENT PRIOR TO ROUGH-IN.
 5. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A SIX-PORT COMBINATION DATA/AV JACKS AT THIS APPROXIMATE LOCATION FOR TEACHER'S STATION. PROVIDE FOUR (4) NETWORK CAT 6A CABLES TO IT NETWORK EQUIPMENT RACK LOCATED IN IT ROOM #211 OR #2M2. PROVIDE TWO (2) SHIELDED CAT6 6A A/V CABLES BETWEEN TEACHER'S STATION DATA/AV JACKS AND OVERHEAD PROJECTOR JUNCTION BOX. PROVIDE SURFACE WIREMOLD JUNCTION BOX AND RACEWAY SIZED AS REQUIRED AND INSTALL ABOVE SUSPENDED CEILING FOR CABLE ROUTING.
 6. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A SIX-PORT COMBINATION DATA/AV JACKS AT THIS APPROXIMATE LOCATION FOR TEACHER'S STATION. PROVIDE FOUR (4) NETWORK CAT 6A CABLES TO IT NETWORK EQUIPMENT RACK LOCATED IN IT ROOM #211. PROVIDE TWO (2) SHIELDED CAT6 6A A/V CABLES BETWEEN TEACHER'S STATION DATA/AV JACKS AND A/V EQUIPMENT RACK LOCATED IN IT ROOM #211. PROVIDE A 4" X 2" 1/2" JUNCTION BOX WITH A DOUBLE GANG MIDDING AND TWO (2) 1" EMT CONDUITS AND STUB ABOVE SUSPENDED CEILING FOR CABLE ROUTING.
 7. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A FOUR-PORT COMBINATION DATA/AV JACKS AT THIS APPROXIMATE LOCATION FOR OVERHEAD PROJECTOR. PROVIDE TWO (2) NETWORK CAT 6A CABLES TO IT EQUIPMENT RACK LOCATED IN IT ROOM #211. PROVIDE TWO (2) SHIELDED CAT6 6A A/V CABLES BETWEEN OVERHEAD PROJECTOR JUNCTION BOX AND A/V EQUIPMENT RACK LOCATED IN IT ROOM #211. PROVIDE A DOUBLE GANG JUNCTION BOX AS REQUIRED FOR DATA/AV WIRING.
 8. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A TWO (2) PORT DATA JACK. PROVIDE TWO (2) NETWORK CAT6A CABLES BETWEEN TWO-PORT DATA JACK AND IT NETWORK EQUIPMENT RACK LOCATED IN DATA ROOM #211 OR #2M2 FOR OFFICE COMPUTER WORKSTATION. PROVIDE A DOUBLE GANG JUNCTION BOX WITH SINGLE GANG MIDDING. STUB ONE (1) EMT CONDUIT TO 7' HOODS ABOVE SUSPENDED CEILING. VERIFY MOUNTING HEIGHT OF DATA JACKS WITH WTC IT DEPARTMENT PRIOR TO ROUGH-IN. REFER TO DETAIL 4/E303.
 9. ELECTRICAL CONTRACTOR SHALL PROVIDE A 'SMART CABLE' HOMERUN TO EXISTING ELECTRONIC DOOR ACCESS CONTROLLERS AS NOTED ON DRAWINGS. SMART CABLE SHALL BE BELDEN, MODEL #588A7 OR EQUAL, 16 CONDUCTOR, 4 ELEMENT, ACCESS CONTROL CABLE, 18-04 + 22-3P + 22-02 + 22-04 PLENUM YELLOW COLOR. REFER TO ELECTRONIC DOOR ACCESS CONTROL DETAIL 2/E303.
 10. LOCATION OF EXISTING ELECTRONIC DOOR ACCESS CONTROL POWER SUPPLY/CONTROLLER.
 11. LOCATION OF EXISTING IT NETWORK EQUIPMENT RACK.
 12. ELECTRICAL CONTRACTOR SHALL PROVIDE AN A/V WALL-MOUNTED EQUIPMENT RACK. COORDINATE WITH WTC IT DEPARTMENT. REFER TO DETAIL 3/E303.
 13. ELECTRICAL CONTRACTOR SHALL PROVIDE A 'SMART CABLE' HOMERUN TO EXISTING ELECTRONIC DOOR ACCESS CONTROL PANEL LOCATED IN ROOM #2M4. SMART CABLE SHALL BE BELDEN, MODEL #588A7 OR EQUAL, 16 CONDUCTOR, 4 ELEMENT, ACCESS CONTROL CABLE, 18-04 + 22-3P + 22-02 + 22-04 PLENUM YELLOW COLOR. REFER TO ELECTRONIC DOOR ACCESS CONTROL DETAIL 2/E303.
 14. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A TWO (2) PORT DATA JACK. PROVIDE TWO (2) NETWORK CAT6A CABLES BETWEEN TWO-PORT DATA JACK AND IT NETWORK EQUIPMENT RACK LOCATED IN DATA ROOM #211 OR #2M2. PROVIDE A DOUBLE GANG JUNCTION BOX WITH SINGLE GANG MIDDING. STUB ONE (1) EMT CONDUIT TO 7' HOODS ABOVE SUSPENDED CEILING. VERIFY MOUNTING HEIGHT OF DATA JACKS WITH WTC IT DEPARTMENT PRIOR TO ROUGH-IN. REFER TO DETAIL 4/E303.
 15. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A TWO (2) PORT DATA JACK. PROVIDE TWO (2) NETWORK CAT6A CABLES BETWEEN TWO-PORT DATA JACK AND IT NETWORK EQUIPMENT RACK LOCATED IN DATA ROOM #211 OR #2M2. PROVIDE A SINGLE GANG WIREMOLD 7000 SURFACE JUNCTION BOX AND SURFACE RACEWAY. STUB TO 7' HOODS ABOVE SUSPENDED CEILING. VERIFY MOUNTING HEIGHT OF DATA JACKS WITH WTC IT DEPARTMENT PRIOR TO ROUGH-IN.
 16. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL AN EIGHT-PORT COMBINATION DATA/AV JACKS AT THIS APPROXIMATE LOCATION FOR TEACHER'S/PRESENTER STATION. PROVIDE FOUR (4) NETWORK CAT 6A CABLES TO IT NETWORK EQUIPMENT RACK LOCATED IN IT ROOM #2M2. PROVIDE FOUR (4) SHIELDED CAT6 6A A/V CABLES BETWEEN TEACHER'S/PRESENTER STATION DATA/AV JACKS AND OVERHEAD PROJECTORS. INSTALL TWO (2) SHIELDED CAT6A CABLES TO EACH OVERHEAD PROJECTOR. PROVIDE A TWO GANG MASONRY DEEP JUNCTION BOX WITH A DOUBLE GANG MIDDING AND TWO (2) 1-1/4" EMT CONDUITS AND STUB ABOVE SUSPENDED CEILING FOR CABLE ROUTING.
 17. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A FOUR-PORT COMBINATION DATA/AV JACKS AT THIS APPROXIMATE LOCATION FOR OVERHEAD PROJECTOR. PROVIDE TWO (2) NETWORK CAT 6A CABLES TO IT EQUIPMENT RACK LOCATED IN IT ROOM #211 OR #2M2. PROVIDE TWO (2) SHIELDED CAT6 6A A/V CABLES BETWEEN OVERHEAD PROJECTOR JUNCTION BOX AND TEACHER'S/PRESENTER'S DATA/AV JACKS. PROVIDE A DOUBLE GANG JUNCTION BOX AS REQUIRED FOR DATA/AV WIRING.
 18. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A 'CONNECT TRAC' FLOOR SYSTEM. PROVIDE SURFACE MOUNTED COMBINATION POWER AND LOW VOLTAGE MIDDLES AND SURFACE RACEWAY. PROVIDE MODULES WITH COMBINATION SURFACE RECEPTACLES AND DATA JACKS AS NOTED ON DRAWINGS AND AS REQUIRED BY WTC. CONTACT A CONNECTRAC SALES REPRESENTATIVE FOR MODEL NUMBERS, ETC. THE INTENT IS PROVIDE SURFACE MOUNT CONNECTRAC ON EXISTING CONCRETE FLOOR TO PROVIDE POWER AND LOW VOLTAGE CABLES BETWEEN THE WALL TO A FLOOR MOUNTED COMBINATION POWER/LOW VOLTAGE MODULES.
 19. ELECTRICAL CONTRACTOR SHALL INSTALL A SECURITY IP CCTV CAMERA WITH BACKBOX PROVIDED BY WTC IT DEPARTMENT IN THIS LOCATION. PROVIDE ONE (1) CAT6A CABLE TO IT NETWORK EQUIPMENT RACK LOCATED IN DATA ROOM #211 OR #2M2. COORDINATE MOUNTING LOCATION AND MOUNTING HEIGHT WITH WTC IT DEPARTMENT.
 20. PROVIDE A COMBINATION POWER/COMMUNICATION WIREMOLD 4000 SERIES SURFACE RACEWAY.
 21. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A TWO (2) PORT DATA JACK. PROVIDE TWO (2) NETWORK CAT6A CABLES BETWEEN TWO-PORT DATA JACK AND IT NETWORK EQUIPMENT RACK LOCATED IN DATA ROOM #211 OR #2M2 FOR PRINTER/COPIER. PROVIDE A DOUBLE GANG JUNCTION BOX WITH SINGLE GANG MIDDING. STUB ONE (1) EMT CONDUIT TO 7' HOODS ABOVE SUSPENDED CEILING. VERIFY MOUNTING HEIGHT OF DATA JACKS WITH WTC IT DEPARTMENT PRIOR TO ROUGH-IN.
 22. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A TWO (2) PORT DATA JACK. PROVIDE TWO (2) NETWORK CAT6A CABLES BETWEEN TWO-PORT DATA JACK AND IT NETWORK EQUIPMENT RACK LOCATED IN DATA ROOM #211 OR #2M2 FOR OFFICE COMPUTER WORKSTATION. INSTALL TWO (2) PORT DATA JACKS INSIDE MODULAR OFFICE FURNITURE. COORDINATE WITH MODULAR OFFICE FURNITURE INSTALLER AND WITH WTC FACILITY DEPARTMENT.
 23. PROVIDE WIREMOLD 3000 SERIES SURFACE RACEWAY FOR ROUTING LOW VOLTAGE WIRING. PROVIDE LIQUID TIGHT TYPE FIBERGLASS CONDUIT BETWEEN WIREMOLD JUNCTION BOX AND MAKE DIRECT CONNECTION TO MODULAR OFFICE FURNITURE.
 24. EXISTING ELECTRONIC DOOR ACCESS CONTROL 'CARD READER' TO REMAIN AS IS.
 25. ELECTRONIC DOOR ACCESS CONTROL 'CARD READER' TO BE INSTALLED ON EXTERIOR PEDESTAL. PROVIDE UNDERGROUND CONDUIT AND LOW VOLTAGE WIRING AS REQUIRED BETWEEN ELECTRONIC DOOR ACCESS CONTROL JUNCTION BOX AND PEDESTAL. COORDINATE WITH WTC PLANT FACILITY DEPARTMENT. REFER TO PHOTO 83/E303 FOR PEDESTAL EXAMPLE.
 26. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A TWO (2) PORT DATA JACK. PROVIDE TWO (2) NETWORK CAT6A CABLES BETWEEN TWO-PORT DATA JACK AND IT NETWORK EQUIPMENT RACK LOCATED IN DATA ROOM #211 OR #2M2 FOR OFFICE COMPUTER WORKSTATION. REUSE EXISTING JUNCTION BOX AND CONDUIT TO EXTENT POSSIBLE. BASE EXISTING JUNCTION BOX TO ABOVE CENTER IF REQUIRED. VERIFY MOUNTING HEIGHT OF DATA JACKS WITH WTC IT DEPARTMENT PRIOR TO ROUGH-IN.
 27. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A TWO (2) PORT DATA JACK. PROVIDE TWO (2) NETWORK CAT6A CABLES BETWEEN TWO-PORT DATA JACK AND IT NETWORK EQUIPMENT RACK LOCATED IN DATA ROOM #211 OR #2M2 FOR OFFICE COMPUTER WORKSTATION. INSTALL DATA JACKS IN WIREMOLD 4000 SURFACE RACEWAY. VERIFY MOUNTING HEIGHT OF DATA JACKS WITH WTC IT DEPARTMENT PRIOR TO ROUGH-IN.
 28. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A FOUR-PORT COMBINATION DATA/AV JACKS AT THIS APPROXIMATE LOCATION FOR WALL-MOUNT MONITOR. PROVIDE TWO (2) NETWORK CAT 6A CABLES TO IT EQUIPMENT RACK LOCATED IN IT ROOM #211 OR #2M2. PROVIDE TWO (2) SHIELDED CAT6 6A A/V CABLES BETWEEN WALL-MOUNT MONITOR JUNCTION BOX AND TEACHER'S/PRESENTER'S DATA/AV JACKS. PROVIDE A DOUBLE GANG JUNCTION BOX AS REQUIRED FOR DATA/AV WIRING. COORDINATE WITH WTC IT DEPARTMENT.
 29. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A FOUR-PORT COMBINATION DATA/AV JACKS AT THIS APPROXIMATE LOCATION FOR PRESENTER'S STATION. PROVIDE TWO (2) NETWORK CAT 6A CABLES TO IT NETWORK EQUIPMENT RACK LOCATED IN IT ROOM #211 OR #2M2. PROVIDE TWO (2) SHIELDED CAT6 6A A/V CABLES BETWEEN WALL-MOUNT MONITOR JUNCTION BOX AND PRESENTER'S A/V JACKS. PROVIDE SURFACE MOUNTED FLOOR CONNECTRAC RACEWAY SYSTEM AS REQUIRED FOR DATA/AV WIRING. COORDINATE WITH WTC IT DEPARTMENT.
 30. PROVIDE 18 GAUGE (6-CONDUCTOR 18/6) STRANDED SHIELDED, GRAY JACKET, EXTERIOR RATED COMMUNICATION CABLE BETWEEN PEDESTAL CARD READER AND CONTROLLER. WEST PEIN, ADJUSAL 300, MODEL #3003 OR EQUAL.
 31. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A SIX (6) PORT DATA JACK. PROVIDE SIX (6) NETWORK CAT6A CABLES BETWEEN SIX-PORT DATA JACK AND IT NETWORK EQUIPMENT RACK LOCATED IN DATA ROOM #211 OR #2M2. PROVIDE A DOUBLE GANG JUNCTION BOX WITH SINGLE GANG MIDDING. STUB TWO (2) 1" EMT CONDUITS TO 7' HOODS ABOVE SUSPENDED CEILING. VERIFY MOUNTING HEIGHT OF DATA JACKS WITH WTC IT DEPARTMENT PRIOR TO ROUGH-IN.

1 SECOND FLOOR LOW VOLTAGE PLAN - AREA B
SCALE: 1/8" = 1'-0"
20-07-E-LV02

