



DFCM Addendum #1

Reference: MTECH Provo – Phase 5B - Practical Nursing
 DFCM Project #18207260
 U3P Event #CS26018

Date: October 28, 2025

To: Interested Contractors

From: The Division of Facilities Construction and Mangement

Addendum Items

Solicitation Schedule Changes:	No changes.	N/A
DFCM Addendum Items:	N/A	
A/E Addendum Items:	<u>A/E Addendum #1</u> Questions and Answers Changes/Clarifications to Specifications: Changes/Clarifications to Drawings: Prior Approvals Electrical Door Hardware AED'S and AED Cabinets Privacy Curtains & Track Toilet, Bath, and Laundry Accessories Instrumentation and Controls for HVAC General-Service Compressed-Air Piping Fire Sprinkler System - Performance Specification	117 pages

Total Attached Pages: 117

Note: This Addendum shall be included as part of the Contract Documents. Items in this Addendum apply to all drawings and specification sections whether referenced or not involving the portion of the work added, deleted, modified, or otherwise addressed in the Addendum. Bidders are required to acknowledge receipt of this Addendum when their bid is submitted. Failure to do so may subject the Bidder to disqualification.

ADDENDUM NO. 1

TO

**MTECH Provo Phase VB
Practical Nursing
DFCM Project #18207260**

125 North 100 West
Provo, Utah 84601

Prepared by:

WPA ARCHITECTURE

1535 NORTH FREEDOM BLVD., SUITE 360

PROVO, UTAH 84604

28 October 2025

This addendum is for all persons preparing bids and as such shall be made a part of the contract documents. This addendum consists of:

- Cover Sheet - 1 page
- Addendum - 20 pages
- Specifications - 54 pages
- Drawings - 29 sheets
- Owner Provided Cut Sheets - 13 pages

In the event of a conflict between drawings, specifications and the Addendum, this Addendum shall govern. All changes, corrections, deletions, and/or addition to the initial bidding documents shall be included in the Bidder's proposal. Receipt of the Addendum shall be acknowledged on each Bid proposal.

Bidders on the above captioned project will be governed by the following corrections and/or clarifications to the original issue of specifications and drawings. This addendum becomes part of the Contract Documents.

All changes included herein shall not be limited to the sheet, page, detail, or paragraph indicated, but shall apply to all references to that item in any part of the contract documents.

ADDENDUM NO. 1

28 October 2025

01. _____ QUESTIONS and RESPONSES:

Item 01-01: Answers to bidder's questions:

1. Question: Sheet A2.0 note #3 states to remove and salvage door, frame and hardware of all doors, Door schedule calls for doors #308, 330, 333 as door type C to repaint frame and replace door. Please clarify. **Response: Note #3 updated to indicate doors are to be removed. See sheet A2.0. Door Type C changed to provide new door and frame. See A3.3.**
2. Question: With no frame type listed in the door schedule, are all door type B to be salvaged/reused frames and doors, or are all frames and doors new? please provide clarification of door schedule. **Response: Door types on sheet A3.3 describes hollow metal frame to be provided on type B doors.**
3. Question: Sheet A9.2 note #12 states the hospital beds are contractor furnished and installed but there is no specifications for the beds. Also, on the page the Accessory Abbreviations show CF/CI, OF/CI, and OF/OI but there is nowhere showing these items. Can a list of Owner provided items be provided. **Response: Note 12 updated to be Owner Provided, Contractor installed. Cut sheet included in response to bidder's questions. Accessory abbreviations shown on interior elevations but have also been added to the enlarged floor plan.**
4. Question: Sheet E7.1 keyed note BA1 states to refer to section 123000 for instruction related to bid alternate. There is nothing in section 12 for systems. Please clarify what is needed for systems in the bid alternate. **Response: See response provided by Envision Engineering.**
5. Question: I don't see a spec section for the compressed air in Division-22, what type of material is required for this? **Response: See response provided by WHW Engineering.**
 - a. Copper pipe type L, Brazed or Soldered
 - b. Copper pipe type M, Brazed or Soldered
 - c. Copper cleaned & capped (med-gas) Brazed or Soldered (will certification be required)
 - d. Sch-40 threaded black steel
6. Question: I noticed lead lining called out on the North, East, and South walls of Room 320 as well as in Window "H" which is in a wall labeled as type 3-1 which divides the room but not in the West exterior wall or the wall labeled 3-1. Should a similar lead lining be included on that dividing wall and on the Western Exterior wall and its window? **Response: Per the physicist's report, the exterior wall is not required to have shielding. The wall has been updated to be a 3-6. See sheet A2.2.**
7. Question: It's not specified on the plans or specs, what is the existing fire alarm panel in the building? **Response: See response provided by Envision Engineering.**
8. Question: There are many options that can be included with the homecare beds that are to be provided and installed by contractor. Please clarify what options are to be included.

Response: Notes have been updated to be Owner provided, Contractor installed. See attached cut sheet.

9. Question: Please provide the specs for the contractor provided, owner installed display monitor shown on sheet A9.2 Response: Notes have been changed to be Owner provided, Contractor installed. See attached cut sheet.
10. Question: Wood Ceilings: Please confirm the species of wood that is required for this product. Response: The wood ceilings are matching the existing ceilings installed in previous phases. The record drawings indicate the product information provided with a custom finish to match.
11. Question: Please provide the security specifications and confirm if owner is supplying or contracting the security scope. Response: IT and security pathways are shown to be provided by Contractor. Security wiring and cameras will be completed by MTECH.
12. Question: "Silent Knight discontinued their old "Hochiki" brand addressable devices a year or so ago. You can't mix their newer "SK" devices with their old ones. So, depending on what type of detectors are currently installed, they may need to upgrade all their existing addressable devices to the new "SK" devices. We have been running into this problem with a lot of existing Silent Knight Systems." Please provide the model of smoke detectors currently installed. Response: See response provided by Envision Engineering.
13. Question: There are no details for the lab sinks, will you please advise? Response: See response provided by WHW Engineering.
14. Question: What is the existing fire alarm panel? Response: See response provided by WHW Engineering.
15. Question: Are both the AED units and Medical Curtain Racks provided by owner as there is no spec for them? Or can we get a spec sheet? Response: See specifications added for both items to be provided and installed by Contractor.
16. Question: Are the waste lines ran under the podium slab? or are they embedded in the concrete? Response: See response provided by WHW Engineering.
17. Question: At the Pre- Bid meeting, it was mentioned that we would have to make a connection to the air compressor on level 1. Are there any information or details in the plans for this? Response: See response provided by WHW Engineering.
18. Question: Please confirm whether the Provo MTECH Phase V Remodel project is pursuing LEED certification or is required to meet any specific LEED standards or sustainable design criteria beyond general best practices. If so, please identify the applicable LEED version, rating system, and any targeted certification level. Response: There is not any plan to pursue any LEED certifications.
19. Question: In the Pre-Bid meeting it sounded like we are to dispose of the light fixtures in the plans it says they are to be re-used? Could we get some clarification on this? Response: See revised note 7 on sheet A2.0.
20. Question: Are the corner Guards going to be Anodized Aluminum as stated on page A2.2, note 18. Or are they to be Stainless Steel as stated on the Finish Legend Wall item "CG"? Response: See Section 10 26 00 "Wall and Door Protection" for a specification. Sheet note 18 has been updated – see sheet A2.2.
21. Question: The floor plan for this job shows rooms 310, 317, 319, 320 and 321 are marked with hatch as though they are not part of the scope of the project. However, there are elevation pages 9.1 and 9.2 calling for either chair rail, countertops, or both in those rooms.

Response: Those elevations include the notation "Bid Alternate #1" to identify the elevation is to be included in the Alternate.

22. Question: The finish schedule lists SS-1, SS-2, and quartz (QC) materials. The plans, however, do not specify the areas where quartz will be used. Can you please clarify these locations for us? Response: See interior elevations for locations.
23. Question: Page EL103 is missing from the Addendum plan set. There was a new switch style added. I will need where that is going to bid. Response: See response provided by Envision Engineering.
24. Question: Is there a specific security vendor I need to get numbers from for the card readers, or is the school supplying their own vendor? Response: See response to question 11 above.
25. Question: Does the security card readers need to be hard piped all the way to the security room or stubbed to the accessible ceiling? Response: See response provided by Envision Engineering.
26. Question: Are we pulling the communication wires needed for the card readers or just pull string in conduit for security vendor? Response: See response to question 11 above.
27. Question: Who manages or what style system is the existing fire alarm? Response: See response provided by Envision Engineering. State Fire manages the existing fire alarm in the building.
28. Question: Much of the waste piping scope will be in the ceiling of the 2nd floor. Will we be able to access this during normal working hours? Response: Waste piping in the ceiling of the second floor will need to be removed on Fridays or on weekends. Depending on the class schedule and if a space is being unused, work may be coordinated with MTECH to allow work in those areas during the day.
29. Question: Floor plans say sealed concrete in the electrical room. I believe at the walk through it already was sealed? Response: Finish of floor changed to "Exist".
30. Question: Is the work being done during the day? Response: As discussed in the pre-bid meeting, work may be done during the day, as coordinated with MTECH to not disturb use of the second level.
31. Question: Is there a shaft for the line set from the roof through the 4th to the 3rd? Response: See response provided by WHW Engineering.
32. Question: Please provide preferred/specified painting sheens for walls, ceilings, hollow metal & wood doors Response: See section 09 91 24 "Interior Painting (MPI Standards).
33. Question: On page A3.2 under the Finish Legend, CTB-1 calls for Daltile Portfolio 3x24 tile base. The Portfolio does not offer a 3x24. Are they wanting a 12x24 floor tile cut down to that size or the 6x12 cove base that is offered in that line? Please advise. Response: CTB-1 has been updated to be a 3" x 6" base to match the wall tile. See sheet A3.2.
34. Question: Can you please confirm what the substrate is on level 3? Response: The substrate is a concrete floor on metal deck.
35. Question: What is the deck height? Response: Dimensions from floor to deck have been provided on the construction types. Refer to Sheet A3.1.
36. Question: Please provide the species of wood on the wood Grille Ceiling Response: See response provided in question 10 above.
37. Question: Is there a cost for parking? Response: Parking in the parking structure does have a cost and is not affiliated with the college.

38. Question: Are chop saws allowed on the project? Where will the hot work area be located?
Response: MTECH does not have an issue with chop saws as long as the DFCM standards are met. Hot work areas are defined and regulated by DFCM and require a hot work permit.
39. Question: Will this project need thermal insulation? if so please provide details. Response: No. The exterior wall assembly is not being modified as a part of this project.
40. Question: Confirmation of Fire Sprinkler System Scope and Requirements. The project documents (plans and specifications) do not show or specify a fire sprinkler system layout or indicate if the building is currently protected by an existing system. Please clarify
Response: See response provided by WHW Engineering.
41. Question: Is there a chase for the line set to get from the roof through the 4th floor to the 3rd? Response: See response provided by WHW Engineering.
42. Question: Door #329 is called out as a hollow metal frame in the door schedule. However, it is labeled as window type E (aluminum storefront) on the window schedule. Is door #329 to be hollow metal or aluminum? Response: That door should be solid wood door in the storefront system. Window type E has been updated to show the solid door with a new door type E added.
43. Question: The hardware schedule doesn't match the door schedule. Can this be updated?
Response: Door schedule updated – see sheet A3.3. Door hardware specification updated.
44. Question: Is there a lead lined glass specification? Response: Lead thickness specification added to Glazing Schedule. See sheet A3.3.
45. Question: Under Section 08 80 00 – GLAZING in the "6-3-18207260-Approved Specs", we don't see any film products to be applied, do you need any film? Response: No.
46. Question: The door schedule calls out door #329 as a type B wood door in a hollow metal frame. Level 3 floor plan A2.2 appears to show door #329, to the break room, incorporated into an aluminum storefront frame type E. Please clarify and verify the hardware group for this door. Response: See response to questions 42 & 43.
47. Question: A2.2: Door #319, to classroom 319 appears to have a sidelite but there is not a window type mark assigned that corresponds with any of the window type elevations on A3.3. Please clarify what is wanted here. Response: Window type G tag added to floor plan. See sheet A2.2.
48. Question: A3.3: Can the drawings for window type L and N be cleaned up? Response: Yes. Thank you. See sheet A3.3
49. Question: It appears as though the glazing types for elevation J need to be changed to glazing type 2. Response: Yes. Thank you. Glazing type updated. See sheet A3.3.
50. Question: Please provide specs for lead lined frame and glazing for window type H.
Response: Lead thickness specification added to Glazing Schedule and to window type H. See sheet A3.3.
51. Question: Is type A door, #336 and #339, a stand alone single door, or is there supposed to be a sidelite as well, with an assigned window elevation mark? Response: Door type A is a door to be installed in the storefront frames shown in the window types. The coordination is between the door type listed in the door schedule and the window type identified on the floor plan.
52. Question: The door schedule calls for hardware group 04 for the following doors, #303, 310, 317, 319, 321, 331, and 339. Hardware group 04 in the hardware specs 087100, lists

- only door #104, 106, and 107, which are not listed on the door schedule. Please **Response: See response to question 43 above.**
53. Question: The door schedule calls for hardware group 06 for the following doors, #322 and 340. Hardware group 06 in the hardware specs 087100, lists only door #103A, which is not listed on the door schedule. Please clarify. **Response: See response to question 43 above.**
54. Question: Can the deck height please be provided? **Response: See response to question 35 above.**
55. Question: During the walk through there was discussion about leaking Victaulic fittings and needing to replace these. No note was found regarding this on the plans. Please clarify scope of work for Victaulic fittings. Will this scope be handled via an allowance or unit pricing? **Response: See response provided by WHW Engineering.**
56. Question: G2.2 Fire safety plan notes says a fire safety plan has to be submitted to Provo City for review and approval. Is this really the case. Normally on state projects local municipalities don't have jurisdiction. Please confirm/clarify. **Response: Per Chapter 4 of the International Fire Code, a Fire Safety Plan submission to Provo City for review and approval is required for this project due to the change in occupancy associated with the remodel. While Provo City does not have jurisdiction, they are the responding agency.**
57. Question: G2.3 Deferred submittals "A Fire sprinkler system & Fire flow testing – 06/18/2025" asks for an engineered water flow analysis that is current within the previous 12 months. Per state code and Kelly Snow at the state fire Marshal's office the flow analysis is to be provided by the design team not the contractor. Please review and advise. **Response: The requirement for a water flow analysis has been eliminated. See update to sheet G2.3.**
58. Question: G2.3 "Emergency responder radio signal coverage" Please clarify what is needed for this. Again, normally this is something the design team covers not the contractor. **Response: This requirement has been eliminated. See update to sheet G2.3. A test will be coordinated by the Owner / Design Team as the project nears completion**
59. Question: G2.3 Non-structural component list: Please clarify that this check list is for Seismic bracing/anchoring of these components only. IE it would be very uncommon for the mechanical equipment to be a deferred submittal. Only the anchoring of the mechanical equipment. **Response: Confirmed. This checklist is for Seismic bracing/anchoring components. Refer to the added comment on sheet G2.3: "Seismic restraint of mechanical equipment to be provided as deferred submittal after mechanical submittals have been approved."**
60. Question: A1.0 Please clarify the "wrap" called out. It notes ¾" plywood and 2x4 framing turned flat. Is this meant to be a millwork encasing of the lockers for esthetic purposes? Are we just leaving exposed plywood? Is the plywood a veneer stain grade? Etc. **Response: The framed shell around the lockers shall consist of 2x4 framing (placed sideways) and plywood sheathing. For aesthetic purposes, stain-grade veneer shall be applied to the surface of the plywood at both ends of the lockers. 1x wood trim shall be provided around the front of the lockers to conceal the millwork assembly Notes and details on sheet A1.0 have been updated to reflect such.**
61. Question: A2.0 General demo note 6 says we are reusing doors. Is this applicable to all doors and frames or just the three stair doors and frames? **Response: Doors will not be re-used. Demolition general note 6 has been removed.**

62. Question: A2.0 General demo note 8 says to salvage all light fixtures, clean and repair to functioning condition. Similar situation for the mechanical grilles, exhaust fans. There is NO WAY to bid this competitively, everyone will look at what is needed differently. Please review and advise. Response: Light fixtures will not be re-used. Contractor shall remove them and the owner shall coordinate with a hazmat team to inspect and dispose of the removed bulbs and ballasts. General note 8 has been updated. Note that it is now note 7 due to the deletion of what was previously general note 6.
63. Question: A2.0 General demo note 12 says to save doors for hazmat testing. Dispose only if found to be free of hazardous content. Can this testing and disposal be done before this project starts? Any remaining doors would simply be disposed of except for the three stair doors called to be reused? Response: Hazmat testing has already been completed. All doors indicated to be removed can be disposed of. General demolition note 12 is not necessary and has been deleted.
64. Question: A2.1 alternate scope definition. Are the "Hallway walls" for the blue hatched area supposed to be installed and finishes complete on the hallway side? What about doors/frames, that swing in? Are all the doors and frames in those walls to be included in the base bid? Response: The hatch is located inside of the walls. Construction of the walls and associated doors / frames are to be included in the base bid. Alternate description on sheet G1.1 has been updated and note has been removed from A2.1 for consistency.
65. Question: A2.2 Note 18 says aluminum corner guard. Existing corner guards in the building are stainless steel. Are we matching existing or changing to aluminum? On A3.2 it does call stainless please clarify which it is. Response: Stainless steel corner guards shall be installed. Note 18 on sheet A2.2 has been updated.
66. Question: A2.2 Note 9 calls for a filing cabinet per contractor. Normally this would be part of the FFE package. Please confirm. If GC to provide please provide details, size, etc. Response: Filing cabinet to be provided by owner. Note 9 on sheet A2.2 has been corrected.
67. Question: A2.2 Note 13 & 17 and page A9.1 note 9 & 12 call for the mannequin storage and hospital bed to be contractor provided and installed. These are kind of specialty items. The rest of the medical equipment is owner provided. Please confirm these are GC provided. Response: The mannequin storage is a piece of millwork to be provided by the Contractor. The hospital bed is to be provided by Owner, installed by Contractor. Notes 13 & 17 on A2.2 and notes 9 & 12 on A9.1 have been updated.
68. Question: A9.1 note 10 says headwall to be owner provided but contractor installed. Please provide details on the headwall so GC can adequately cover the installation Response: See attached cut sheet for headwall.
69. Question: A9.2 note 28 says "Display Monitor – contractor provided, owner installed." Is this a typo? Please clarify Response: Note 28 has been updated. Display monitor is to be provided by the owner and installed by the contractor. See attached cut sheet.
70. Question: A8.1 and A8.2 Reflected ceiling demolition shows the South East restroom ceilings to remain. The mechanical plans show demolition of some ducting and new ducting and diffusers into these Hard lid restrooms Please clarify what work is happening here. There is a conflict currently. Response: The mechanical design has been updated to reduce the impact to the above ceiling space, with access provided by removing the ceiling in the adjacent Janitor (305) and providing a 2 x 2 acoustical ceiling. See response provided by

WHW Engineering.

71. Question: ME105 note 1 shows a new split system on the roof. During the walk through it was noted no new work on the roof. Please clarify who has the current roofing warranty for roof modifications. **Response: See response provided by WHW Engineering.**
72. Question: MPD103 and MP103 General note 2 says all exposed ducting and piping to be painted. Please clarify if this is general painting or if this is color coded painting. **Response: This is general painting.**
73. Question: PD103.1, PD103.2, PE103.1 and PE103.2 show plumbing work above the existing restroom hard lid ceiling that is called to remain. Please clarify scope of work and conflict. **Response: Plumbing to that sink has been routed from another location. See response provided by WHW Engineering.**
74. Question: PE103.1 note 6 says to tie into compressor on level one. Can a floor plan of level one be provided? Is an additional isolation valve being added in at level one so level one can be isolated from the other levels. **Response: See response provided by WHW Engineering.**
75. Question: E6.1 Is the cable tray to be painted in the hallways similar to the ducting and piping? **Response: Yes.**
76. Question: E7.1 Note Y4 "locate nurse call system. Is this owner or GC provided? **Response: See response provided by Envision Engineering.**
77. Question: Are the door access systems raceway only or fully provided by GF? **Response: See response provided by Envision Engineering.**
78. Question: A3.2 Finish schedule (Walls) WC-1 and WC-2 identified at location room 309. Can you please provide a wall section that shows location and shapes and sizes? I'm not seeing this room on A9.1 or A9.2 **Response: Interior elevations for Small Meeting Room 309 have been provided on sheet A9.2. The "notes" section of the finish schedule has been updated.**
79. Question: A3.2 Finish Schedule (Ceilings) WD Does Armstrong wood grille have an acoustical backer? **Response: See section 09 54 26 "Suspended Wood Ceilings" for the required accessories to be provided.**
80. Question: How are the current AHU/RTU's that feed the VAV's are being controlled. If we put Alerton in we will need to interface with these to provide resets for the supply temperature and fan speeds. Are the zone sensors to control and monitor CO2 for all the VAV zones? **Response: See response provided by WHW Engineering.**
81. Question: A9.1 Note 18 calls for a diaper changing station. There is no indication who is to provide it. Please advise if this is the contractors responsibility. If so can a spec please be provided? **Response: Childcare accessories section has been added to section 10 28 00. See attached.**
82. Question: A9.1 Note27 calls for medical curtain track. There is no indication who is to provide it. Please advise if this is the contractors responsibility. If so can a spec please be provided? **Response: If there is no indication of it being Owner provided, then it is to be provided by the contractor. See section 10 21 23 "Privacy Curtains and Tracks" which has been provided.**

02. DRAWINGS:

Item 02-01: The following changes have been made to the drawings:

Architectural

1. Sheet G1.1: Bid Alternate note updated.
2. Sheet G2.3: Deferred submittals updated, including updated due dates. Nonstructural Component Checklist clarified with additional comments.
3. Sheet A1.0: Sheet notes 3 & 7 updated, with note change on detail 3.
4. Sheet A2.0: Demolition sheet note 3 updated. Minor changes to made to "Demolition General Notes" (DGN) 1, 3, 4, & 5. DGN 6 eliminated and DGN 7, 8, 9, & 10 renumbered to 6, 7, 8, & 9, respectively. New DGN number 7 revised. DGN 11 & 12 eliminated.
5. Sheet A2.1: Bid Alternate Notes removed. See sheet G1.1 for notes.
6. Sheet A2.2: Updates to sheet notes indicated. Bid Alternate notes removed. See sheet G1.1 for notes. Sheet note 26 added to plan. Window Type G added to plan at door 319. Interior elevation reference added to Small Meeting (309).
7. Sheet A3.1: Lead Shielding Notes added. Deck height added to wall construction types.
8. Sheet A3.2: Base tile product information updated for CTB-1. Notes added to WC-1 & WC-2. Floor finish updated for Elec (323).
9. Sheet A3.3: Door shown on Window E updated to solid wood (graphically only). Glazing schedule updated for leaded glass. Notes added to window type "H". Window types L & N cleaned up. Door Type C updated. Door Type E added. Updates to door schedule. Note on detail 5 clarified.
10. Sheet A8.1: Ceiling over Janitor (305) shown to be removed.
11. Sheet A8.2: Ceiling over Janitor (305) updated from "existing" to "ACT-1".
12. Sheet A9.1: Sheet notes updated. "DC" added to Accessory Abbreviations.
13. Sheet A9.2: Sheet notes updated. "DC" added to Accessory Abbreviations. Interior elevation 10 added. Detail 6 updated. East elevation of Toilet (325) updated to match floor plan. Enlarged Toilet Room Plan updated to add Accessory Abbreviations.

Item 02-02: The following consultants have added or updated sheets to their set. See descriptions provided by engineers:

1. WHW Engineering
2. Envision Engineering

03. SPECIFICATIONS:

Item 03-01: Add the following sections to the Project Manual:

1. Section 10 21 23 "Privacy Curtains and Track"
2. Section 10 43 00 "AED's and AED Cabinets"

Item 03-02: The following sections have been modified:

1. Section 08 71 00 "Door Hardware"
2. Section 10 28 00 "Toilet, Bath and Laundry Accessories"

Item 03-03: The following consultants have provided new or updated specifications:

1. WHW Engineering – see attached list.

04. APPROVED MANUFACTURERS:

Item 04-01: See the attached lists provided by WHW Engineering and Envision Engineering.

05. MISCELLANEOUS ITEMS:

Item 05-01: See the attached cut sheets for Owner provided, Contractor installed items:

1. Amico Headwall
2. Hill-Rom Affinity 4 Birthing Bed (1 to be provided)
3. Hill-Rom VersaCare Hospital Bed (Remi

ADDENDUM #1

Project Name: MTECH Provo Phase 5

WHW Project #: 24105

From: WHW Engineering LLC
8619 South Sandy Parkway
Sandy, Utah 84070
Phone (801) 466-4021 Fax (801) 466-8536

To: All Bidding Contractors
Addendum No: 1

Date: 10.27.25

This Addendum forms and becomes a part of the Contract Documents and modifies the original Bidding Documents dated 03/26/25 as noted below. 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 44 page(s) and 11 drawing(s).

I. QUESTIONS AND ANSWERS:

- a. I don't see a spec section for the compressed air in division-22, what type of material is required for this?
 - i. Response: See attached specification section 220100.
- b. There are no details for the lab sinks, will you please advise?
 - i. Response: See attached manufacturer cut sheets.
- c. Are the waste lines ran under the podium slab? or are they embedded in the concrete?
 - i. Response: The existing piping is hung from the deck above.
- d. At the Pre- Bid meeting, it was mentioned that we would have to make a connection to the air compressor on level 1. Are there any information or details in the plans for this?
 - i. Response: The intent is to tie into the existing piping in the compressor room on level 1. The intent is that all the existing valves and specialties shall be re-used and only a tie-in will be required. Field verify exact pipe routing and points of connection.
- e. Is the work being done during the day?
 - i. Response: Coordinate working hours with architect and owner.
- f. Is there a shaft for the line set from the roof through the 4th to 3rd floor.
 - i. Response: There is a chase for all the data room refrigerant piping. Field verify exact routing.
- g. Confirmation of Fire Sprinkler System Scope and Requirements. The project documents (plans and specifications) do not show or specify a fire sprinkler system layout or indicate if the building is currently protected by an existing system. Please clarify.
 - i. Response: See attached fire sprinkler performance specification. Provide fire sprinkler design as a deferred submittal.
- h. What is the current building management system.
 - i. Response: The current building management system is Utah Yamas. See attached updated controls specification.

- i. During the walk through there was discussion about leaking Victaulic fittings and needing to replace these. No note was found regarding this on the plans. Please clarify scope of work for Victaulic fittings. Will this scope be handled via an allowance or unit pricing?
 - i. Response: The intent is to remove all the existing piping on level 3. For bidding purposes do not include removing existing fittings on other levels. Changes to piping not on level 3 may be handled by change order as the need arises..
- j. ME105 note 1 shows a new split system on the roof. During the walk through it was noted no new work on the roof. Please clarify who has the current roofing warranty for roof modifications.
 - i. Response: All roofing work shall be performed by warranty holding roofing contractor (North Face Roofing 435-214-7656).
- k. MPD103 and MP103 General note 2 says all exposed ducting and piping to be painted. Please clarify if this is general painting or if this is color coded painting.
 - i. Response: Coordinate with architect and owner for color scheme.
- l. PE103.1 note 6 says to tie into compressor on level one. Can a floor plan of level one be provided? Is an additional isolation valve being added in at level one so level one can be isolated from the other levels?
 - i. Response: See attached floor plan. Please include an isolation valve at each level.
- m. How are the current AHU/RTU's that feed the VAV's are being controlled. If we put Alerton in we will need to interface with these to provide resets for the supply temperature and fan speeds. Are the zone sensors to control and monitor CO2 for all the VAV zones?
 - i. Response: The current BAS is a Structureware Utah Yamas system. Provide new Yamas controls and programming. Match existing VAV controls sequence. Alerton will not be approved for this project. See attached updated controls specification.
- n. PD103.1 , PD103.2, PE103.1 and PE103.2 show plumbing work above the existing restroom hard lid ceiling that is called to remain. Please clarify scope of work and conflict.
 - i. Response see attached updated sheets with modified pipe routing and removal/tie-in locations.

II. CHANGES/CLARIFICATIONS TO SPECIFICATIONS:

- a. See attached fire sprinkler performance specification.
- b. See attached updated controls specification.
- c. See attached compressed air specification.

III. CHANGES/CLARIFICATIONS TO DRAWINGS:

- a. See attached existing as-built drawing of compressor room.

PRIOR APPROVALS

THE FOLLOWING ITEMS, AS SUBMITTED, ARE CONSIDERED, IN GENERAL AND IN NAME ONLY, AS EQUAL TO THOSE ITEMS SPECIFIED. THIS REVIEW DOES NOT RELIEVE THE CONTRACTOR OR SUPPLIER OF THE RESPONSIBILITY OF CONFORMING TO THE DRAWINGS AND SPECIFICATIONS, NOR DOES IT RELIEVE THE CONTRACTOR OF THE REQUIREMENTS OF THE SPECIFICATIONS FOR COORDINATION WITH OTHER TRADES. ALL DIMENSIONS SHALL BE CONFIRMED AND CORRELATED AT THE JOBSITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING EXISTING CONDITIONS AND THE SUITABILITY OF "EQUAL" PRODUCTS FOR THE SPECIFIED APPLICATION.

<u>Description</u>	<u>Manufacturer</u>
Water Closets	Sloan
Urinals	Sloan
Lavatories	Sloan
Bottle Fillers/Coolers	Sloan
Split System – Indoor/Outdoor	Bosch Home Comfort

Remote Valves 625-LPABCP

Product Type

Foot operated remote valve

Features & Specifications

- Naiad metering cartridge with fast cycle time closure
- ECAST® design provides durable cast brass construction with total lead content equal to or less than 0.25% by weighted average
- Complies with the requirements of the Buy American Act of 1933.
- CFNow! Item Ships in 3 Days

Performance Specification

- Rated Operating Pressure: 20-125 PSI
- Rated Operating Temperature: 40-140°F

Warranty

- 5-Year Limited Cartridge Warranty
- Lifetime Limited Faucet Warranty
- 1-Year Limited Finish Warranty

Codes & Standards

-  ASME A112.18.1/CSA B125.1
-  NSF/ANSI/CAN 372 Low Lead Content
-  NSF/ANSI/CAN 61: Q ≤ 1

Job Name _____

Item Number _____

Section/Tag _____

Model Specified _____

Architect _____

Engineer _____

Contractor _____

Submitted as Shown Submitted with Variations

Date _____



ECAST

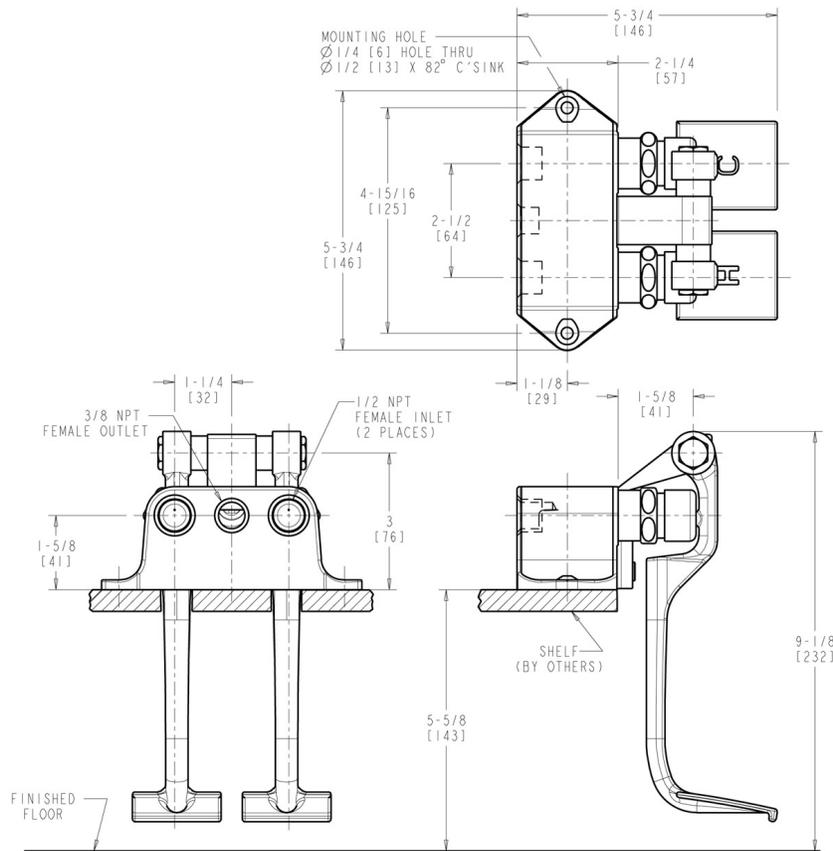
ECAST products are intended for installation where state laws and local codes mandate lead content levels or in any location where lead content is a concern.



2100 South Clearwater Drive
Des Plaines, IL
P: 847/803-5000
F: 847/803-5454
Technical: 800/TEC-TRUE
www.chicagofaucets.com

Architect/Engineer Specification

Chicago Faucets No. 625-LPABCP, Pedal Box Fitting for hot and cold water, with long pedals, chrome plated. NAIAD rebuildable self-closing metering cartridge, immediate shut-off, opens with push. Two 1/2" NPT female thread inlets. 3/8" NPT female thread outlet. Mounts 5-5/8" above floor. ECAST® construction with less than 0.25% lead content by weighted average. This product is tested and certified to industry standards: ASME A112.18.1/CSA B125.1, Certified to NSF/ANSI 61, Section 9, California Health and Safety Code 116875 (AB1953-2006), Vermont Bill S.152, and NSF/ANSI 372 Low Lead Content.



Operation and Maintenance

Installation should be in accordance with local plumbing codes. Flush all pipes thoroughly before installation. After installation, remove spout outlet or flow control and flush faucet thoroughly to clear any debris. Care should be taken when cleaning the product. Do not use abrasive cleaners, chemicals or solvents as they can result in surface damage. Use mild soap and warm water for cleaning and protecting the life of Chicago Faucet products. For specific operation and maintenance refer to the installation instructions and repair parts documents that are located at www.chicagofaucets.com.

Chicago Faucets, member of the Geberit Group, is the leading brand of commercial faucets and fittings in the United States, offering a complete range of products for schools, laboratories, hospitals, office buildings, food service, airports and sport facilities. Call 1.800.TECTRUE or 1.847.803.5000 Option 1 for installation or other technical assistance.



Remote Spouts 626-ABCP

Product Type

Deck-mounted remote spout

Features & Specifications

- 5-1/4" Rigid/swing gooseneck spout
- ECAST® design provides durable cast brass construction with total lead content equal to or less than 0.25% by weighted average
- Complies with the requirements of the Buy American Act of 1933.
- CFNow! Item Ships in 3 Days

Performance Specification

- Rated Operating Pressure: 20-125 PSI
- Rated Operating Temperature: 40-140°F

Warranty

- 5-Year Limited Cartridge Warranty
- Lifetime Limited Faucet Warranty
- 1-Year Limited Finish Warranty

Codes & Standards

-  ASME A112.18.1/CSA B125.1
-  NSF/ANSI/CAN 372 Low Lead Content
-  NSF/ANSI/CAN 61: Q ≤ 1

Job Name _____

Item Number _____

Section/Tag _____

Model Specified _____

Architect _____

Engineer _____

Contractor _____

Submitted as Shown Submitted with Variations

Date _____



ECAST

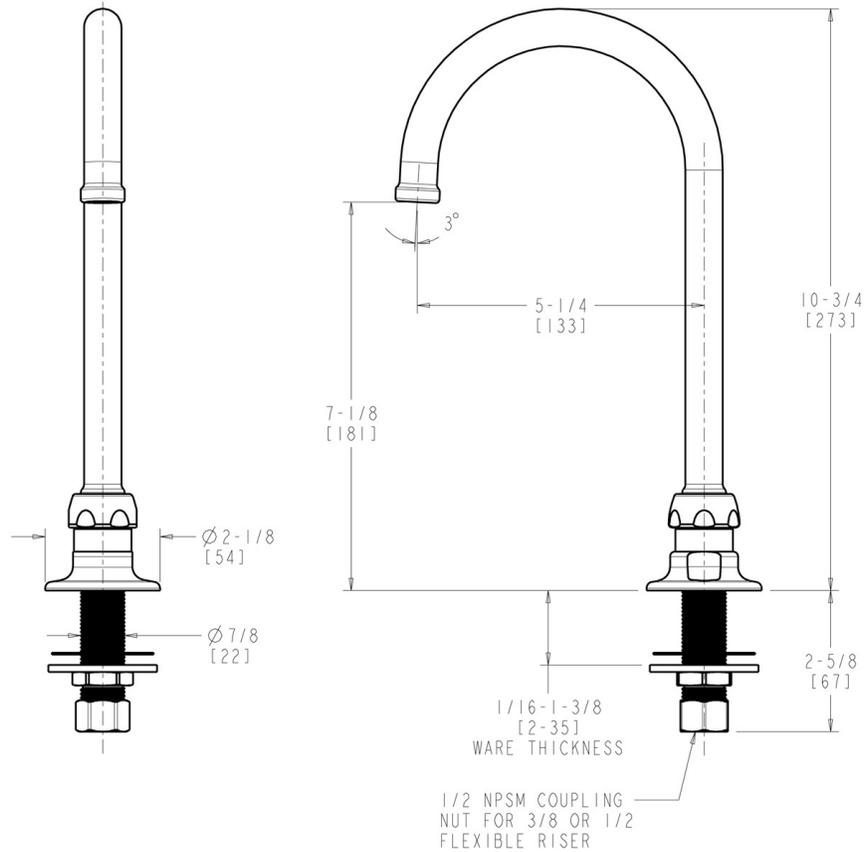
ECAST products are intended for installation where state laws and local codes mandate lead content levels or in any location where lead content is a concern.



2100 South Clearwater Drive
Des Plaines, IL
P: 847/803-5000
F: 847/803-5454
Technical: 800/TEC-TRUE
www.chicagofaucets.com

Architect/Engineer Specification

Chicago Faucets No. 626-ABCP, Remote Rigid/Swing Gooseneck Spout, chrome plated, 5-1/4" center-to-center. 1/2" NPSM supply inlets and coupling nut for 3/8" or 1/2" flexible riser. ECAST® construction with less than 0.25% lead content by weighted average. This product is tested and certified to industry standards: ASME A112.18.1/CSA B125.1, Certified to NSF/ANSI 61, Section 9, California Health and Safety Code 116875 (AB1953-2006), Vermont Bill S.152, and NSF/ANSI 372 Low Lead Content.



Operation and Maintenance

Installation should be in accordance with local plumbing codes. Flush all pipes thoroughly before installation. After installation, remove spout outlet or flow control and flush faucet thoroughly to clear any debris. Care should be taken when cleaning the product. Do not use abrasive cleaners, chemicals or solvents as they can result in surface damage. Use mild soap and warm water for cleaning and protecting the life of Chicago Faucet products. For specific operation and maintenance refer to the installation instructions and repair parts documents that are located at www.chicagofaucets.com.

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**CHICAGO
FAUCETS**

a Geberit company

2100 South
Des Plair
Phone: 8
Fax: 84
www.chica

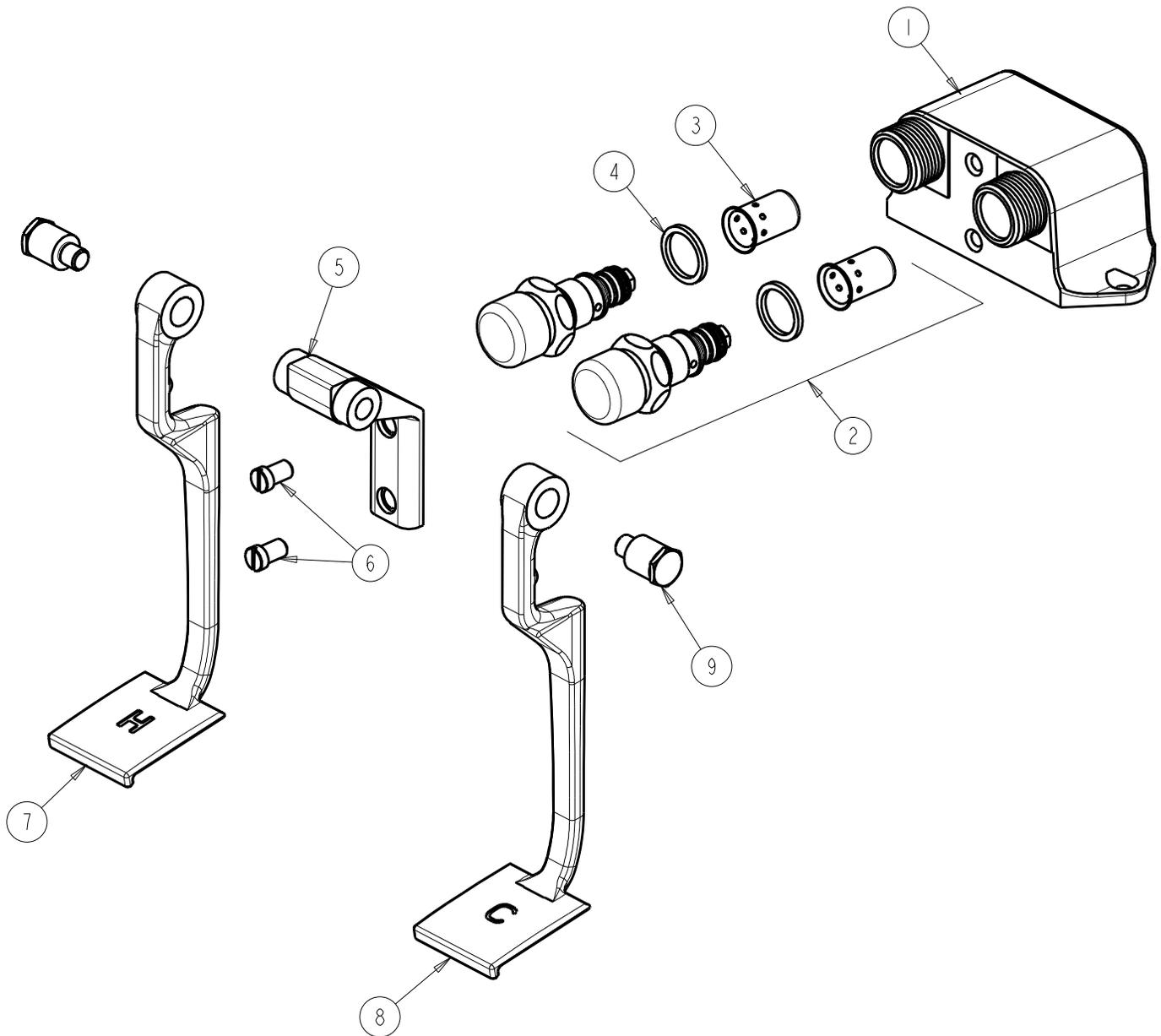
FOR TECHNICAL ASSIST/
1-800-TEC-TRUE (1-800-832

FITTING NO.

625-LPABCP

SUBMITTED MODEL NO.

ITEM NO.

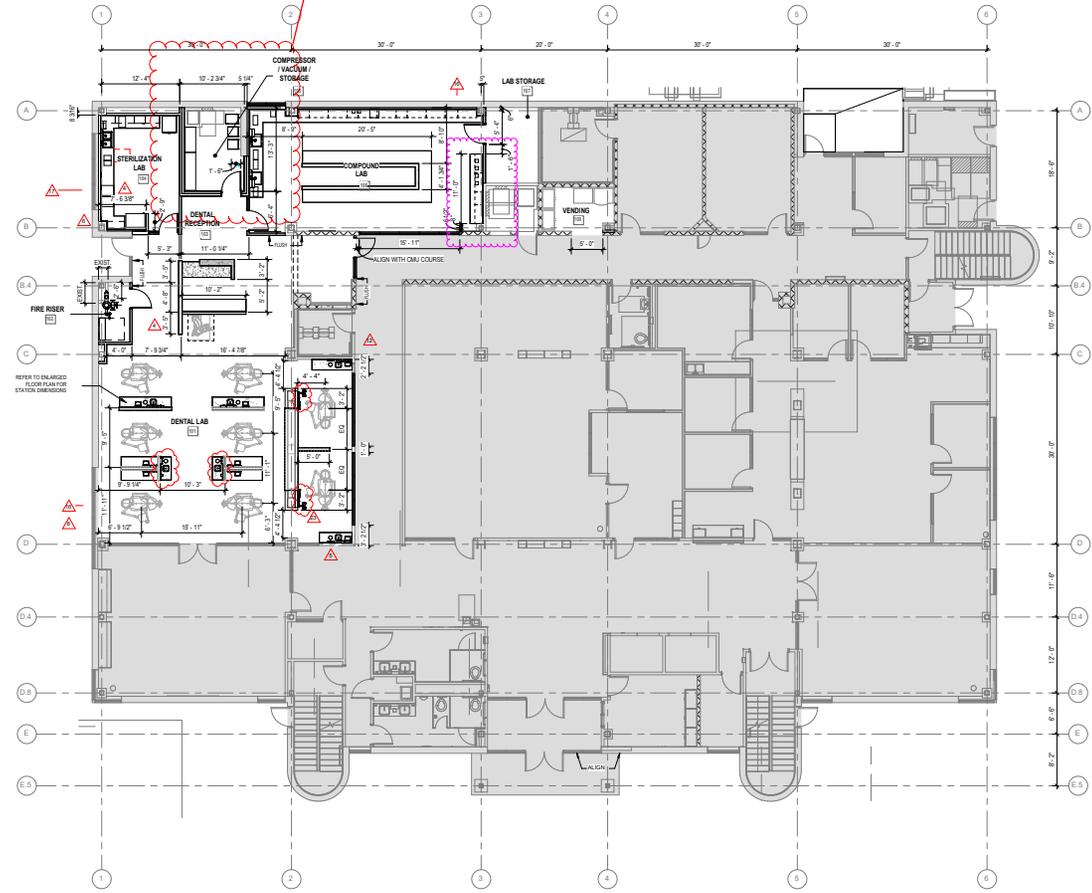


ITEM	PART NO.	DESCRIPTION
1	---	VALVE BODY (NOT SOLD SEPARATELY)
2	628-XJKABNF	CARTRIDGE, PUSH BUTTON
3	333-075JKNF	DASHPOT
4	1-043JKNF	GASKET, CAP 1 X .80 X .09
5	625-060JKCP	BRACKET
6	625-006JKNF	SCREW, PAN HEAD 5/16-18 UNC
7	625-059JKNF	PEDAL, HOT
8	625-159JKNF	PEDAL, COLD
9	625-061JKRCF	BOLT, SHOULDER 3/8-24 UNF X 5/8 HEX

GENERAL NOTES - DIM PLANS

- 1 GENERAL CONTRACTOR SHALL FIELD VERIFY ALL CONDITIONS AND SHALL REPORT TO THE ARCHITECT ANY UNKNOWN CONDITIONS, ERRORS, OR CONFLICTS IN THE DRAWINGS BEFORE BEGINNING WORK
- 2 DO NOT SCALE DRAWINGS
- 3 ALL EXPOSED INTERIOR COLUMNS TO BE PAINTED WITH INTRINSIC PANT
- 4 ALL EXTERIOR STEEL TO BE GALVANIZED UNLESS NOTED OTHERWISE
- 5 SEE SHEET SERIES A600 FOR DOOR AND WINDOW TYPES
- 6 SEE SHEET SERIES A600 FOR WALL AND ASSEMBLY TYPES
- 7 WALL TYPES ARE TAGGED FOR LENGTH OF ENTIRE WALL RUN, UNLESS NOTED OTHERWISE
- 8 ALL DIMENSIONS ARE TO THE FACE OF METAL WOOD STUD FRAMED WALLS OR TO THE FACE OF CONCRETE/MASONRY WALLS AS SHOWN, UNLESS NOTED OTHERWISE
- 9 DOOR OPENINGS IN FRAME CONSTRUCTION WITH NO SPECIFIED DIMENSION ARE EITHER CENTERED IN THE LENGTH OF WALL RUN OR IF DRAWN NEAR CORNER LOCATED 4" FROM THE FACE OF ADJACENT STUD. ASSUME CENTERED IN FACE OF JAMB UNLESS NOTED OTHERWISE
- 10 ALIGN CENTERLINE OF ALL STRUCTURAL ELEMENTS ON RESPECTIVE GRID(S), UNLESS NOTED OTHERWISE

COMPRESSOR LOCATION



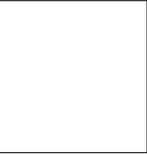
A1 LEVEL 1 DIMENSION PLAN
1/8" = 1'-0"



Utah State Board of Architecture
10/13/2023



3120 W. 4100 S. SUITE 100
SALT LAKE CITY, UTAH 84101
PHOTO: 532.4422



DFCM APPROVAL STAMP

ALL DIMENSIONS ARE TO THE FACE OF METAL WOOD STUD FRAMED WALLS OR TO THE FACE OF CONCRETE/MASONRY WALLS AS SHOWN, UNLESS NOTED OTHERWISE

project:
MTECH Provo Phase 4 Remodel

125 North 100 West
Provo, Utah 84601

#101483: 12/09/20
#101: December 14, 2023

revisions:

4	RFI - 03	03/12/2024
5	PR - 02	03/21/2024
6	RFI - 06	03/25/2024
8	ASH - 02	04/03/2024
12	PR - 03	04/05/2024
16	PR - 05	04/12/2024
17	ASH - 05	04/25/2024
23	RFI - 19	05/04/2024

title:
**LEVEL 1 - PH4
DIMENSION
PLAN**

sheet:
AE104

Conformed Bid Set



ELECTRICAL ADDENDUM NO. 01

To: Bruce Fallon **From:** Joel Syphus
Company: WPA Architecture
Date: 10/27/2025
Project: MTECH Provo – Phase 5B

The following changes as described below are issued as an addendum to the construction documents prior to bid submittal due date. The contractors are responsible for ensuring all addendum additions and/or changes are included in their bid.

Questions

Note: duplicate and similar questions from multiple bidders are listed as one question.

- Question:** Sheet E7.1 keyed note BA1 states to refer to section 123000 for instruction related to bid alternate. There is nothing in section 12 for systems. Please clarify what is needed for systems in the bid alternate.

Response: All work for spaces indicated as portions of bid alternate 1 shall only be included as part of bid alternate 1, including all systems scope.
- Question:** It's not specified on the plans or specs, what is the existing fire alarm panel in the building?

Response: Existing FACP is located in the level 1 exterior access MDF and is a Silent Knight panel by Honeywell. Intelliknight Model 5820XL. See sheet E7.7
- Question:** Silent Knight discontinued their old "Hochiki" brand addressable devices a year or so ago. You can't mix their newer "SK" devices with their old ones. So, depending on what type of detectors are currently installed, they may need to upgrade all their existing addressable devices to the new "SK" devices. We have been running into this problem with a lot of existing Silent Knight Systems. Please provide the model of smoke detectors currently installed.

Response: Per project observation photos and previous phase as-builts, existing devices appear to be the SK-PHOTO-W.
- Question:** Page EL103 is missing from the Addendum plan set. There was a new switch style added. I will need where that is going to bid.

Response: Question requires clarification. No electrical addendums have been issued to date, and the electrical package does not contain a sheet EL103.
- Question:** Does the security card readers need to be hard piped all the way to the security room or stubbed to the accessible ceiling?

Response: J-hooks may be used in place of conduit above accessible ceiling locations only. See details 2 and 3 on sheet E6.5.
- Question:** Is the cable tray to be painted in the hallways similar to the ducting and piping?



Response: Confirm with owner/architect. Recommendation of the electrical engineer is to paint or order products in matching color.

7. **Question:** Note Y4 “locate nurse call system. Is this owner or GC provided?”

Response: See detail 3/E7.7. Cable and installation by contractor, equipment furnished by owner.

8. **Question:** Are the door access systems raceway only or fully provided by GF?

Response: Security and access control are rough-in only. Provide pathways with cabling and junction boxes. Equipment shall be OFCI.

Lighting Prior Approvals

1. The following are added to the list of approved lighting manufacturers (subject to compliance with the project requirements):

TX-2	Barron Lighting / Exitronix
-------------	-----------------------------

If selected, the prior approved lighting products will be reviewed again during the submittal review process. If it's subsequently determined that the prior approved products are not equivalent to the basis of design light fixtures, the products will be rejected, and the Contractor shall be required to provide a product equivalent to the basis of design light fixture. All products must comply with a maximum of 30-day lead time.

End of Electrical Addendum

SECTION 087100 - DOOR HARDWARE

PART 1 - GENERAL

1.01 SUMMARY

A. Section includes:

1. Mechanical and electrified door hardware
2. Electronic access control system components

B. Section excludes:

1. Windows
2. Cabinets (casework), including locks in cabinets
3. Signage
4. Toilet accessories
5. Overhead doors

C. Related Sections:

1. Division 01 "General Requirements" sections for Allowances, Alternates, Owner Furnished Contractor Installed, Project Management and Coordination.
2. Division 06 Section "Rough Carpentry"
3. Division 06 Section "Finish Carpentry"
4. Division 07 Section "Joint Sealants" for sealant requirements applicable to threshold installation specified in this section.
5. Division 08 Sections:
 - a. "Metal Doors and Frames"
 - b. "Flush Wood Doors"
 - c. "Stile and Rail Wood Doors"
6. Division 26 "Electrical" sections for connections to electrical power system and for low-voltage wiring.
7. Division 28 "Electronic Safety and Security" sections for coordination with other components of electronic access control system and fire alarm system.

1.02 REFERENCES

A. UL LLC

1. UL 10B - Fire Test of Door Assemblies
2. UL 10C - Positive Pressure Test of Fire Door Assemblies
3. UL 1784 - Air Leakage Tests of Door Assemblies
4. UL 305 - Panic Hardware

B. DHI - Door and Hardware Institute

1. Sequence and Format for the Hardware Schedule
2. Recommended Locations for Builders Hardware
3. Keying Systems and Nomenclature
4. Installation Guide for Doors and Hardware

C. NFPA – National Fire Protection Association

1. NFPA 70 – National Electric Code
2. NFPA 80 – 2016 Edition – Standard for Fire Doors and Other Opening Protectives
3. NFPA 101 – Life Safety Code
4. NFPA 105 – Smoke and Draft Control Door Assemblies
5. NFPA 252 – Fire Tests of Door Assemblies

D. ANSI - American National Standards Institute

1. ANSI A117.1 – 2017 Edition – Accessible and Usable Buildings and Facilities
2. ANSI/BHMA A156.1 - A156.29, and ANSI/BHMA A156.31 - Standards for Hardware and Specialties
3. ANSI/BHMA A156.28 - Recommended Practices for Keying Systems
4. ANSI/WDMA I.S. 1A - Interior Architectural Wood Flush Doors
5. ANSI/SDI A250.8 - Standard Steel Doors and Frames

1.03 SUBMITTALS

A. General:

1. Submit in accordance with Conditions of Contract and Division 01 Submittal Procedures.
2. Prior to forwarding submittal:
 - a. Review drawings and Sections from related trades to verify compatibility with specified hardware.
 - b. Highlight, encircle, or otherwise specifically identify on submittals: deviations from Contract Documents, issues of incompatibility or other issues which may detrimentally affect the Work.

B. Action Submittals:

1. Product Data: Submit technical product data for each item of door hardware, installation instructions, maintenance of operating parts and finish, and other information necessary to show compliance with requirements.
2. Riser and Wiring Diagrams: After final approval of hardware schedule, submit details of electrified door hardware, indicating:
 - a. Wiring Diagrams: For power, signal, and control wiring and including:
 - 1) Details of interface of electrified door hardware and building safety and security systems.
 - 2) Schematic diagram of systems that interface with electrified door hardware.
 - 3) Point-to-point wiring.
 - 4) Risers.
3. Samples for Verification: If requested by Architect, submit production sample of requested door hardware unit in finish indicated and tagged with full description for coordination with schedule.
 - a. Samples will be returned to supplier. Units that are acceptable to Architect may, after final check of operations, be incorporated into Work, within limitations of key coordination requirements.
4. Door Hardware Schedule:
 - a. Submit concurrent with submissions of Product Data, Samples, and Shop Drawings. Coordinate submission of door hardware schedule with scheduling requirements of other work to facilitate fabrication of other work critical in Project construction schedule.
 - b. Submit under direct supervision of a Door Hardware Institute (DHI) certified Architectural Hardware Consultant (AHC) or Door Hardware Consultant (DHC) with hardware sets in vertical format as illustrated by Sequence of Format for the Hardware Schedule published by DHI.
 - c. Indicate complete designations of each item required for each opening, include:
 - 1) Door Index: door number, heading number, and Architect's hardware set number.
 - 2) Quantity, type, style, function, size, and finish of each hardware item.
 - 3) Name and manufacturer of each item.
 - 4) Fastenings and other pertinent information.
 - 5) Location of each hardware set cross-referenced to indications on Drawings.
 - 6) Explanation of all abbreviations, symbols, and codes contained in schedule.
 - 7) Mounting locations for hardware.
 - 8) Door and frame sizes and materials.
 - 9) Degree of door swing and handing.
 - 10) Operational Description of openings with electrified hardware covering egress, ingress (access), and fire/smoke alarm connections.
5. Key Schedule:
 - a. After Keying Conference, provide keying schedule that includes levels of keying, explanations of key system's function, key symbols used, and door numbers controlled.
 - b. Use ANSI/BHMA A156.28 "Recommended Practices for Keying Systems" as guideline for nomenclature, definitions, and approach for selecting optimal keying system.

- c. Provide 3 copies of keying schedule for review prepared and detailed in accordance with referenced DHI publication. Include schematic keying diagram and index each key to unique door designations.
- d. Index keying schedule by door number, keyset, hardware heading number, cross keying instructions, and special key stamping instructions.
- e. Provide one complete bitting list of key cuts and one key system schematic illustrating system usage and expansion. Forward bitting list, key cuts and key system schematic directly to Owner, by means as directed by Owner.
- f. Prepare key schedule by or under supervision of supplier, detailing Owner's final keying instructions for locks.

C. Informational Submittals:

- 1. Provide Qualification Data for Supplier, Installer and Architectural Hardware Consultant.
- 2. Provide Product Data:
 - a. Certify that door hardware approved for use on types and sizes of labeled fire-rated doors complies with listed fire-rated door assemblies.
 - b. Include warranties for specified door hardware.

D. Closeout Submittals:

- 1. Operations and Maintenance Data: Provide in accordance with Division 01 and include:
 - a. Complete information on care, maintenance, and adjustment; data on repair and replacement parts, and information on preservation of finishes.
 - b. Catalog pages for each product.
 - c. Final approved hardware schedule edited to reflect conditions as installed.
 - d. Final keying schedule
 - e. Copy of warranties including appropriate reference numbers for manufacturers to identify project.
 - f. As-installed wiring diagrams for each opening connected to power, both low voltage and 110 volts.

E. Inspection and Testing:

- 1. Submit written reports to the Owner and Authority Having Jurisdiction (AHJ) of the results of functional testing and inspection for:
 - a. Fire door assemblies, in compliance with NFPA 80.
 - b. Required egress door assemblies, in compliance with NFPA 101.

1.04 QUALITY ASSURANCE

A. Qualifications and Responsibilities:

- 1. Supplier: Recognized architectural hardware supplier with a minimum of 5 years documented experience supplying both mechanical and electromechanical door hardware similar in quantity, type, and quality to that indicated for this Project. Supplier to be recognized as a factory direct distributor by the manufacturer of the primary materials with a warehousing facility in the Project's vicinity. Supplier to have on staff, a certified Architectural Hardware Consultant (AHC) or Door Hardware Consultant (DHC) available to Owner, Architect, and Contractor, at reasonable times during the Work for consultation.
- 2. Installer: Qualified tradesperson skilled in the application of commercial grade hardware with experience installing door hardware similar in quantity, type, and quality as indicated for this Project.
- 3. Architectural Hardware Consultant: Person who is experienced in providing consulting services for door hardware installations that are comparable in material, design, and extent to that indicated for this Project and meets these requirements:
 - a. For door hardware: DHI certified AHC or DHC.
 - b. Can provide installation and technical data to Architect and other related subcontractors.
 - c. Can inspect and verify components are in working order upon completion of installation.
 - d. Capable of producing wiring diagram and coordinating installation of electrified hardware with Architect and electrical engineers.
- 4. Single Source Responsibility: Obtain each type of door hardware from single manufacturer.

B. Certifications:

1. Fire-Rated Door Openings:
 - a. Provide door hardware for fire-rated openings that complies with NFPA 80 and requirements of authorities having jurisdiction.
 - b. Provide only items of door hardware that are listed products tested by UL LLC, Intertek Testing Services, or other testing and inspecting organizations acceptable to authorities having jurisdiction for use on types and sizes of doors indicated, based on testing at positive pressure and according to NFPA 252 or UL 10C and in compliance with requirements of fire-rated door and door frame labels.
2. Smoke and Draft Control Door Assemblies:
 - a. Provide door hardware that meets requirements of assemblies tested according to UL 1784 and installed in compliance with NFPA 105
 - b. Comply with the maximum air leakage of 0.3 cfm/sq. ft. (3 cu. m per minute/sq. m) at tested pressure differential of 0.3-inch wg (75 Pa) of water.
3. Electrified Door Hardware
 - a. Listed and labeled as defined in NFPA 70, Article 100, by testing agency acceptable to authorities having jurisdiction.
4. Accessibility Requirements:
 - a. Comply with governing accessibility regulations cited in "REFERENCES" article 087100, 1.02.D3 herein for door hardware on doors in an accessible route. This project must comply with all Federal Americans with Disability Act regulations and all Local Accessibility Regulations.

C. Pre-Installation Meetings

1. Keying Conference
 - a. Incorporate keying conference decisions into final keying schedule after reviewing door hardware keying system including:
 - 1) Function of building, flow of traffic, purpose of each area, degree of security required, and plans for future expansion.
 - 2) Preliminary key system schematic diagram.
 - 3) Requirements for key control system.
 - 4) Requirements for access control.
 - 5) Address for delivery of keys.
2. Pre-installation Conference
 - a. Review and finalize construction schedule and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
 - b. Inspect and discuss preparatory work performed by other trades.
 - c. Inspect and discuss electrical roughing-in for electrified door hardware.
 - d. Review sequence of operation for each type of electrified door hardware.
 - e. Review required testing, inspecting, and certifying procedures.
 - f. Review questions or concerns related to proper installation and adjustment of door hardware.
3. Electrified Hardware Coordination Conference:
 - a. Prior to ordering electrified hardware, schedule and hold meeting to coordinate door hardware with security, electrical, doors and frames, and other related suppliers.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Inventory door hardware on receipt and provide secure lock-up for hardware delivered to Project site. Promptly replace products damaged during shipping.
- B. Tag each item or package separately with identification coordinated with final door hardware schedule, and include installation instructions, templates, and necessary fasteners with each item or package. Deliver each article of hardware in manufacturer's original packaging.
- C. Maintain manufacturer-recommended environmental conditions throughout storage and installation periods.

- D. Provide secure lock-up for door hardware delivered to Project. Control handling and installation of hardware items so that completion of Work will not be delayed by hardware losses both before and after installation.
- E. Handle hardware in manner to avoid damage, marring, or scratching. Correct, replace or repair products damaged during Work. Protect products against malfunction due to paint, solvent, cleanser, or any chemical agent.
- F. Deliver keys to manufacturer of key control system for subsequent delivery to Owner.

1.06 COORDINATION

- A. Coordinate layout and installation of floor-recessed door hardware with floor construction. Cast anchoring inserts into concrete.
- B. Installation Templates: Distribute for doors, frames, and other work specified to be factory or shop prepared. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing door hardware to comply with indicated requirements.
- C. Security: Coordinate installation of door hardware, keying, and access control with Owner's security consultant.
- D. Electrical System Roughing-In: Coordinate layout and installation of electrified door hardware with connections to power supplies and building safety and security systems.

1.07 WARRANTY

- A. Manufacturer's standard form in which manufacturer agrees to repair or replace components of door hardware that fail in materials or workmanship within published warranty period.
 - 1. Warranty does not cover damage or faulty operation due to improper installation, improper use or abuse.
 - 2. Warranty Period: Beginning from date of Substantial Completion, for durations indicated in manufacturer's published listings.
 - a. Mechanical Warranty
 - 1) Locks
 - a) Schlage ND Series: 10 years
 - b) Falcon: 10 years
 - 2) Exit Devices
 - a) Falcon: 10 years
 - 3) Closers
 - a) Falcon SC Series: 10 years

1.08 MAINTENANCE

- A. Furnish complete set of special tools required for maintenance and adjustment of hardware, including changing of cylinders.
- B. Turn over unused materials to Owner for maintenance purposes.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

- A. The Owner requires use of certain products for their unique characteristics and project suitability to ensure continuity of existing and future performance and maintenance standards. After investigating available product offerings, the Awarding Authority has elected to prepare proprietary specifications. These products are specified with the notation: "No Substitute."

1. Where "No Substitute" is noted, submittals and substitution requests for other products will not be considered.
- B. Approval of alternate manufacturers and/or products other than those listed as "Scheduled Manufacturer" or "Acceptable Manufacturers" in the individual article for the product category are only to be considered by official substitution request in accordance with section 01 25 00.
- C. Approval of products from manufacturers indicated in "Acceptable Manufacturers" is contingent upon those products providing all functions and features and meeting all requirements of scheduled manufacturer's product.
- D. Where specified hardware is not adaptable to finished shape or size of members requiring hardware, furnish suitable types having same operation and quality as type specified, subject to Architect's approval.

2.02 MATERIALS

A. Fabrication

1. Provide door hardware manufactured to comply with published templates generally prepared for machine, wood, and sheet metal screws. provide screws according to manufacturer's recognized installation standards for application intended.
2. Finish exposed screws to match hardware finish, or, if exposed in surfaces of other work, to match finish of this other work including prepared for paint surfaces to receive painted finish.
3. Provide concealed fasteners wherever possible for hardware units exposed when door is closed. Coordinate with "Metal Doors and Frames", "Flush Wood Doors", "Stile and Rail Wood Doors" to ensure proper reinforcements. Advise the Architect where visible fasteners, such as thru bolts, are required.

B. Provide screws, bolts, expansion shields, drop plates and other devices necessary for hardware installation.

1. Where fasteners are exposed to view: Finish to match adjacent door hardware material.

C. Cable and Connectors:

1. Where scheduled in the hardware sets, provide each item of electrified hardware and wire harnesses with number and gage of wires enough to accommodate electric function of specified hardware.
2. Provide Molex connectors that plug directly into connectors from harnesses, electric locking and power transfer devices.
3. Provide through-door wire harness for each electrified locking device installed in a door and wire harness for each electrified hinge, electrified continuous hinge, electrified pivot, and electric power transfer for connection to power supplies.

2.03 HINGES

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product:
 - a. Ives 5BB series
2. Acceptable Manufacturers and Products:
 - a. No Substitute, match previous phases

B. Requirements:

1. Provide hinges conforming to ANSI/BHMA A156.1.
2. Provide five knuckle, ball bearing hinges.
3. 1-3/4 inch (44 mm) thick doors, up to and including 36 inches (914 mm) wide:
 - a. Exterior: Standard weight, bronze or stainless steel, 4-1/2 inches (114 mm) high
 - b. Interior: Standard weight, steel, 4-1/2 inches (114 mm) high

4. 1-3/4 inch (44 mm) thick doors over 36 inches (914 mm) wide:
 - a. Exterior: Heavy weight, bronze/stainless steel, 5 inches (127 mm) high
 - b. Interior: Heavy weight, steel, 5 inches (127 mm) high
5. 2 inches or thicker doors:
 - a. Exterior: Heavy weight, bronze or stainless steel, 5 inches (127 mm) high
 - b. Interior: Heavy weight, steel, 5 inches (127 mm) high
6. Adjust hinge width for door, frame, and wall conditions to allow proper degree of opening.
7. Provide three hinges per door leaf for doors 90 inches (2286 mm) or less in height, and one additional hinge for each 30 inches (762 mm) of additional door height.
8. Hinge Pins: Except as otherwise indicated, provide hinge pins as follows:
 - a. Steel Hinges: Steel pins
 - b. Non-Ferrous Hinges: Stainless steel pins
 - c. Out-Swinging Exterior Doors: Non-removable pins
 - d. Out-Swinging Interior Lockable Doors: Non-removable pins
 - e. Interior Non-lockable Doors: Non-rising pins
9. Provide hinges with electrified options as scheduled in the hardware sets. Provide with number and gage of wires enough to accommodate electric function of specified hardware. Locate electric hinge at second hinge from bottom or nearest to electrified locking component. Provide mortar guard for each electrified hinge specified.

2.04 CYLINDRICAL LOCKS – GRADE 1

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product:
 - a. Schlage ND series
2. Acceptable Manufacturers and Products:
 - a. No Substitute, match previous phases

B. Requirements:

1. Provide cylindrical locks conforming to ANSI/BHMA A156.2 Series 4000, Grade 1, and UL Listed for 3-hour fire doors.
2. Indicators: Where specified, provide escutcheon with lock status indicator window on top of lockset rose:
 - a. Escutcheon height (including rose) 6.05 inches high by 3.68 inches wide.
 - b. Indicator window measuring a minimum 3.52-inch by .60 inch with 1.92 square-inches of front facing viewing area and 180-degree visibility with a total of .236 square-inches of total viewable area.
 - c. Provide snap-in serviceable window to prevent tampering. Lock must function if indicator is compromised.
 - d. Provide messages color-coded with full text and symbol, as scheduled, for easy visibility.
 - e. Unlocked and Unoccupied message will display on white background, and Locked and Occupied message will display on red background.
3. Cylinders: Refer to "KEYING" article, herein.
4. Provide locks with standard 2-3/4 inches (70 mm) backset, unless noted otherwise, with 1/2-inch latch throw. Provide proper latch throw for UL listing at pairs.
5. Provide locksets with separate anti-rotation thru-bolts, and no exposed screws.
6. Provide independently operating levers with two external return spring cassettes mounted under roses to prevent lever sag.
7. Provide standard ASA strikes unless extended lip strikes are necessary to protect trim.
8. Provide electrified options as scheduled in the hardware sets.
9. Lever Trim: Solid cast levers without plastic inserts and wrought roses on both sides.
 - a. Lever Design: Schlage Rhodes.
 - b. Specified lever design is for estimating purpose only. Provide lever design matching existing one.

2.05 CYLINDRICAL LOCKS – GRADE 2

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product:
 - a. Falcon W series
2. Acceptable Manufacturers and Products:
 - a. No Substitute, match previous phases

B. Requirements:

1. Provide cylindrical locks conforming to ANSI/BHMA A156.2 Series 4000, Grade 2, and UL Listed for 3-hour fire doors.
2. Cylinders: Refer to "KEYING" article, herein.
3. Provide locks with standard 2-3/4 inches (70 mm) backset, unless noted otherwise, with 1/2-inch latch throw. Provide proper latch throw for UL listing at pairs.
4. Provide locksets with separate anti-rotation thru-bolts, and no exposed screws.
5. Provide independently operating levers with two external return spring cassettes mounted under roses to prevent lever sag.
6. Provide standard ASA strikes unless extended lip strikes are necessary to protect trim.
7. Lever Trim: Solid cast levers without plastic inserts and wrought roses on both sides.
 - a. Lever Design: Falcon Dane.
 - b. Specified lever design is for estimating purpose only. Provide lever design matching existing one.

2.06 EXIT DEVICES

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product:
 - a. Falcon 24/25 series
2. Acceptable Manufacturers and Products:
 - a. No Substitute, match previous phases

B. Requirements:

1. Provide exit devices tested to ANSI/BHMA A156.3 Grade 1 and UL listed for Panic Exit or Fire Exit Hardware.
2. Cylinders: Refer to "KEYING" article, herein.
3. Provide touchpad type exit devices, fabricated of brass, bronze, stainless steel, or aluminum, plated to standard architectural finishes to match balance of door hardware.
4. Touchpad must extend a minimum of one half of door width. No plastic inserts are allowed in touchpads.
5. Provide exit devices with deadlatching feature for security and for future addition of alarm kits and/or other electrified requirements.
6. Provide flush end caps for exit devices.
7. Provide exit devices with manufacturer's approved strikes.
8. Provide exit devices cut to door width and height. Install exit devices at height recommended by exit device manufacturer, allowable by governing building codes, and approved by Architect.
9. Mount mechanism case flush on face of doors or provide spacers to fill gaps behind devices. Where glass trim or molding projects off face of door, provide glass bead kits.
10. Provide cylinder or hex-key dogging as specified at non fire-rated openings.
11. Removable Mullions: 2 inches (51 mm) x 3 inches (76 mm) steel tube. Where scheduled as keyed removable mullion, provide type that can be removed by use of a keyed cylinder, which is self-locking when re-installed.
12. Provide factory drilled weep holes for exit devices used in full exterior application, highly corrosive areas, and where noted in hardware sets.
13. Provide electrified options as scheduled.
14. Provide exit devices with optional trim designs to match other lever and pull designs used on the project.

2.07 ELECTRIC STRIKES

- A. Manufacturers and Products:
 - 1. Scheduled Manufacturer and Product:
 - a. Locknetics
 - 2. Acceptable Manufacturers:
 - a. No Substitute, match previous phases
- B. Requirements:
 - 1. Provide electric strikes designed for use with type of locks shown at each opening.
 - 2. Provide electric strikes UL Listed as burglary resistant.
 - 3. Provide electric strikes that are field selectable fail-safe and fail-secure.
 - 4. Provide electric strikes cycle tested to endure a minimum of 250,000 cycles.
 - 5. Where required, provide electric strikes UL Listed for fire doors and frames.
 - 6. Provide transformers and rectifiers for each strike as required. Verify voltage with electrical contractor.

2.08 CYLINDERS

- A. Manufacturers:
 - 1. Scheduled Manufacturer and Product:
 - a. Match existing
 - 2. Acceptable Manufacturers and Products:
 - a. No Substitute

2.09 KEYING

- A. Scheduled System:
 - 1. Existing factory registered system:
 - a. Provide cylinders/cores keyed into Owner's existing factory registered keying system. Comply with guidelines in ANSI/BHMA A156.28, incorporating decisions made at keying conference.
- B. Requirements:
 - 1. Construction Keying:
 - a. Replaceable Construction Cores.
 - 1) Provide temporary construction cores replaceable by permanent cores, furnished in accordance with the following requirements.
 - a) 3 construction control keys
 - b) 12 construction change (day) keys.
 - 2) Owner or Owner's Representative will replace temporary construction cores with permanent cores.
 - 2. Permanent Keying:
 - a. Provide permanent cylinders/cores keyed by the manufacturer according to the following key system.
 - 1) Master Keying system as directed by the Owner.
 - b. Forward bitting list and keys separately from cylinders, by means as directed by Owner. Failure to comply with forwarding requirements will be cause for replacement of cylinders/cores involved at no additional cost to Owner.
 - c. Provide keys with the following features:
 - 1) Material: Nickel silver; minimum thickness of .107-inch (2.3mm)
 - 2) Patent Protection: Keys and blanks protected by one or more utility patent(s).
 - d. Identification:
 - 1) Mark permanent cylinders/cores and keys with applicable blind code for identification. Do not provide blind code marks with actual key cuts.
 - 2) Identification stamping provisions must be approved by the Architect and Owner.

- 3) Stamp cylinders/cores and keys with Owner's unique key system facility code as established by the manufacturer; key symbol and embossed or stamped with "DO NOT DUPLICATE" along with the "PATENTED" or patent number to enforce the patent protection.
 - 4) Failure to comply with stamping requirements will be cause for replacement of keys involved at no additional cost to Owner.
 - 5) Forward permanent cylinders/cores to Owner, separately from keys, by means as directed by Owner.
- e. Quantity: Furnish in the following quantities.
- 1) Permanent Control Keys: 3.
 - 2) Master Keys: 6.
 - 3) Change (Day) Keys: 3 per cylinder/core that is keyed differently
 - 4) Key Blanks: Quantity as determined in the keying meeting.

2.10 KEY CONTROL SYSTEM

A. Manufacturers:

1. Scheduled Manufacturer:
 - a. Per Owner's request

2.11 DOOR CLOSERS

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product:
 - a. Falcon SC70A series
2. Acceptable Manufacturers and Products:
 - a. No Substitute, match previous phases

B. Requirements:

1. Provide door closers conforming to ANSI/BHMA A156.4 Grade 1 requirements by BHMA certified independent testing laboratory. ISO 9000 certify closers. Stamp units with date of manufacture code.
2. Provide door closers with fully hydraulic, full rack and pinion action with aluminum cylinder.
3. Closer Body: 1-1/2-inch (38 mm) diameter with 5/8-inch (16 mm) diameter heat-treated pinion journal.
4. Hydraulic Fluid: Fireproof, passing requirements of UL10C, and requiring no seasonal closer adjustment for temperatures ranging from 120 degrees F to -30 degrees F.
5. Spring Power: Continuously adjustable over full range of closer sizes, and providing reduced opening force as required by accessibility codes and standards.
6. Hydraulic Regulation: By tamper-proof, non-critical valves, with separate adjustment for latch speed, general speed, and backcheck.
7. Pressure Relief Valve (PRV) Technology: Not permitted.
8. Provide special templates, drop plates, mounting brackets, or adapters for arms as required for details, overhead stops, and other door hardware items interfering with closer mounting.

2.12 DOOR CLOSERS

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product:
 - a. Falcon SC80A series
2. Acceptable Manufacturers and Products:
 - a. No Substitute, match previous phases

B. Requirements:

1. Provide door closers conforming to ANSI/BHMA A156.4 Grade 1 requirements by BHMA certified independent testing laboratory.
2. Provide door closers with fully hydraulic, full rack and pinion action with aluminum cylinder.
3. Closer Body: 1-1/4-inch (32 mm) diameter, with 5/8-inch (16 mm) diameter heat-treated pinion journal.
4. Hydraulic Fluid: Fireproof, passing requirements of UL10C, and requiring no seasonal closer adjustment for temperatures ranging from 120 degrees F to -30 degrees F.
5. Spring Power: Continuously adjustable over full range of closer sizes, and providing reduced opening force as required by accessibility codes and standards.
6. Hydraulic Regulation: By tamper-proof, non-critical valves, with separate adjustment for latch speed, general speed, and backcheck.
7. Pressure Relief Valve (PRV) Technology: Not permitted.
8. Provide special templates, drop plates, mounting brackets, or adapters for arms as required for details, overhead stops, and other door hardware items interfering with closer mounting.

2.13 PROTECTION PLATES

A. Manufacturers:

1. Scheduled Manufacturer:
 - a. Ives
2. Acceptable Manufacturers:
 - a. Trimco
 - b. Rockwood

B. Requirements:

1. Provide protection plates with a minimum of 0.050 inch (1 mm) thick, beveled four edges as scheduled. Furnish with sheet metal or wood screws, finished to match plates.
2. Sizes plates 2 inches (51 mm) less width of door on single doors, pairs of doors with a mullion, and doors with edge guards. Size plates 1 inch (25 mm) less width of door on pairs without a mullion or edge guards.
3. At fire rated doors, provide protection plates over 16 inches high with UL label.

2.14 OVERHEAD STOPS AND OVERHEAD STOP/HOLDERS

A. Manufacturers:

1. Scheduled Manufacturers:
 - a. Glynn-Johnson
2. Acceptable Manufacturers:
 - a. No Substitute, match previous phases

B. Requirements:

1. Provide overhead stop at any door where conditions do not allow for a wall stop or floor stop presents tripping hazard.

2.15 DOOR STOPS AND HOLDERS

A. Manufacturers:

1. Scheduled Manufacturer:
 - a. Ives
2. Acceptable Manufacturers:
 - a. Trimco
 - b. Rockwood

- B. Provide door stops at each door leaf:
 - 1. Provide wall stops wherever possible. Provide concave type where lockset has a push button of thumbturn.
 - 2. Where a wall stop cannot be used, provide universal floor stops.
 - 3. Where wall or floor stop cannot be used, provide overhead stop.
 - 4. Provide roller bumper where doors open into each other and overhead stop cannot be used.

2.16 THRESHOLDS, SEALS, DOOR SWEEPS, AUTOMATIC DOOR BOTTOMS, AND GASKETING

- A. Manufacturers:
 - 1. Scheduled Manufacturer:
 - a. Zero International
 - 2. Acceptable Manufacturers:
 - a. National Guard
 - b. Pemko
- B. Requirements:
 - 1. Provide thresholds, weather-stripping, and gasketing systems as specified and per architectural details. Match finish of other items.
 - 2. Smoke- and Draft-Control Door Assemblies: Where smoke- and draft-control door assemblies are required, provide door hardware that meets requirements of assemblies tested according to UL 1784 and installed in compliance with NFPA 105.
 - 3. Provide door sweeps, seals, astragals, and auto door bottoms only of type where resilient or flexible seal strip is easily replaceable and readily available.
 - 4. Size thresholds 1/2 inch (13 mm) high by 5 inches (127 mm) wide by door width unless otherwise specified in the hardware sets or detailed in the drawings.

2.17 SILENCERS

- A. Manufacturers:
 - 1. Scheduled Manufacturer:
 - a. Ives
 - 2. Acceptable Manufacturers:
 - a. Rockwood
 - b. Trimco
- B. Requirements:
 - 1. Provide "push-in" type silencers for hollow metal or wood frames.
 - 2. Provide one silencer per 30 inches (762 mm) of height on each single frame, and two for each pair frame.
 - 3. Omit where gasketing is specified.

2.18 MAGNETIC HOLDERS

- A. Manufacturers:
 - 1. Scheduled Manufacturer:
 - a. LCN
 - 2. Acceptable Manufacturers:
 - a. No Substitute, match previous phases
- B. Requirements:

1. Provide wall or floor mounted electromagnetic door release as specified with minimum of 25 pounds of holding force. Coordinate projection of holder and armature with other hardware and wall conditions to ensure that door sits parallel to wall when fully open. Connect magnetic holders on fire-rated doors into the fire control panel for fail-safe operation.

2.19 FINISHES

- A. FINISH: BHMA 626/652 (US26D); EXCEPT:
1. Hinges at Exterior Doors: BHMA 630 (US32D)
 2. Aluminum Geared Continuous Hinges: BHMA 628 (US28)
 3. Push Plates, Pulls, and Push Bars: BHMA 630 (US32D)
 4. Protection Plates: BHMA 630 (US32D)
 5. Overhead Stops and Holders: BHMA 630 (US32D)
 6. Door Closers: Powder Coat to Match
 7. Wall Stops: BHMA 630 (US32D)
 8. Latch Protectors: BHMA 630 (US32D)
 9. Weatherstripping: Clear Anodized Aluminum
 10. Thresholds: Mill Finish Aluminum

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Prior to installation of hardware, examine doors and frames, with Installer present, for compliance with requirements for installation tolerances, labeled fire-rated door assembly construction, wall and floor construction, and other conditions affecting performance. Verify doors, frames, and walls have been properly reinforced for hardware installation.
- B. Examine roughing-in for electrical power systems to verify actual locations of wiring connections before electrified door hardware installation.
- C. Submit a list of deficiencies in writing and proceed with installation only after unsatisfactory conditions have been corrected.

3.02 INSTALLATION

- A. Mount door hardware units at heights to comply with the following, unless otherwise indicated or required to comply with governing regulations.
1. Standard Steel Doors and Frames: ANSI/SDI A250.8.
 2. Custom Steel Doors and Frames: HMMA 831.
 3. Interior Architectural Wood Flush Doors: ANSI/WDMA I.S. 1A
 4. Installation Guide for Doors and Hardware: DHI TDH-007-20
- B. Install door hardware in accordance with NFPA 80, NFPA 101 and provide post-install inspection, testing as specified in section 1.03.E unless otherwise required to comply with governing regulations.
- C. Install each hardware item in compliance with manufacturer's instructions and recommendations, using only fasteners provided by manufacturer.
- D. Do not install surface mounted items until finishes have been completed on substrate. Protect all installed hardware during painting.
- E. Set units level, plumb and true to line and location. Adjust and reinforce attachment substrate as necessary for proper installation and operation.
- F. Drill and countersink units that are not factory prepared for anchorage fasteners. Space fasteners and anchors according to industry standards.

- G. Install operating parts so they move freely and smoothly without binding, sticking, or excessive clearance.
- H. Hinges: Install types and in quantities indicated in door hardware schedule but not fewer than quantity recommended by manufacturer for application indicated.
- I. Lock Cylinders:
 - 1. Install construction cores to secure building and areas during construction period.
 - 2. Replace construction cores with permanent cores as indicated in keying section.
 - 3. Furnish permanent cores to Owner for installation.
- J. Wiring: Coordinate with Division 26, ELECTRICAL and Division 28 ELECTRONIC SAFETY AND SECURITY sections for:
 - 1. Conduit, junction boxes and wire pulls.
 - 2. Connections to and from power supplies to electrified hardware.
 - 3. Connections to fire/smoke alarm system and smoke evacuation system.
 - 4. Connection of wire to door position switches and wire runs to central room or area, as directed by Architect.
 - 5. Connections to panel interface modules, controllers, and gateways.
 - 6. Testing and labeling wires with Architect's opening number.
- K. Key Control System: Tag keys and place them on markers and hooks in key control system cabinet, as determined by final keying schedule.
- L. Continuous Hinges: Re-locate the door and frame fire rating labels where they will remain visible so that the hinge does not cover the label once installed.
- M. Door Closers & Auto Operators: Mount closers/operators on room side of corridor doors, inside of exterior doors, and stair side of stairway doors from corridors. Mount closers/operators so they are not visible in corridors, lobbies and other public spaces unless approved by Architect.
- N. Overhead Stops/Holders: Mount overhead stops/holders on room side of corridor doors, inside of exterior doors, and stair side of stairway doors.
- O. Power Supplies: Locate power supplies as indicated or, if not indicated, above accessible ceilings or in equipment room, or alternate location as directed by Architect.
- P. Thresholds: Set thresholds in full bed of sealant complying with requirements specified in Division 07 Section "Joint Sealants."
- Q. Stops: Provide floor stops for doors unless wall or other type stops are indicated in door hardware schedule. Do not mount floor stops where they may impede traffic or present tripping hazard.
- R. Perimeter Gasketing: Apply to head and jamb, forming seal between door and frame.
- S. Meeting Stile Gasketing: Fasten to meeting stiles, forming seal when doors are closed.
- T. Door Bottoms and Sweeps: Apply to bottom of door, forming seal with threshold when door is closed.

3.03 ADJUSTING

- A. Initial Adjustment: Adjust and check each operating item of door hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate as intended. Adjust door control devices to compensate for final operation of heating and ventilating equipment and to comply with referenced accessibility requirements.
 - 1. Spring Hinges: Adjust to achieve positive latching when door can close freely from an open position of 30 degrees.
 - 2. Electric Strikes: Adjust horizontal and vertical alignment of keeper to properly engage lock bolt.
 - 3. Door Closers: Adjust sweep period to comply with accessibility requirements and requirements of authorities having jurisdiction.

- B. Occupancy Adjustment: Approximately three to six months after date of Substantial Completion, examine and readjust each item of door hardware, including adjusting operating forces, as necessary to ensure function of doors and door hardware.

3.04 CLEANING AND PROTECTION

- A. Clean adjacent surfaces soiled by door hardware installation.
- B. Clean operating items per manufacturer's instructions to restore proper function and finish.
- C. Provide final protection and maintain conditions that ensure door hardware is without damage or deterioration at time of Substantial Completion.

3.05 DOOR HARDWARE SCHEDULE

- A. The intent of the hardware specification is to specify the hardware for interior and exterior doors, and to establish a type, continuity, and standard of quality. However, it is the door hardware supplier's responsibility to thoroughly review existing conditions, schedules, specifications, drawings, and other Contract Documents to verify the suitability of the hardware specified.
- B. Discrepancies, conflicting hardware, and missing items are to be brought to the attention of the architect with corrections made prior to the bidding process. Omitted items not included in a hardware set should be scheduled with the appropriate additional hardware required for proper application.
- C. Hardware items are referenced in the following hardware schedule. Refer to the above specifications for special features, options, cylinders/keying, and other requirements.
- D. Hardware Sets:

125282 OPT0391952 Version 1

Legend:

-  Link to catalog cut sheet
-  Electrified Opening

Hardware Group No. 02

For use on Door #(s):

336

Provide each door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1 4.5 X 4.5		652	IVE
1	EA	STOREROOM LOCK	W581H DAN		626	FAL
1	EA	SFIC CORE	BEST SMALL B KEYWAY FORMAT - 7 PIN		626	FAL
1	EA	OH STOP	450S		652	GLY
1	EA	SURFACE CLOSER	SC81A REG OR PA AS REQ		689	FAL
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
3	EA	SILENCER	SR64		GRY	IVE

PROVIDE WALL STOP IF IT CAN BE INSTALLED
 VERIFY DOOR BOTTOM RAIL AND PROVIDE KICK PLATE ACCOMMODATING BOTTOM RAIL HEIGHT AT TYPE "A" DOOR

Hardware Group No. 02A

For use on Door #(s):

338

Provide each door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1 4.5 X 4.5		652	IVE
1	EA	STOREROOM LOCK	W581H DAN		626	FAL
1	EA	SFIC CORE	BEST SMALL B KEYWAY FORMAT - 7 PIN		626	FAL
1	EA	OH STOP	450S		652	GLY
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
3	EA	SILENCER	SR64		GRY	IVE

PROVIDE WALL STOP IF IT CAN BE INSTALLED

Hardware Group No. 02B

For use on Door #(s):

318

Provide each door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1 4.5 X 4.5		652	IVE
1	EA	STOREROOM LOCK	W581H DAN		626	FAL
1	EA	SFIC CORE	BEST SMALL B KEYWAY FORMAT - 7 PIN		626	FAL
1	EA	SURFACE CLOSER	SC81A REG OR PA AS REQ		689	FAL
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	WALL STOP	WS406/407CCV		630	IVE
3	EA	SILENCER	SR64		GRY	IVE

Hardware Group No. 04

For use on Door #(s):

320

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1 4.5 X 4.5		652	IVE
<u>1</u>	<u>EA</u>	<u>ENTRY / OFFICE LOCK</u>	<u>W511H DAN</u>		<u>626</u>	<u>FAL</u>
1	EA	SFIC CORE	BEST SMALL B KEYWAY FORMAT - 7 PIN		626	FAL
1	EA	SURFACE CLOSER	SC81A REG OR PA AS REQ		689	FAL
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	WALL STOP	WS406/407CCV		630	IVE
3	EA	SILENCER	SR64		GRY	IVE

VERIFY DOOR BOTTOM RAIL AND PROVID KICK PLATE ACCOMMODATING BOTTOM RAIL HEIGHT AT TYPE "A" DOOR

Hardware Group No. 04A

For use on Door #(s):

310 317 319 321 324 331
 332 341

Provide each door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1 4.5 X 4.5		652	IVE
1	EA	CLASSROOM LOCK	W561H DAN		626	FAL
1	EA	SFIC CORE	BEST SMALL B KEYWAY FORMAT - 7 PIN		626	FAL
<u>1</u>	<u>EA</u>	<u>NO CUT ELECTRIC STRIKE</u>	<u>NC450 12/24 VDC</u>		<u>630</u>	<u>LOC</u>
1	EA	OH STOP	450S		652	GLY
1	EA	SURFACE CLOSER	SC81A REG OR PA AS REQ		689	FAL
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	GASKETING	188SBK PSA		BK	ZER

VERIFY DOOR BOTTOM RAIL AND PROVIDE KICK PLATE ACCOMMODATING BOTTOM RAIL HEIGHT AT TYPE "A" DOOR
 PROVIDE WALL STOP IF IT CAN BE INSTALLED

Hardware Group No. 04B

For use on Door #(s):

335 337 341

Provide each door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
4	EA	HINGE	5BB1 4.5 X 4.5		652	IVE
1	EA	CLASSROOM LOCK	W561H DAN		626	FAL
1	EA	SFIC CORE	BEST SMALL B KEYWAY FORMAT - 7 PIN		626	FAL
1	EA	SURFACE CLOSER	SC71A REG OR PA AS REQ		689	FAL
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	WALL STOP	WS406/407CCV		630	IVE
1	EA	GASKETING	188SBK PSA		BK	ZER

VERIFY DOOR BOTTOM RAIL AND PROVIDE KICK PLATE ACCOMMODATING BOTTOM RAIL HEIGHT AT TYPE "A" DOOR
 PROVIDE FOUR HINGES AT DOORS OVER 36" WIDE

Hardware Group No. 06

For use on Door #(s):

322 340

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1 4.5 X 4.5		652	IVE
1	EA	<u>STOREROOM LOCK</u>	<u>W581H DAN</u>		<u>626</u>	<u>FAL</u>
1	EA	SFIC CORE	BEST SMALL B KEYWAY FORMAT - 7 PIN		626	FAL
1	EA	<u>NO CUT ELECTRIC STRIKE</u>	<u>NC450 12/24 VDC</u>		↗ 630	<u>LOC</u>
1	EA	SURFACE CLOSER	SC81A REG OR PA AS REQ		689	FAL
1	EA	WALL STOP	WS406/407CCV		630	IVE
3	EA	SILENCER	SR64		GRY	IVE

OPERATION:

DOOR IS NORMALLY LATCHED AND SECURED

PRESENTING VALID CREDENTIAL TEMPORARILY RELEASES STRIKE FOR ENTRY

DOOR IS SECURED UPON LOSS OF POWER TO THE STRIKE

FREE EGRESS AT ALL TIMES

Hardware Group No. 06A

For use on Door #(s):

324 329

Provide each door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1 4.5 X 4.5		652	IVE
1	EA	ENTRY / OFFICE LOCK	W511H DAN		626	FAL
1	EA	SFIC CORE	BEST SMALL B KEYWAY FORMAT - 7 PIN		626	FAL
1	EA	SURFACE CLOSER	SC81A REG OR PA AS REQ		689	FAL
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	WALL STOP	WS406/407CCV		630	IVE
3	EA	SILENCER	SR64		GRY	IVE

VERIFY DOOR BOTTOM RAIL AND PROVIDE KICK PLATE ACCOMMODATING BOTTOM RAIL HEIGHT AT TYPE "A" DOOR

Hardware Group No. 06B

For use on Door #(s):

309

Provide each door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1 4.5 X 4.5		652	IVE
1	EA	PASSAGE LATCH	W101 DAN		626	FAL
4	EA	SFIC CORE	BEST SMALL B KEYWAY FORMAT - 7 PIN		626	FAL
1	EA	SURFACE CLOSER	SC81A SS		689	FAL
1	EA	GASKETING	188SBK PSA		BK	ZER

Hardware Group No. 06C

For use on Door #(s):

311 313 314 **339**

Provide each door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1 4.5 X 4.5		652	IVE
1	EA	PASSAGE LATCH	W101 DAN		626	FAL
4	EA	SFIC CORE	BEST SMALL B KEYWAY FORMAT -		626	FAL
			7 PIN			
1	EA	GASKETING	188SBK PSA		BK	ZER

Hardware Group No. 07A

For use on Door #(s):

308 330 333

Provide each door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1 4.5 X 4.5		652	IVE
1	EA	FIRE EXIT HARDWARE	F-25-R-L-BE-DANE		626	FAL
1	EA	SURFACE CLOSER	SC71A REG OR PA AS REQ		689	FAL
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	MAGNET	SEM7850 12V/24V/120V	 ⚡	689	LCN
1	EA	GASKETING	188SBK PSA		BK	ZER

FIELD VERIFY EXISTING DOOR, FRAME AND HARDWARE CONDITIONS, AND PROVIDE HARDWARE AS NECESSARY

MAG HOLDER IS SPECIFIED PER REQUIREMENT AT DOOR #301/401 FROM PHASE 4. VERIFY CONNECT MAGNETIC DOOR HOLDER TO FIRE ALARM SYSTEM

VEIRFY DOOR #333 SWINGING DIRECTION. HARDWARE IS FOR OUT SWINGING DOOR

OPERATION:

DOOR MAY BE HELD OPEN WITH MAGNETIC DOOR HOLDER

DOOR IS CLOSED AND LATCHED UPON ACTIVATION OF FIRE ALARM SYSTEM, OR LOSS OF POWER TO THE MAGNETIC DOOR HOLDER

Hardware Group No. 08

For use on Door #(s):

315 323

Provide each door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1 4.5 X 4.5 NRP		652	IVE
1	EA	STOREROOM LOCK	W581H DAN		626	FAL
1	EA	SFIC CORE	BEST SMALL B KEYWAY FORMAT - 7 PIN		626	FAL
1	EA	NO CUT ELECTRIC STRIKE	NC450 12/24 VDC		630	LOC
1	EA	SURFACE CLOSER	SC81A REG OR PA AS REQ		689	FAL
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	WALL STOP	WS406/407CCV		630	IVE
1	EA	GASKETING	188SBK PSA		BK	ZER
1	EA	MULTITECH READER	BY SECURITY CONTRACTOR		BLK	SCE
1	EA	POWER SUPPLY	BY SECURITY CONTRACTOR			VON

OMIT WALL STOP IF IT CAN'T BE INSTALLED
 INSTALL HARDWARE FOR 180-DEGREE SWINGING DOOR
 PROVIDE PANIC DEVICE IF REQUIRED BY CODE AT DOOR #315
 VERIFY ACCESS CONTROL REQUIREMENT. CARD READER ADDED PER PHASE 4 REQUIREMENT AT ELEC.
 DOOR #310/#410.

OPERATION:
 DOOR IS NORMALLY LATCHED AND SECURED
 PRESENTING VALID CREDENTIAL TEMPORARILY RELEASES STRIKE FOR ENTRY
 DOOR IS SECURED UPON LOSS OF POWER TO THE STRIKE
 FREE EGRESS AT ALL TIMES

Hardware Group No. 09

For use on Door #(s):

325 327

Provide each door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1 4.5 X 4.5		652	IVE
1	EA	KEYED PRIVACY LOCK	ND52BD RHO OS-OCC		626	SCH
1	EA	SFIC CORE	BEST SMALL B KEYWAY FORMAT - 7 PIN		626	FAL
1	EA	SURFACE CLOSER	SC81A REG OR PA AS REQ		689	FAL
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	WALL STOP	WS406/407CCV		630	IVE
1	EA	GASKETING	188SBK PSA		BK	ZER

END OF SECTION

SECTION 10 43 00 - AED'S AND AED CABINETS

PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes:

1. Automated External Defibrillators (AED's)
2. AED Cabinets

B. Related Requirements:

1. Drawings and general provisions of the Contract including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
2. Section 01 33 00 – Submittal Procedures: For administrative and procedural requirements for processing of submittals during the construction phase.
3. Section 01 77 00 – Closeout Procedures: For administrative and procedural requirements for the completion of the Work.

1.02 REFERENCES

A. Reference Standards:

1. American Heart Association (AHA):
 - a. American Heart Association Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care - current Edition.
2. ASTM International (ASTM):
 - a. ASTM E814-11a, Standard Test Method for Fire Tests of Penetration Firestop Systems.
3. International Code Council (ICC):
 - a. International Building Code (IBC) - current Edition.
6. Underwriters Laboratories, Inc. (UL)

1.03 ACTION SUBMITTALS

A. Submit in accordance with Section 01 33 00:

1. Product Data:
 - a. Automated External Defibrillator (AED): Choose from an FDA-approved model or local government approved model for schools, public spaces including sports arenas, ball fields, and parks.
 - b. Cabinets: Materials description for defibrillator cabinets include roughing-in dimensions, details showing mounting methods, relationships to surrounding construction, door hardware, cabinet type and materials, trim style and door construction, door style and materials.
 - c. Installation instructions for each product specified.
2. Shop Drawings:
 - a. Small-scale plans showing locations of defibrillator cabinets.
 - b. Schedules showing each type of cabinet to ensure proper fit and function.
 - c. Indicate installation procedures and accessories required for a complete installation.
3. Samples:
 - a. Defibrillator Cabinet Door and Trim Finishes: For each type of exposed finish required, prepared on samples of size indicated below:
 - 1) Size: 6 inches (150 mm) square.

1.04 QUALITY ASSURANCE

- A. Comply with standards referenced in Article 1.02 - REFERENCES.
- B. Provide cabinets and accessories produced by a single manufacturer.
- C. Fire-Rated, Defibrillator Cabinets: Listed and labeled to comply with requirements in ASTM E814 for fire-resistance rating of walls where they are installed.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, and protect defibrillator cabinets, AED's and related materials using means and methods that will prevent damage, deterioration, or loss.
 1. Deliver components in manufacturer's original packaging, properly labeled for identification.

1.06 WARRANTY

- A. Cabinets Manufacturer's Warranty: Provide manufacturer's standard warranty. Materials shall be free of defects in material and workmanship for a period of one year from the date of purchase.
- B. AED's: See manufacturer's warranty.

PART 2 - PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

- A. Acceptable Manufacturers:

JL Industries - Part of Activar Construction Products Group, Inc.
9702 Newton Ave. S.
Bloomington, MN 55431
(800) 554-6077
<https://www.activarcpg.com>

- B. Substitutions: Manufacturers seeking approval of their products are required to comply with the Owner's Instructions to Bidders, generally contained in the Project Manual.

2.02 AUTOMATED EXTERNAL DIFIBRILLATORS

- A. AED Model:

- 1. AED Model: Heartsine Samaritan Public Access Defibrillator PAD-450P
Components:
 - a) AED
 - b) Battery and Electrodes
 - c) Storage case

2.03 1400 LIFESTART SERIES AED CABINETS

- A. Cabinet with Steel Trim and Door: 1400 Lifestart™ Series, Model 1417F12.

- 1. Cabinet Style: Semi-recessed.
- 2. Components:
 - a. Tub: Cold-rolled steel.
 - 1) Finish: Factory-applied powder coat paint finish.
 - a) Standard Color: White
 - a. Door and Trim Construction: Cold-rolled steel; flush doors with 5/8 inch (15.88 mm) doorstop attached by continuous hinge and equipped with zinc-plated with roller catch.
 - b. Glazing: Clear Acrylic Full Glazing with Saf-T-Lok
 - c. Flush Pull Handle (includes AED die cut and decal)
- b. Trim Dimensions: 1-3/4 inch (44.45 mm) face trim on door and frame.
 - 1) Finish: Factory-applied powder coat paint finish.
 - a) Standard Color: White.
 - b) Trim Style and Depth: Rolled Edge
 - 2) Semi-Recessed Cabinet:
 - b) Rolled Edge: 3 inches (76.20 mm).
- 3. Fire-Rating: Fire-Rated for 1-hour and 2-hour combustible and noncombustible wall systems.
- 4. Wall Signs and Cabinet Lettering:
 - a. AED wall signs.14S
 - b. Red Silkscreen Lettering (Standard)

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Examine walls and partitions for suitable framing depth and blocking where recessed and semi-recessed cabinets will be installed and blocking where surface mounted cabinets will be installed.
 - 1. Notify the Contractor in writing of conditions detrimental to proper and timely completion of the installation.
 - 2. Proceed with installation only after unsatisfactory conditions have been corrected.

3.02 INSTALLATION

- A. Install cabinets in locations and at mounting heights indicated, or if not indicated, at heights to comply with applicable regulations of governing authorities.
 - 1. Prepare recesses in walls for defibrillator cabinets as required by type and size of cabinet and style of trim and to comply with manufacturer's instructions.
 - 2. Securely fasten cabinets to structure, square and plumb, to comply with manufacturer's instructions.
 - 3. Maintain fire ratings where cabinets are recessed into fire-rated wall systems.
- B. Wall Signs:
 - 1. Location: Where shown or directed.
 - 2. Apply on walls after field painting is completed and has been accepted.
- C. Cabinet Lettering:
 - 1. Location: Face of glass surface.
 - 2. Apply lettering on field-painted cabinets after painting is complete and has been accepted.

3.03 ADJUSTING AND CLEANING

- A. Remove temporary protective coverings and strippable films, if any, as defibrillator cabinets are installed unless otherwise indicated in manufacturer's written installation instructions.
- B. Adjust cabinet doors to operate easily without binding. Verify that integral locking devices operate properly.
- C. On completion of cabinet installation, clean interior and exterior surfaces as recommended by manufacturer.
- D. Touch up marred finishes or replace cabinets that cannot be restored to factory-finished appearance. Use only materials and procedures recommended or furnished by cabinet manufacturer.
- E. Replace cabinets that have been damaged or have deteriorated beyond successful repair by finish touchup or similar minor repair procedures.

END OF SECTION

SECTION 102123 - PRIVACY CURTAINS AND TRACK

PART 1 - GENERAL

1.1 SUMMARY

- A. Related Sections:
 - 1. Section 095100 – Acoustical Ceilings.

1.2 SUBMITTALS

- A. General: Submit in accordance with Section 013300.
- B. Product Data:
 - 1. Submit manufacturer's technical literature for each item or component part.
 - 2. Include catalog cuts for manufacturer's standard fixtures, finishes, and other similar components.
- C. Shop Drawings:
 - 1. Submit shop drawings and schedules indicating areas to receive curtain cubicles and tracks.
 - 2. Indicate installation details including supporting framework and fastenings.
- D. Samples:
 - 1. Submit complete sample assembly of each type track including carrier assemblies, end stop fittings, snap out fittings, and fasteners.
 - 2. Submit sample swatches of curtain materials specified for approval and color selections.
- E. Manufacturer's Instructions: Submit descriptive literature indicating installation methods and procedures.
- F. Maintenance Data: Provide data in accordance with Section 017800.

1.3 QUALITY ASSURANCE

- A. Single Source Responsibility: Obtain components from single manufacturer, including accompanying accessories necessary for mounting and operation, unless specifically indicated otherwise.

1.4 FIELD SAMPLES

- A. General: Comply with provisions of Section 014500.
- B. Install curtain tracks, complete with curtains, hardware, and accessories, in room or space where directed.

1.5 DELIVERY, STORAGE, AND HANDLING

- A.
- B. Comply with requirements of Section 016000.
- C. Do not deliver tracks and accessories until building is enclosed, work in ceiling areas are substantially complete, and installation ready to proceed.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturers, Tracks and Curtains:
 - 1. C/S Cubicle Curtains, a Division of Construction Specialties Inc.
 - 2. Inpro Corporation.
 - 3. Imperial Privacy Systems.

- B. Acceptable Manufacturers, Curtains:
 1. Architex.
 2. C/S Cubicle Curtains, a Division of Construction Specialties Inc.
 3. Inpro Corporation.
 4. Imperial Privacy Systems.
 5. Knoll.
 6. Maharam.

2.2 COMPONENTS

- A. Cubicle Tracks: Surface-mounted tracks of heavy extruded aluminum alloy 6063-T4, 1 3/8" x 3/4", slotted to receive roller carriers, complete with accessories and components required for complete and secure installations including splices, end caps and corner bends.
- B. Corner Bends: Corner bends up to 36" radius are to be fabricated in one continuous "L" shape. Radiuses above 36" to be continuous or spliced based on room condition.
- C. Finish: White powder coated finish.
- D. Carriers:
 1. Virgin nylon axle with nylon wheels complete with nickel-plated brass bead-chain, and aluminum hook assembly.
 2. Provide one carrier for each 6" of cubicle curtain width.
- E. Accessories: Provide track accessories mated to track.
 1. End Stop Fittings: One for each track termination.
 2. Splicers.
 3. Snap Out Fittings: 1 per track.
- F. Cubicle Curtains:
 1. Closely woven 100 percent inherently flame-resistant polyester; 100 percent washable
 2. Use only permanent vat dyes to ensure fast colors.
 3. Design: As selected by Architect from manufacturer's full product line of fabrics.
 4. Color: As selected by Architect from manufacturer's full product line of fabrics.
 5. Fabrication:
 - a. Fabricate top hem with triple thickness of material; 1-1/2 inch wide.
 - b. Provide rust proof metal grommets spaced 6-inch OC along top hem.
 - c. Sew cloth label on top hem to identify curtain size.
 - d. Fabricate bottom hem with double thickness; 1-1/4 inch wide.
 - e. Interlock and double needle stitch seams.
 - f. Fabricate curtains at least 6 inches wider than track length.
 - g. Extend curtains down from track to within 15 inches of finished floor.
 - h. Furnish upper section of curtain with neutral shade nylon mesh ventilation panel from ceiling down to 84 inches above finished floor, sewn to curtain material.
 6. Provide bead chain tieback for each curtain at each termination.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine conditions and proceed with Work in accordance with Section 017300.
- B. Ensure construction, painting, finishing, and clean-up is substantially complete in installation area to avoid damage.

3.2 PREPARATION

- A. Verify that proper provisions are made for the installation of tracks.

3.3 INSTALLATION

- A. Install in accordance with Section 017300 and approved shop drawings.
- B. Tracks:
 - 1. Fasten tracks 24 inches OC maximum.
 - 2. Install with sufficient strength to ensure trouble-free operation under normal usage.
 - 3. Surface mount tracks and support from structure and partitions.
 - 4. Locate supporting members so that track connection to supporting member occurs beside ceiling system member.
- C. Cubicle Curtains: Install cubicle curtains on curtain tracks prior to final inspection.

3.4 ADJUSTING

- A. Upon completion, adjust carriers to operate freely and hang curtains properly.

3.5 CLEANING

- A. Clean as recommended by manufacturer. Do not use materials or methods which may damage finish or surrounding construction.

3.6 DEMONSTRATION

- A. Arrange demonstration of curtain and track operation to Owner's representative at time mutually agreeable.
- B. Manufacturer's representative shall also instruct Owner's designated personnel in complete operation and maintenance of installed system.

3.7 PROTECTION

- A. Protect finished work in accordance with Section 017300.

END OF SECTION

SECTION 10 28 00 - TOILET, BATH, AND LAUNDRY ACCESSORIES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Public-use washroom accessories.
 - 2. Underlavatory guards.
 - 3. **Childcare accessories**

1.2 ACTION SUBMITTALS

- A. Product data.
- B. Samples: For each exposed product and for each finish specified, full size.
 - 1. Approved full-size Samples will be returned and may be used in the Work.
- C. Delegated Design Submittals: For grab bars.
 - 1. Include structural design calculations indicating compliance with specified structural-performance requirements.

1.3 INFORMATIONAL SUBMITTALS

- A. Sample warranties.

1.4 CLOSEOUT SUBMITTALS

- A. Maintenance data.

1.5 WARRANTY

- A. Manufacturer's Special Warranty for Mirrors: Manufacturer agrees to repair or replace mirrors that fail in materials or workmanship within specified warranty period.
 - 1. Warranty Period: 15 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Structural Performance: Design accessories and fasteners to comply with the following requirements:
 - 1. Grab Bars: Installed units are able to resist 250 lbf (1112 N) concentrated load applied in any direction and at any point.

2.2 PUBLIC-USE WASHROOM ACCESSORIES

- A. Grab Bar (GB):
 - 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
 - a. AJW Architectural Products.
 - b. ASI-American Specialties, Inc.
 - c. Bobrick Washroom Equipment, Inc.
 - d. Bradley Corporation.
 - e. Gamco Commercial Restroom Accessories; Bobrick Washroom Equipment, Inc.
 - 2. Mounting: Flanges with concealed fasteners.
 - 3. Material: Stainless steel, 0.05 inch (1.3 mm) thick.
 - a. Finish: Smooth, ASTM A480/A480M No. 4 finish (satin).
 - 4. OD: 1-1/2 inches (38 mm).
 - 5. Configuration and Length: As indicated on Drawings.

B. Mirror Unit (MIRR):

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
 - a. AJW Architectural Products.
 - b. ASI-American Specialties, Inc.
 - c. Bobrick Washroom Equipment, Inc.
 - d. Bradley Corporation.
 - e. Gamco Commercial Restroom Accessories; Bobrick Washroom Equipment, Inc.
 - f. Seawin Hospitality; Seawin Global.
2. Frame: Stainless steel angle, 0.05 inch (1.3 mm) thick.
 - a. Corners: Manufacturer's standard.
3. Size: As indicated on Drawings.
4. Hangers: Manufacturer's standard rigid, tamper and theft resistant.

C. Hook:

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
 - a. AJW Architectural Products.
 - b. ASI-American Specialties, Inc.
 - c. Bobrick Washroom Equipment, Inc.
 - d. Bradley Corporation.
 - e. Gamco Commercial Restroom Accessories; Bobrick Washroom Equipment, Inc.
2. Basis-of-Design: Bobrick B-9542 Surface-Mounted Coat Hook
3. Description: Single-prong unit.
4. Mounting: Concealed.
5. Material and Finish: Stainless steel, ASTM A480/A480M No. 4 finish (satin).
6. Provide two in each restroom.

2.3 UNDERLAVATORY GUARDS

A. Underlavatory Guard:

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
 - a. Buckaroos, Inc.
 - b. Plumberex Specialty Products, Inc.
 - c. Truebro; IPS Corporation.
2. Description: Insulating pipe covering for supply and drain piping assemblies that prevents direct contact with and burns from piping; allow service access without removing coverings.
3. Material and Finish: Antimicrobial, molded plastic, white.

2.4 CHILDCARE ACCESSORIES

A. Diaper-Changing Station (DC):

1. Description: Horizontal unit that opens by folding down from stored position and with child-protection strap.
 - a. Engineered to support minimum of 250 lb (113 kg) static load when opened.
2. Mounting: Surface mounted, with unit projecting not more than 4 inches (102 mm) from wall when closed.
3. Operation: By pneumatic shock-absorbing mechanism.
4. Material and Finish: HDPE with plastic-laminate insert in color selected by Architect.
5. Liner Dispenser: Provide built-in dispenser for disposable sanitary liners.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Install accessories in accordance with manufacturers' written instructions, using fasteners appropriate to substrate indicated and recommended by unit manufacturer. Install units level, plumb, and firmly anchored in locations and at heights indicated.
 - 1. Remove temporary labels and protective coatings.

- B. Grab Bars: Install to comply with specified structural-performance requirements.

END OF SECTION 10 28 00

SECTION 230900 INSTRUMENTATION AND CONTROLS FOR HVAC

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Provide the necessary upgrades and components to control the new VAV boxes. Provide the new Struxureware controls and match existing sequence.
- B. This Section includes control equipment for HVAC systems and components, including control components for terminal heating and cooling units not supplied with factory-wired controls.

1.3 DEFINITIONS

- A. DDC: Direct digital control.
- B. I/O: Input/output.
- C. LonWorks: A control network technology platform for designing and implementing interoperable control devices and networks.
- D. MS/TP: Master slave/token passing.
- E. PC: Personal computer.
- F. PID: Proportional plus integral plus derivative.
- G. RTD: Resistance temperature detector.

1.4 SUBMITTALS

- A. Product Data: Include manufacturer's technical literature for each control device. Indicate dimensions, capacities, performance characteristics, electrical characteristics, finishes for materials, and installation and startup instructions for each type of product indicated.
 - 1. DDC System Hardware: Bill of materials of equipment indicating quantity, manufacturer, and model number. Include technical data for operator workstation equipment, interface equipment, control units, transducers/transmitters, sensors,

- actuators, valves, relays/switches, control panels, and operator interface equipment.
2. Control System Software: Include technical data for operating system software, operator interface, color graphics, and other third-party applications.
 3. Controlled Systems: Instrumentation list with element name, type of device, manufacturer, model number, and product data. Include written description of sequence of operation including schematic diagram.
- B. Shop Drawings: Detail equipment assemblies and indicate dimensions, weights, loads, required clearances, method of field assembly, components, and location and size of each field connection.
1. Bill of materials of equipment indicating quantity, manufacturer, and model number.
 2. Schematic flow diagrams showing fans, pumps, coils, dampers, valves, and control devices.
 3. Wiring Diagrams: Power, signal, and control wiring.
 4. Details of control panel faces, including controls, instruments, and labeling.
 5. Written description of sequence of operation.
 6. Schedule of dampers including size, leakage, and flow characteristics.
 7. Schedule of valves including flow characteristics.
 8. DDC System Hardware:
 - a. Wiring diagrams for control units with termination numbers.
 - b. Schematic diagrams and floor plans for field sensors and control hardware.
 - c. Schematic diagrams for control, communication, and power wiring, showing trunk data conductors and wiring between operator workstation and control unit locations.
 9. Control System Software: List of color graphics indicating monitored systems, data (connected and calculated) point addresses, output schedule, and operator notations.
 10. Controlled Systems:
 - a. Schematic diagrams of each controlled system with control points labeled and control elements graphically shown, with wiring.
 - b. Scaled drawings showing mounting, routing, and wiring of elements including bases and special construction.
 - c. Written description of sequence of operation including schematic diagram.
 - d. Points list.
- C. Data Communications Protocol Certificates: Certify that each proposed DDC system component complies with ASHRAE 135.
- D. Qualification Data: For Installer and manufacturer.
- E. Field quality-control test reports.
- F. Operation and Maintenance Data: For HVAC instrumentation and control system to include in emergency, operation, and maintenance manuals.

1.5 QUALITY ASSURANCE

- A. Installer Qualifications: Automatic control system manufacturer's authorized representative who is trained and approved for installation of system components required for this Project.
- B. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
- C. Comply with ASHRAE 135 for DDC system components.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Factory-Mounted Components: Where control devices specified in this Section are indicated to be factory mounted on equipment, arrange for shipping of control devices to equipment manufacturer.
- B. System Software: Update to latest version of software at Project completion.

1.7 COORDINATION

- A. Coordinate location of thermostats, humidistats, and other exposed control sensors with plans and room details before installation.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. In other Part 2 articles where titles below introduce lists, the following requirements apply to product selection:
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the manufacturers specified.

2.2 CONTROL SYSTEM

- A. Manufacturers:
 - 1. Struxureware by Utah Yamas Controls.
- B. Control system shall consist of sensors, indicators, actuators, final control elements, interface equipment, other apparatus, and accessories to control mechanical systems.

2.3 UNITARY CONTROLLERS

- A. Unitized, capable of stand-alone operation with sufficient memory to support its operating system, database, and programming requirements, and with sufficient I/O capacity for the application.

2.4 ELECTRONIC SENSORS

- A. Description: Vibration and corrosion resistant; for wall, immersion, or duct mounting as required.

2.5 ACTUATORS

- A. Electric Motors: Size to operate with sufficient reserve power to provide smooth modulating action or two-position action.
 - 1. Comply with requirements in Division 22 and 23 Section "Motors."
 - 2. Permanent Split-Capacitor or Shaded-Pole Type: Gear trains completely oil immersed and sealed. Equip spring-return motors with integral spiral-spring mechanism in housings designed for easy removal for service or adjustment of limit switches, auxiliary switches, or feedback potentiometer.
 - 3. Nonspring-Return Motors for Valves Larger Than NPS 2-1/2: Size for running torque of 150 in. x lbf and breakaway torque of 300 in. x lbf.
 - 4. Spring-Return Motors for Valves Larger Than NPS 2-1/2: Size for running and breakaway torque of 150 in. x lbf.
 - 5. Nonspring-Return Motors for Dampers Larger Than 25 Sq. Ft.: Size for running torque of 150 in. x lbf and breakaway torque of 300 in. x lbf.
 - 6. Spring-Return Motors for Dampers Larger Than 25 Sq. Ft.: Size for running and breakaway torque of 150 in. x lbf.
- B. Electronic Actuators: Direct-coupled type designed for minimum 60,000 full-stroke cycles at rated torque.
 - 1. Manufacturers:
 - a. Belimo Aircontrols (USA), Inc.
 - b. Or equal by.
 - 2. Valves: Size for torque required for valve close off at maximum pump differential pressure.

2.6 CONTROL VALVES

- A. Manufacturers:
 - 1. Danfoss Inc.; Air Conditioning & Refrigeration Div.
 - 2. Erie Controls.

3. Hayward Industrial Products, Inc.
4. Magnatrol Valve Corporation.
5. Neles-Jamesbury.
6. Parker Hannifin Corporation; Skinner Valve Division.
7. Pneuline Controls.
8. Sauter Controls Corporation.
9. Watson McDaniel
10. Or equal by.

- B. Control Valves: Factory fabricated, of type, body material, and pressure class based on maximum pressure and temperature rating of piping system, unless otherwise indicated.

2.7 CONTROL CABLE

- A. Electronic and fiber-optic cables for control wiring are specified in Division 26 Section "Voice and Data Communication Cabling."

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that conditioned power supply is available to control units and operator workstation.

3.2 INSTALLATION

- A. Install software in control units and operator workstation(s). Implement all features of programs to specified requirements and as appropriate to sequence of operation.
- B. Connect and configure equipment and software to achieve sequence of operation specified.
- C. Install labels and nameplates to identify control components according to Division 22 and 23 Section "Mechanical Identification."
- D. Install hydronic instrument wells, valves, and other accessories according to Division 22 Section "Hydronic Piping."

3.3 ELECTRICAL WIRING AND CONNECTION INSTALLATION

- A. Install raceways, boxes, and cabinets according to Division 26.
- B. Install building wire and cable according to Division 26.
- C. Install signal and communication cable according to Division 26.

1. Conceal cable, except in mechanical rooms and areas where other conduit and piping are exposed.
 2. Install exposed cable in raceway.
 3. Install concealed cable in raceway.
 4. Bundle and harness multiconductor instrument cable in place of single cables where several cables follow a common path.
 5. Fasten flexible conductors, bridging cabinets and doors, along hinge side; protect against abrasion. Tie and support conductors.
 6. Number-code or color-code conductors for future identification and service of control system, except local individual room control cables.
 7. Install wire and cable with sufficient slack and flexible connections to allow for vibration of piping and equipment.
- D. Connect manual-reset limit controls independent of manual-control switch positions. Automatic duct heater resets may be connected in interlock circuit of power controllers.
- E. Connect hand-off-auto selector switches to override automatic interlock controls when switch is in hand position.

3.4 FIELD QUALITY CONTROL

- A. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect field-assembled components and equipment installation, including connections, and to assist in field testing. Report results in writing.
- B. Replace damaged or malfunctioning controls and equipment and repeat testing procedures.

3.5 ADJUSTING

- A. Adjust initial set points.
- B. Occupancy Adjustments: When requested within 12 months of date of Substantial Completion, provide on-site assistance in adjusting system to suit actual occupied conditions. Provide up to three visits to Project during other than normal occupancy hours for this purpose.

3.6 DEMONSTRATION

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

END OF SECTION 230900

SECTION 221513 - GENERAL-SERVICE COMPRESSED-AIR PIPING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes piping and related specialties for general-service compressed-air systems operating at 200 psig or less.
- B. Related Sections include the following:
 - 1. Division 22 and 23 Section "General-Service Compressed-Air Equipment" for general-service air compressors and accessories.

1.3 DEFINITIONS

- A. ABS: Acrylonitrile-butadiene-styrene plastic.
- B. CR: Chlorosulfonated polyethylene synthetic rubber.
- C. EPDM: Ethylene-propylene-diene terpolymer rubber.
- D. HDPE: High-density polyethylene plastic.
- E. NBR: Acrylonitrile-butadiene rubber.
- F. PE: Polyethylene plastic.
- G. PVC: Polyvinyl chloride plastic.
- H. High-Pressure Compressed-Air Piping: System of compressed-air piping and specialties operating at pressures between 150 and 200 psig.
- I. Low-Pressure Compressed-Air Piping: System of compressed-air piping and specialties operating at pressures of 150 psig or less.

1.4 PERFORMANCE REQUIREMENTS

- A. Seismic Performance: Compressed-air piping and support and installation shall withstand effects of seismic events determined according to SEI/ASCE 7, "Minimum Design Loads for Buildings and Other Structures."

1.5 SUBMITTALS

- A. Product Data: For the following:
 - 1. Plastic pipes, fittings, and valves.
 - 2. Dielectric fittings.
 - 3. Flexible pipe connectors.
 - 4. Safety valves.
 - 5. Pressure regulators. Include rated capacities and operating characteristics.
 - 6. Automatic drain valves.
 - 7. Filters. Include rated capacities and operating characteristics.
 - 8. Lubricators. Include rated capacities and operating characteristics.
 - 9. Quick couplings.
 - 10. Hose assemblies.
- B. Brazing certificates.
- C. Qualification Data: For Installers.
- D. Field quality-control test reports.
- E. Operation and Maintenance Data: For general-service compressed-air piping specialties to include in operation, and maintenance manuals.

1.6 QUALITY ASSURANCE

- A. Installer Qualifications:
- B. Brazing: Qualify processes and operators according to ASME Boiler and Pressure Vessel Code: Section IX, "Welding and Brazing Qualifications," or to AWS B2.2, "Standard for Brazing Procedure and Performance Qualification."
- C. ASME Compliance:
 - 1. Comply with ASME B31.1, "Power Piping," for high-pressure compressed-air piping.
 - 2. Comply with ASME B31.9, "Building Services Piping," for low-pressure compressed-air piping.

1.7 PROJECT CONDITIONS

- A. Interruption of Existing Compressed-Air Service: Do not interrupt compressed-air service to facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary compressed-air service according to requirements indicated:
 - 1. Notify Owner no fewer than two days in advance of proposed interruption of compressed-air service.
 - 2. Do not proceed with interruption of compressed-air service without Owner's written permission.

PART 2 - PRODUCTS

2.1 PIPES, TUBES, AND FITTINGS

- A. Copper Tube: ASTM B 88, Type K or L seamless, drawn-temper, water tube.
 - 1. Wrought-Copper Fittings: ASME B16.22, solder-joint pressure type or MSS SP-73, wrought copper with dimensions for brazed joints.
 - 2. Cast-Copper-Alloy Flanges: ASME B16.24, Class 150 or 300.
 - 3. Copper Unions: ASME B16.22 or MSS SP-123.
 - 4. Press-Type Fittings, NPS 2 and Smaller: Wrought-copper fitting with EPDM O-ring seal in each end.
 - a. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1) Viega; Plumbing and Heating Systems.
 - 2) Prior approved equal.
 - 5. Press-Type Fittings, NPS 2-1/2 to NPS 4: Bronze fitting with stainless-steel grip ring and EPDM O-ring seal in each end.
 - a. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1) Viega; Plumbing and Heating Systems.
 - 2) Prior approved equal.

2.2 JOINING MATERIALS

- A. Pipe-Flange Gasket Materials: Suitable for compressed-air piping system contents.
 - 1. ASME B16.21, nonmetallic, flat, asbestos free, 1/8-inch maximum thickness unless thickness or specific material is indicated.
 - a. Full-Face Type: For flat-face, Class 125, cast-iron and cast-bronze flanges.
 - b. Narrow-Face Type: For raised-face, Class 250, cast-iron and steel flanges.
- B. Flange Bolts and Nuts: ASME B18.2.1, carbon steel, unless otherwise indicated.
- C. Brazing Filler Metals: AWS A5.8/A5.8M, BCuP Series, copper-phosphorus alloys for general-duty brazing, unless otherwise indicated.

2.3 VALVES

- A. Metal Ball, Butterfly, Check, Gate, and Globe Valves: Comply with requirements in Division 22 and 23 Section "Valves."

2.4 DIELECTRIC FITTINGS

- A. General Requirements for Dielectric Fittings: Combination fitting of copper alloy and ferrous materials with insulating material; suitable for system fluid, pressure, and temperature. Include threaded, solder-joint, plain, or weld-neck end connections that match piping system materials.
- B. Dielectric Unions: Factory-fabricated union assembly, for 250-psig minimum working pressure at 180 deg F.
 - 1. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - 2. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Capitol Manufacturing Company.
 - b. Central Plastics Company.
 - c. EPCO Sales, Inc.
 - d. Hart Industries International, Inc.
 - e. Watts Water Technologies, Inc.; Water Products Div.
 - f. Zurn Plumbing Products Group; Wilkins Div.
 - g. Prior approved equal.

2.5 FLEXIBLE PIPE CONNECTORS

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
- B. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. Flex-Hose Co., Inc.
 - 2. Flexicraft Industries.
 - 3. Hyspan Precision Products, Inc.
 - 4. Mercer Rubber Co.
 - 5. Metraflex, Inc.
 - 6. Proco Products, Inc.
 - 7. Unaflex, Inc.
 - 8. Universal Metal Hose; a Hyspan Company
 - 9. Prior approved equal.
- C. Bronze-Hose Flexible Pipe Connectors: Corrugated-bronze tubing with bronze wire-braid covering and ends brazed to inner tubing.
 - 1. Working-Pressure Rating: 200 psig minimum.
 - 2. End Connections, NPS 2 and Smaller: Threaded copper pipe or plain-end copper tube.
 - 3. End Connections, NPS 2-1/2 and Larger: Flanged copper alloy.

- D. Stainless-Steel-Hose Flexible Pipe Connectors: Corrugated-stainless-steel tubing with stainless-steel wire-braid covering and ends welded to inner tubing.
 - 1. Working-Pressure Rating: 200 psig minimum.
 - 2. End Connections, NPS 2 and Smaller: Threaded steel pipe nipple.
 - 3. End Connections, NPS 2-1/2 and Larger: Flanged steel nipple.

2.6 SLEEVES

- A. Galvanized-Steel Sheet: 0.0239-inch minimum thickness; round tube closed with welded longitudinal joint.
- B. Stack Sleeve Fittings: Manufactured, cast-iron sleeve with integral clamping flange. Include clamping ring and bolts and nuts for membrane flashing.
 - 1. Underdeck Clamp: Clamping ring with set screws.

2.7 ESCUTCHEONS

- A. General Requirements: Manufactured wall and ceiling escutcheons and floor plates, with ID to closely fit around pipe and tube and OD that completely covers opening.

2.8 SPECIALTIES

- A. Safety Valves: ASME Boiler and Pressure Vessel Code: Section VIII, "Pressure Vessels," construction; National Board certified, labeled, and factory sealed; constructed of bronze body with poppet-type safety valve for compressed-air service.
 - 1. Pressure Settings: Higher than discharge pressure and same or lower than receiver pressure rating.
- B. Air-Main Pressure Regulators: Bronze body, direct acting, spring-loaded manual pressure-setting adjustment, and rated for 250-psig inlet pressure, unless otherwise indicated.
 - 1. Type: Pilot operated.
- C. Automatic Drain Valves: Stainless-steel body and internal parts, rated for 200-psig minimum working pressure, capable of automatic discharge of collected condensate.
- D. Coalescing Filters: Coalescing type with activated carbon capable of removing water and oil aerosols; with color-change dye to indicate when carbon is saturated and warning light to indicate when selected maximum pressure drop has been exceeded. Include mounting bracket if wall mounting is indicated.
- E. Mechanical Filters: Two-stage, mechanical-separation-type, air-line filters. Equip with deflector plates, resin-impregnated-ribbon-type filters with edge filtration, and drain cock. Include mounting bracket if wall mounting is indicated.

2.9 QUICK COUPLINGS

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
- B. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. Aeroquip Corporation; Eaton Corp.
 - 2. Bowes Manufacturing Inc.
 - 3. Foster Manufacturing, Inc.
 - 4. Milton Industries, Inc.
 - 5. Parker Hannifin Corp.; Fluid Connectors Group; Quick Coupling Div.
 - 6. Rectus Corp.
 - 7. Schrader-Bridgeport; Amflo Div.
 - 8. Schrader-Bridgeport/Standard Thomson.
 - 9. Snap-Tite, Inc.; Quick Disconnect & Valve Division.
 - 10. TOMCO Products Inc.
 - 11. Tuthill Corporation; Hansen Coupling Div.
 - 12. Prior approved equal
- C. General Requirements for Quick Couplings: Assembly with locking-mechanism feature for quick connection and disconnection of compressed-air hose.
- D. Automatic-Shutoff Quick Couplings: Straight-through brass body with O-ring or gasket seal and stainless-steel or nickel-plated-steel operating parts.
- E. Valveless Quick Couplings: Straight-through brass body with stainless-steel or nickel-plated-steel operating parts.
 - 1. Socket End: With O-ring or gasket seal, without valve, and with barbed inlet for attaching hose.
 - 2. Plug End: With barbed outlet for attaching hose.

2.10 GROUT

- A. Description: ASTM C 1107, Grade B, nonshrink and nonmetallic, dry hydraulic-cement grout.
 - 1. Characteristics: Post-hardening, volume adjusting, nonstaining, noncorrosive, nongaseous, and recommended for interior and exterior applications.
 - 2. Design Mix: 5000-psi, 28-day compressive strength.
 - 3. Packaging: Premixed and factory packaged.

PART 3 - EXECUTION

3.1 PIPING APPLICATIONS

- A. Compressed-Air Piping: Use the following piping materials for each size range:
 - 1. NPS 2 and Smaller: Type K or L, copper tube; wrought-copper fittings; and brazed joints.
- B. Drain Piping: Use the following piping materials:
 - 1. NPS 2 and Smaller: Type M copper tube; wrought-copper fittings; and brazed or soldered joints.

3.2 VALVE APPLICATIONS

- A. General-Duty Valves: Comply with requirements in Division 22 and 23 Section "Valves" for metal general-duty valves. Use metal valves, unless otherwise indicated.
 - 1. Metal General-Duty Valves: Use valve types specified in "Valve Applications" Article in Division 22 and 23 Section "Valves" according to the following:
 - a. Low-Pressure Compressed Air: Valve types specified for low-pressure compressed air.
 - b. High-Pressure Compressed Air: Valve types specified for medium-pressure compressed air.
 - c. Equipment Isolation NPS 2 and Smaller: Safety-exhaust, copper-alloy ball valve with exhaust vent and pressure rating at least as great as piping system operating pressure.
 - d. Grooved-end valves may be used with grooved-end piping and grooved joints.

3.3 PIPING INSTALLATION

- A. Drawing plans, schematics, and diagrams indicate general location and arrangement of compressed-air piping. Indicated locations and arrangements were used to size pipe and calculate friction loss, expansion, air-compressor sizing, and other design considerations. Install piping as indicated unless deviations to layout are approved on Coordination Drawings.
- B. Install piping concealed from view and protected from physical contact by building occupants, unless otherwise indicated and except in equipment rooms and service areas.
- C. Install piping indicated to be exposed and piping in equipment rooms and service areas at right angles or parallel to building walls. Diagonal runs are prohibited, unless otherwise indicated.
- D. Install piping above accessible ceilings to allow sufficient space for ceiling panel removal and to coordinate with other services occupying that space.

- E. Install piping adjacent to equipment and machines to allow service and maintenance.
- F. Install air and drain piping with 1 percent slope downward in direction of flow.
- G. Install nipples, flanges, unions, transition and special fittings, and valves with pressure ratings same as or higher than system pressure rating, unless otherwise indicated.
- H. Equipment and Specialty Flanged Connections:
 - 1. Use steel companion flange with gasket for connection to steel pipe.
 - 2. Use cast-copper-alloy companion flange with gasket and brazed joint for connection to copper tube. Do not use soldered joints for connection to air compressors or to equipment or machines producing shock or vibration.
- I. Flanged joints may be used instead of specified joint for any piping or tubing system.
- J. Install eccentric reducers where compressed-air piping is reduced in direction of flow, with bottoms of both pipes and reducer fitting flush.
- K. Install branch connections to compressed-air mains from top of main. Provide drain leg and drain trap at end of each main and branch and at low points.
- L. Install thermometer and pressure gage on discharge piping from each air compressor and on each receiver. Comply with requirements in Division 22 and 23 Section "Meters and Gages."
- M. Install piping to permit valve servicing.
- N. Install piping free of sags and bends.
- O. Install fittings for changes in direction and branch connections.
- P. Install seismic restraints on piping. Seismic-restraint devices are specified in Division 22 and 23 Section "Mechanical Vibration and Seismic Controls."

3.4 JOINT CONSTRUCTION

- A. Ream ends of pipes and tubes and remove burrs. Bevel plain ends of steel pipe.
- B. Remove scale, slag, dirt, and debris from inside and outside of pipe and fittings before assembly.
- C. Threaded Joints: Thread pipe with tapered pipe threads according to ASME B1.20.1. Cut threads full and clean using sharp dies. Ream threaded pipe ends to remove burrs and restore full ID. Join pipe fittings and valves as follows:
 - 1. Apply appropriate tape or thread compound to external pipe threads unless dry seal threading is specified.
 - 2. Damaged Threads: Do not use pipe or pipe fittings with threads that are corroded or damaged. Do not use pipe sections that have cracked or open welds.

- D. Brazed Joints for Copper Tubing: Join according to AWS's "Brazing Handbook," "Pipe and Tube" Chapter.
- E. Pressure-Sealed Joints: Join with tools recommended by fitting manufacturer, using operators qualified according to Part 1 "Quality Assurance" Article.
- F. Dissimilar Metal Piping Material Joints: Use dielectric fittings.

3.5 VALVE INSTALLATION

- A. General-Duty Valves: Comply with requirements in Division 22 and 23 Section "Valves."
- B. Install shutoff valves and unions or flanged joints at compressed-air piping to air compressors.
- C. Install shutoff valve at inlet to each automatic drain valve, filter, lubricator, and pressure regulator.
- D. Install check valves to maintain correct direction of compressed-air flow to and from compressed-air piping specialties and equipment.

3.6 DIELECTRIC FITTING INSTALLATION

- A. Install dielectric fittings in piping at connections of dissimilar metal piping and tubing.

3.7 FLEXIBLE PIPE CONNECTOR INSTALLATION

- A. Install flexible pipe connectors in discharge piping and in inlet air piping from remote air-inlet filter of each air compressor.
- B. Install bronze-hose flexible pipe connectors in copper compressed-air tubing.
- C. Install stainless-steel-hose flexible pipe connectors in steel compressed-air piping.

3.8 SPECIALTY INSTALLATION

- A. Install safety valves on receivers in quantity and size to relieve at least the capacity of connected air compressors.
- B. Install air-main pressure regulators in compressed-air piping at or near air compressors.
- C. Install automatic drain valves on aftercoolers, receivers, and dryers. Discharge condensate onto nearest floor drain.
- D. Install coalescing filters in compressed-air piping at or near air compressors and upstream from mechanical filters.

- E. Install mechanical filters in compressed-air piping at or near air compressors and downstream from coalescing filters.
- F. Install quick couplings at piping terminals for hose connections.
- G. Install hose assemblies at hose connections.

3.9 CONNECTIONS

- A. Install unions, in piping NPS 2 and smaller, adjacent to each valve and at final connection to each piece of equipment and machine.
- B. Install flanges, in piping NPS 2-1/2 and larger, adjacent to flanged valves and at final connection to each piece of equipment and machine.

3.10 SLEEVE INSTALLATION

- A. Sleeves are not required for core-drilled holes.
- B. Permanent sleeves are not required for holes formed by removable PE sleeves.
- C. Install sleeves for pipes passing through concrete and masonry walls and concrete floor and roof slabs.
- D. Install sleeves for pipes passing through concrete and masonry walls, gypsum board partitions, and concrete floor and roof slabs.
 - 1. Wall Penetrations: Cut sleeves to length for mounting flush with both surfaces.
 - 2. Floor Penetrations: Extend sleeves installed in floors of mechanical equipment areas or other wet areas 2 inches above finished floor level. Extend cast-iron sleeve fittings below floor slab as required to secure clamping ring if ring is specified.
- E. Install sleeves in new walls and slabs as new walls and slabs are constructed.
- F. Install sleeves that are large enough to provide 1/4-inch annular clear space between sleeve and pipe or pipe insulation. Use the following sleeve materials:
 - 1. PVC Pipe Sleeves: For pipes smaller than NPS 6.
- G. Fire-Barrier Penetrations: Maintain indicated fire rating of walls, partitions, ceilings, and floors at pipe penetrations. Seal pipe penetrations with firestop materials. Comply with requirements in Division 7 Section "Through-Penetration Firestop Systems."

3.11 ESCUTCHEON INSTALLATION

- A. Install escutcheons for penetrations of walls, ceilings, and floors.

3.12 HANGER AND SUPPORT INSTALLATION

- A. Comply with requirements in Division 22 and 23 Section "Mechanical Vibration and Seismic Controls" for seismic-restraint devices.
- B. Comply with requirements in Division 22 and 23 Section "Hangers and Supports" for pipe hanger and support devices.
- C. Vertical Piping: MSS Type 8 or 42, clamps.
- D. Individual, Straight, Horizontal Piping Runs:
 - 1. 100 Feet or Less: MSS Type 1, adjustable, steel clevis hangers.
 - 2. Longer Than 100 Feet: MSS Type 43, adjustable roller hangers.
- E. Multiple, Straight, Horizontal Piping Runs 100 Feet or Longer: MSS Type 44, pipe rolls. Support pipe rolls on trapeze.
- F. Base of Vertical Piping: MSS Type 52, spring hangers.
- G. Support horizontal piping within 12 inches of each fitting and coupling.
- H. Rod diameter may be reduced 1 size for double-rod hangers, with 3/8-inch minimum rods.
- I. Install hangers for copper tubing with the following maximum horizontal spacing and minimum rod diameters:
 - 1. NPS 1/4: 60 inches with 3/8-inch rod.
 - 2. NPS 3/8 and NPS 1/2: 72 inches with 3/8-inch rod.
 - 3. NPS 3/4: 84 inches with 3/8-inch rod.
 - 4. NPS 1: 96 inches with 3/8-inch rod.
 - 5. NPS 1-1/4: 108 inches with 3/8-inch rod.
 - 6. NPS 1-1/2: 10 feet with 3/8-inch rod.
 - 7. NPS 2: 11 feet with 3/8-inch rod.
 - 8. NPS 2-1/2: 13 feet with 1/2-inch rod.
 - 9. NPS 3: 14 feet with 1/2-inch rod.
 - 10. NPS 3-1/2: 15 feet with 1/2-inch rod.
 - 11. NPS 4: 16 feet with 1/2-inch rod.
 - 12. NPS 5: 18 feet with 1/2-inch rod.
 - 13. NPS 6: 20 feet with 5/8-inch rod.
 - 14. NPS 8: 23 feet with 3/4-inch rod.
- J. Install supports for vertical copper tubing every 10 feet.

3.13 LABELING AND IDENTIFICATION

- A. Install identifying labels and devices for general-service compressed-air piping, valves, and specialties. Comply with requirements in Division 22 and 23 Section "Mechanical Identification."

3.14 FIELD QUALITY CONTROL

- A. Perform field tests and inspections.
- B. Tests and Inspections:
 - 1. Piping Leak Tests for Metal Compressed-Air Piping: Test new and modified parts of existing piping. Cap and fill general-service compressed-air piping with oil-free dry air or gaseous nitrogen to pressure of 50 psig above system operating pressure, but not less than 150 psig. Isolate test source and let stand for four hours to equalize temperature. Refill system, if required, to test pressure; hold for two hours with no drop in pressure.
 - 2. Repair leaks and retest until no leaks exist.
 - 3. Inspect filters lubricators and pressure regulators for proper operation.
- C. Prepare test reports.

END OF SECTION 221513

SECTION 211313 - FIRE SPRINKLER SYSTEM - PERFORMANCE SPECIFICATION

PART 1 - GENERAL

1.1 WORK INCLUDED

- A. Fire sprinkler contractor shall provide modifications to the existing fire sprinkler system per the requirements of this performance specification, including design, submittals, and shop drawings by a NICET level 4 certified designer.
- B. Remodeled areas of existing building shall have the existing fire sprinkler system extended and modified to provide protection as necessary. See Architectural drawings for definition of these areas. Work includes, but is not limited to:
 - 1. Design, drawings, and, if necessary, hydraulic calculations.
 - 2. Materials, equipment, and devices.
 - a. Pipe, fittings, hangers, seismic braces.
 - b. Sprinklers, escutcheons, signs.
 - c. All other materials required for complete installation.
 - 3. Fabrication, installation, and testing.
 - 4. Permits, fees, and documentation.
 - 5. Health care facilities shall be provided with quick response type sprinkler heads.

1.2 RELATED WORK

- A. Painting.
- B. Electrical Material and Methods.

1.3 WORK NOT INCLUDED

- A. Fire extinguishers and cabinets.
- B. Painting.
- C. Wiring of electrical and alarm devices.

1.4 SYSTEM DESCRIPTION

- A. Interior - Remodeled Areas: Relocate and/or add heads as required to the existing system in order to provide coverage in the areas included in this project.
 - 1. When modifying existing systems, relocate sprinklers as required within the parameters set forth in NFPA 13. Pipe sizing shall match the existing piping.

- a. An existing 1" outlet may be utilized to supply (1) sprinklers maximum.
- b. Mechanical tees may be utilized to run additional lines, as necessary.
 - 1) A flexible grooved coupling shall be installed on the new branch within 1 ft of the mechanical tee.
- c. Hangers and bracing shall be installed as required by NFPA 13 on new systems.

1.5 QUALITY ASSURANCE

- A. Materials, devices, and equipment shall be Underwriters Laboratories listed or Factory Mutual approved for use in fire protection systems.
- B. Designer shall be a State of Utah Registered Fire Protection Engineer or a NICET Certified Engineering Technician (Level IV).
- C. Submittals and Shop Drawings shall be stamped by licensed designer.
- D. Installer shall be a licensed contractor regularly engaged in the installation of fire sprinkler systems in commercial type buildings.
- E. Fire sprinkler work shall comply with NFPA 13, NFPA 72, as well as the State of Utah, IFC and ADA standards.

1.6 REFERENCES

- A. NFPA (National Fire Protection Association) 13, "Installation of Sprinkler Systems," current edition.
- B. NFPA 24, AStandard for the Installation of Private Fire Service Mains and Their Appurtenances,@ current edition.
- C. IBC (International Building Code), 2018
- D. IFC (International Fire Code), 2018.
- E. Underwriters Laboratories "Fire Protection Equipment Directory," latest edition.
- F. Factory Mutual Systems "Approval Guide," latest edition.

1.7 SYSTEM DESIGN

- A. System shall be wet pipe.
- B. Design density and area of application.
 - 1. Mechanical, Electrical, and Janitorial: Ordinary Hazard Group 1, 0.15 GPM/SQ FT over 1,500 SQ FT.

2. Storage: Ordinary Hazard Group 2, 0.20 GPM/SQ FT over 1,500 SQ FT.
 3. All other areas: Light Hazard, 0.10 GPM/SQ FT over 1,500 SQ FT.
 4. Adjustments shall be made in the remote area for sloped ceilings and/or roof decks and for the use of quick response sprinkler heads throughout.
- C. Maximum coverage per sprinkler head:
1. Ordinary Hazard areas: 130 SQ FT.
 2. Light Hazard areas: 225 SQ FT.
 3. Extended coverage sprinklers shall be allowed when installed conforming to the individual listing of the sprinkler head.
- D. Vestibules: Provide dry barrel sprinklers to protect areas subject to temperatures less than 40 F.
- E. The design area shall be the hydraulically most remote rectangular area having a dimension parallel to the branch line equal to, or greater than, 1.2 times the square root of the area of sprinkler operation.
- F. Maximum velocity of water flow within piping: 20 FPS.
- G. Flow available:
1. Contractor shall perform all necessary flow tests and calculations.
 2. The contractor shall design the sprinkler system to the water supply indicated in the Engineer's Water Supply Analysis performed for the project, including all recommendations contained within the Analysis.
- H. Provide head guards on any sprinklers installed below 7 ft. above the floor and in areas where the heads are subject to physical damage.
- I. Sprinkler heads in areas with folding partitions, curtains, dividers, etc shall be located such that the spacing and clearance shall be maintained whether the partitions are open or closed.

1.8 SUBMITTAL

- A. All shop drawings and calculations shall bear the Nicet number and signature of the responsible Nicet Certified Technician or the stamp and signature of the responsible Registered Professional Engineer. Submittals without the proper signature will be returned without review.
- B. Submit to local and state Authorities Having Jurisdiction and obtain AHJ's approval, three copies each:
1. Shop drawings.
 2. Hydraulic calculations.
 3. Copy of contract specification.
 4. Equipment catalog sheets for all major equipment.

- C. Submit to the Utah State Fire Marshal, three copies each:
 - 1. Shop drawings.
 - 2. Hydraulic calculations.
 - 3. Copy of contract specification.
 - 4. Equipment catalog sheets for all major equipment.
 - 5. One copy of the Water Supply Analysis with date, time and temperature noted.

- D. Submit to Architect for review and Architect's acceptance prior to fabrication and installation, five copies each:
 - 1. Shop drawings.
 - 2. Hydraulic calculations.
 - 3. Equipment catalog sheets for all major equipment.
 - 4. One copy of the water flow test with date, time and temperature noted.

- E. Upon completion of installation submit to Architect two copies each:
 - 1. NFPA 13, "Contractor's Material & Test Certificate for Aboveground Piping."
 - 2. NFPA 13, "Contractor's Material & Test Certificate for Underground Piping."
 - 3. As-built shop drawings with designer's signature and certification number.

1.9 WARRANTY

- A. Materials, equipment, and workmanship shall be free from defects for 12 months from the "Date Left in Service with All Control Valves Open," shown on "Contractor's Material and Test Certificate." If any Work is found to be defective, Contractor shall promptly, without cost to Owner, and in accordance with Owner's instructions, either correct such defective Work, or if Owner has rejected it, remove it from the site and replace it with non-defective work. Submit two copies of Warranty Certificates to Architect.

PART 2 - PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

- A. Sprinkler equipment, heads and devices:
 - 1. Central, Grinnell, Reliable, Star, Victaulic and Viking.

- B. Backflow preventer:
 - 1. Ames, Watts

2.2 PIPE AND TUBE

- A. Interior:

1. Ferrous piping, ASTM A795, ANSI/ASTM A53, ASTM A135, ANSI B36-10M, UL CRR (Corrosion Resistance Ratio) minimum 1.0, and copper tube, ASTM B251, Type L or M.

2.3 FITTINGS

A. Interior.

1. Cast iron threaded, ANSI B16.4.
2. Cast iron flanged, ANSI B16.1.
3. Malleable iron threaded, ANSI B16.3.
4. Forged steel fittings, socket welded and threaded, ANSI B16.11.
5. Copper, ANSI B16.22, B16.18. Joints for connection of copper tube shall be brazed or soldered.
6. Other types of fittings may be used, but only those investigated and listed for fire sprinkler service.
7. Plain end couplings, saddle couplings, and clamp type couplings are not acceptable.

2.4 HANGERS

- A. Hangers shall conform to the minimum requirement of NFPA 13. A detail of each type of hanger shall be shown on the shop drawings and calculations for trapeze type hangers shall be provided with the hydraulic calculations.

2.5 SEISMIC FITTINGS AND BRACES

- A. Seismic bracing shall be installed per the requirements of NFPA 13. Calculations for the seismic bracing shall be provided including all piping within the area of influence as described in NFPA 13.
- B. Flexible connections shall be provided at the top and bottom of the system riser and at other locations as described in NFPA 13.

2.6 SPRINKLER HEADS

- A. Areas without ceilings: standard upright or pendent, quick response, factory bronze, ordinary temperature.
- B. Areas subject to freezing: dry pendent or sidewall, chrome finish, intermediate temperature, with recessed chrome canopy.
- C. Sprinklers of intermediate and high temperature ratings in specific locations as required by NFPA 13.
- D. Spare heads in representative proportion to types installed and one head wrench for each type sprinkler.

1. Total quantity of spare heads shall be per the requirements of NFPA 13.
2. Spare heads to be contained in a wall mounted cabinet mounted adjacent to the riser.

2.7 VALVES

- A. Drain valves as required by the design and as indicated in NFPA 13.
- B. OS&Y Gate Valve with supervisory switch.
- C. Butterfly Valve with integral supervisory switch.
- D. Four inch swing check valve for FDC.
- E. One half-inch ball drip for FDC.

2.8 ALARM DEVICES

- A. Vane Type Water Flow Switch with retard (DPDT).
- B. Valve supervisory switch (SPDT).
- C. 10" Weatherproof Electric Bell.

PART 3 - EXECUTION

3.1 INSPECTION

- A. Inspect job site prior to fabricating materials. Coordinate and sequence installation with the progress of other mechanical and structural systems and components.

3.2 INSTALLATION

- A. Install systems in compliance with methods detailed in NFPA 13 and NFPA 24, including seismic requirements for Area 1, maximum potential for earthquake damage.
- B. Sprinkler heads shall be centered in 2' x 2' ceiling tiles and shall be centered in the 2' dimension and at the quarter, half, or three-quarter point in 2' x 4' ceiling tiles.
- C. Where pipes pass through fire rated walls, partitions, ceilings and floors, maintain the fire-rated integrity with listed sealers and materials.
- D. Provide chrome-plated escutcheons where exposed pipe passes through walls, ceilings, or other building components.

3.3 FIELD QUALITY CONTROL

- A. Obtain permits and post bonds as required by state and local AHJ's (Authorities Having Jurisdiction).
- B. Inform AHJ's of job progress. Request presence of AHJ's, perform tests and document results using Contractor's Material and Test Certificates.
 - 1. Existing piping may be blanked-off when testing new piping. This contract does not require the testing of work installed by others.

3.4 DISINFECTION

- A. Introduce dosage of 50-ppm chlorine in underground and overhead piping. During the contact period open and close all system valves several times. At end of 24-hour retention period at least 10 ppm shall remain throughout the piping.
- B. At end of retention period, flush system until residual chlorine is reduced to less than 1.0 ppm.

3.5 CLEANING

- A. Remove oil, scale, debris, and foreign substances from interior and exterior of devices, equipment, and materials prior to installation.
- B. Upon job completion, remove tools, surplus materials and equipment. Leave all areas broom clean.

3.6 ACCEPTANCE

- A. Acceptance of installation is subject to final inspection and approval by:
 - 1. Architect or his designated representative.
 - 2. Local Building Department and Fire Marshal.
 - 3. Utah State Fire Marshal's Office.

END OF SECTION 211313

MOUNTAINLAND TECHNICAL COLLEGE

PROVO CAMPUS PHASE V REMODEL

125 North 100 West

Provo, Utah 84601



DRAWING INDEX

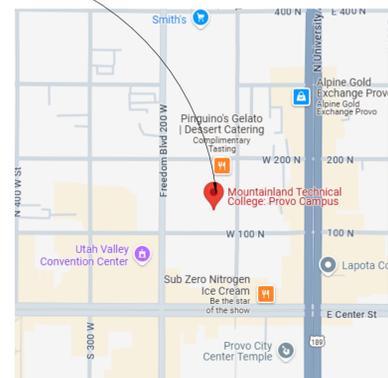
GENERAL	
G1.1	COVER SHEET
G2.1	LEVELS 2 & 4 CODE ANALYSIS
G2.2	LEVEL 3 CODE ANALYSIS
G2.3	NON-STRUCTURAL COMPONENTS
G3.1	ACCESSIBILITY REQUIREMENTS
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A2.0	LEVEL 3 DEMO PLAN
A2.1	LEVEL 3 DIMENSION PLAN
A2.2	LEVEL 3 FLOOR PLAN
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A3.2	ROOM FINISH SCHEDULE
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A8.1	LEVEL 3 REFLECTED CEILING DEMO PLAN
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ME103.1	LEVEL 3 MECHANICAL FLOOR PLANS
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ME105	ROOFTOP MECHANICAL PLAN
MP105	LEVEL 3 MECHANICAL PIPING PLAN
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ME601	MECHANICAL SCHEDULES AND DETAILS
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E4.1	CEILING PLAN - LEVEL 3 - LIGHTING
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ET.1	FLOOR PLAN - LEVEL 3 - SYSTEMS
ET.1	FIRE RISER DIAGRAM HORN ALARM SYSTEM

BID ALTERNATE NOTES:

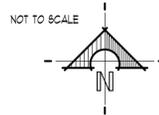
BASE BID, COMPLETE DEMOLITION OPERATIONS FOR THE ENTIRE FLOOR AS INDICATED ON SHEET A2.0. PROVIDE TENANT IMPROVEMENTS TO ALL AREAS SHOWN EXCEPT FOR WITHIN THE INTERIOR SPACES INDICATED WITH THE BLUE CROSS HATCH AND AS INDICATED AS ALTERNATE NO. 1. INCLUDE PERIMETER WALLS ENCLOSING THE SPACE WITH DOORS, FRAMES, STOREFRONT AND HARDWARE IN BASE BID. SEE SHEET A2.1

ALTERNATE NO. 1, COMPLETE TENANT IMPROVEMENTS WITHIN AREAS INDICATED ON THE FLOOR PLAN, CEILING PLAN, FINISH SCHEDULE, AND INTERIOR ELEVATIONS WITHIN THE INTERIOR SPACES INDICATED WITH THE BLUE CROSS HATCH AND AS INDICATED AS ALTERNATE NO. 1.

PROJECT LOCATION



VICINITY MAP



PROJECT DATA

SITE ADDRESS	125 NORTH 100 WEST PROVO, UTAH
PARCEL #	39.251.0001
ZONING	D72 - DOWNTOWN CORE ZONE
GENERAL PLAN	DOWNTOWN PLANNING AREA
EXISTING USE	VACANT COURTHOUSE
PROPOSED USE	HIGHER ED CLASSROOMS & OFFICES
LAND AREA	0.91 ACRES

GENERAL NOTES

- A. ALL EXIT ACCESS DOORS AND EXITS SHALL BE OPENABLE FROM THE INSIDE WITHOUT THE USE OF A KEY OR ANY SPECIAL KNOWLEDGE OR EFFORT. USE OF MANUAL FLUSH BOLTS, EDGE BOLTS, TOP OR BOTTOM BOLTS, ETC. IS PROHIBITED.
- B. GLAZING IN DOORS OR IN FIXED OR OPERABLE PANELS ADJACENT TO A DOOR WHERE THE NEAREST EXPOSED EDGE IS WITHIN A 24 INCH ARC OF THE DOOR AND WHERE THE BOTTOM EXPOSED EDGE IS LESS THAN 60 INCHES ABOVE THE WALKING SURFACE MUST BE TEMPERED.
- C. TANK TYPE WATER CLOSETS SHALL HAVE A MAXIMUM WATER USE OF 1.6 GALLONS PER FLUSH. SHOWERS SHALL HAVE A MAXIMUM FLOW OF 2.5 GALLONS PER MINUTE.
- D. BURNING OF CONSTRUCTION WASTE MATERIALS IS PROHIBITED AT ALL TIMES.
- E. PROVIDE ONE RECESSED 2-4 FIRE EXTINGUISHER FOR EVERY 3,000 SQ. FT. OF FLOOR AREA WITH A MAXIMUM TRAVEL DISTANCE OF 75 FEET TO AN EXTINGUISHER.
- F. STORAGE OF EQUIPMENT, SOILS, CONSTRUCTION MATERIALS ON PUBLIC RIGHT-OF-WAY (STREETS/BIKEWALKS) OR EASEMENT IS EXPRESSLY PROHIBITED.
- G. COORDINATE WITH DFCM AND PROVIDE NECESSARY SIGNATURES FOR BUILDING PERMIT.
- H. GENERAL CONTRACTOR TO PROVIDE REQUIRED FIRE EXTINGUISHERS TO BE PRESENT DURING CONSTRUCTION.
- I. DIMENSIONS ARE SHOWN TO FACE OF STUD, UNLESS NOTED OTHERWISE.

PROJECT TEAM

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cmackay@utah.gov



MOUNTAINLAND TECHNICAL COLLEGE

PROVO MTECH PHASE V REMODEL (DFCM PROJECT #18207260)

125 NORTH 100 WEST
PROVO, UTAH 84601



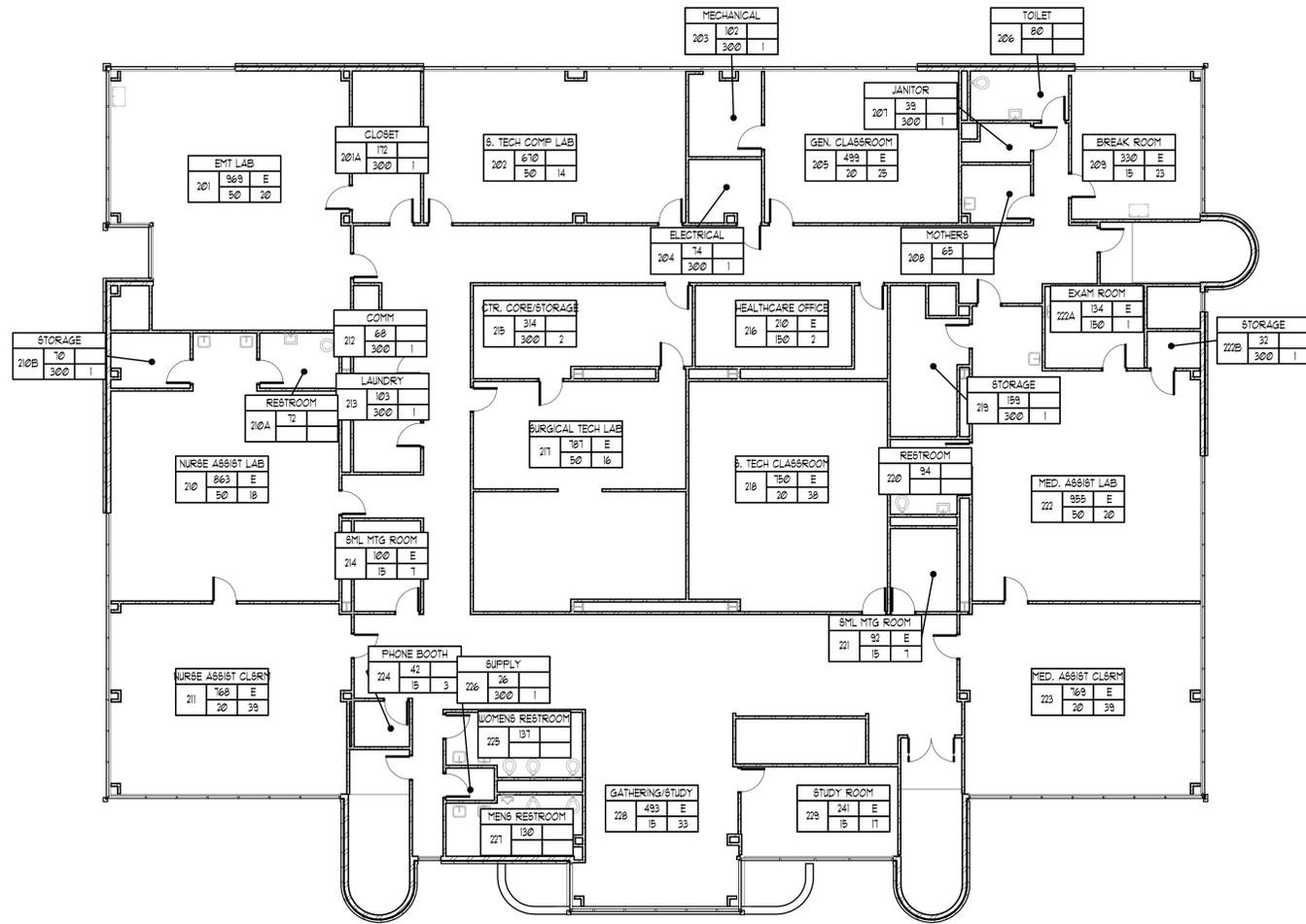
revision information		
no.	date	description
2	10.28.2025	ADDENDUM #1

milestone issue date		06.12.2025
milestone issue description		UPDATED PERMIT REVIEW SET
latest revision date		10.28.2025
latest revision description		ADDENDUM #1

COVER SHEET

G1.1

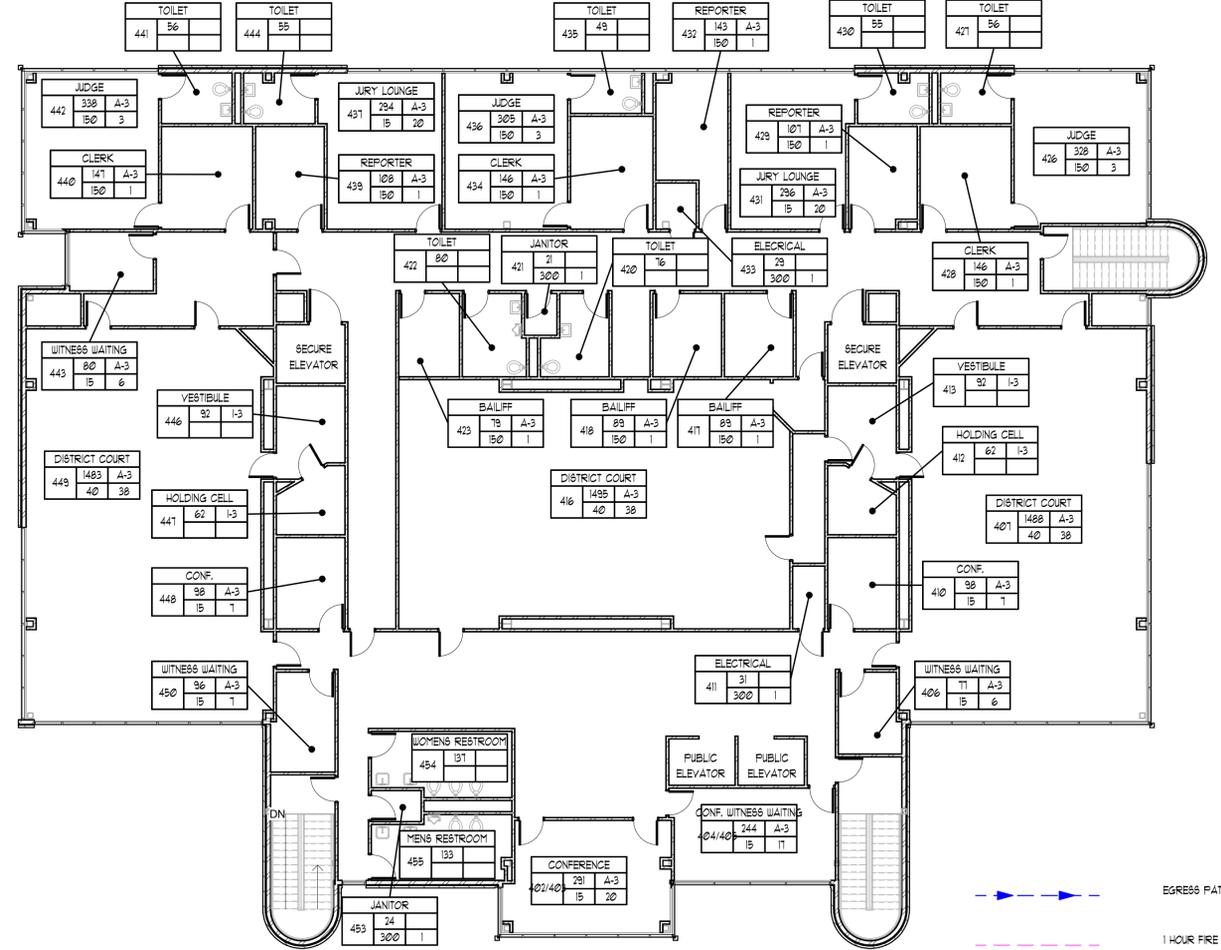
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1 LEVEL 2 FLOOR PLAN - CODE ANALYSIS
3/32' x 1'-0"

PARTIAL CODE ANALYSIS - LEVEL 2

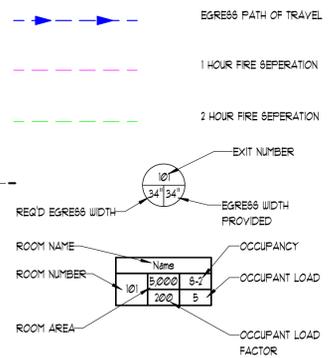
- L. DESIGN OCCUPANT LOAD: TOTAL BUILDING: 1,418 LEVEL TWO: 331
- M. MINIMUM NUMBER OF REQUIRE PLUMBING FACILITIES (PER TABLE 2302.1):
CLASSIFICATION: EDUCATIONAL
- WATER CLOSETS: 1 PER 50 (331 / 50) = 7
LAVATORIES: 1 PER 50 (331 / 50) = 7
DRINKING FOUNTAINS: 1 PER 100 (331 / 100) = 4
SERVICE SINKS: 1
- a) WATER CLOSETS - REQ'D: 7 PROVIDED: (M) 3 (F) 3 (UNI) 3
b) LAVATORIES - REQ'D: 7 PROVIDED: (M) 2 (F) 2 (UNI) 3
c) BATH TUBS or SHOWERS: N/A
d) DRINKING FOUNTAINS: 4 PROVIDED: (M) 4
e) SERVICE SINK: 1 - EXIST.



2 LEVEL 4 FLOOR PLAN - CODE ANALYSIS
3/32' x 1'-0"

PARTIAL CODE ANALYSIS - LEVEL 4

- L. DESIGN OCCUPANT LOAD: TOTAL BUILDING: 1,418 LEVEL TWO: 245
- M. MINIMUM NUMBER OF REQUIRE PLUMBING FACILITIES (PER TABLE 2302.1):
CLASSIFICATION: BUSINESS
- WATER CLOSETS: 1 PER 25 FOR FIRST 50 = 2 + 1 PER 50 FOR REMAINDER (245 / 50) = 5
LAVATORIES: 1 PER 40 FOR FIRST 80 = 2 + 1 PER 40 FOR REMAINDER (165 / 40) = 4
DRINKING FOUNTAINS: 1 PER 100 (245 / 100) = 3
SERVICE SINKS: 1
- a) WATER CLOSETS - REQ'D: 6 PROVIDED: (M) 3 (F) 3 (UNI) 10
b) LAVATORIES - REQ'D: 5 PROVIDED: (M) 2 (F) 2 (UNI) 9
c) BATH TUBS or SHOWERS: N/A
d) DRINKING FOUNTAINS: 3 PROVIDED: (M) 2 - EXIST.
e) SERVICE SINK: 1 - EXIST.



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MOUNTAINLAND
TECHNICAL
COLLEGE

PROVO MTECH PHASE
V REMODEL (DFCM
PROJECT #18207260)

125 NORTH 100 WEST
PROVO, UTAH 84601



revision information

no.	date	description

milestone issue date

06.12.2015

milestone issue description

UPDATED PERMIT REVIEW SET

latest revision date

latest revision description

LEVELS 2 & 4 CODE ANALYSIS

G2.1

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CODE ANALYSIS - LEVEL 3

- FIRE SAFETY PLAN NOTES:**
- SUBMIT A DETAILED SITE SAFETY TO THE PROVO CITY FIRE PREVENTION DIVISION FOR REVIEW AND APPROVAL. THE COMPONENTS OF THIS SITE SAFETY PLAN SHALL COMPLY WITH IFC CHAPTER 33, BUT AT A MINIMUM SHOULD INCORPORATE THE FOLLOWING:
 - NAME AND CONTACT INFORMATION OF SITE SAFETY DIRECTOR.
 - DOCUMENTATION OF THE TRAINING OF THE SITE SAFETY DIRECTOR AND FIRE WATCH PERSONNEL.
 - PROCEDURES FOR REPORTING EMERGENCIES.
 - FIRE DEPARTMENT VEHICLE ACCESS ROUTES.
 - LOCATION OF FIRE PROTECTION EQUIPMENT, INCLUDING PORTABLE FIRE EXTINGUISHERS, STANDPIPES, FIRE DEPARTMENT CONNECTIONS AND FIRE HYDRANTS.
 - SMOKING AND COOKING POLICIES, DESIGNATED AREAS TO BE USED WHERE APPROVED AND SIGNAGE LOCATIONS IN ACCORDANCE WITH SECTION 3305.8.
 - LOCATION AND SAFETY CONSIDERATIONS FOR TEMPORARY HEATING EQUIPMENT.
 - HOT WORK PERMIT PLAN.
 - PLANS FOR CONTROL OF COMBUSTIBLE WASTE MATERIAL.
 - LOCATIONS AND METHODS FOR STORAGE AND USE OF FLAMMABLE AND COMBUSTIBLE LIQUIDS AND OTHER HAZARDOUS MATERIALS.
 - CHANGES THAT AFFECT THIS PLAN.
 - DETAILED SITE SAFETY PLAN INCLUDING THE ITEMS OUTLINED IN IFC 3303.1.1.
 - HOT WORK DURING CONSTRUCTION MAY REQUIRE A SEPARATE OPERATIONS PERMIT PER 109.5.25. CONDITIONS OF HOT WORK OPERATIONS NEEDS TO BE ACCORDANCE WITH IFC CHAPTER 35.
 - SUBMIT DOCUMENTATION SHOWING THAT THE SITE SAFETY DIRECTOR IS TRAINED AS AN NFPA FIRE PREVENTION PROGRAM MANAGER, OR EQUIVALENT. PROVIDE CERTIFICATE OF TRAINING WITH SITE SAFETY PLAN.
 - SHOW ON A SITE PLAN HOW FIRE DEPARTMENT ACCESS WILL BE MAINTAINED AND THE LOCATIONS OF ALL TEMPORARY OR PERMANENT FIRE WATER SOURCES AND FIRE PROTECTION SYSTEMS REQUIRED BY IFC CHAPTER 33.
 - CLARIFY THAT A PRE-CONSTRUCTION MEETING WILL BE SCHEDULED WITH THE FIRE DEPARTMENT TO DISCUSS THE SITE SAFETY MEASURES DURING CONSTRUCTION.

- DAILY FIRE SAFETY INSPECTION:**
- THE SITE SAFETY DIRECTOR SHALL BE RESPONSIBLE FOR COMPLETION OF A DAILY FIRE SAFETY INSPECTION AT THE PROJECT SITE. EACH DAY, ALL BUILDING AND OUTDOOR AREAS SHALL BE INSPECTED TO ENSURE COMPLIANCE WITH THE INSPECTION LIST IN THIS SECTION (IFC 3303.3). THE RESULTS OF EACH INSPECTION SHALL BE DOCUMENTED AND MAINTAINED ON-SITE UNTIL A CERTIFICATE OF OCCUPANCY HAS BEEN ISSUED. DOCUMENTATION SHALL BE IMMEDIATELY AVAILABLE ON-SITE FOR PRESENTATION TO THE FIRE CODE OFFICIAL UPON REQUEST. PLEASE ADD THE FOLLOWING NOTES TO PLAN AND COMPLY WITH THE IFC CHAPTER 33.
 - ANY CONTRACTORS ENTERING THE SITE TO PERFORM HOT WORK EACH DAY HAVE BEEN INSTRUCTED IN THE HOT WORK SAFETY REQUIREMENTS IN CHAPTER 35, AND HOT WORK IS PERFORMED ONLY IN AREAS APPROVED BY THE SITE SAFETY DIRECTOR.
 - TEMPORARY HEATING EQUIPMENT IS MAINTAINED AWAY FROM COMBUSTIBLE MATERIALS IN ACCORDANCE WITH THE EQUIPMENT MANUFACTURER'S INSTRUCTIONS.
 - COMBUSTIBLE DEBRIS, RUBBISH AND WASTE MATERIAL IS REMOVED FROM THE BUILDING IN AREAS WHERE WORK IS NOT BEING PERFORMED.
 - TEMPORARY WIRING DOES NOT HAVE EXPOSED CONDUCTORS.
 - FLAMMABLE LIQUIDS AND OTHER HAZARDOUS MATERIALS ARE STORED IN LOCATIONS THAT HAVE BEEN APPROVED BY THE SITE SAFETY DIRECTOR WHEN NOT INVOLVED IN WORK THAT IS BEING PERFORMED.
 - FIRE APPARATUS ACCESS ROADS REQUIRED BY SECTION 3311 ARE MAINTAINED CLEAR OF OBSTRUCTIONS THAT REDUCE THE WIDTH OF THE USABLE ROADWAY TO LESS THAN 20 FEET (6096 MM).
 - FIRE HYDRANTS ARE CLEARLY VISIBLE FROM ACCESS ROADS AND ARE NOT OBSTRUCTED.
 - THE LOCATION OF FIRE DEPARTMENT CONNECTIONS TO STAND-PIPE AND IN-SERVICE SPRINKLER SYSTEMS ARE CLEARLY IDENTIFIABLE FROM THE ACCESS ROAD AND SUCH CONNECTIONS ARE NOT OBSTRUCTED.

- STANDPIPE SYSTEMS ARE IN SERVICE AND CONTINUOUS TO THE HIGHEST WORK FLOOR, AS SPECIFIED IN SECTION 3313.1.
 - PORTABLE FIRE EXTINGUISHERS ARE AVAILABLE IN LOCATIONS REQUIRED BY SECTIONS 3316 AND 3318.3.
- IMPAIRMENT OF FIRE SYSTEMS:**
- THE SITE SAFETY DIRECTOR SHALL ENSURE IMPAIRMENTS TO ANY FIRE PROTECTION SYSTEM ARE IN ACCORDANCE WITH SECTION 901.
- PROTECTION OF SMOKE ALARMS:**
- THE SITE SAFETY DIRECTOR SHALL ENSURE IMPAIRMENTS TO ANY FIRE PROTECTION SYSTEM ARE IN ACCORDANCE WITH SECTION 901.
- SMOKE DETECTORS AND ALARMS THAT WERE REMOVED SHALL BE REPLACED UPON CONCLUSION OF DUST-PRODUCING WORK. SMOKE DETECTORS AND SMOKE ALARMS THAT WERE COVERED SHALL BE INSPECTED AND CLEANED, AS NECESSARY, UPON CONCLUSION OF DUST-PRODUCING WORK. TEMPORARY COVERINGS OF FIRE PROTECTION DEVICES, COVERINGS PLACED ON OR OVER FIRE PROTECTION DEVICES TO PROTECT THEM FROM DAMAGE DURING CONSTRUCTION PROCESSES SHALL BE IMMEDIATELY REMOVED UPON THE COMPLETION OF THE CONSTRUCTION PROCESSES IN THE ROOM OR AREA IN WHICH THE DEVICES ARE INSTALLED (IFC 3303.102).**

- BID ALTERNATE NOTES:**
- BASE BID: COMPLETE DEMOLITION OPERATIONS FOR THE ENTIRE FLOOR AS INDICATED ON SHEET A2.0. PROVIDE TENANT IMPROVEMENTS TO ALL AREAS SHOWN EXCEPT FOR WITHIN THE INTERIOR SPACES INDICATED WITH THE BLUE CROSS HATCH AND AS INDICATED AS ALTERNATE NO. 1
- ALTERNATE NO. 1: COMPLETE TENANT IMPROVEMENTS WITHIN AREAS INDICATED ON THE FLOOR PLAN, CEILING PLAN, FINISH SCHEDULE, AND INTERIOR ELEVATIONS WITHIN THE INTERIOR SPACES INDICATED WITH THE BLUE CROSS HATCH AND AS INDICATED AS ALTERNATE NO. 1.
- THE FOLLOWING DOCUMENTS ARE REQUIRED BEFORE A CERTIFICATE OF OCCUPANCY IS ISSUED:
- A CODE INSPECTION REPORT RECOMMENDING THAT A CERTIFICATE OF OCCUPANCY BE ISSUED.
 - FINAL REPORT FROM THE SPECIAL INSPECTION AGENCY
 - CERTIFICATE OF FIRE CLEARANCE FROM THE STATE FIRE MARSHALL
 - FINAL APPROVAL FROM THE STATE ELEVATOR INSPECTOR, IF APPLICABLE
 - FINAL APPROVAL FROM THE STATE BOILER INSPECTOR, IF APPLICABLE
 - REPORT OF THE DISINFECTION OF THE POTABLE WATER SYSTEM, IFC 610
 - A CERTIFICATE OF COMPLIANCE FROM THE APPROVED FABRICATOR, IF APPLICABLE, IBC 104.2.2
 - A STAMPED AND SIGNED FINAL REPORT FROM THE STRUCTURAL ENGINEER WHEN STRUCTURAL OBSERVATION IS REQUIRED BY IBC 110
 - AN NFRC CERTIFICATE FOR PENETRATION WITHOUT THE NFRC LABEL
 - FINAL REPORT FROM THE SPECIAL INSPECTOR AND THE MECHANICAL ENGINEER WHEN SMOKE CONTROL IS REQUIRED. THE REPORTS MUST COMPLY WITH IBC 909.10.8.3

AFFLICABLE CODES			
	YEAR		YEAR
INTERNATIONAL BUILDING CODE (IBC)	2021	NATIONAL ELECTRICAL CODE (NEC)	2020
INTERNATIONAL MECHANICAL CODE	2021	INTERNATIONAL EXISTING BUILDING CODE (IEBC)	2021
INTERNATIONAL PLUMBING CODE	2021	ICC/ANSI INT.	2009
INTERNATIONAL FIRE CODE (IFC)	2021	AMERICAN WITH DISABILITIES ACT (CODE ICC)	2021

- OCCUPANCY and GROUP: B (Educational Occupancies for students above the 12th Grade)

CHANGE IN USE: YES NO MIXED OCCUPANCY: YES NO
SPECIAL USE and OCCUPANCY (E.G. HIGH RISE, COVERED MALL): N/A
- SEISMIC DESIGN CATEGORY: D DESIGN WIND SPEED: 120 MPH
- TYPE OF CONSTRUCTION (CIRCLE ONE):

I/A I/B **II/A** II/B III/A III/B IV/HT V/A V/B
- FIRE RESISTANCE RATING REQUIREMENTS for the EXTERIOR WALLS BASED on the FIRE SEPARATION DISTANCE (IN HOURS) PER IBC TABLES 601 and 602:

NORTH: 1 SOUTH: 1 EAST: 1 WEST: 1 (EXTERIOR WALLS ARE EXISTING)
- MIXED OCCUPANCIES: NO NONSEPARATED USES: NO
- SPRINKLERS:

REQUIRED: NO PROVIDED: YES TYPE OF SPRINKLER SYSTEM: EXISTING
- NUMBER OF STORIES: 4 BUILDING HEIGHT: 65'-0"
- ACTUAL AREA PER FLOOR (SQUARE FEET):

LEVEL 1	= 14,056 SF
LEVEL 2	= 14,326 SF
LEVEL 3	= 13,583 SF
LEVEL 4	= 13,598 SF
ROOF PENTHOUSE	= 2,260 SF
- TABULAR AREA: (PER IBC TABLE 506.2): 57,823 SQ. FT.
- AREA MODIFICATIONS: N/A

a) $A_a = A_t + \left[\frac{A_{t f}}{100} \right] + \left[\frac{A_{t s}}{100} \right]$ $I_f = 100 \left[\frac{F}{P} - 0.25 \right] \frac{W}{30}$

b) SUM of the RATIO CALCULATIONS for MIXED OCCUPANCIES:

$$\frac{\text{ACTUAL AREA}}{\text{ALLOWABLE AREA}} \leq 1$$

c) TOTAL ALLOWABLE AREA FOR: N/A

d) UNLIMITED BUILDING AREA: YES NO CODE SECTION: _____

K. FIRE RESISTANCE RATING REQUIREMENTS for BUILDING ELEMENTS (HOURS) PER IBC TABLES 601 & 602

ELEMENT	HOURS	ASSEMBLY LISTING	ELEMENT	HOURS	ASSEMBLY LISTING
EXTERIOR BEARING WALLS	1 HR.		FLOORS - CEILING FLOORS	1 HR.	
INTERIOR BEARING WALLS	1 HR.		ROOFS - CEILING ROOFS	1 HR.	
EXTERIOR NON-BEARING WALLS	0 HR.		EXTERIOR DOORS AND WINDOW	3/4 HR.	
STRUCTURAL FRAME	1 HR.		SHAFT ENCLOSURES	2	
PARTITIONS - PERMANENT	0 HR.		FIRE WALLS	2	
FIRE BARRIERS (IBC TABLE 1013.10)	N/A		FIRE PARTITIONS	N/A	
			SMOKE PARTITIONS	N/A	

- DESIGN OCCUPANT LOAD:

TOTAL BUILDING: 1,418 LEVEL THREE REMODEL: 377

EXIT WIDTH REQUIRED: 75.4" EXIT WIDTH PROVIDED: 102"
- MINIMUM NUMBER OF REQUIRE PLUMBING FACILITIES (PER TABLE 2902.1):

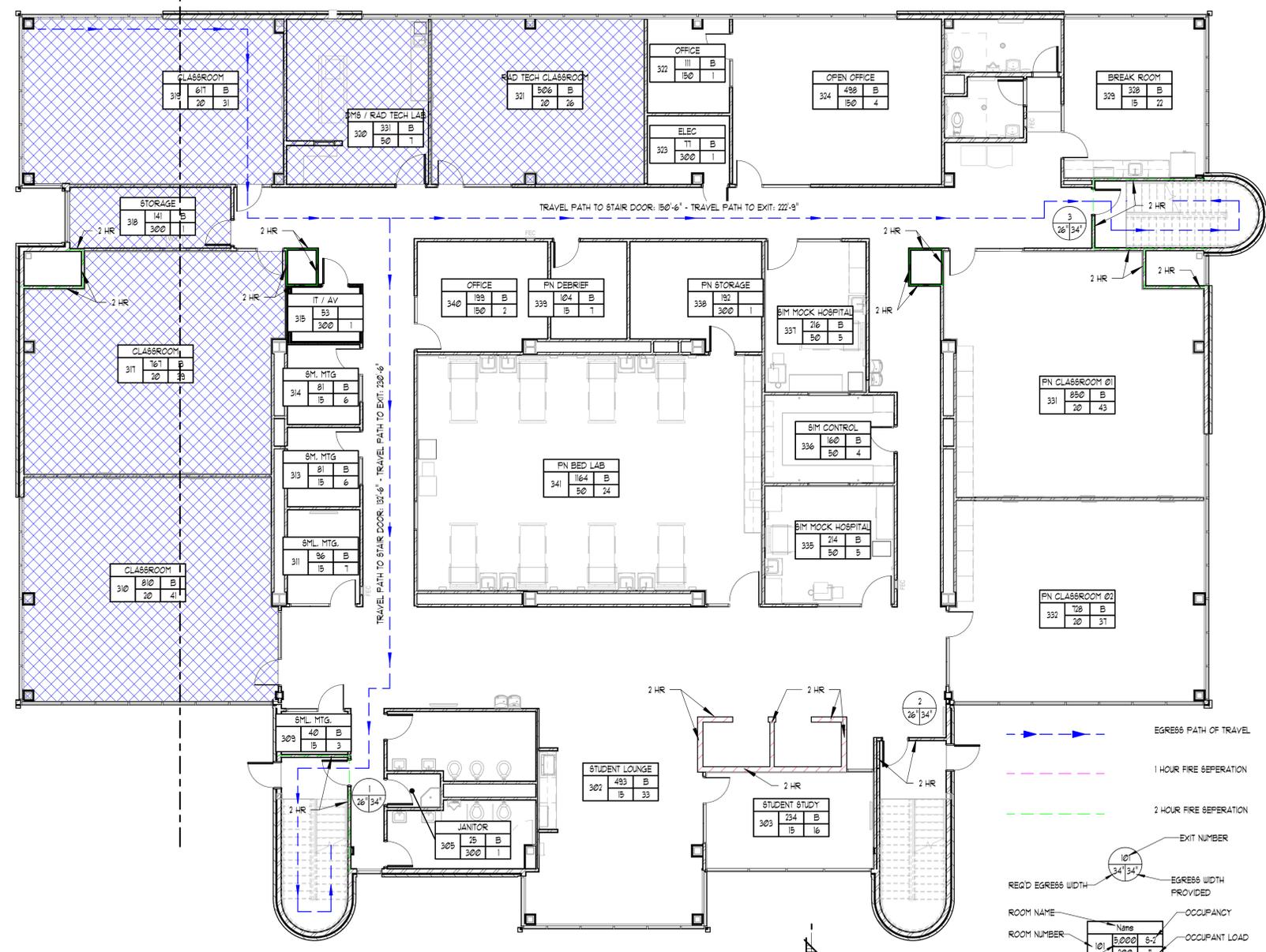
CLASSIFICATION: BUSINESS

WATER CLOSETS: 11 PER 25 FOR THE FIRST 50 = 2 + 11 PER 50 (321/50) = 7 = 9 TOTAL
LAVATORIES: 1 PER 40 FOR THE FIRST 80 = 2 + 1 PER 80 (291 / 80 = 4) = 6 TOTAL
DRINKING FOUNTAINS: 1 PER 100 (311 / 100) = 4
SERVICE SINKS: 1

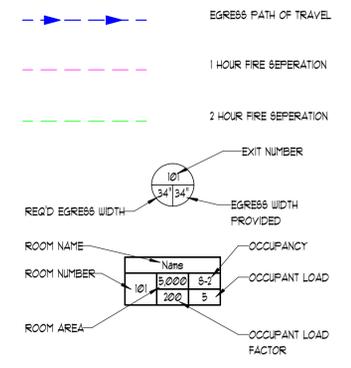
a) WATER CLOSETS - REQ'D: 9 PROVIDED: (M) 3 (F) 3 (UNI) 3
b) LAVATORIES - REQ'D: 6 PROVIDED: (M) 2 (F) 2 (UNI) 2
c) BATH TUBS or SHOWERS: N/A
d) DRINKING FOUNTAINS: 4 PROVIDED: (M) 4
e) SERVICE SINK: 1 - EXIST.

FOOTNOTES:

- IN CASE OF CONFLICT WITH THE U.S. DEPARTMENT OF JUSTICE FEDERAL REGISTER'S PARTS THROUGH V - ADA GUIDELINES AND SPECIFIC REFERENCE TO THE INTERNATIONAL BUILDING CODE ACCESSIBILITY CHAPTERS, THE MORE RESTRICTIVE REQUIREMENT SHALL GOVERN.
- ADDITIONAL CODE INFORMATION SHALL BE PROVIDED AT THE DISCRETION OF THE BUILDING OFFICIAL FOR COMPLEX BUILDINGS, INCLUDING, BUT NOT LIMITED TO:
 - HIGH RISE REQUIREMENTS
 - ATRIUMS
 - PERFORMANCE BASED CRITERIA
 - MEANS OF EGRESS
 - FIRE ASSEMBLY LOCATOR SHEET
 - EXTERIOR AND INTERIOR ACCESSIBILITY ROUTE
 - FIRE STOPPING, INCLUDING TESTED DESIGN NUMBER



LEVEL THREE FLOOR CODE ANALYSIS
1/8" = 1'-0"



MOUNTAINLAND TECHNICAL COLLEGE

PROVO MTECH PHASE V REMODEL (DFCM PROJECT #18207260)

125 NORTH 100 WEST
PROVO, UTAH 84601



revision information

no.	date	description
1	06.12.2015	milestone issue date
2		milestone issue description
3		UPDATED PERMIT REVIEW SET
4		latest revision date
5		latest revision description

LEVEL 3 CODE ANALYSIS

G2.2

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DEFERRED SUBMITTALS

CERTAIN ITEMS REQUIRE APPROVAL OF THE AUTHORITY HAVING JURISDICTION PRIOR TO FABRICATION, DELIVERY, OR INSTALLATION. SUBMITTALS, INCLUDING SHOP DRAWINGS, PRODUCT INFORMATION, PRODUCT CERTIFICATES, PRODUCT TEST REPORTS, ETC. SHALL BE SUBMITTED TO THE ARCHITECT, AFTER REVIEW BY THE ARCHITECT AND/OR ARCHITECTURAL CONSULTANTS. THE ARCHITECT WILL FORWARD THE SUBMITTALS TO THE BUILDING DEPARTMENT. THE CONTRACTOR SHALL PROVIDE THE SUBMITTALS IN A TIMELY MANNER AND ALLOW SUFFICIENT TIME FOR REVIEW BY THE ARCHITECT AND AUTHORITY HAVING JURISDICTION.

DEFERRED ITEMS:

- A. FIRE ALARM SYSTEM - 12.01.2025 ¹
- B. INCLUDE ALL NECESSARY DETAILS AND SPECIFICATIONS FROM CONTRACTED DESIGN PROFESSIONALS RELATING TO THE MATERIALS, TYPE, SIZE, ETC. AS NECESSARY TO FABRICATE AND INSTALL THE DEFERRED SUBMITTAL ITEMS. (THIS IS GENERALLY DETAILED PLANS FROM THE ALARM COMPANY, NOT ARCHITECTURAL PLAN SHEETS.) PLEASE INCLUDE CO DETECTION LOCATIONS WITH FIRE ALARM PLANS.
- A. FIRE SPRINKLER SYSTEM - 12.01.2025 ¹
- D. VIBRATION ISOLATED COMPONENTS - 12.01.2025 ²
- E. PIPING AND CONDUIT SEISMIC SUPPORT - 12.01.2025

NONSTRUCTURAL COMPONENT CHECKLIST

ITEM DESCRIPTION	NOT REQUIRED	ON CONST. DOCUMENTS	DEFERRED SUBMITTAL	COMMENTS
ARCHITECTURAL COMPONENTS:				
INTERIOR NONSTRUCTURAL WALLS & PARTITIONS	X			
CANTILEVER ELEMENTS (I.E. PARAPETS, ETC.)	X			
EXTERIOR NONSTRUCTURAL WALL ELEMENTS	X			
VENEER	X			
PENTHOUSES	X			
CEILING (I.E. SUSPENDED GRID OR HARD LID)			X	
CABINETS (I.E. STORAGE CABINETS, EQUIP., ETC.)	X			
ACCESS FLOORS	X			
STORAGE RACKS	X			
APPENDAGES & ORNAMENTATION	X			
SIGNS & BILLBOARDS	X			
OTHER: SUSPENDED CEILING CLOUDS			X	
OTHER:				
MEP COMPONENTS:				
FIRE SPRINKLERS			X	
MECHANICAL EQUIPMENT (I.E. HVAC, FANS, AIR HANDLERS, BOILERS, FURNACES, TANKS, CHILLERS, WATER HEATERS, HEAT EXCHANGERS, EVAPORATORS, ENGINES, TURBINES, PUMPS, COMPRESSORS, MFR. EQUIPMENT, ETC.)			X	SEISMIC RESTRAINT OF MECHANICAL EQUIPMENT TO BE PROVIDED AS DEFERRED SUBMITTAL AFTER MECHANICAL SUBMITTALS HAVE BEEN APPROVED.
ELECTRICAL EQUIPMENT (I.E. GENERATORS, BATTERIES, INVERTERS, TRANSFORMERS, MCC, PANEL BOARDS, SWITCH GEAR, CABINETS, ETC.)			X	ELECTRICAL SUBMITTAL
ELEVATOR & ESCALATOR COMPONENTS	X			
COMMUNICATION EQUIPMENT, COMPUTERS, INSTRUMENTATION, AND CONTROLS	X			
ROOF-MOUNTED CHIMNEYS, STACKS, COOLING & ELECTRICAL TOWERS	X			
LIGHTING FIXTURES			X	ELECTRICAL SUBMITTAL
VIBRATION ISOLATED COMPONENTS	X			
PIPING & CONDUIT SYSTEMS			X	SHALL BE INCLUDED WITH SEISMIC RESTRAINT OF MECHANICAL EQUIPMENT.
DUCTWORK (INCLUDING IN-LINE COMPONENTS)			X	SHALL BE INCLUDED WITH SEISMIC RESTRAINT OF MECHANICAL EQUIPMENT.
CONVEYORS	X			
CABLE TRAYS			X	ELECTRICAL SUBMITTAL
OTHER: REFRIGERATION EQUIPMENT				
OTHER:				

NOTES:

- DEFERRED SUBMITTALS FOR SEISMIC RESTRAINT OF NONSTRUCTURAL COMPONENTS MUST BE SUBMITTED TO THE DFCM BUILDING OFFICIAL A MINIMUM OF TWO WEEKS PRIOR TO THE PLANNED INSTALLATION IN ORDER TO ALLOW FOR PLAN REVIEW AND FORWARDING TO INSPECTORS. IN THE EVENT THAT THE SUBMITTAL IS DEFICIENT ADDITIONAL TIME MAY BECOME NECESSARY.
- WHEN SEISMIC RESTRAINT OF NONSTRUCTURAL COMPONENTS IS INSTALLED PRIOR TO RECEIVING DFCM APPROVAL IT SHALL NOT BE COVERED OR CONCEALED UNTIL RECEIVING BOTH PLAN REVIEW AND INSPECTION APPROVAL OCCURS.
- THE REQUIREMENTS FOR SEISMIC RESTRAINT OF NONSTRUCTURAL COMPONENTS CANNOT BE SATISFIED BY A GENERAL REFERENCE TO DESIGN MANUALS. THE DESIGN PROFESSIONAL MAY UTILIZE THESE MANUALS AS A BASIS OF THEIR DESIGN, BUT MUST PROVIDE ALL SUPPORTING DOCUMENTATION TO ENSURE THAT THE DESIGN CONFORMS TO THE REQUIREMENTS OF ASCE 109, CHAPTER 13. SUBMITTALS MUST INCLUDE DETAILS OF THE PROPOSED SEISMIC RESTRAINT OF NONSTRUCTURAL COMPONENTS. THESE DETAILS MUST SHOW SPECIFIC INFORMATION RELATING TO THE MATERIALS, TYPE, SIZE, AND LOCATIONS OF ANCHORAGES; MATERIALS USED FOR BRACING; ATTACHMENT REQUIREMENTS OF BRACING TO STRUCTURE AND COMPONENT; AND LOCATIONS OF TRANSVERSE AND LONGITUDINAL SWAY BRACING AND ROD STIFFENERS. SUBMITTALS MAY ALSO REQUIRE STRUCTURAL CALCULATIONS, ENGINEERING REPORTS, TEST DATA, AND/OR SPECIFICATIONS TO ENSURE CODE COMPLIANCE.



**MOUNTAINLAND
TECHNICAL
COLLEGE**

**PROVO MTECH PHASE
V REMODEL (DFCM
PROJECT #18207260)**

125 NORTH 100 WEST
PROVO, UTAH 84601



revision information		
no.	date	description
2	10.28.2025	ADDENDUM #1

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milestone issue description	UPDATED PERMIT REVIEW SET
latest revision date	10.28.2025
latest revision description	ADDENDUM #1

NON-STRUCTURAL
COMPONENTS

G2.3

ACCESSIBILITY CLEARANCE NOTES

- 1 T SHAPED WHEELCHAIR TURNING SPACE (304.3.2.2)
- 2 30" X 48" CLEARANCE FOR WATER CLOSET (110.2.2.2.1 & 110.2.2.2.2)
- 3 30" X 48" CLEAR FLOOR SPACE FOR FORWARD APPROACH TO SINK/WORK SPACE/APPLIANCE (305.2, 606.2, 110.1.5)
- 4 30" X 48" CLEAR FLOOR SPACE FOR PARALLEL/ADJACENT APPROACH TO SINK/APPLIANCE (305.3, 1104.10.1, 1104.11.1, 1104.12.2)
- 5 30" X 48" CLEAR FLOOR SPACE BEYOND SWING OF DOOR FOR INDIVIDUAL USE (603.2.2 EXCEPTION, 1103.11.2 EXCEPTION)

(ICC/ANSI A117.1-2017)

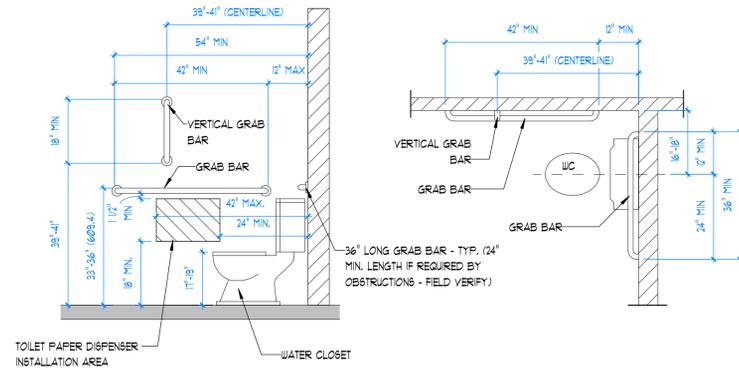
- 6 56" X 60" CLEARANCE FOR WATER CLOSET (604.3.1)
- 7 66" X 60" CLEARANCE FOR WATER CLOSET (1103.11.2.4.4)

NOTE: CLEAR FLOOR OR GROUND SPACES, CLEARANCE AT FIXTURES, AND WHEELCHAIR TURNING SPACES SHALL BE PERMITTED TO OVERLAP (603.2.2, 1103.11.2.4.4, 1104.11.3.1.2.2.4)

ADA REFERENCES

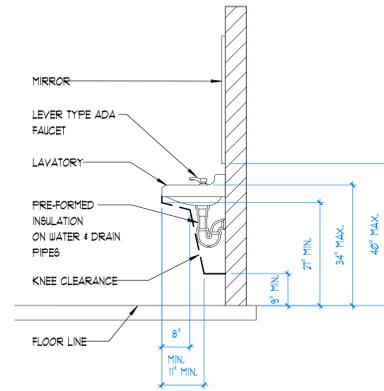
(ICC/ANSI A117.1-2017)

- 1 DRINKING FOUNTAIN - 602
- 2 RESTROOM - 603-606
MIRROR - 603.3
WATER CLOSET - 604
GRAB BARS - 604.5
DISPENSER - 604.1
LABORATORY - 606



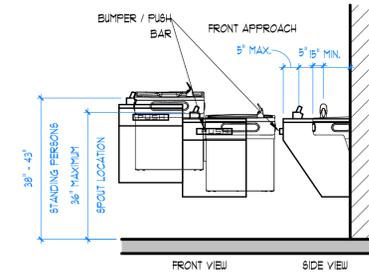
1 ACCESSIBLE TOILET CLEARANCES

1/2" = 1'-0"



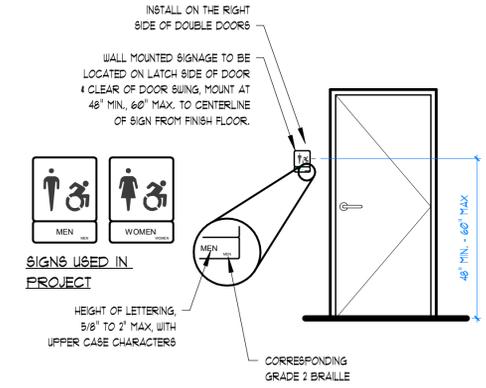
2 ACCESSIBLE VANITY CLEARANCES

1/2" = 1'-0"



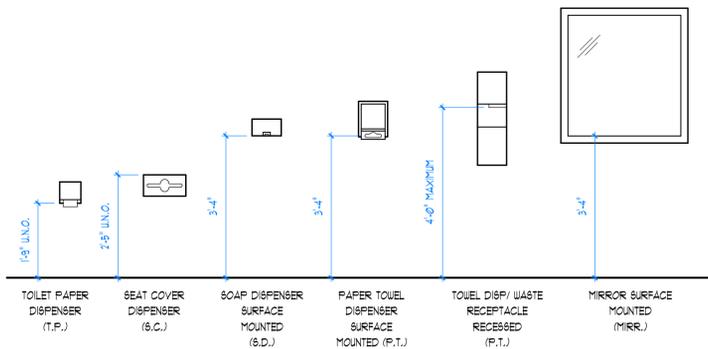
3 ACCESSIBLE DRINKING FOUNTAIN

1/2" = 1'-0"



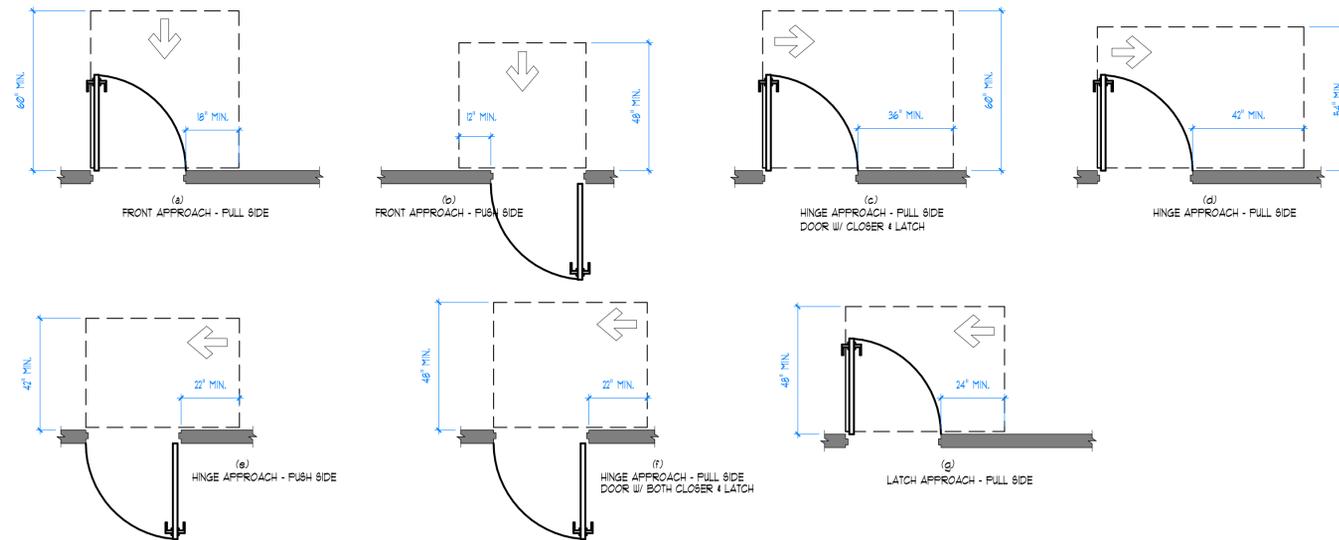
4 SIGN MOUNTING DETAIL

3/8" = 1'-0"



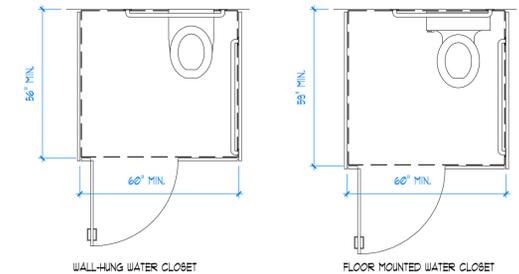
5 ACCESSORY MOUNTING HEIGHTS

1/2" = 1'-0"



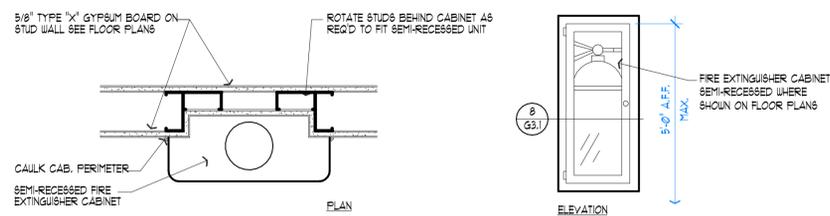
6 ACCESSIBLE DOOR CLEARANCES

3/8" = 1'-0"



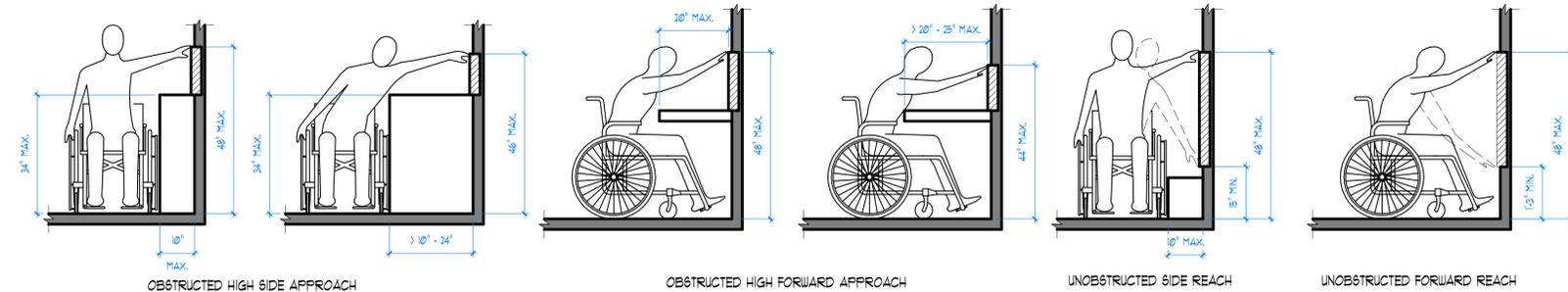
7 ACCESSIBLE TOILET COMPARTMENT

3/8" = 1'-0"



8 FIRE EXTINGUISHER DETAIL

1/12" = 1'-0"



9 RANGE REACH DIAGRAMS

1/2" = 1'-0"



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MOUNTAINLAND
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PROJECT #18207260)

125 NORTH 100 WEST
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revision information
no. date description

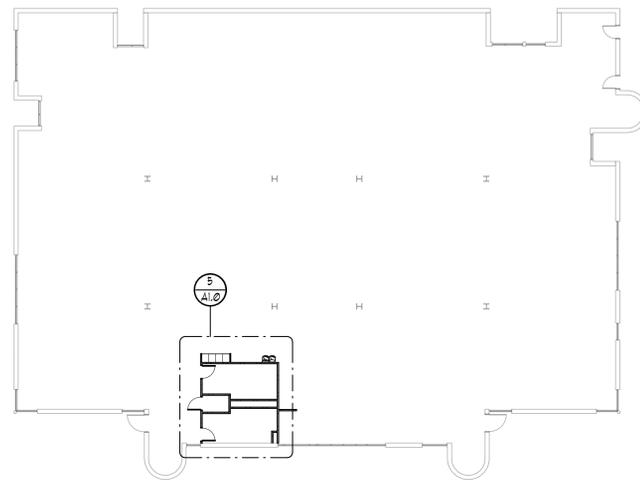
milestone issue date
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latest revision description

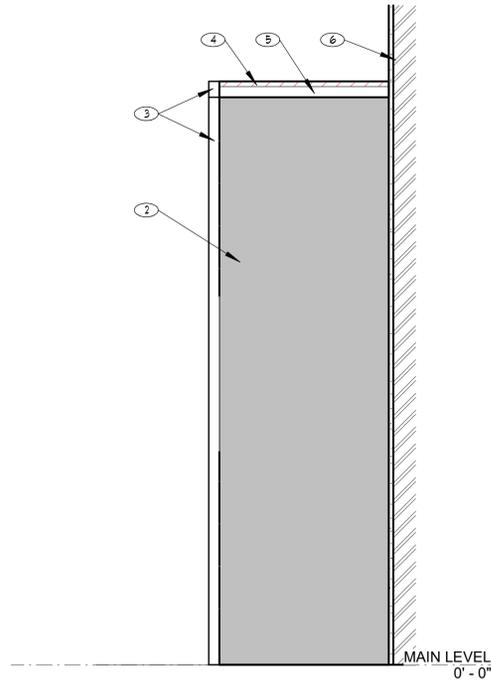
ACCESSIBILITY
REQUIREMENTS

G3.1

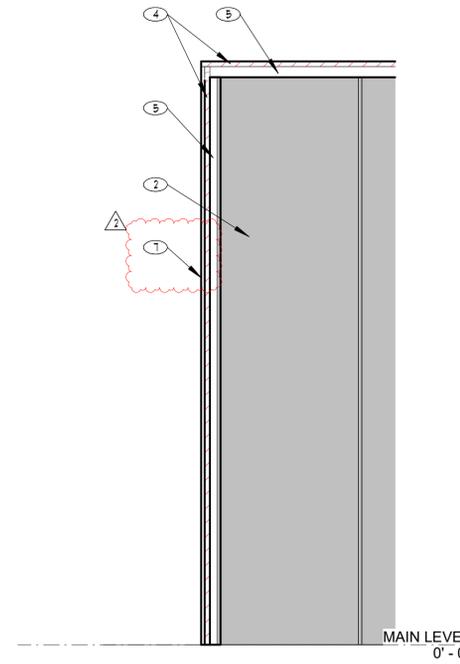
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1 LEVEL 1 FLOOR PLAN
1" = 20'-0"



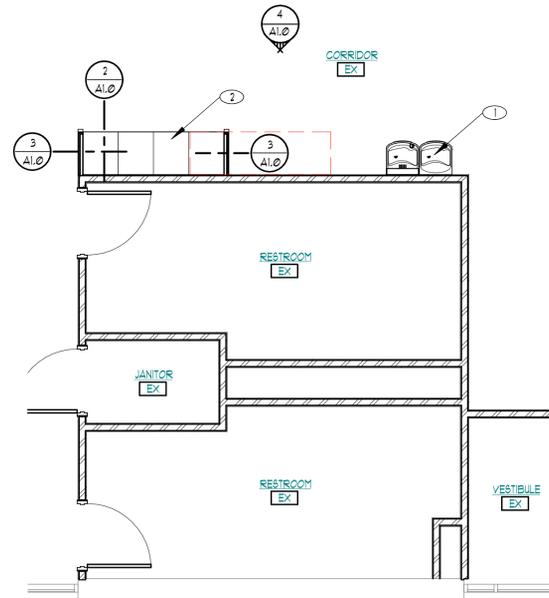
2 WRAP DETAIL
1" = 1'-0"



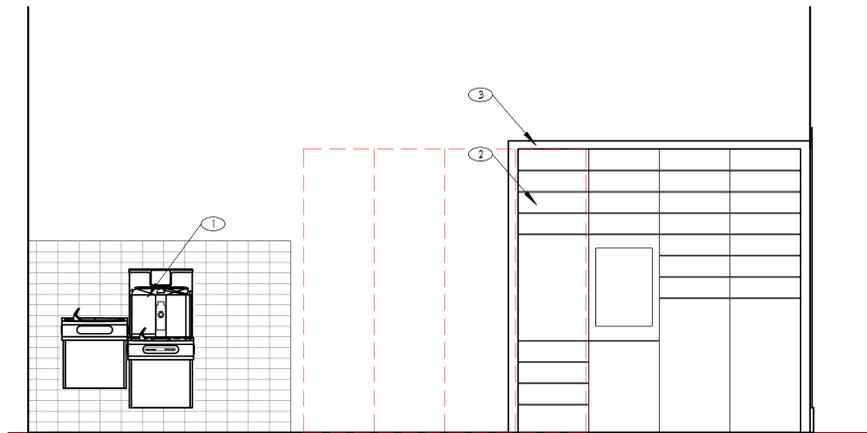
3 WRAP DETAIL
1" = 1'-0"

SHEET NOTES

- 1 EXISTING DRINKING FOUNTAIN
- 2 EXISTING EQUIPMENT BY MTECH - RELOCATE SOUTH TO ALIGN WITH ADJACENT CORNER
- 3 1 x 3 WOOD TRIM - STAIN
- 4 3/4" PLYWOOD
- 5 2 x 4 WOOD FRAMING - MOUNT SIDEWAYS
- 6 EXISTING CORRIDOR WALL
- 7 STAIN-GRADE WOOD VENEER



5 EQUIPMENT WRAP FLOOR PLAN
1/4" = 1'-0"



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



MOUNTAINLAND
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LEVEL 1 EQUIPMENT
WRAP

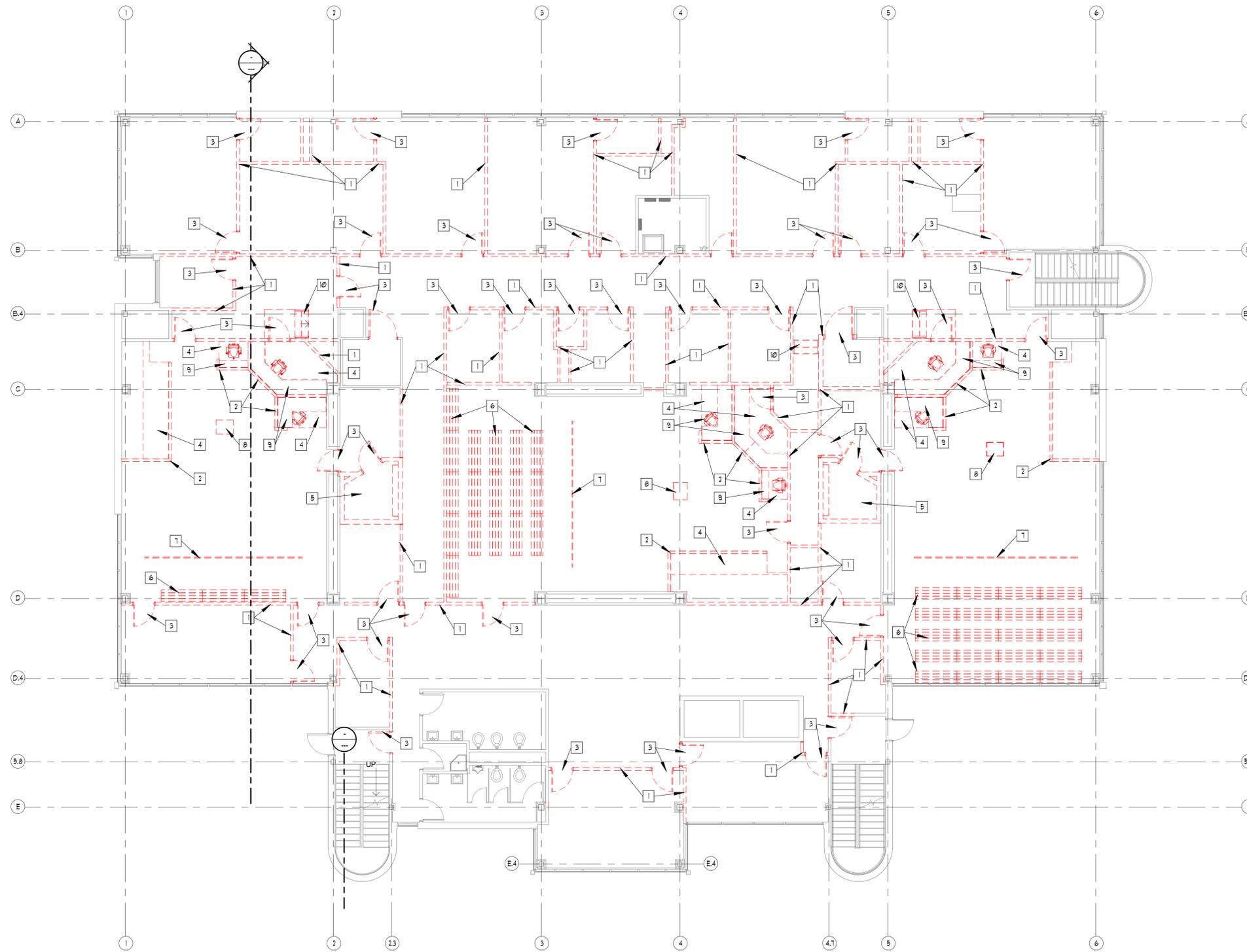
A1.0

DEMOLITION SHEET NOTES

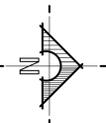
- 1 REMOVE/DISPOSE EXISTING WALL CONSTRUCTION
- 2 REMOVE/DISPOSE EXISTING PONY WALL CONSTRUCTION
- 3 REMOVE EXISTING DOOR, FRAME AND HARDWARE
- 4 REMOVE/DISPOSE EXISTING FRAMED PLATFORM
- 5 REMOVE DETENTION CELL, INCLUDING CMU WALLS AND CONCRETE SLAB LID
- 6 REMOVE/DISPOSE EXISTING BENCHES
- 7 REMOVE/DISPOSE EXISTING RAILING
- 8 REMOVE/DISPOSE EXISTING PODIUM
- 9 REMOVE/DISPOSE EXISTING COUNTERTOP
- 10 REMOVE/DISPOSE EXISTING STAIRS AND ATTACHED RAILINGS

DEMOLITION GENERAL NOTES

1. VISUALLY INSPECT ALL EXISTING CONDITIONS AND SHALL COORDINATE ANY OUTSTANDING DEMO ISSUES WITH THE ARCHITECT PRIOR TO BEGINNING WORK. ALL BASE BUILDING FRAMES, SILLS, AND CORE PARTITIONS TO BE FREE FROM MASTIC OR OTHER BUILDING RESIDUE AND READY TO RECEIVE FINISH.
2. CONSULT ENGINEERING NOTES FOR EXTENT OF EXISTING BUILDING SYSTEMS TO BE REMOVED OR RELOCATED. REMOVAL WORK IS INTENDED TO INCLUDE ALL ASSOCIATED BUILT-IN ITEMS SUCH AS ELECTRICAL DATA OUTLETS, SWITCHES, CONDUITS, CONTROLS, PIPING, MOUNTING BLOCKS, ETC. REFER TO MEP DRAWINGS FOR PROCEDURES CONCERNING THESE TRADES IN DEMOLITION AREAS.
3. REPLACE ANY BASE BUILDING FINISHES THAT ARE DAMAGED AS A RESULT OF DEMOLITION. INCLUDE IN THE PRICING A CONTINGENCY FOR ALL BASE BUILDING REPAIRS THAT MAY OCCUR. COORDINATE ALL BASE BUILDING FINISHES WITH THE BUILDING MANAGEMENT. PROTECT ALL INTERIOR WALLS, CEILING AND FLOORS TO REMAIN FROM DAMAGE DURING DEMOLITION AND CONSTRUCTION.
4. REMOVE ALL EXISTING CONDUIT AND ASSOCIATED WIRING NOT USED, UNB. BACK TO BACK TO PANEL. ALL EXISTING DATA WIRING TO BE REMOVED. ALL MECHANICAL DEVICES TO BE EVALUATED AND A REPORT SUBMITTED PRIOR TO THE START OF DEMOLITION NOTING CONDITION OF EQUIPMENT.
5. REMOVE ANY INCOMPLETE OR PARTIALLY CONSTRUCTED OR DEMOLISHED WALLS & CEILING BACK TO PRIMARY BUILDING STRUCTURE. REMOVE EXISTING WALLS AND DOORS WITHIN THE AREAS OF CONSTRUCTION IN COMPLIANCE WITH THE DRAWINGS. REMOVE ANY REMAINING CARPET AND VINYL COMPOSITION TILE WITHIN THE AREAS OF CONSTRUCTION AS DESCRIBED BY THE DWGS.
6. PROVIDE DUMPSTER FOR DEBRIS REMOVAL. COORDINATE LOCATION WITH BUILDING OWNER. REMOVE DEMOLITION MATERIALS EACH DAY AND VACUUM PUBLIC/COMMON AREAS BEFORE LEAVING SITE.
7. REMOVE EXISTING LIGHT FIXTURES AS INDICATED ON THE REFLECTED CEILING DEMOLITION PLAN (SHEET A8.1). REMOVE BULBS AND BALLASTS FROM EACH LIGHT FIXTURE FOR OWNER DISPOSAL. DISPOSE OF REMAINING COMPONENTS FROM EVERY LIGHT FIXTURE REMOVED.
8. THERE IS NOT PRESENCE OF ASBESTOS OR LEAD BASED PAINT IN THE EXISTING BUILDING TO THE BEST OF THE OWNER'S AND ARCHITECT'S KNOWLEDGE. IF A MATERIAL IS FOUND WHICH MAY BE SUSPECTED OF CONTAINING HAZARDOUS MATERIAL, WORK SHALL STOP AND THE CONTRACTOR SHALL NOTIFY THE ARCHITECT AND BUILDING OWNER IMMEDIATELY. IF IT IS DETERMINED THAT THE MATERIALS ARE HAZARDOUS, THE MATERIAL SHALL BE FULLY ABATED ACCORDING TO APPLICABLE LAWS.
9. PATCH AND REPAIR WALL WHERE EXISTING ELECTRICAL BOX IS NOT BEING RE-USED IN AN EXISTING WALL THAT IS TO REMAIN.

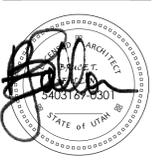


1 LEVEL THREE DEMO PLAN
1/8" = 1'-0"



**MOUNTAINLAND
TECHNICAL
COLLEGE**
PROVO MTECH PHASE
V REMODEL (DFCM
PROJECT #18207260)

125 NORTH 100 WEST
PROVO, UTAH 84601



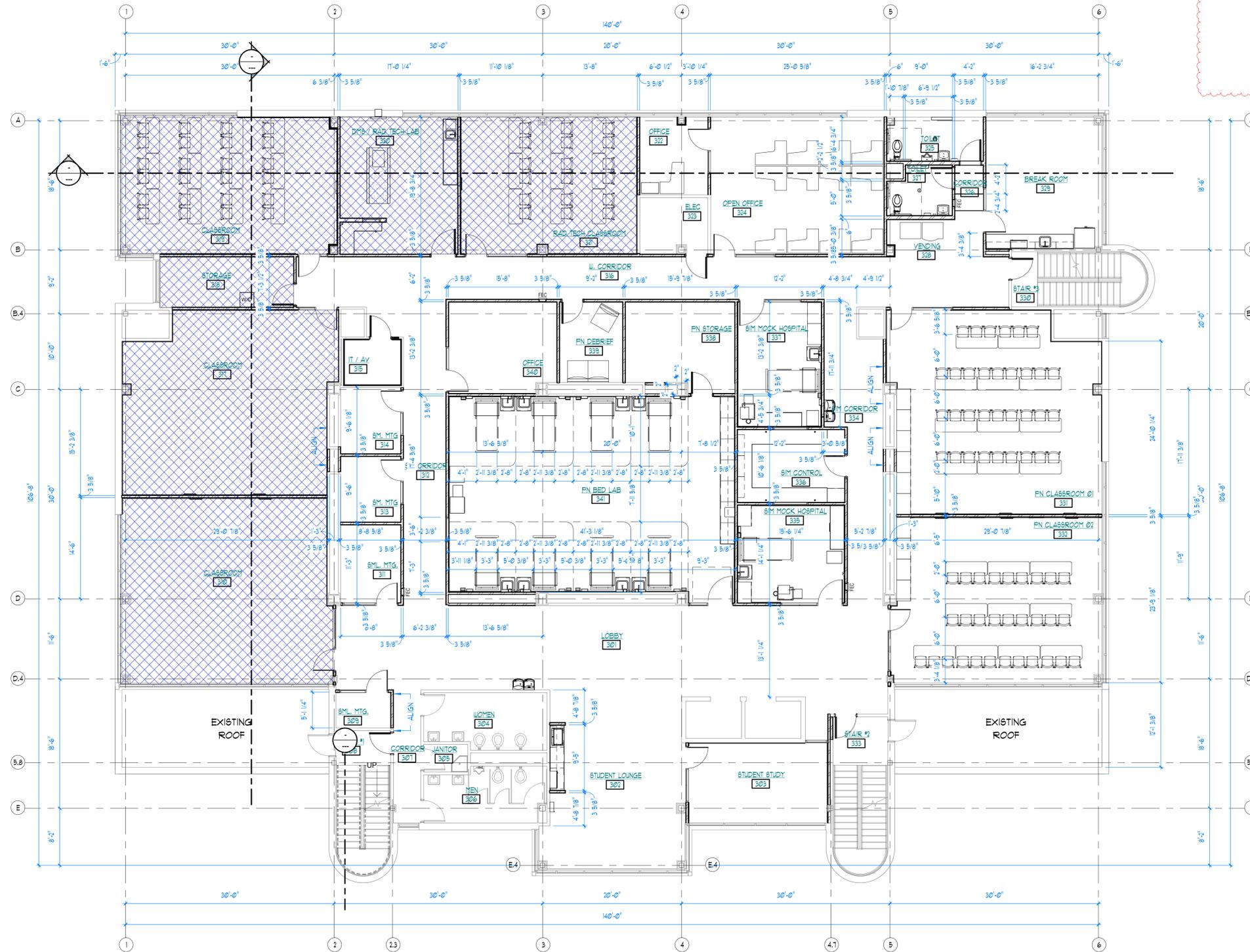
revision information		
no.	date	description
2	10.28.2015	ADDENDUM #1

milestone issue date	06.17.2015
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latest revision date	10.28.2015
latest revision description	ADDENDUM #1

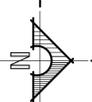
LEVEL 3 DEMO PLAN

A2.0

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1 LEVEL THREE DIMENSION PLAN
1/8" = 1'-0"



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latest revision description	ADDENDUM 1

LEVEL 3 DIMENSION
PLAN

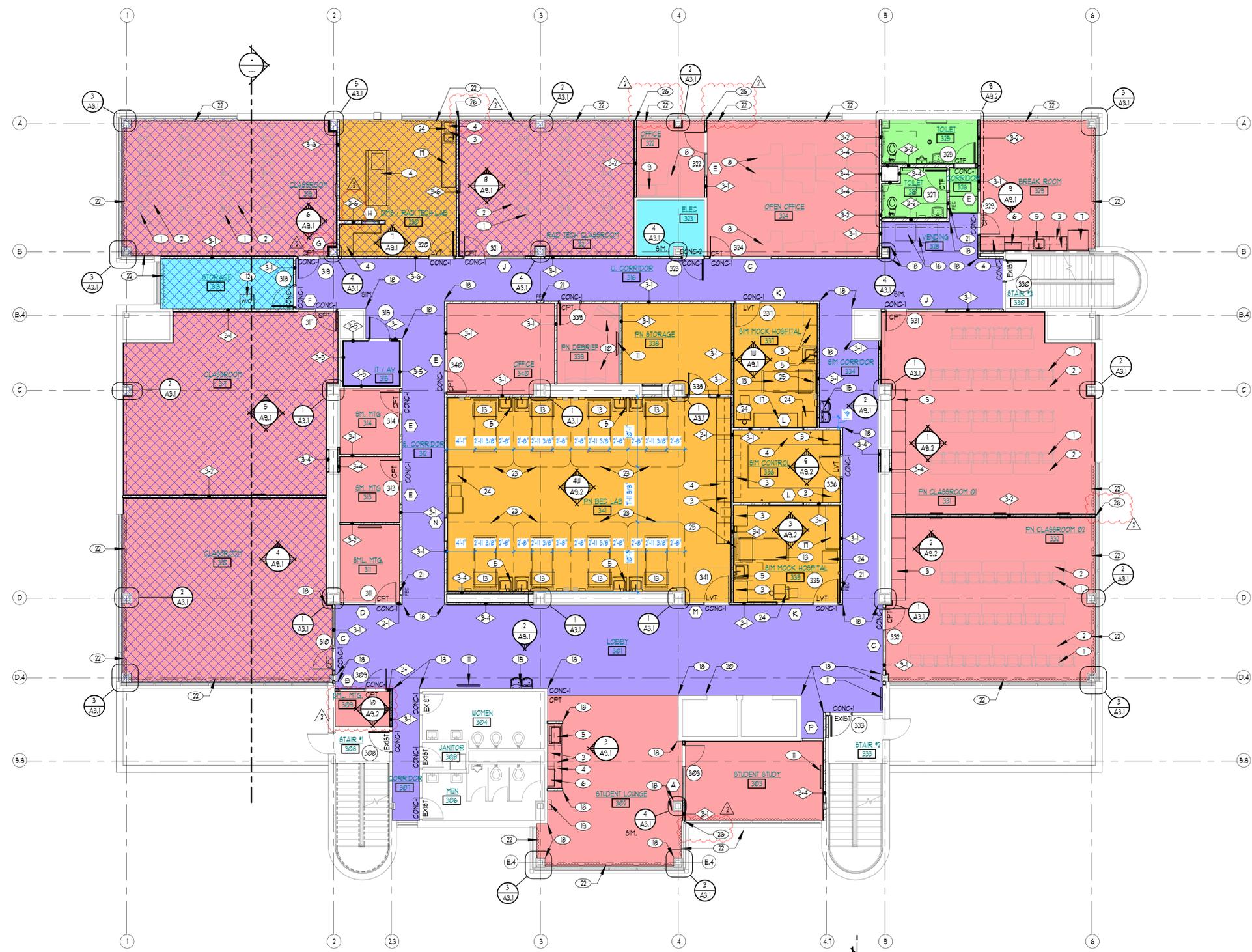
A2.1

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SHEET NOTES:

- ◇ TYPICAL REFERENCE FOR CONSTRUCTION TYPE - SEE SHEET A3.1
- TYPICAL REFERENCE FOR DOOR TYPE - SEE SHEET A3.3
- TYPICAL REFERENCE FOR WINDOW TYPE - SEE SHEET A3.3

- ① ROLLING CLASSROOM CHAIRS - N.I.C.
- ② CLASSROOM DEBKS - N.I.C.
- ③ PLASTIC LAMINATE FACED MILLWORK - SEE INT. ELEVATIONS
- ④ SOLID SURFACE COUNTERTOP
- ⑤ SINK - SEE PLUMBING DUG'S
- ⑥ MICROWAVE - N.I.C.
- ⑦ REFRIGERATOR - N.I.C.
- ⑧ OFFICE DESK - N.I.C.
- ⑨ FILING CABINET - N.I.C.
- ⑩ FURNITURE - N.I.C.
- ⑪ DISPLAY MONITOR - OWNER PROVIDED, CONTRACTOR INSTALLED. PROVIDE BACKING AS NECESSARY
- ⑫ STACKED WASHER/DRYER - N.I.C.
- ⑬ PATIENT BED PROVIDED BY OWNER AND INSTALLED BY CONTRACTOR (EASYCARE HILLOW HOMECARE BED BY JOERNS OR EQUAL)
- ⑭ X-RAY TABLE - N.I.C.
- ⑮ DRINKING FOUNTAIN - SEE PLUMBING DUG'S
- ⑯ VENDING MACHINES - N.I.C.
- ⑰ MANNEQUIN STORAGE - SEE INTERIOR ELEVATIONS
- ⑱ STAINLESS STEEL CORNER GUARD - SEE FINISH SCHEDULE
- ⑲ SURFACE MOUNTED A&D CABINET
- ⑳ FLOOR LEVEL SIGNAGE - SEE 2/A3.3
- ㉑ FIRE EXTINGUISHER CABINET - SEE DETAIL 8/G3.1
- ㉒ WINDOW COVERINGS
- ㉓ CURTAIN TRACK PATH
- ㉔ MEDICAL EQUIPMENT - N.I.C.
- ㉕ MEDICAL HEADBOARD
- ㉖ PROVIDE AND INSTALL PARTITION GAP CLOSURE. MULLION-MATE OR EQUAL. MATCH MULLION COLOR.



LEVEL THREE FLOOR PLAN
1/8" = 1'-0"



MOUNTAINLAND TECHNICAL COLLEGE
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LEVEL 3 FLOOR PLAN

A2.2

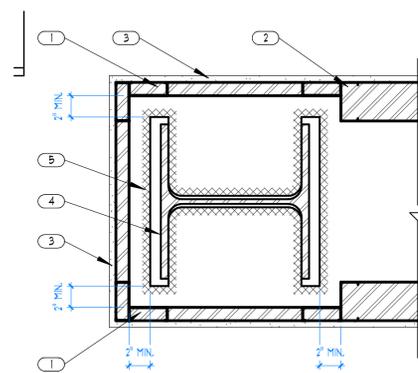
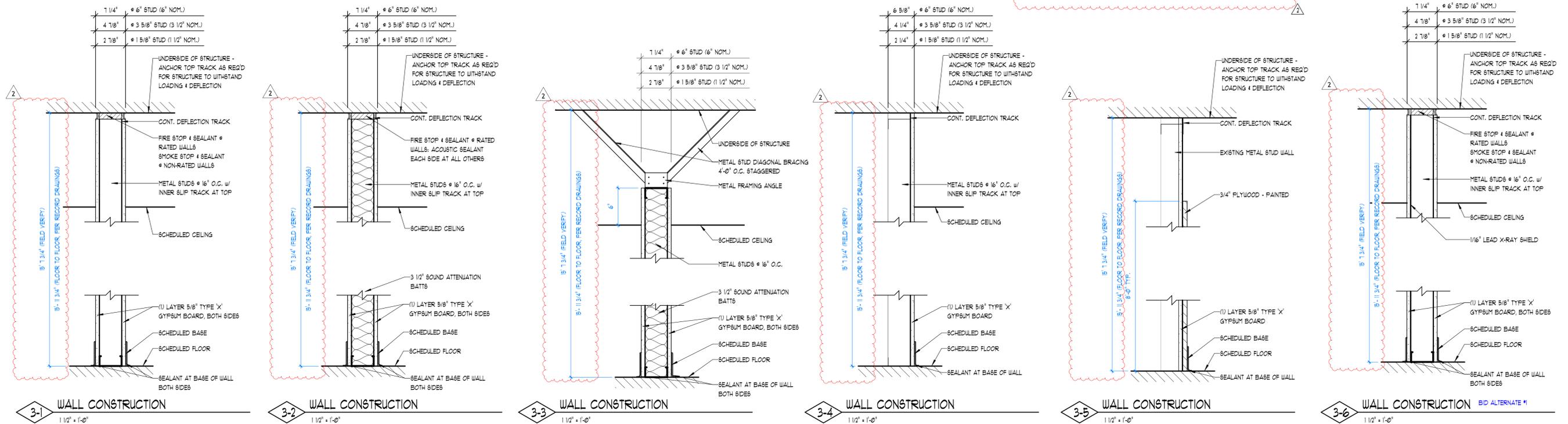
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LEAD SHIELDING NOTES

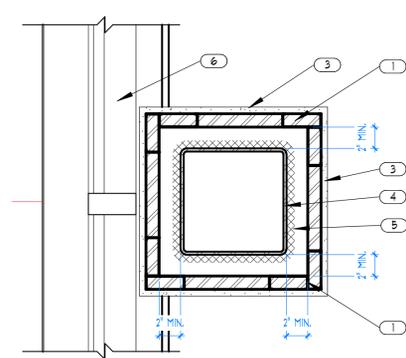
- CONSTRUCT WALLS WITH LEADED (Pb) GYPSUM BOARD OF SPECIFIED THICKNESS WITH THE LEAD (Pb) EXTENDING FROM THE FLOOR TO A HEIGHT OF AT LEAST SEVEN FEET. THE SCREWS/NAILS DO NOT NEED TO BE CAPPED WITH LEAD (Pb).
- SHIELD ALL ELECTRICAL OUTLETS, SWITCHES AND OTHER PENETRATIONS LOCATED IN SHIELDED WALLS, BACKED WITH THE SAME THICKNESS OF LEAD (Pb) AS THE WALL THAT THEY PENETRATE.
- LINE THE DOOR AND JAMB WITH THE SAME THICKNESS OF LEAD (Pb) AS THE WALL THAT THEY PENETRATE, UNLESS SPECIFIED OTHERWISE. ENSURE THAT THE LEADED DOOR FRAME OVERLAPS THE LEAD (Pb) IN THE GYPSUM BOARD WALL.
- PROVIDE THE PATIENT VIEWING WINDOW AND WINDOW SILL WITH THE SAME LEAD (Pb) EQUIVALENCY AS THE WALL THAT THEY PENETRATE. ENSURE THAT THE LEADED WINDOW FRAME OVERLAPS THE LEAD (Pb) IN THE GYPSUM BOARD WALL. THE CENTER OF THE VIEWING WINDOW MAY NOT BE CLOSER THAN 24 INCHES TO THE BOOTH'S OPEN EDGE.
- PLACE THE EXPOSURE SWITCH A MINIMUM OF 28 INCHES (1 METER) FROM THE END OF THE CONTROL BARRIER.

SHEET NOTES

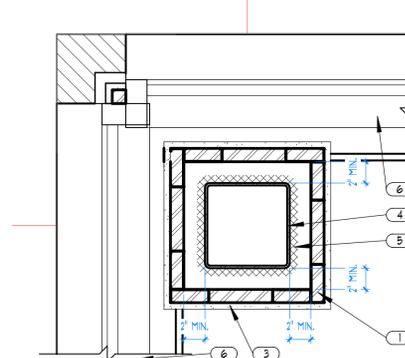
- 3 5/8" METAL STUD FURRING
- 3 5/8" METAL STUD FRAMING
- 5/8" TYPE 'X' GYP. BD.
- EXISTING STEEL COLUMN
- PRESERVE EXISTING SPRAY-ON FIREPROOFING, RE-APPLY AS NEEDED
- EXISTING ALUMINUM STOREFRONT SYSTEM
- EXISTING EXTERIOR WALL



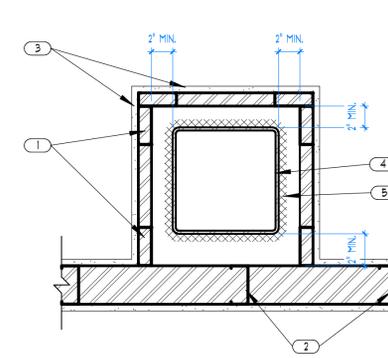
1 COLUMN WRAP DETAIL 1 1/2' x 1'-0"



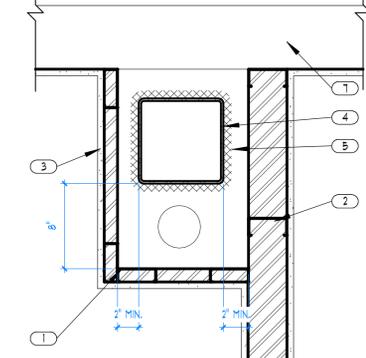
2 COLUMN WRAP DETAIL 1 1/2' x 1'-0"



3 COLUMN WRAP DETAIL 1 1/2' x 1'-0"



4 COLUMN WRAP DETAIL 1 1/2' x 1'-0"



5 COLUMN WRAP DETAIL 1 1/2' x 1'-0"



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**MOUNTAINLAND
 TECHNICAL
 COLLEGE**
 PROVO MTECH PHASE
 V REMODEL (DFCM
 PROJECT #18207260)

125 NORTH 100 WEST
 PROVO, UTAH 84601



revision information	
no.	date description
2	10.28.2015 ADDENDUM #1

milestone issue date
 06.12.2015
 milestone issue description
 UPDATED PERMIT REVIEW SET
 latest revision date
 10.28.2015
 latest revision description
 ADDENDUM #1

CONSTRUCTION TYPES

A3.1

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FINISH LEGEND

FLOORS					
MARK/COLOR	MATERIAL TYPE	MANUFACTURER	* / COLOR	SIZE	NOTES
CPT	CARPET TILE	SHAW CONTRACT	STYLE: SEA EDGE TILE, 5T113 COLOR: SKYLINE RED 12502	24" x 24"	---
CTF	PORCELAIN TILE	DALTILE	STYLE: PORTFOLIO, PF09 COLOR: CHARCOAL	12" x 24"	---
LVT	LUXURY VINYL TILE	MANNINGTON	STYLE: AMTICO CRIS9CRO85 ALC401 COLOR: POP	18" x 18"	---
CONC-1	CONCRETE - POLISHED	---	MATCH EXISTING CONDITIONS ON LEVELS 1 OR 2	---	POLISH & GRIND AT CORNERS
CONC-2	CONCRETE - SEALED	SEE SPEC	---	---	---
T&S-1	RUBBER TRANSITION STRIP	JOHNSONITE	STYLE: EG-XX-J, 20 COLOR: CHARCOAL W/G	3/16"	PROVIDE AT CARPET TO SEALED / POLISHED CONCRETE TRANSITION
T&S-2	RUBBER TRANSITION STRIP	JOHNSONITE	STYLE: CTA-XX-P, 55 COLOR: SILVER GRAY W/G	3/16"	PROVIDE AT TILE TO SEALED / POLISHED CONCRETE TRANSITION
T&S-3	RUBBER TRANSITION STRIP	JOHNSONITE	STYLE: 5TL-XX-B, 20 COLOR: CHARCOAL W/G	.08" to 1/8"	PROVIDE AT CARPET TO LVT TRANSITION
T&S-4	RUBBER TRANSITION STRIP	JOHNSONITE	STYLE: 5TL-XX-J, 20 COLOR: CHARCOAL W/G	.08"	PROVIDE AT LVT TO SEALED / POLISHED CONCRETE TRANSITION
T&S-5	RUBBER TRANSITION STRIP	JOHNSONITE	STYLE: CTA-XX-PL, 20 COLOR: CHARCOAL W/G	3/16"	PROVIDE AT EXISTING TILE TO SEALED / POLISHED CONCRETE
T&S-6	RUBBER TRANSITION STRIP	JOHNSONITE	STYLE: CTA-XX-PL, 20 COLOR: CHARCOAL W/G	TBD	PROVIDE AT EXISTING VCT OR CARPET TO SEALED CONCRETE
BASE					
MARK	MATERIAL TYPE	MANUFACTURER	* / COLOR	SIZE	NOTES
CTB-1	PORCELAIN TILE BASE	DALTILE	STYLE: COLOR WHEEL CLASSIC COLOR: DESERT GRAY - GLO89	3" x 6"	⚠
RB-1	RUBBER BASE	JOHNSONITE	STYLE: BASEWORK COLOR: MYSTIFY 469	4" TOE	--
RB-2	RUBBER BASE	JOHNSONITE	STYLE: BASEWORK COLOR: CHARCOAL 20	4" TOE	--
WALLS					
MARK	MATERIAL TYPE	MANUFACTURER	* / COLOR	SIZE	NOTES
CG	STAINLESS STEEL CORNER GUARD	KOROGARD	STYLE: 6610 COLOR: SATIN	1" x 1" x 9" H	PROVIDE AT ALL OUTSIDE CORNERS
CTW-1	PORCELAIN TILE	DALTILE	STYLE: COLOR WHEEL CLASSIC COLOR: DESERT GRAY - GLO89	3" x 6"	--
CTW-2	PORCELAIN TILE	DALTILE	STYLE: COLOR WHEEL LINEAR COLOR: ARCTIC WHITE - GLO89	2" x 8"	--
PTDU-1	PAINTED GYPSUM BOARD	SHERWIN WILLIAMS	STYLE: 8U 1016 COLOR: MINDFUL GRAY	N/A	ACCENT PAINT AT CORRIDORS, LEVEL 4 FINISH
PTDU-2	PAINTED GYPSUM BOARD	SHERWIN WILLIAMS	STYLE: 8U 1008 COLOR: ALABASTER	N/A	FIELD COLOR, LEVEL 4 FINISH
PTDU-3	PAINTED GYPSUM BOARD	PANTONE	STYLE: 189 C COLOR: MOUNTAINLAND MAROON	N/A	ACCENT WALLS AT ELEVATOR CORE
PTDU-4	PAINTED GYPSUM BOARD	SHERWIN WILLIAMS	STYLE: 8U 1069 COLOR: IRON ORE	N/A	WALLS ABOVE 9 FEET AT ALL EXPOSED CEILING
WC-1	ACOUSTIC WALLCOVERING	FILZFELT	STYLE: AKUSTICKA 10 WALL COLOR: 201 ROT	1 1/4"	PROVIDE ON EAST WALL OF ROOM 309
WC-2	ACOUSTIC WALLCOVERING	FILZFELT	STYLE: AKUSTICKA 10 WALL COLOR: 170 ASCH	1 1/4"	PROVIDE ON NORTH & SOUTH WALLS OF ROOM 309
CEILING					
MARK	MATERIAL TYPE	MANUFACTURER	* / COLOR	SIZE/FINISH	NOTES
EXP	EXPOSED TO STRUCTURE	SHERWIN WILLIAMS	STYLE: 8U 1069 COLOR: IRON ORE	N/A	--
PTDC	PAINTED GYPSUM BOARD	SHERWIN WILLIAMS	STYLE: 8U 1016 COLOR: MINDFUL GRAY	N/A	--
WD	WOOD GRILLE CEILING	ARMSTRONG	STYLE: WOODWORKS, GRILLE T24DO COLOR: MATCH CUSTOM FINISH	12" x 36" x 1 3/8" H	--
ACP	LINEAR ACOUSTICAL BLADES	3-FORM	STYLE: DIVY SUSPENDED BAFFLE COLOR: RUBY	2'-0" H x 8'-6" L	SPACE AT 2'-0" O.C.
ACT	ACOUSTICAL PANEL CEILING	ARMSTRONG	STYLE: 181 ULTIMA COLOR: WHITE	2" x 2" x 3/4"	REGULAR
MILLWORK					
MARK	MATERIAL TYPE	MANUFACTURER	* / COLOR	SIZE	NOTES
CHR	SOLID SURFACE	FORMICA	COLOR: ARCTIC 102	3/4" x 6"	CHAIR RAIL
PLAM-1	PLASTIC LAMINATE - VERTICAL SURFACES	WILSONART	COLOR: FAUN CYFRES8 8209K-16	N/A	--
PLAM-2	PLASTIC LAMINATE - VERTICAL SURFACES	PIONITE	COLOR: BANKERS GRAY CG21-SD	N/A	--
SS-1	SOLID SURFACE	FORMICA	COLOR: CLASSICS, LUNA CONCRETE 181	2 CM	--
SS-2	SOLID SURFACE	FORMICA	COLOR: ARCTIC 102	2 CM	WINDOW SILLS
QC	QUARTZ	DALTILE	COLOR: ONE QUARTZ, ASH GRAY N269 - POLISHED	2 CM	--
DOORS, DOOR & WINDOW TRIM					
MARK	MATERIAL TYPE	MANUFACTURER	* / COLOR	SIZE	NOTES
R6	ROLLER SHADES	MECHO SHADE	STYLE: SINGLE MANUAL MECHO 5 COLOR: EUROWILL 6016 SLATE	2% OPENNESS	BLACK FABRICA HEADER

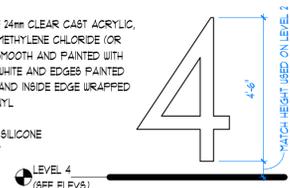
FINISH SCHEDULE

Rm No	ROOM NAME	FLOOR FINISH	BASE FINISH	WALL FINISH				CEILING FINISH	COMMENTS
				NORTH	EAST	SOUTH	WEST		
301	LOBBY	CONC-01	RB-01	PTDU-1CG	PTDU-1CG	PTDU-1CG	PTDU-1CG	EXP	CTW-2 * DRINKING FOUNTAIN, PTDU-3 * ELEVATORS - SEE INT. ELEV.
302	STUDENT LOUNGE	CPT	RB-01	PTDU-2	PTDU-2	PTDU-2	PTDU-2	EXP/WD	
303	STUDENT STUDY	CPT	RB-02	PTDU-2	PTDU-2	PTDU-2	PTDU-2	ACP	
304	WOMEN	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	
305	JANITOR	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	
306	MEN	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	
307	CORRIDOR	CONC-01	RB-01	PTDU-1CG	PTDU-1CG	PTDU-1CG	PTDU-1CG	EXP	
308	STAIR #1	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	
309	SM. MTG.	CPT	RB-02	PTDU-2	PTDU-2	PTDU-2	PTDU-2	ACT	
310	CLASSROOM	CPT	RB-02	PTDU-2	PTDU-2	PTDU-2	PTDU-2	ACT	INCLUDE IN BID ALTERNATE #1
311	SM. MTG.	CPT	RB-02	PTDU-2	PTDU-2	PTDU-2	PTDU-2	ACT	
312	S. CORRIDOR	CONC-01	RB-01	PTDU-1CG	PTDU-1CG	PTDU-1CG	PTDU-1CG	EXP	
313	SM. MTG.	CPT	RB-02	PTDU-2	PTDU-2	PTDU-2	PTDU-2	ACT	
314	SM. MTG.	CPT	RB-02	PTDU-2	PTDU-2	PTDU-2	PTDU-2	ACT	
315	IT / AV	CONC-02	RB-02	PTDU-2	PTDU-2	PTDU-2	PTDU-2	EXP	
316	W. CORRIDOR	CONC-01	RB-01	PTDU-1CG	PTDU-1CG	PTDU-1CG	PTDU-1CG	EXP	
317	CLASSROOM	CPT	RB-02	PTDU-2	PTDU-2	PTDU-2	PTDU-2	ACT	INCLUDE IN BID ALTERNATE #1
318	STORAGE	CONC-01	RB-02	PTDU-2	PTDU-2	PTDU-2	PTDU-2	EXP	INCLUDE IN BID ALTERNATE #1
319	CLASSROOM	CPT	RB-02	PTDU-2	PTDU-2	PTDU-2	PTDU-2	ACT	INCLUDE IN BID ALTERNATE #1
320	DMS / RAD TECH LAB	LVT	RB-02	PTDU-2	PTDU-2	PTDU-2	PTDU-2	ACT	INCLUDE IN BID ALTERNATE #1
321	RAD TECH CLASSROOM	CPT	RB-02	PTDU-2	PTDU-2	PTDU-2	PTDU-2	ACT	INCLUDE IN BID ALTERNATE #1
322	OFFICE	CPT	RB-02	PTDU-2	PTDU-2	PTDU-2	PTDU-2	ACT	
323	ELEC	EXIST	RB-02	PTDU-2	PTDU-2	PTDU-2	PTDU-2	EXP	
324	OPEN OFFICE	CPT	RB-02	PTDU-2	PTDU-2	PTDU-2	PTDU-2	ACT	
325	TOILET	CTF	CTB-01	CTW-1	CTW-1	CTW-1	CTW-1	PTDC-02	
326	CORRIDOR	CONC-01	RB-01	PTDU-1CG	PTDU-1CG	PTDU-1CG	PTDU-1CG	EXP	
327	TOILET	CTF	CTB-01	CTW-1	CTW-1	CTW-1	CTW-1	PTDC-02	
328	YENDING	CONC-01	RB-01	PTDU-1	PTDU-1	PTDU-1	PTDU-1	EXP	
329	BREAK ROOM	CPT	RB-02	PTDU-2	PTDU-2	PTDU-2	PTDU-2	ACT	
330	STAIR #3	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	
331	FN CLASSROOM 01	CPT	RB-02	PTDU-2	PTDU-2	PTDU-2	PTDU-2	ACT	
332	FN CLASSROOM 02	CPT	RB-02	PTDU-2	PTDU-2	PTDU-2	PTDU-2	ACT	
333	STAIR #2	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	
334	SM CORRIDOR	CONC-01	RB-01	PTDU-1CG	PTDU-1CG	PTDU-1CG	PTDU-1CG	EXP	
335	SM MOCK HOSPITAL	LVT	RB-02	PTDU-2	PTDU-2	PTDU-2	PTDU-2	ACT	
336	SM CONTROL	LVT	RB-02	PTDU-2	PTDU-2	PTDU-2	PTDU-2	ACT	
337	SM MOCK HOSPITAL	LVT	RB-02	PTDU-2	PTDU-2	PTDU-2	PTDU-2	ACT	
338	FN STORAGE	LVT	RB-02	PTDU-2	PTDU-2	PTDU-2	PTDU-2	ACT	
339	FN DEBRIEF	CPT	RB-02	PTDU-2	PTDU-2	PTDU-2	PTDU-2	ACT	
340	OFFICE	CPT	RB-02	PTDU-2	PTDU-2	PTDU-2	PTDU-2	ACT	
341	FN BED LAB	LVT	RB-02	PTDU-2	PTDU-2	PTDU-2	PTDU-2	ACT	

NUMBER TO CORRELATE WITH LEVEL

SUBSTRATE: (1) PIECES OF 24mm CLEAR CAST ACRYLIC, BONDED TOGETHER WITH METHYLENE CHLORIDE (OR EQUAL). EDGES SANDED SMOOTH AND PAINTED WITH PRIMER. FACES PAINTED WHITE AND EDGES PAINTED WHITE. FURTHEST OUTSIDE AND INSIDE EDGE WRAPPED WITH 3M DI-NOC UGH-141 VINYL

MOUNTING: BLIND STUDS & SILICONE
TYPEFACE: GOTHAM LIGHT



② ELEVATOR LEVEL SIGNAGE - LEVEL 4
3/8" x 1'-0"



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**MOUNTAINLAND
TECHNICAL
COLLEGE**

**PROVO MTECH PHASE
V REMODEL (DFCM
PROJECT #18207260)**

125 NORTH 100 WEST
PROVO, UTAH 84601



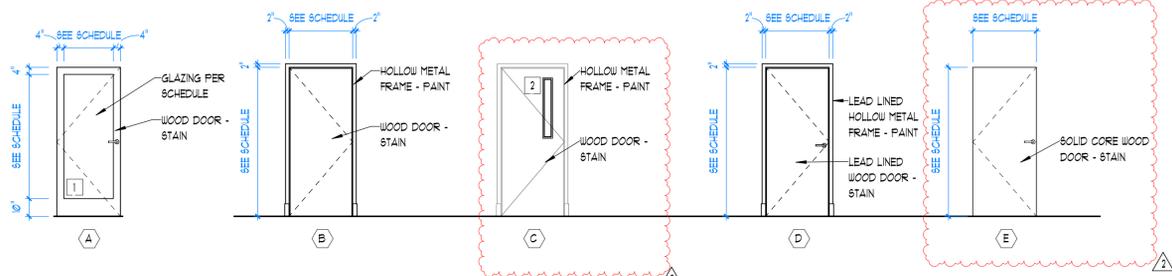
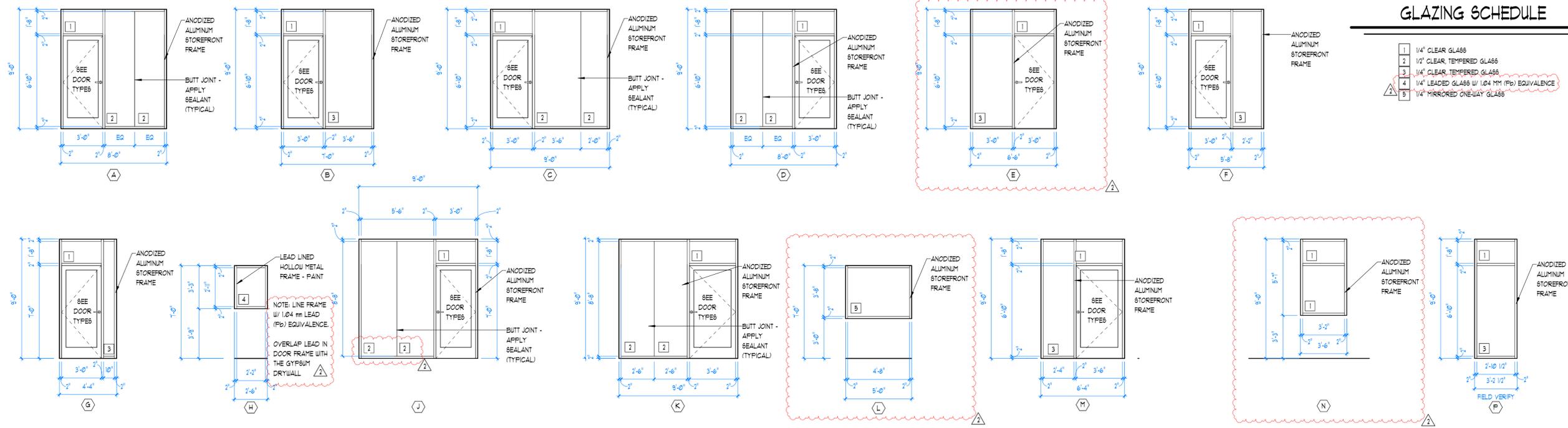
revision information		
no.	date	description
2	10.28.2025	ADDENDUM #1

milestone issue date	06.12.2025
milestone issue description	UPDATED PERMIT REVIEW SET
latest revision date	10.28.2025
latest revision description	ADDENDUM #1

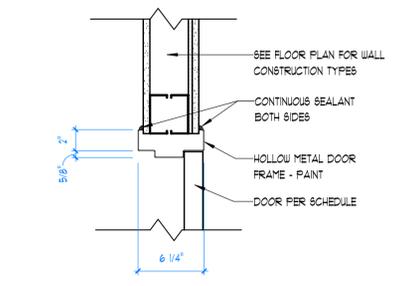
ROOM FINISH SCHEDULE

A3.2

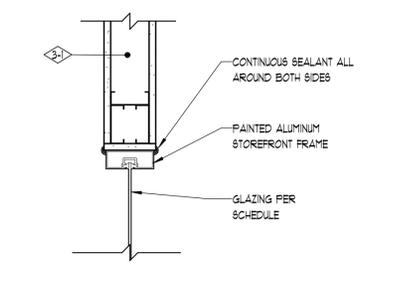
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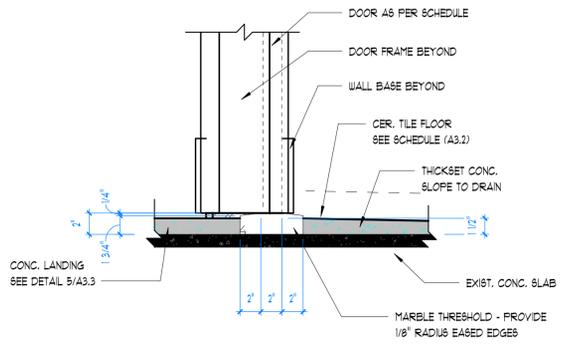
1 1/4" x 1'-0"



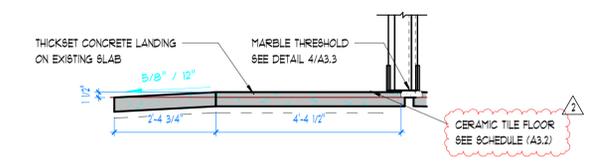
2 1 1/2" x 1'-0"



3 1 1/2" x 1'-0"



4 1 1/2" x 1'-0"

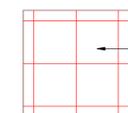
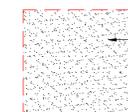
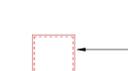


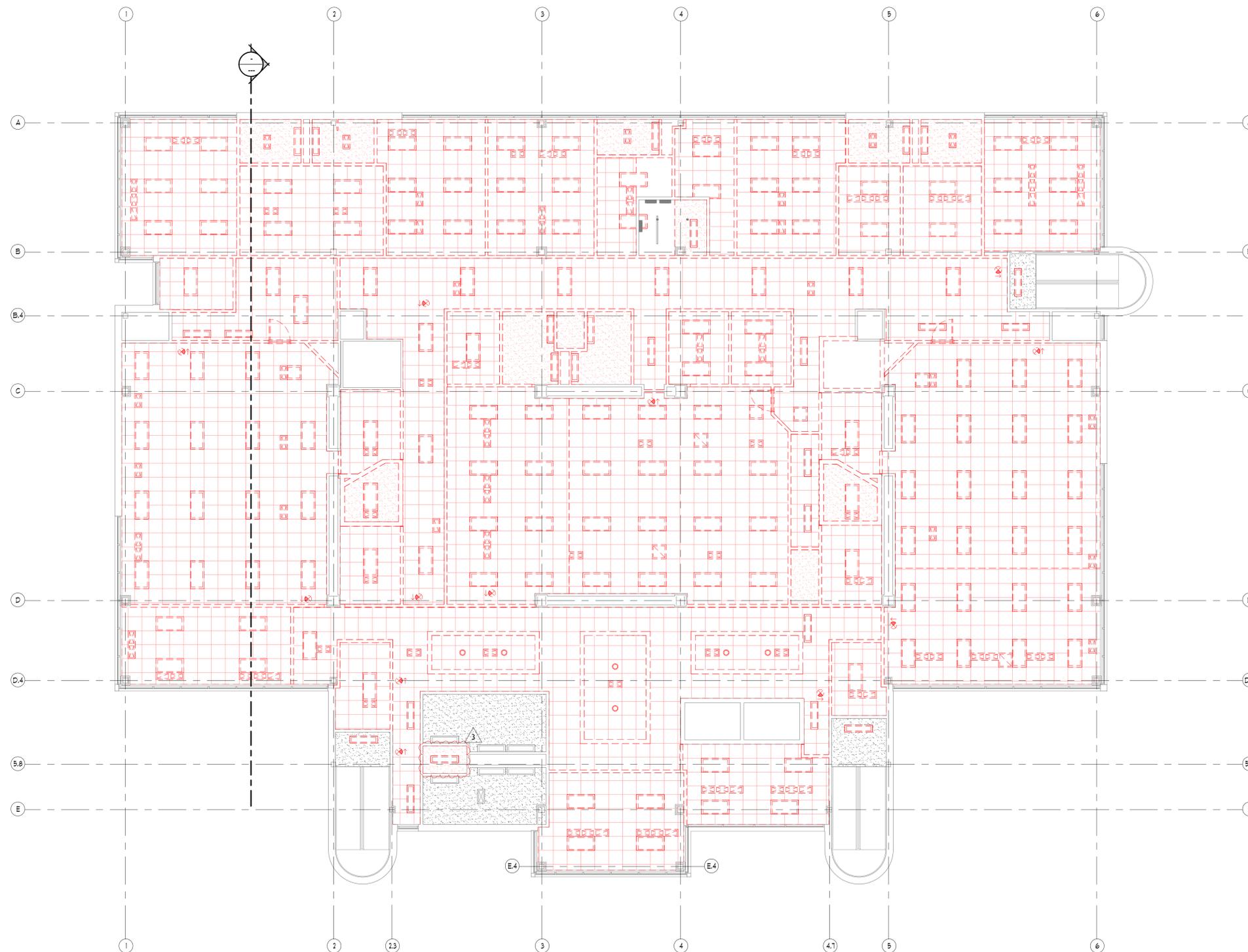
5 1/2" x 1'-0"

DR. NUMBER	RM. NUMBER	DOOR TYPE	ROOM NAME	DOOR SIZE			DETAILS		DOOR SET	FIRE RATING	COMMENTS
				WIDTH	HEIGHT	THICK	HEAD	JAMB			
303	303	A	STUDENT STUDY	3'-0"	T-0"	1 3/4"	2/A3.3	2/A3.3 BIM	06C		
308	308	C	STAIR #1	3'-0"	T-0"	1 3/4"	2/A3.3	2/A3.3 BIM	07A	90 MIN.	
309	309	A	SML. MTG.	3'-0"	T-0"	1 3/4"	2/A3.3	2/A3.3 BIM	06B		
310	310	A	CLASSROOM	3'-0"	T-0"	1 3/4"	2/A3.3	2/A3.3 BIM	04A		
311	311	A	SML. MTG.	3'-0"	T-0"	1 3/4"	2/A3.3	2/A3.3 BIM	06C		
313	313	A	SML. MTG.	3'-0"	T-0"	1 3/4"	2/A3.3	2/A3.3 BIM	06C		
314	314	A	SML. MTG.	3'-0"	T-0"	1 3/4"	2/A3.3	2/A3.3 BIM	06C		
315	315	B	IT / AV	3'-0"	T-0"	1 3/4"	2/A3.3	2/A3.3 BIM	08		
317	317	A	CLASSROOM	3'-0"	T-0"	1 3/4"	2/A3.3	2/A3.3 BIM	04A		
318	318	B	STORAGE	3'-0"	T-0"	1 3/4"	3/A3.3	2/A3.3 BIM	02B		
319	319	A	CLASSROOM	3'-0"	T-0"	1 3/4"	2/A3.3	2/A3.3 BIM	04A		
320	320	D	DMS / RAD TECH LAB	3'-6"	T-0"	1 3/4"	2/A3.3	2/A3.3 BIM	04		
321	321	A	RAD TECH CLASSROOM	3'-0"	T-0"	1 3/4"	2/A3.3	2/A3.3 BIM	04A		
322	322	A	OFFICE	3'-0"	T-0"	1 3/4"	2/A3.3	2/A3.3 BIM	06		
323	323	B	ELEC	3'-0"	T-0"	1 3/4"	2/A3.3	2/A3.3 BIM	08		
324	324	A	OPEN OFFICE	3'-0"	T-0"	1 3/4"	2/A3.3	2/A3.3 BIM	06A		
325	325	B	TOILET	3'-0"	T-0"	1 3/4"	2/A3.3	2/A3.3 BIM	09		
327	327	B	TOILET	3'-0"	T-0"	1 3/4"	2/A3.3	2/A3.3 BIM	09		
329	329	E	BREAK ROOM	3'-0"	T-0"	1 3/4"	2/A3.3	2/A3.3 BIM	06A		
330	330	C	STAIR #3	3'-0"	T-0"	1 3/4"	2/A3.3	2/A3.3 BIM	07A	90 MIN.	
331	331	A	FN CLASSROOM 01	3'-0"	T-0"	1 3/4"	2/A3.3	2/A3.3 BIM	04A		
332	332	A	FN CLASSROOM 02	3'-0"	T-0"	1 3/4"	2/A3.3	2/A3.3 BIM	04A		
333	333	C	STAIR #2	3'-0"	T-0"	1 3/4"	2/A3.3	2/A3.3 BIM	07A	90 MIN.	
335	335	A	BIM MOCK HOSPITAL	3'-6"	T-0"	1 3/4"	2/A3.3	2/A3.3 BIM	04B		
336	336	B	BIM CONTROL	3'-0"	T-0"	1 3/4"	2/A3.3	2/A3.3 BIM	02		
337	337	A	BIM MOCK HOSPITAL	3'-6"	T-0"	1 3/4"	2/A3.3	2/A3.3 BIM	04B		
338	338	B	FN STORAGE	3'-0"	T-0"	1 3/4"	2/A3.3	2/A3.3 BIM	02A		
339	339	B	FN DEBRIEF	3'-0"	T-0"	1 3/4"	2/A3.3	2/A3.3 BIM	06C		
340	340	A	OFFICE	3'-0"	T-0"	1 3/4"	2/A3.3	2/A3.3 BIM	06		
341	341	A	FN BED LAB	3'-6"	T-0"	1 3/4"	2/A3.3	2/A3.3 BIM	04A		

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CEILING DEMO LEGEND

-  REMOVE EXISTING 2x2 SUSPENDED LAY-IN ACOUSTICAL TILE CEILING AND GRID
-  DEMOLISH EXISTING GYP. BD. CEILING
-  REMOVE EXISTING 2x4 LIGHT FIXTURE - SEE ELEC. DWGS.
-  REMOVE EXISTING 2x2 LIGHT FIXTURE - SEE ELEC. DWGS.
-  REMOVE EXISTING SURFACE MOUNTED LIGHT.
-  REMOVE EXISTING RECESSED CAN LIGHT FIXTURE - SEE ELEC. DWGS.
-  REMOVE/DISPOSE EXISTING SUPPLY GRILLES
-  REMOVE/DISPOSE EXISTING RETURN GRILLES



1 LEVEL THREE DEMO CLG PLAN
1/8" = 1'-0"



**MOUNTAINLAND
TECHNICAL
COLLEGE**
PROVO MTECH PHASE
V REMODEL (DFCM
PROJECT #18207260)

125 NORTH 100 WEST
PROVO, UTAH 84601



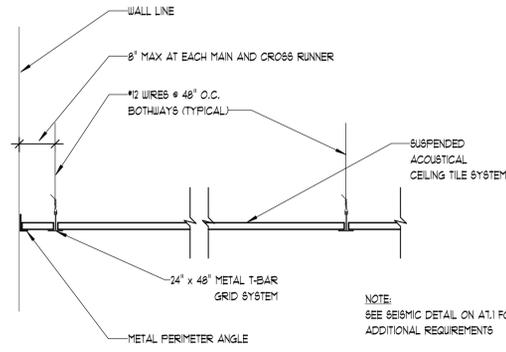
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no.	date	description
3	10/24/2015	ADDENDUM 1

milestone issue date	06.12.2015
milestone issue description	UPDATED PERMIT REVIEW SET
latest revision date	10/24/2015
latest revision description	ADDENDUM 1

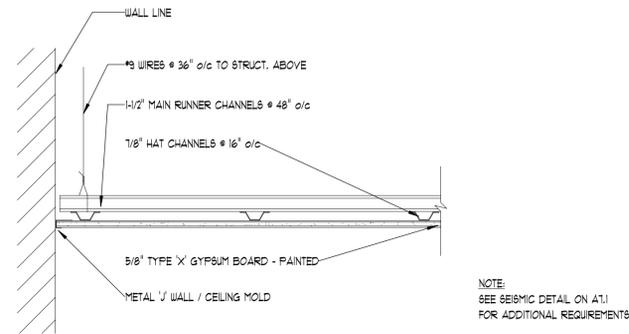
LEVEL 3 REFLECTED
CEILING DEMO PLAN

A8.1

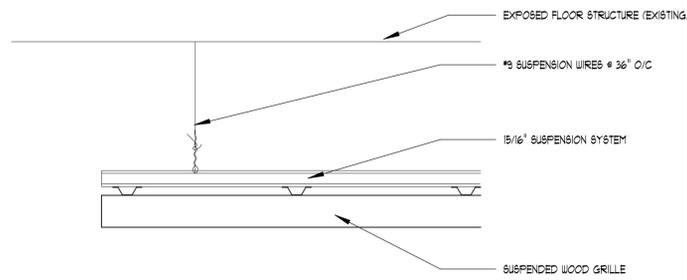
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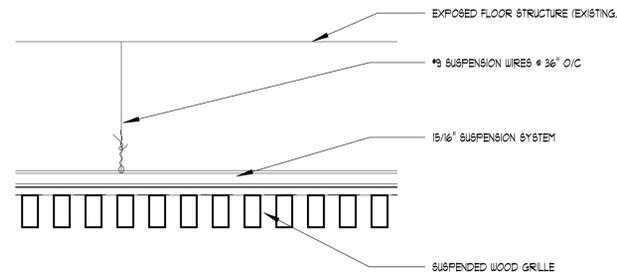
① SUSPENDED LAY IN CEILING SYSTEM
1 1/2" = 1'-0"



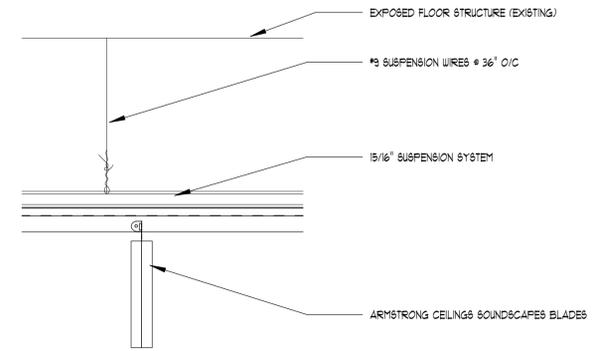
② SUSPENDED GYP. BD. CEILING SYSTEM
1 1/2" = 1'-0"



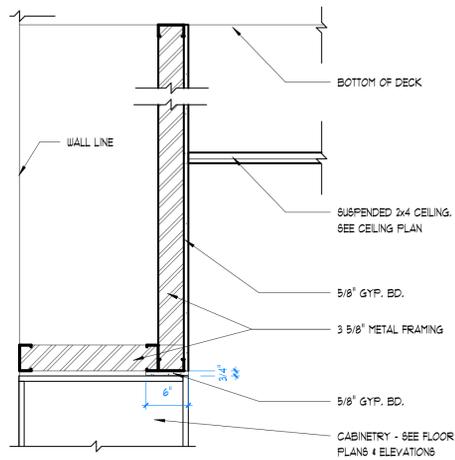
③ CEILING DETAIL
1 1/2" = 1'-0"



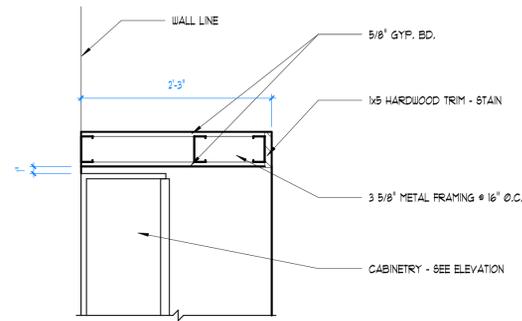
④ CEILING DETAIL
1 1/2" = 1'-0"



⑤ CEILING DETAIL
1 1/2" = 1'-0"



⑥ CABINET HEADER DETAIL
1" = 1'-0"



⑦ SURROUND DETAIL
1" = 1'-0"

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GENERAL NOTE

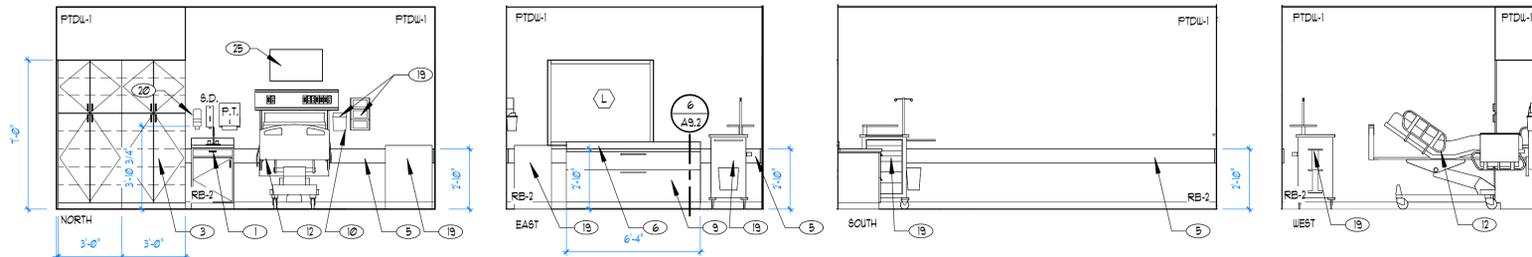
A. REFER TO SHEET A3.2 FOR INTERIOR FINISH LEGEND AND SCHEDULE

SHEET NOTES:

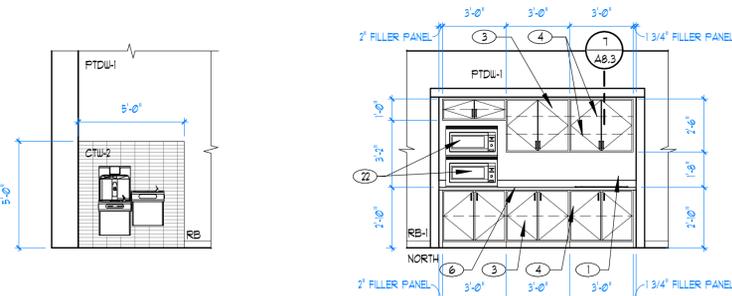
- ◇ TYPICAL REFERENCE FOR CONSTRUCTION TYPE - SEE SHEET A3.1
- TYPICAL REFERENCE FOR DOOR TYPE - SEE SHEET A3.3
- TYPICAL REFERENCE FOR WINDOW TYPE - SEE SHEET A3.3
- ① SINK. SEE PLUMBING DIAGS.
- ② TOILET. SEE PLUMBING DIAGS.
- ③ PLASTIC LAMINATE FACED CABINETS. PROVIDE 3mm PLASTIC EDGES. PROVIDE FINISHED END PANELS ON ALL EXPOSED ENDS.
- ④ 3/4" ADJUSTABLE SHELVES - PROVIDE 3mm PLASTIC EDGES
- ⑤ 6" SOLID SURFACE CHAIR RAIL - SEE FINISH SCHEDULE
- ⑥ SOLID SURFACE COUNTERTOP OVER PLYWOOD SUBSTRATE
- ⑦ FURNITURE - N.I.C.
- ⑧ UNDER COUNTER BRACKET
- ⑨ PLASTIC LAMINATE MANNEQUIN STORAGE
- ⑩ HEADWALL - OWNER PROVIDED, CONTRACTOR INSTALLED
- ⑪ 8' X 4' MARKERBOARD
- ⑫ HOSPITAL BED - OWNER PROVIDED, CONTRACTOR INSTALLED
- ⑬ KV 8810 200LB FELL EXT. GLIDES
- ⑭ WIRE CABINET FULL
- ⑮ 18" STEEL CONCEAL MOUNT BRACKET
- ⑯ PLASTIC LAMINATE PIONTE 'BANKERS GREY' #6214-8D
- ⑰ DOLKEN 30184Y1 3mm 1/16" EDGE BAND TO MATCH LAMINATE
- ⑱ DIAPER CHANGING STATION
- ⑲ MEDICAL EQUIPMENT - N.I.C.
- ⑳ HAND SANITIZER DISPENSER - N.I.C.
- ㉑ STACKED MICROWAVES - N.I.C.
- ㉒ URINAL - SEE PLUMBING DIAGS
- ㉓ SMARTBOARD - OWNER PROVIDED, CONTRACTOR INSTALLED. PROVIDE BLOCKING AS NECESSARY.
- ㉔ WALL MOUNTED MEDICAL MONITOR - OWNER PROVIDED, CONTRACTOR INSTALLED. PROVIDE BACKING AS REQUIRED
- ㉕ 5 GALLON AUTOMATIC WATER DISTILLER - OWNER PROVIDED, OWNER INSTALLED
- ㉖ MEDICAL CURTAIN TRACK
- ㉗ DISPLAY MONITOR - OWNER PROVIDED, CONTRACTOR INSTALLED. PROVIDE BACKING AS NECESSARY
- ㉘ HEAVY DUTY CASTERS (TYPICAL OF SIX)

ACCESSORY ABBREVIATIONS

- MIRR. MIRROR. SEE INT. ELEV.
- S.D. SOAP DISPENSER - 48" AFF. (CFOI)
- T.P. TOILET PAPER DISPENSER 48" AFF. (CFOI)
- G.B.18 GRAB BAR 18" LONG (CFOI)
- G.B.36 GRAB BAR 36" LONG (CFOI)
- G.B.42 GRAB BAR 42" LONG (CFOI)
- P.T. PAPER TOWEL DISPENSER (CFOI)
- D.C. DIAPER CHANGING STATION (CFOI)
- CFCI CONTRACTOR FURNISHED, CONTRACTOR INSTALLED
- OCFI OWNER FURNISHED, CONTRACTOR INSTALLED
- OFOI OWNER FURNISHED, OWNER INSTALLED

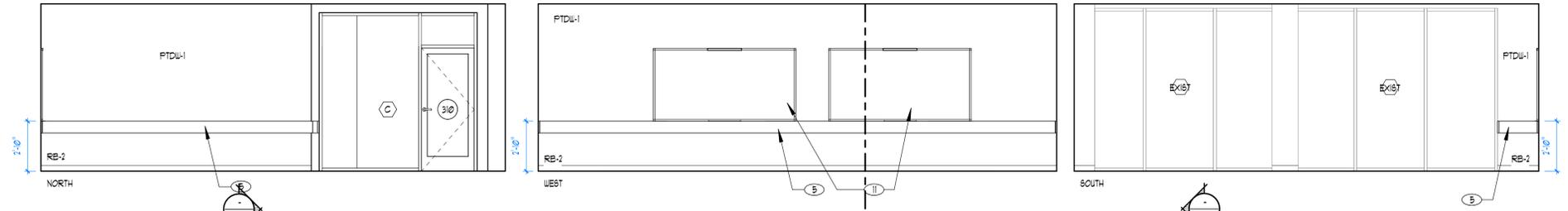


① SIM MOCK HOSPITAL 337 N
1/4" = 1'-0"

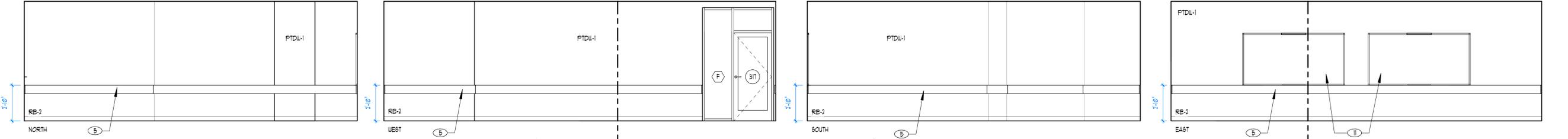


② DRINKING FOUNTAIN
1/4" = 1'-0"

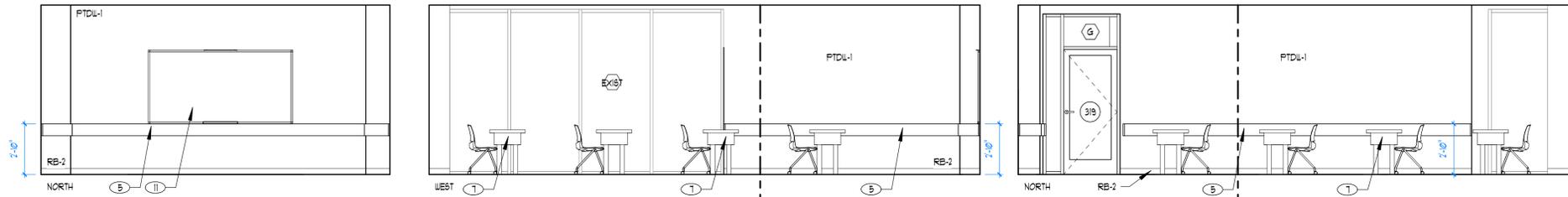
③ STUDENT LOUNGE #302
1/4" = 1'-0"



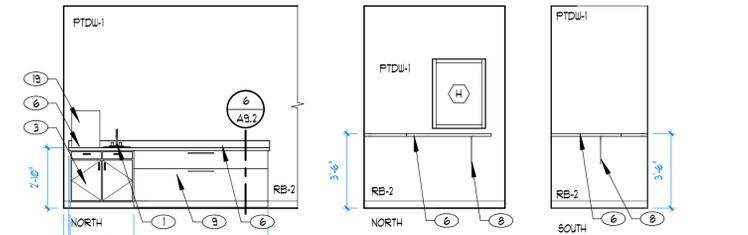
④ CLASSROOM #310 BID ALTERNATE #1
1/4" = 1'-0"



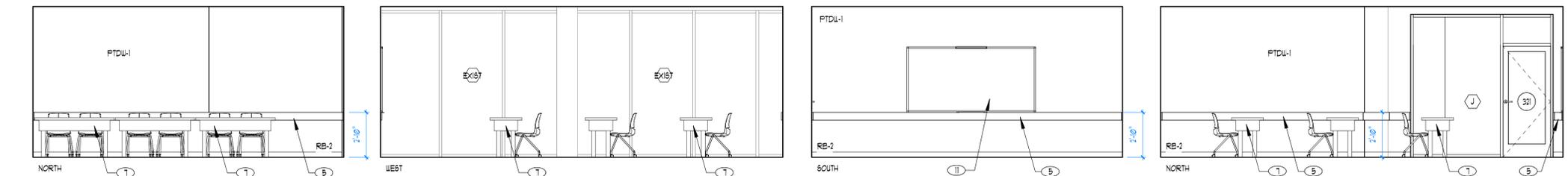
⑤ CLASSROOM #317 BID ALTERNATE #1
1/4" = 1'-0"



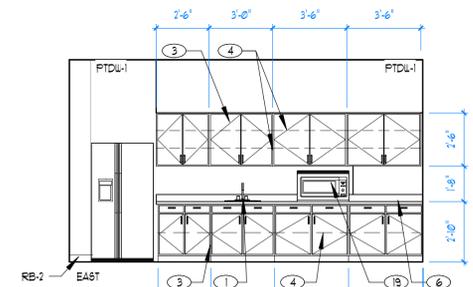
⑥ CLASSROOM #319 BID ALTERNATE #1
1/4" = 1'-0"



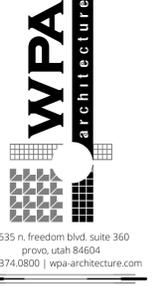
⑦ DMS / RAD TECH LAB #320 BID ALTERNATE #1
1/4" = 1'-0"



⑧ RAD TECH CLASSROOM #321 BID ALTERNATE #1
1/4" = 1'-0"



⑨ BREAK ROOM #329
1/4" = 1'-0"



MOUNTAINLAND TECHNICAL COLLEGE
PROVO MTECH PHASE V REMODEL (DFCM PROJECT #18207260)

125 NORTH 100 WEST
PROVO, UTAH 84601



revision information

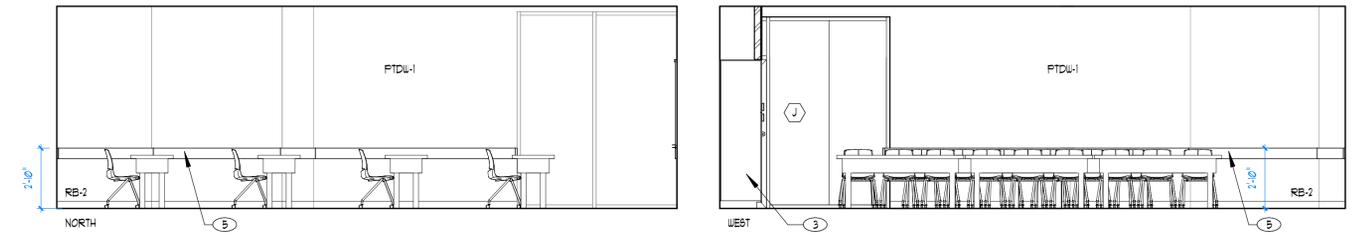
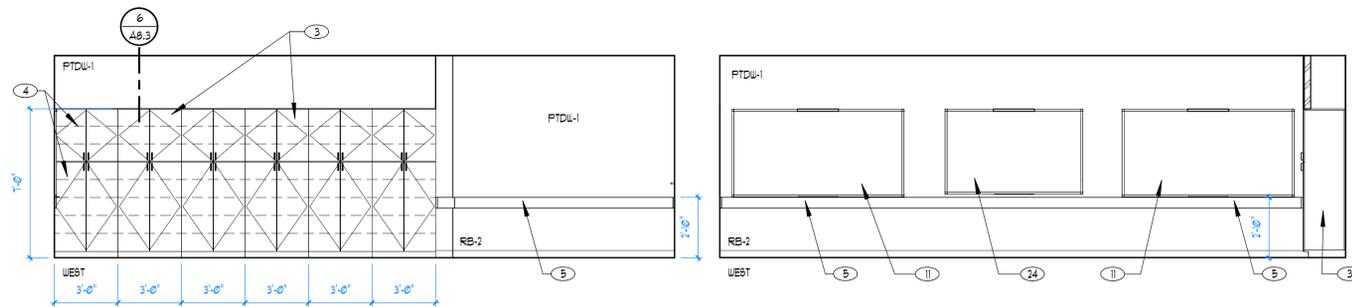
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1	05.28.2025	OWNER CHANGES
2	10.28.2025	ADDENDUM #1

milestone issue date
06.12.2025
milestone issue description
UPDATED PERMIT REVIEW SET
latest revision date
10.28.2025
latest revision description
ADDENDUM #1

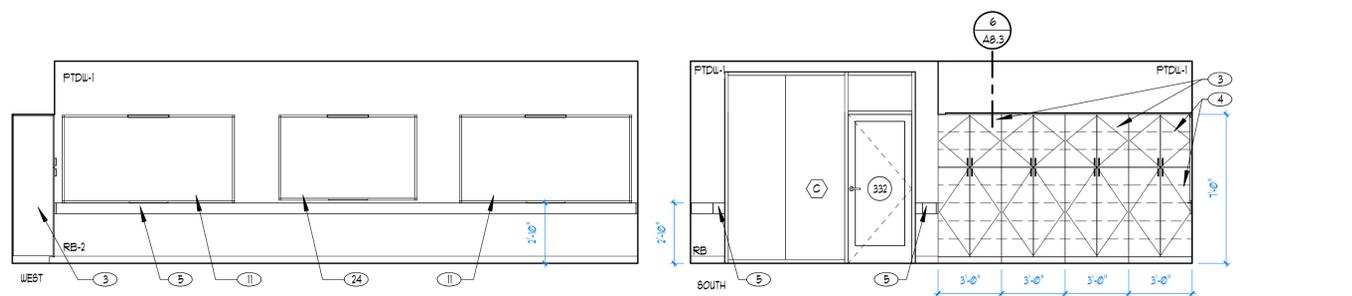
LARGE SCALE FLOOR PLAN & INT. ELEVATIONS

A9.1

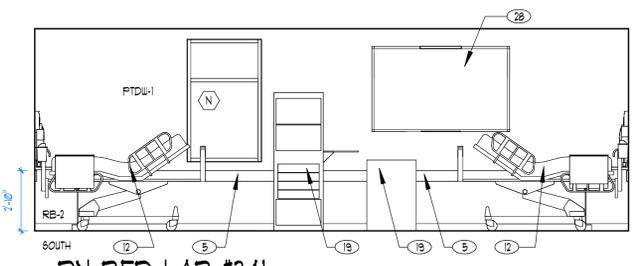
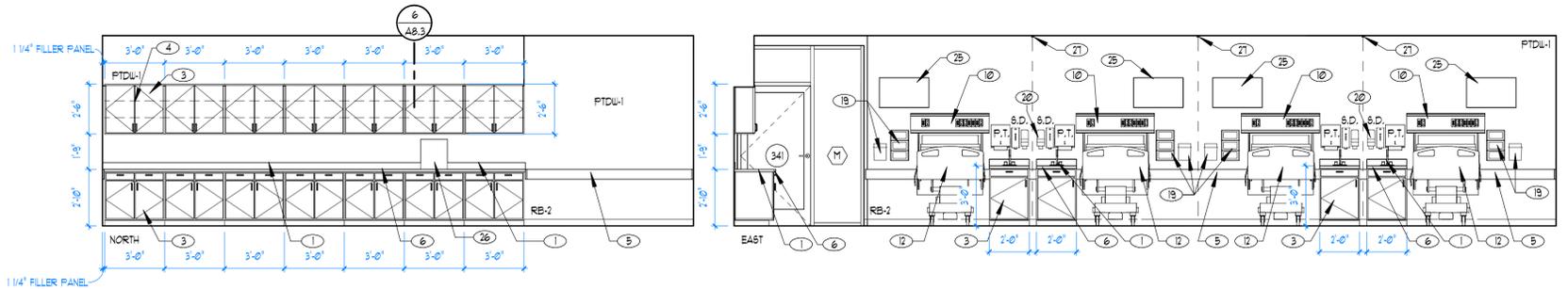
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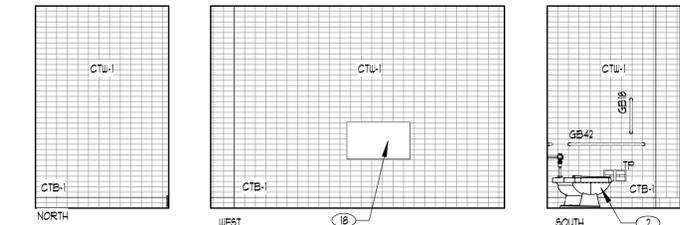
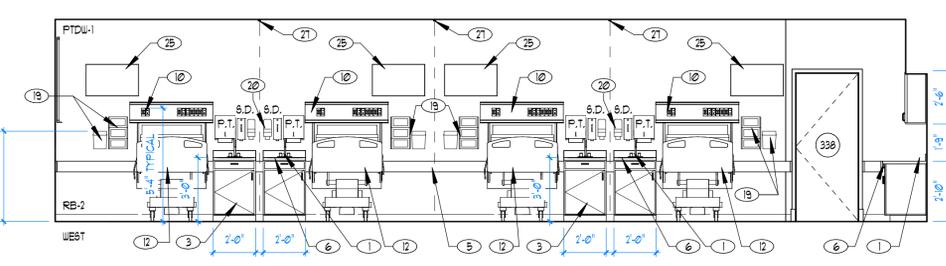
1 PN CLASSROOM 01 #331 WEST
1/4" = 1'-0"



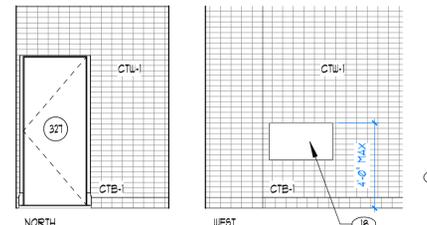
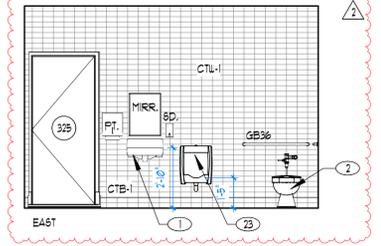
2 PN CLASSROOM 02 #332
1/4" = 1'-0"



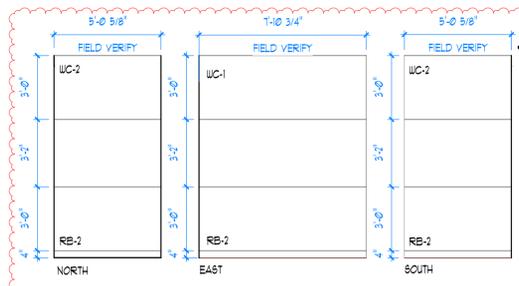
4 PN BED LAB #341
1/4" = 1'-0"



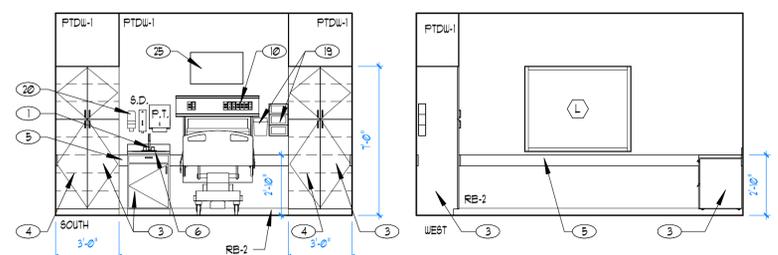
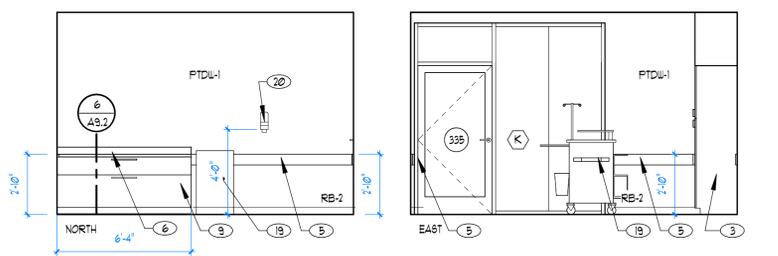
7 TOILET #325
1/4" = 1'-0"



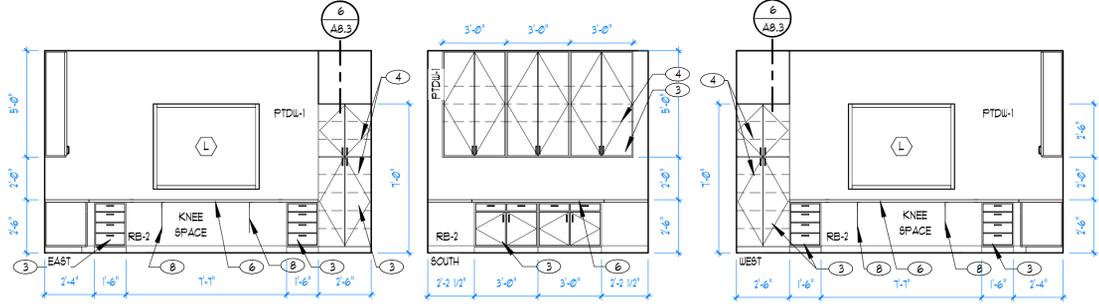
8 TOILET 321 W
1/4" = 1'-0"



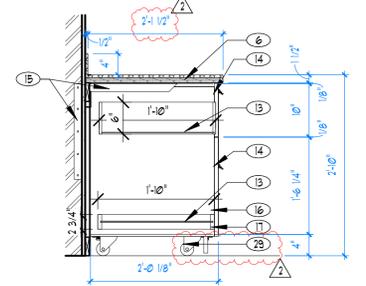
10 SMALL MEETING ROOM 309
1/4" = 1'-0"



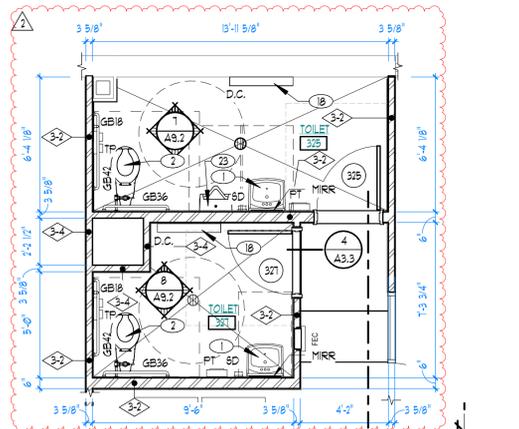
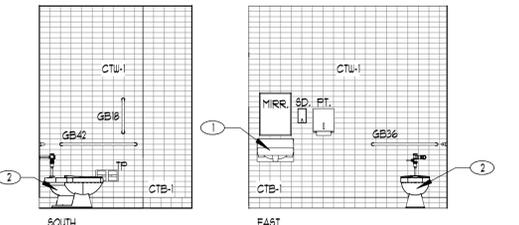
3 SIM MOCK HOSPITAL #335
1/4" = 1'-0"



5 SIM CONTROL #336
1/4" = 1'-0"



6 MANNEQUIN STORAGE DETAIL
3/4" = 1'-0"



9 ENLARGED TOILET ROOM PLAN
1/4" = 1'-0"

ACCESSORY ABBREVIATIONS

- MIRR. MIRROR, SEE INT. ELEV.
- S.D. SOAP DISPENSER 48" AFF. (FCFI)
- T.P. TOILET PAPER DISPENSER 48" AFF. (FCFI)
- G.B.18 GRAB BAR 18" LONG (FCFI)
- G.B.36 GRAB BAR 36" LONG (FCFI)
- G.B.42 GRAB BAR 42" LONG (FCFI)
- P.T. PAPER TOWEL DISPENSER (FCFI)
- D.C. DIAPER CHANGING STATION (FCFI)
- FCFI CONTRACTOR FURNISHED, CONTRACTOR INSTALLED
- OCFI OWNER FURNISHED, CONTRACTOR INSTALLED
- OCFI OWNER FURNISHED, OWNER INSTALLED

SHEET NOTES:

- ◇ TYPICAL REFERENCE FOR CONSTRUCTION TYPE - SEE SHEET A3.1
- TYPICAL REFERENCE FOR DOOR TYPE - SEE SHEET A3.3
- TYPICAL REFERENCE FOR WINDOW TYPE - SEE SHEET A3.3
- ① SINK, SEE PLUMBING DWGS.
- ② TOILET, SEE PLUMBING DWGS.
- ③ PLASTIC LAMINATE FACED CABINETS, PROVIDE 3mm PLASTIC EDGES, PROVIDE FINISHED END PANELS ON ALL EXPOSED ENDS.
- ④ 3/4" ADJUSTABLE SHELVES - PROVIDE 3mm PLASTIC EDGES
- ⑤ 6" SOLID SURFACE CHAIR RAIL - SEE FINISH SCHEDULE
- ⑥ SOLID SURFACE COUNTERTOP OVER PLYWOOD SUBSTRATE
- ⑦ FURNITURE - N.I.C.
- ⑧ UNDER COUNTER BRACKET
- ⑨ PLASTIC LAMINATE MANNEQUIN STORAGE
- ⑩ HEADWALL - OWNER PROVIDED, CONTRACTOR INSTALLED
- ⑪ 8' X 4' MARKERBOARD
- ⑫ HOSPITAL BED - OWNER PROVIDED, CONTRACTOR INSTALLED
- ⑬ KV 8810 200LB FELL EXT. GLIDES
- ⑭ WIRE CABINET FULL
- ⑮ 18" STEEL CONCEAL MOUNT BRACKET
- ⑯ PLASTIC LAMINATE FRONT "BANKERS GREY" #5214-5D
- ⑰ DOLKEN 3084111 3mm 1/8" EDGE BAND TO MATCH LAMINATE
- ⑱ DIAPER CHANGING STATION
- ⑲ MEDICAL EQUIPMENT - N.I.C.
- ⑳ HAND SANITIZER DISPENSER - N.I.C.
- ㉑ STACKED MICROWAVES - N.I.C.
- ㉒ URINAL - SEE PLUMBING DWGS
- ㉓ SMARTBOARD - OWNER PROVIDED, CONTRACTOR INSTALLED, PROVIDE BLOCKING AS NECESSARY.
- ㉔ WALL MOUNTED MEDICAL MONITOR - OWNER PROVIDED, CONTRACTOR INSTALLED, PROVIDE BACKING AS REQUIRED
- ㉕ 5 GALLON AUTOMATIC WATER DISTILLER - OWNER PROVIDED, OWNER INSTALLED
- ㉖ MEDICAL CURTAIN TRACK
- ㉗ DISPLAY MONITOR - OWNER PROVIDED, CONTRACTOR INSTALLED, PROVIDE BACKING AS NECESSARY
- ㉘ HEAVY DUTY CASTERS (TYPICAL OF SIX)

GENERAL NOTE

A. REFER TO SHEET A3.2 FOR INTERIOR FINISH LEGEND AND SCHEDULE



125 NORTH 100 WEST
PROVO, UTAH 84601



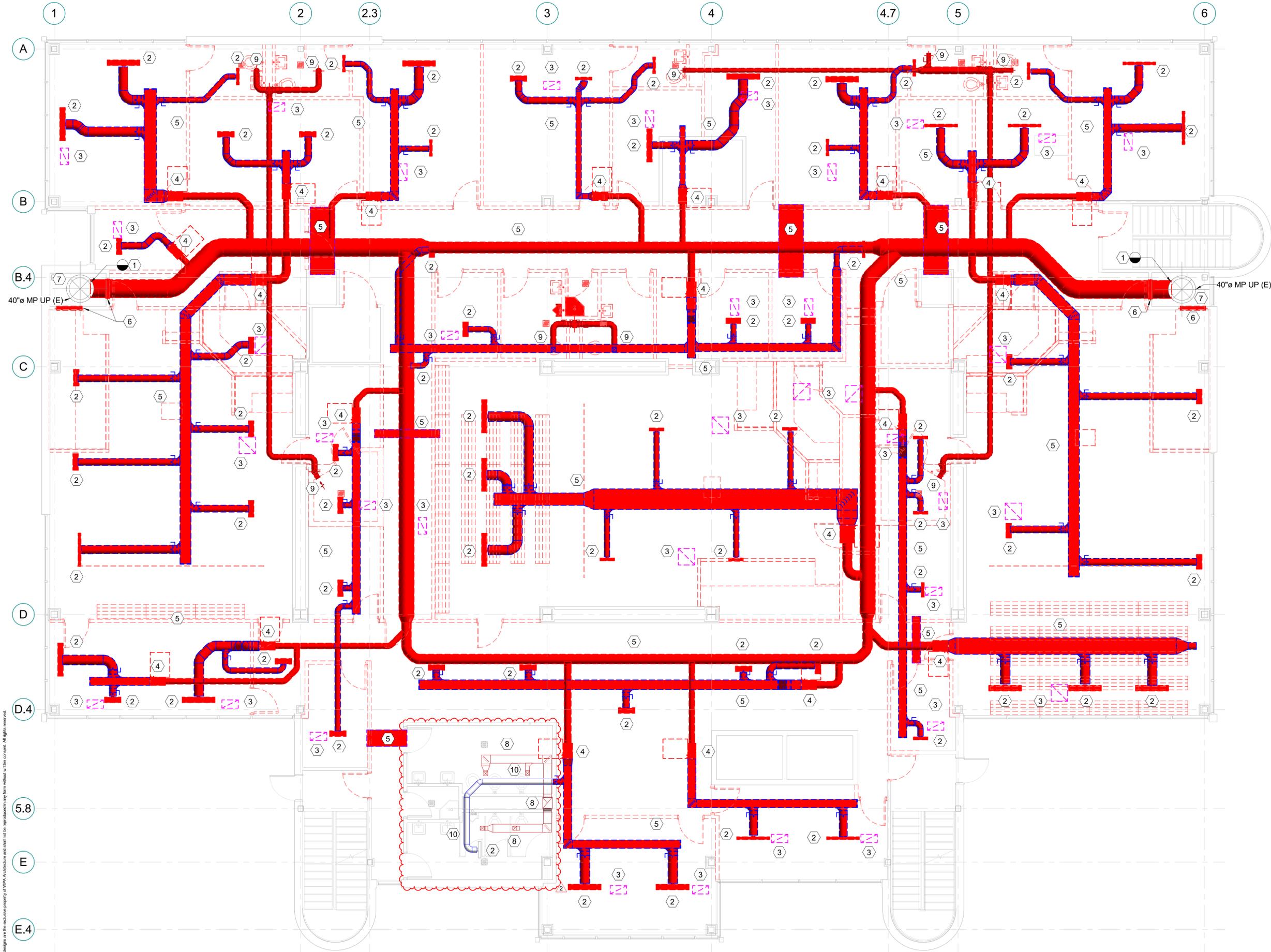
revision information
no. date description
1 05.28.2025 OWNER CHANGES
2 10.28.2025 ADDENDUM #1

milestone issue date 06.12.2025
milestone issue description UPDATED PERMIT REVIEW SET
latest revision date 10.28.2025
latest revision description ADDENDUM #1

LARGE SCALE FLOOR PLAN & INT. ELEVATIONS

A9.2

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- GENERAL NOTES:**
1. CONTRACTOR SHALL FIELD VERIFY EXISTING MECHANICAL AND ARCHITECTURAL CONDITIONS, INCLUDING, BUT NOT LIMITED TO: EXISTING ROUTING AND LOCATION OF DUCTWORK, PIPING, ELECTRICAL AND STRUCTURAL ELEMENTS. CONTRACTOR SHALL FIELD VERIFY POTENTIAL CONFLICTS BETWEEN NEW MECHANICAL ELEMENTS AND EXISTING CONDITIONS PRIOR TO BEGINNING FABRICATION OR ORDERING EQUIPMENT.
 2. ALL DEMOLISHED EQUIPMENT AND MATERIAL SHALL BE BROKEN DOWN TO FIT THROUGH DESIGNATED PATHWAYS. FIELD VERIFY EXACT SCOPE OF DEMOLITION AND REMOVAL PATH. CONTRACTOR SHALL BE RESPONSIBLE TO REPAIR ANY DAMAGE TO BUILDING DURING REMOVAL OF EQUIPMENT AND MATERIAL.
 3. SOME EXISTING PIPING AND EXISTING DUCTWORK NOT SHOWN ON THIS SHEET FOR CLARITY. FIELD VERIFY EXISTING CONDITIONS PRIOR TO BID.
 4. COORDINATE WITH DFCM PROVIDED HAZMAT CONTRACTOR AND HAZMAT REPORT PRIOR TO ANY DEMOLITION WORK.
 5. PROVIDE FULL TEST AND BALANCE REPORT OF ALL IMPACTED SYSTEMS BY LICENSED AND APPROVED TEST & BALANCE CONTRACTOR.
 6. ALL WORK AFFECTING OCCUPIED PORTIONS OF THE BUILDING SHALL BE PERFORMED AFTER HOURS.
 7. BUILDING SHALL REMAIN CONDITIONED AND OCCUPIABLE, AND SHALL MEET CLEAN AIR REQUIREMENTS OF ASHRAE STANDARD 62.1 DURING THE ENTIRE PROJECT.

- SHEET NOTES** (#)
- 1 REMOVE EXISTING DUCTWORK BACK TO THIS APPROXIMATE LOCATION. FIELD VERIFY EXACT ROUTING AND POINTS OF REMOVAL.
 - 2 REMOVE EXISTING SUPPLY DIFFUSER IN THIS APPROXIMATE LOCATION. FIELD VERIFY.
 - 3 REMOVE EXISTING RETURN GRILLE IN THIS APPROXIMATE LOCATION. FIELD VERIFY.
 - 4 REMOVE EXISTING VAV BOX AND ALL ASSOCIATED ITEMS IN THIS APPROXIMATE LOCATION. FIELD VERIFY.
 - 5 REMOVE EXISTING DUCTWORK AND ALL ASSOCIATED ITEMS IN THIS APPROXIMATE LOCATION. FIELD VERIFY.
 - 6 REMOVE EXISTING FIRE SMOKE DAMPER AND ALL ASSOCIATED ITEMS IN THIS APPROXIMATE LOCATION. FIELD VERIFY.
 - 7 EXISTING MEDIUM PRESSURE DUCT RISER SHALL REMAIN. FIELD VERIFY.
 - 8 EXISTING EXHAUST DUCTWORK AND GRILLES IN RESTROOMS SHALL REMAIN. FIELD VERIFY.
 - 9 REMOVE EXISTING EXHAUST GRILLE IN THIS APPROXIMATE LOCATION. FIELD VERIFY.
 - 10 DISCONNECT SUPPLY DUCTWORK ABOVE RESTROOM CEILINGS AND ABANDON IN PLACE. FIELD VERIFY. RESTROOM CEILINGS SHALL REMAIN.

WPA
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WHW
ENGINEERING LLC

1535 N. FREEDOM BLVD. SUITE 360
PROVO, UT 84604
801.374.0800

M
MOUNTAINLAND
TECHNICAL COLLEGE

PROVO
M-TECH

PHASE V
REMODEL

125 NORTH 100 WEST
PROVO, UTAH 84601

PROFESSIONAL ENGINEER
03/26/2025
WINWARD M.
PACKER
No. 375080
STATE OF UTAH

revision information		
no.	date	description
1	03.26.2025	PERMIT REVIEW #1
2	10.28.2025	ADDENDUM #01

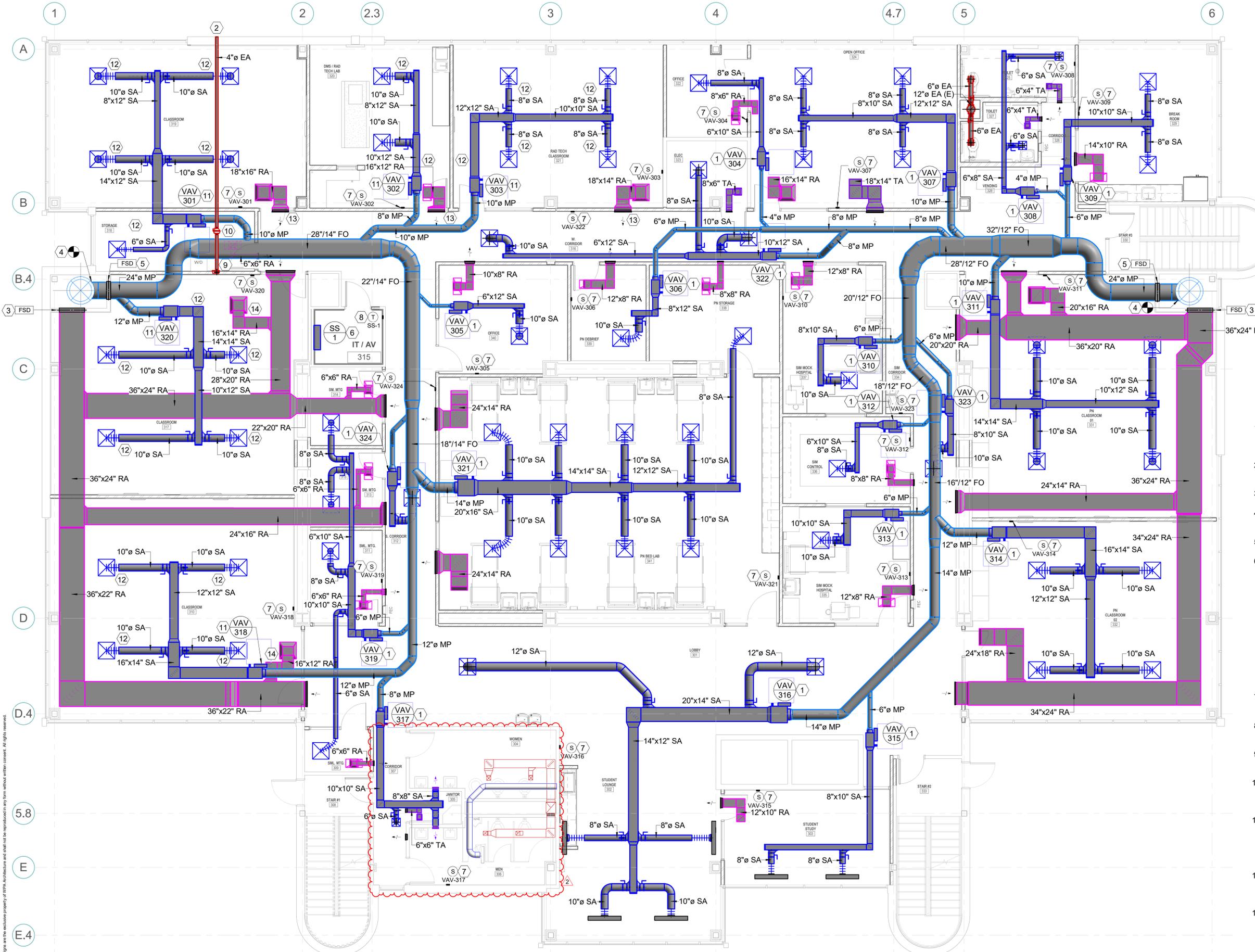
milestone issue date	06.12.2025
milestone issue description	UPDATED PERMIT REVIEW SET
latest revision date	10.28.2025
latest revision description	ADDENDUM #01

LEVEL 3 MECHANICAL
DEMOLITION PLAN

1 LEVEL 3 MECHANICAL DEMOLITION
3/16" = 1'-0"

MD103

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- GENERAL NOTES:**
1. PROVIDE MANUAL BALANCING DAMPERS ON ALL SUPPLY AND EXHAUST BRANCHES. THE EXCEPTION WILL BE THE DUCT LOCATED WITHIN THE PERFORMANCE HALL WHICH HAS BEEN DESIGNED TO BE SELF BALANCING.
 2. ALL EXPOSED DUCTWORK AND PIPING SHALL BE PAINTED. COORDINATE WITH ARCHITECT FOR COLOR AND FINISH.
 3. PROVIDE A FULL TEST AND BALANCE REPORT BY A LICENSED AND APPROVED TEST AND BALANCE CONTRACTOR.
 4. PROVIDE FIRE PROOF SEALING PER IBC 717 IN THE ANNULAR SPACE AROUND ANY FLOOR PENETRATIONS BY DUCTS, PIPES, OR OTHER MECHANICAL ELEMENTS.
 5. CONTRACTOR SHALL FIELD VERIFY EXISTING MECHANICAL AND ARCHITECTURAL CONDITIONS, INCLUDING, BUT NOT LIMITED TO: EXISTING ROUTING AND LOCATION OF DUCTWORK, PIPING, ELECTRICAL AND STRUCTURAL ELEMENTS. CONTRACTOR SHALL FIELD VERIFY POTENTIAL CONFLICTS BETWEEN NEW MECHANICAL ELEMENTS AND EXISTING CONDITIONS PRIOR TO BEGINNING FABRICATION OR ORDERING EQUIPMENT.
 6. ALL WORK AFFECTING OCCUPIED PORTIONS OF THE BUILDING SHALL BE PERFORMED AFTER HOURS.
 7. ALL ROOFING MODIFICATIONS SHALL BE PERFORMED BY THE WARRANTY HOLDING CONTRACTOR. COORDINATE WITH ARCHITECT.

- SHEET NOTES**
1. PROVIDE NEW VAV RE-HEAT BOX IN THIS APPROXIMATE LOCATION. FIELD VERIFY. PROVIDE NEW CONTROLS, SPECIALTIES, AND ALL ASSOCIATED ITEMS. SEE DETAILS.
 2. TERMINATE DRYER EXHAUST DUCT WITH SIDEWALL DRYER VENT. COORDINATE EXACT LOCATION AND COLOR WITH ARCHITECT.
 3. PROVIDE NEW 36x24 FIRE SMOKE DAMPER IN THIS APPROXIMATE LOCATION. FIELD VERIFY.
 4. TIE INTO EXISTING DUCTWORK IN THIS APPROXIMATE LOCATION. FIELD VERIFY EXACT ROUTING AND POINTS OF CONNECTION.
 5. PROVIDE NEW 24" FIRE SMOKE DAMPER IN THIS APPROXIMATE LOCATION. FIELD VERIFY.
 6. PROVIDE NEW HIGH WALL SPLIT SYSTEM INDOOR UNIT IN THIS APPROXIMATE LOCATION. FIELD VERIFY. COORDINATE WITH ELECTRICAL TO CONNECT TO EMERGENCY POWER. PROVIDE WITH INTEGRATED CONDENSATE PUMP WITH A MINIMUM 15' OF LIFT, AND ALL ASSOCIATED DRAIN PIPING. ROUTE DRAIN PIPING TO NEAREST FLOOR DRAIN OR MOP SINK. SEE SHEET ME102 FOR ASSOCIATED OUTDOOR UNIT LOCATED ON ROOFTOP. PROVIDE NEW REFRIGERANT PIPING FROM NEW INDOOR SPLIT SYSTEM TO NEW OUTDOOR CONDENSING UNIT. PROVIDE WITH MANUFACTURER THERMOSTAT. INSTALL PER MANUFACTURER'S RECOMMENDATIONS. FIELD VERIFY EXACT ROUTING.
 7. PROVIDE NEW TEMPERATURE SENSOR 4' A.F.F. IN THIS APPROXIMATE LOCATION. COORDINATE WITH ARCHITECT FOR EXACT LOCATION.
 8. PROVIDE NEW THERMOSTAT 4' A.F.F. IN THIS APPROXIMATE LOCATION. COORDINATE WITH ARCHITECT FOR EXACT LOCATION.
 9. PROVIDE NEW DRYER BOX IN THIS APPROXIMATE LOCATION. PROVIDE ACCESS TO LINT TRAP. FIELD VERIFY.
 10. PROVIDE NEW DRYER BOOSTER FAN IN THIS APPROXIMATE LOCATION. FANTECH DBF110 OR EQUIVALENT. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
 11. BASE BID: PROVIDE NEW MEDIUM PRESSURE SUPPLY DUCTWORK UP TO NEW VAV RE-HEAT BOX IN THIS APPROXIMATE LOCATION. CAP VAV BOX ON LOW PRESSURE SIDE. FIELD VERIFY. PROVIDE NEW CONTROLS, SPECIALTIES, AND ALL ASSOCIATED ITEMS. SEE DETAILS.
 12. ADD ALTERNATE #1: PROVIDE LOW PRESSURE SUPPLY DUCTWORK, DIFFUSERS, AND ALL ASSOCIATED ITEMS ON LOW PRESSURE SIDE OF VAV BOX. FIELD VERIFY.
 13. BASE BID: PROVIDE NEW RETURN DUCT THROUGH CORRIDOR WALL TO FIRST 90. PROVIDE NEW GRILLE ON CORRIDOR SIDE OF WALL. FIELD VERIFY. ADD ALTERNATE #1: PROVIDE RETURN DUCTWORK TO NEW RETURN GRILLE IN DROP CEILING. FIELD VERIFY.
 14. BASE BID: PROVIDE NEW RETURN DUCT TAKEOFF AND DUCTWORK TO FIRST 90. FIELD VERIFY. ADD ALTERNATE #1: PROVIDE NEW RETURN DUCTWORK DOWN TO NEW RETURN GRILLE IN DROP CEILING. FIELD VERIFY.

1 LEVEL 3 MECHANICAL FLOOR PLAN
3/16" = 1'-0"

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MOUNTAINLAND TECHNICAL COLLEGE

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PROFESSIONAL ENGINEER
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WINWARD M. PACKER
No. 375080
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LEVEL 3 MECHANICAL FLOOR PLANS

ME103.1

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- GENERAL NOTES:**
1. PROVIDE MANUAL BALANCING DAMPERS ON ALL SUPPLY AND EXHAUST BRANCHES. THE EXCEPTION WILL BE THE DUCT LOCATED WITHIN THE PERFORMANCE HALL WHICH HAS BEEN DESIGNED TO BE SELF BALANCING.
 2. ALL EXPOSED DUCTWORK AND PIPING SHALL BE PAINTED. COORDINATE WITH ARCHITECT FOR COLOR AND FINISH.
 3. PROVIDE A FULL TEST AND BALANCE REPORT BY A LICENSED AND APPROVED TEST AND BALANCE CONTRACTOR.
 4. PROVIDE FIRE PROOF SEALING PER IBC 717 IN THE ANNULAR SPACE AROUND ANY FLOOR PENETRATIONS BY DUCTS, PIPES, OR OTHER MECHANICAL ELEMENTS.
 5. CONTRACTOR SHALL FIELD VERIFY EXISTING MECHANICAL AND ARCHITECTURAL CONDITIONS, INCLUDING, BUT NOT LIMITED TO: EXISTING ROUTING AND LOCATION OF DUCTWORK, PIPING, ELECTRICAL AND STRUCTURAL ELEMENTS. CONTRACTOR SHALL FIELD VERIFY POTENTIAL CONFLICTS BETWEEN NEW MECHANICAL ELEMENTS AND EXISTING CONDITIONS PRIOR TO BEGINNING FABRICATION OR ORDERING EQUIPMENT.
 6. ALL WORK AFFECTING OCCUPIED PORTIONS OF THE BUILDING SHALL BE PERFORMED AFTER HOURS.

- SHEET NOTES**
- 1 PROVIDE NEW SUPPLY DIFFUSER IN THIS APPROXIMATE LOCATION. FIELD VERIFY. BALANCE TO CFM SHOWN.
 - 2 PROVIDE NEW RETURN GRILLE IN THIS APPROXIMATE LOCATION. FIELD VERIFY.
 - 3 PROVIDE NEW EXHAUST GRILLE IN THIS APPROXIMATE LOCATION. FIELD VERIFY.
 - 4 ADD ALTERNATE #1: PROVIDE NEW SUPPLY DIFFUSER IN THIS APPROXIMATE LOCATION. FIELD VERIFY. BALANCE TO CFM SHOWN.
 - 5 ADD ALTERNATE #1: PROVIDE NEW RETURN GRILLE IN THIS APPROXIMATE LOCATION. FIELD VERIFY.

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LEVEL 3 MECHANICAL
REFLECTED CEILING
PLAN

① MECHANICAL REFLECTED CEILING PLAN
3/16" = 1'-0"

ME103.2

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VAV SCHEDULE															TP		
TAG		AREA SERVED	INLET SIZE	MAX CFM	MIN CFM	HEATING								MAX NC	MANUF. & MODEL	SCHEDULE NOTES	
TYPE	#					EAT	LAT	HTG CFM	HTG BTU/HR	EWT	LWT	GPM	PIPE SIZE				ROWS
VAV	301	CLASSROOM 318	8"	940 CFM	282 CFM	65 °F	105 °F	940 CFM	50900 Btu/h	180 °F	152 °F	3.8 GPM	3/4"	2	25	PRICE SDV	1,2,3,4
VAV	302	DWS/RAD TECH LAB 319	8"	580 CFM	174 CFM	65 °F	105 °F	580 CFM	31500 Btu/h	180 °F	143 °F	1.8 GPM	1/2"	2	25	PRICE SDV	1,2,3
VAV	303	RAD TECH CLASSROOM 320	8"	760 CFM	228 CFM	65 °F	105 °F	760 CFM	41200 Btu/h	180 °F	155 °F	3.5 GPM	3/4"	2	25	PRICE SDV	1,2,3
VAV	304	OFFICE 321	6"	130 CFM	39 CFM	65 °F	105 °F	130 CFM	7100 Btu/h	180 °F	165 °F	1 GPM	1/2"	1	25	PRICE SDV	1,2,3
VAV	305	OFFICE 340	6"	235 CFM	70 CFM	65 °F	105 °F	235 CFM	12800 Btu/h	180 °F	173 °F	3.9 GPM	1/2"	1	25	PRICE SDV	1,2,3
VAV	306	PN DEBRIEF 338	8"	280 CFM	84 CFM	65 °F	105 °F	280 CFM	15200 Btu/h	180 °F	132 °F	0.7 GPM	1"	2	25	PRICE SDV	1,2,3
VAV	307	OPEN OFFICE 323	8"	700 CFM	210 CFM	65 °F	105 °F	700 CFM	38000 Btu/h	180 °F	151 °F	2.8 GPM	1/2"	2	25	PRICE SDV	1,2,3
VAV	308	TOILET 324, 326	6"	110 CFM	33 CFM	65 °F	105 °F	110 CFM	6100 Btu/h	180 °F	173 °F	1.9 GPM	1/2"	1	25	PRICE SDV	1,2,3
VAV	309	PN OFFICE 328	8"	470 CFM	141 CFM	65 °F	105 °F	470 CFM	25500 Btu/h	180 °F	151 °F	1.8 GPM	1/2"	2	25	PRICE SDV	1,2,3
VAV	310	SIM MOCK HOSPITAL 336	6"	315 CFM	94 CFM	65 °F	105 °F	315 CFM	17200 Btu/h	180 °F	136 °F	0.8 GPM	3/4"	2	25	PRICE SDV	1,2,3
VAV	311	PN CLASSROOM 01 330	8"	1,060 CFM	318 CFM	65 °F	105 °F	1,060 CFM	57400 Btu/h	180 °F	141 °F	3.1 GPM	3/4"	2	25	PRICE SDV	1,2,3
VAV	312	SIM CONTROL 335	8"	270 CFM	81 CFM	65 °F	105 °F	270 CFM	14700 Btu/h	180 °F	131 °F	0.6 GPM	3/4"	2	25	PRICE SDV	1,2,3
VAV	313	SIM HOSPITAL 334	6"	295 CFM	88 CFM	65 °F	105 °F	295 CFM	16000 Btu/h	180 °F	133 °F	0.7 GPM	1/2"	2	25	PRICE SDV	1,2,3
VAV	314	PN CLASSROOM 02 331	12"	1,320 CFM	396 CFM	65 °F	105 °F	1,320 CFM	71500 Btu/h	180 °F	145 °F	4.2 GPM	3/4"	2	25	PRICE SDV	1,2,3
VAV	315	STUDENTS STUDY 303	8"	370 CFM	111 CFM	65 °F	105 °F	370 CFM	20100 Btu/h	180 °F	141 °F	1.1 GPM	1/2"	2	25	PRICE SDV	1,2,3,4
VAV	316	LOBBY 301, STUDENTS LOUNGE 302	16"	1,755 CFM	526 CFM	65 °F	105 °F	1,755 CFM	95100 Btu/h	180 °F	144 °F	5.6 GPM	1"	2	25	PRICE SDV	1,2,3,4
VAV	317	WOMEN'S 304, MEN'S 306	8"	400 CFM	120 CFM	65 °F	105 °F	400 CFM	21700 Btu/h	180 °F	144 °F	1.3 GPM	1/2"	2	25	PRICE SDV	1,2,3,4
VAV	318	CLASSROOM 310	12"	1,280 CFM	384 CFM	65 °F	105 °F	1,280 CFM	69300 Btu/h	180 °F	143 °F	4 GPM	3/4"	2	25	PRICE SDV	1,2,3,4
VAV	319	SML MTG 309,311,313,342	8"	450 CFM	135 CFM	65 °F	105 °F	450 CFM	24500 Btu/h	180 °F	149 °F	1.6 GPM	1/2"	2	25	PRICE SDV	1,2,3
VAV	320	CLASSROOM 315	12"	1,180 CFM	354 CFM	65 °F	105 °F	1,180 CFM	64000 Btu/h	180 °F	146 °F	4 GPM	3/4"	2	25	PRICE SDV	1,2,3,4
VAV	321	PN BED LAB 341	16"	2,175 CFM	646 CFM	65 °F	105 °F	2,155 CFM	116700 Btu/h	180 °F	145 °F	7 GPM	1"	2	25	PRICE SDV	1,2,3
VAV	322	W CORRIDOR 316	8"	530 CFM	159 CFM	65 °F	105 °F	530 CFM	28800 Btu/h	180 °F	139 °F	1.5 GPM	1/2"	2	25	PRICE SDV	1,2,3
VAV	323	N CORRIDOR 333	8"	280 CFM	84 CFM	65 °F	105 °F	280 CFM	15200 Btu/h	180 °F	132 °F	0.7 GPM	1"	2	25	PRICE SDV	1,2,3
VAV	324	CORRIDOR 312	8"	280 CFM	84 CFM	65 °F	105 °F	280 CFM	15200 Btu/h	180 °F	132 °F	0.7 GPM	1"	2	25	PRICE SDV	1,2,3

- SEE SPECIFICATIONS FOR OTHER APPROVED MANUFACTURERS.
- SOUND PERFORMANCE SELECTED AT 1.5" STATIC PRESSURE DROP ACROSS BOX.
- SEE VAV PIPING AND VAV SEQUENCE DETAIL.
- PROVIDE WITH 3-WAY VALVE PIPING. SEE DETAIL.

DIFFUSER AND GRILLE SCHEDULE												TP
TAG	MAX FLOW	FACE SIZE		NECK SIZE		CEILING TYPE	BLOW PATTERN	THROW @ 50 FPM	MAX NC	MANUF. & MODEL	SCHEDULE NOTES	
		LENGTH	WIDTH	LENGTH/DIAMETER	WIDTH							
D-1	200 CFM	24"	24"	6"	0"	LAY-IN	4 WAY	8'	25	PRICE SPD	1,3,4	
D-2	325 CFM	24"	24"	8"	0"	LAY-IN	4 WAY	10'	25	PRICE SPD	1,3,4	
D-3	450 CFM	24"	24"	10"	0"	LAY-IN	4 WAY	11'	25	PRICE SPD	1,3,4	
D-4	180 CFM	12"	12"	6"	0"	HARD	4 WAY	10'	25	PRICE SPD	1,3,4	
EG-1	180 CFM	8"	8"	8"	8"	HARD	N/A	0'	25	PRICE 535	1,3,4	
LSS-1	330 CFM	48"	6"	10"	0"	N/A	2 WAY	23'	25	PRICE SDS100	3,4	
R-1	600 CFM	24"	12"	24"	12"	LAY-IN	N/A	0'	25	PRICE 535	2,3,4	
R-2	1,200 CFM	24"	24"	24"	24"	LAY-IN	N/A	0'	25	PRICE 535	2,3,4	
R-3	180 CFM	8"	8"	8"	8"	HARD	N/A	0'	25	PRICE 535	2,3,4	
R-4	250 CFM	10"	10"	10"	10"	HARD	N/A	0'	25	PRICE 535	2,3,4	
SWR-1	800 CFM	7"	7"	6"	6"	SIDEWALL	N/A	0'	30	PRICE 535	2,3,5	
SWR-2	800 CFM	9"	9"	8"	8"	SIDEWALL	N/A	0'	30	PRICE 535	2,3,5	
SWR-3	800 CFM	15"	11"	14"	10"	SIDEWALL	N/A	0'	30	PRICE 535	2,3,5	
SWR-4	800 CFM	19"	13"	18"	12"	SIDEWALL	N/A	0'	30	PRICE 535	2,3,5	
SWR-5	800 CFM	25"	17"	24"	16"	SIDEWALL	N/A	0'	30	PRICE 535	2,3,5	
SWR-6	800 CFM	25"	21"	24"	20"	SIDEWALL	N/A	0'	30	PRICE 535	2,3,5	
SWR-7	800 CFM	33"	21"	32"	20"	SIDEWALL	N/A	0'	30	PRICE 535	2,3,5	
SWR-8	800 CFM	37"	21"	36"	20"	SIDEWALL	N/A	0'	30	PRICE 535	2,3,5	
SWR-9	800 CFM	43"	21"	42"	20"	SIDEWALL	N/A	0'	30	PRICE 535	2,3,5	
SWS-1	150 CFM	10"	10"	8"	8"	SIDEWALL	1 WAY	23'	25	PRICE RCG	3,4	

- SHALL BE PRICE SPD OR APPROVED EQUAL.
- SHALL BE PRICE 535 OR APPROVED EQUAL.
- SEE SPECIFICATIONS FOR OTHER APPROVED MANUFACTURERS.
- FINISH SHALL BE STANDARD WHITE.
- FINISH SHALL BE BLACK TO MATCH CORRIDOR WALLS. COORDINATE WITH ARCHITECT AND OWNER.

COOLING ONLY SPLIT SYSTEM SCHEDULE - INDOOR UNIT							TP
TAG	AREA SERVED	COOLING (BTU/HR)	OPERATING WEIGHT	MANUF. & MODEL	SCHEDULE NOTES		
SS	IT/AV 315	24,000 Btu/h	151 lb	DAIKIN PKA-A24KA7	1,2,3,4,5,6		

- SEE SPECIFICATIONS FOR ALLOWED REFRIGERANT TYPES.
- SEE SPECIFICATIONS FOR OTHER APPROVED MANUFACTURERS.
- PROVIDE WITH INTEGRAL CONDENSATE PUMP. ROUTE CONDENSATE LINE TO NEAREST FLOOR DRAIN OR FUNNEL DRAIN.
- PROVIDE WITH INDIVIDUAL ZONE THERMOSTAT.
- INDOOR UNIT IS POWERED FROM OUTDOOR UNIT.
- WALL MOUNTED UNIT.

SPLIT SYSTEM SCHEDULE - OUTDOOR UNIT											TP
TAG	INDOOR UNIT SERVED	COOLING (BTU/HR)	VOLTAGE	PHASE	FREQUENCY	MCA	MOC	SEER	OPERATING WEIGHT	MANUF. & MODEL	SCHEDULE NOTES
CU	SS-1	24,000 Btu/h	208 V	1	60 Hz	19 A	26 A	21.4	151 lb	DAIKIN PUY-A24NH7	1,2,3,4,5,6,7

- SEE SPECIFICATIONS FOR ALLOWED REFRIGERANT TYPES.
- SEE SPECIFICATIONS FOR OTHER APPROVED MANUFACTURERS.
- COORDINATE WITH ELECTRICAL TO PROVIDE EMERGENCY POWER.
- PROVIDE LOW AMBIENT KIT WITH WIND BAFFLES. UNIT SHALL PROVIDE COOLING OPERATION AT 0 DEGREES AMBIENT.
- SEE SPECIFICATIONS FOR APPROVED ALTERNATE REFRIGERANTS.
- PROVIDE WITH NEW VOLTAGE MONITOR.
- PROVIDE WITH COIL HAIL GUARD.



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PHASE V REMODEL

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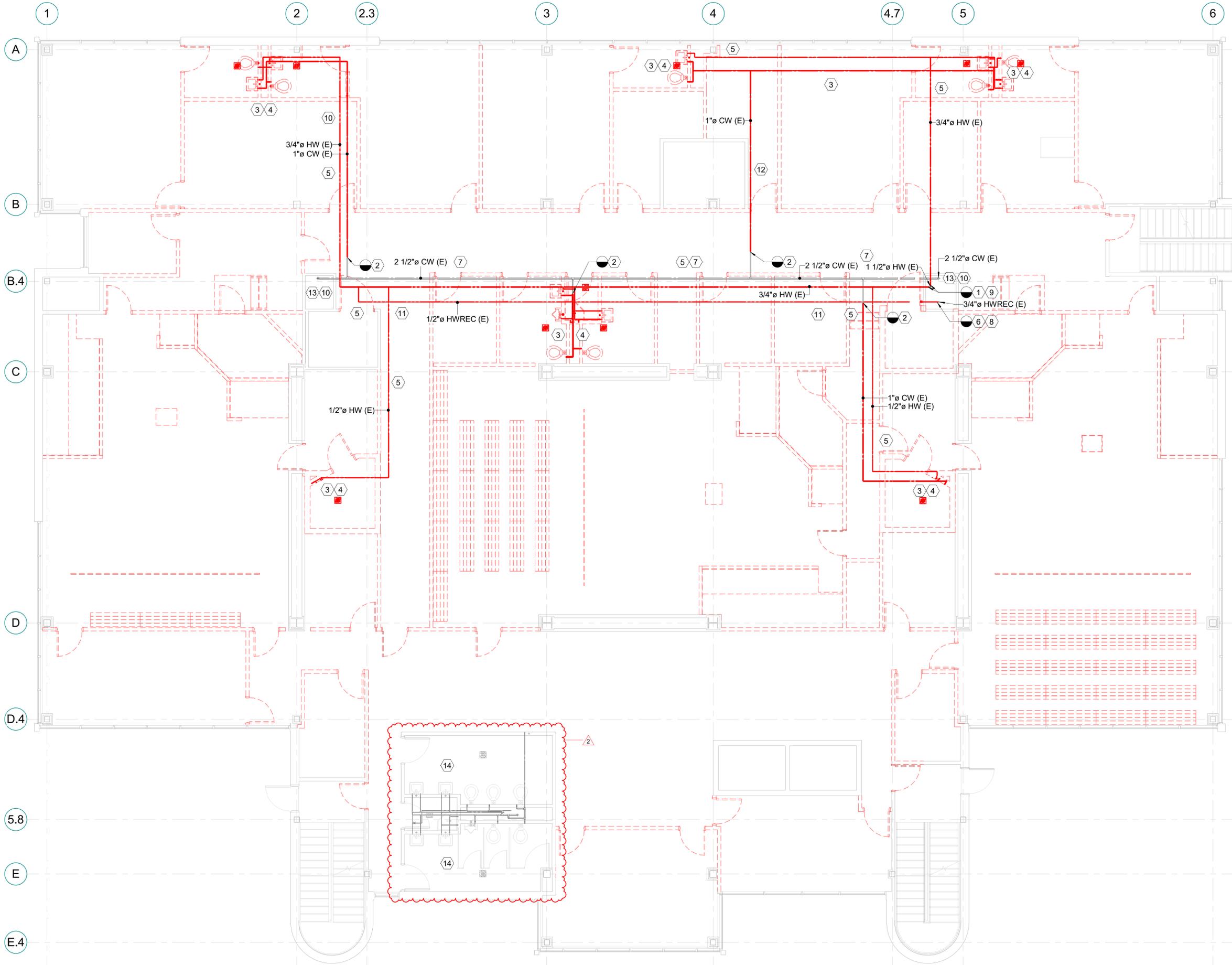
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MECHANICAL SCHEDULES AND DETAILS

ME601



- GENERAL NOTES:**
1. PROVIDE SEISMIC JOINTS ON ANY PIPE PENETRATING A CMU WALL COORDINATE WITH ARCHITECTURAL PLANS FOR WALL TYPES AND LOCATIONS. FIELD VERIFY EXACT LOCATIONS.
 2. PROVIDE FIRE PROOF SEALING PER IBC 717 IN THE ANNULAR SPACE AROUND ANY FLOOR PENETRATIONS BY DUCTS, PIPES, OR OTHER MECHANICAL ELEMENTS.
 3. CONTRACTOR SHALL FIELD VERIFY EXISTING PLUMBING AND ARCHITECTURAL CONDITIONS, INCLUDING, BUT NOT LIMITED TO: EXISTING ROUTING AND LOCATION OF DUCTWORK, PIPING, ELECTRICAL AND STRUCTURAL ELEMENTS. CONTRACTOR SHALL FIELD VERIFY POTENTIAL CONFLICTS BETWEEN NEW PLUMBING ELEMENTS AND EXISTING CONDITIONS PRIOR TO BEGINNING FABRICATION OR ORDERING EQUIPMENT.
 4. ALL DEMOLISHED EQUIPMENT AND MATERIAL SHALL BE BROKEN DOWN TO FIT THROUGH DESIGNATED PATHWAYS. FIELD VERIFY EXACT SCOPE OF DEMOLITION AND REMOVAL PATH. CONTRACTOR SHALL BE RESPONSIBLE TO REPAIR ANY DAMAGE TO BUILDING DURING REMOVAL OF EQUIPMENT AND MATERIAL.
 5. COORDINATE WITH DFCM PROVIDED HAZMAT REPORT PRIOR TO ANY DEMOLITION WORK.
 6. ALL WORK AFFECTING OCCUPIED PORTIONS OF THE BUILDING SHALL BE PERFORMED AFTER HOURS.

SHEET NOTES

- 1 REMOVE EXISTING DOMESTIC HOT WATER PIPING BACK TO THIS APPROXIMATE LOCATION. FIELD VERIFY EXACT ROUTING AND POINTS OF REMOVAL.
- 2 REMOVE EXISTING DOMESTIC COLD WATER PIPING BACK TO THIS APPROXIMATE LOCATION. FIELD VERIFY EXACT ROUTING AND POINTS OF REMOVAL.
- 3 REMOVE ALL EXISTING DOMESTIC COLD WATER, DOMESTIC HOT WATER, DOMESTIC HOT WATER RETURN, SANITARY SEWER, AND VENT PIPING IN THIS APPROXIMATE LOCATION. FIELD VERIFY EXACT ROUTING AND POINTS OF REMOVAL.
- 4 REMOVE ALL EXISTING PLUMBING FIXTURES AND ALL ASSOCIATED ITEMS IN THIS APPROXIMATE LOCATION. FIELD VERIFY EXACT ROUTING AND POINTS OF REMOVAL.
- 5 REMOVE EXISTING DOMESTIC HOT WATER PIPING IN THIS APPROXIMATE LOCATION. FIELD VERIFY EXACT ROUTING AND POINTS OF REMOVAL.
- 6 EXISTING DOMESTIC HOT WATER RECIRC RISER IN THIS APPROXIMATE LOCATION SHALL REMAIN. FIELD VERIFY.
- 7 EXISTING DOMESTIC COLD WATER PIPING IN THIS APPROXIMATE LOCATION SHALL REMAIN. FIELD VERIFY.
- 8 REMOVE EXISTING DOMESTIC HOT WATER RECIRC PIPING BACK TO THIS APPROXIMATE LOCATION. FIELD VERIFY EXACT ROUTING AND POINTS OF REMOVAL.
- 9 EXISTING DOMESTIC HOT WATER RISER IN THIS APPROXIMATE LOCATION SHALL REMAIN. FIELD VERIFY.
- 10 EXISTING PLUMBING SERVING THE 4TH FLOOR SHALL REMAIN. FIELD VERIFY EXACT LOCATION AND ROUTING.
- 11 REMOVE EXISTING DOMESTIC HOT WATER RECIRC PIPING IN THIS APPROXIMATE LOCATION. FIELD VERIFY EXACT ROUTING AND POINTS OF REMOVAL.
- 12 REMOVE EXISTING DOMESTIC COLD WATER PIPING IN THIS APPROXIMATE LOCATION. FIELD VERIFY EXACT ROUTING AND POINTS OF REMOVAL.
- 13 EXISTING DOMESTIC COLD WATER RISER IN THIS APPROXIMATE LOCATION SHALL REMAIN. FIELD VERIFY.
- 14 EXISTING PIPING, PLUMBING FIXTURES, AND ALL ASSOCIATED ITEMS IN RESTROOMS TO REMAIN. FIELD VERIFY.

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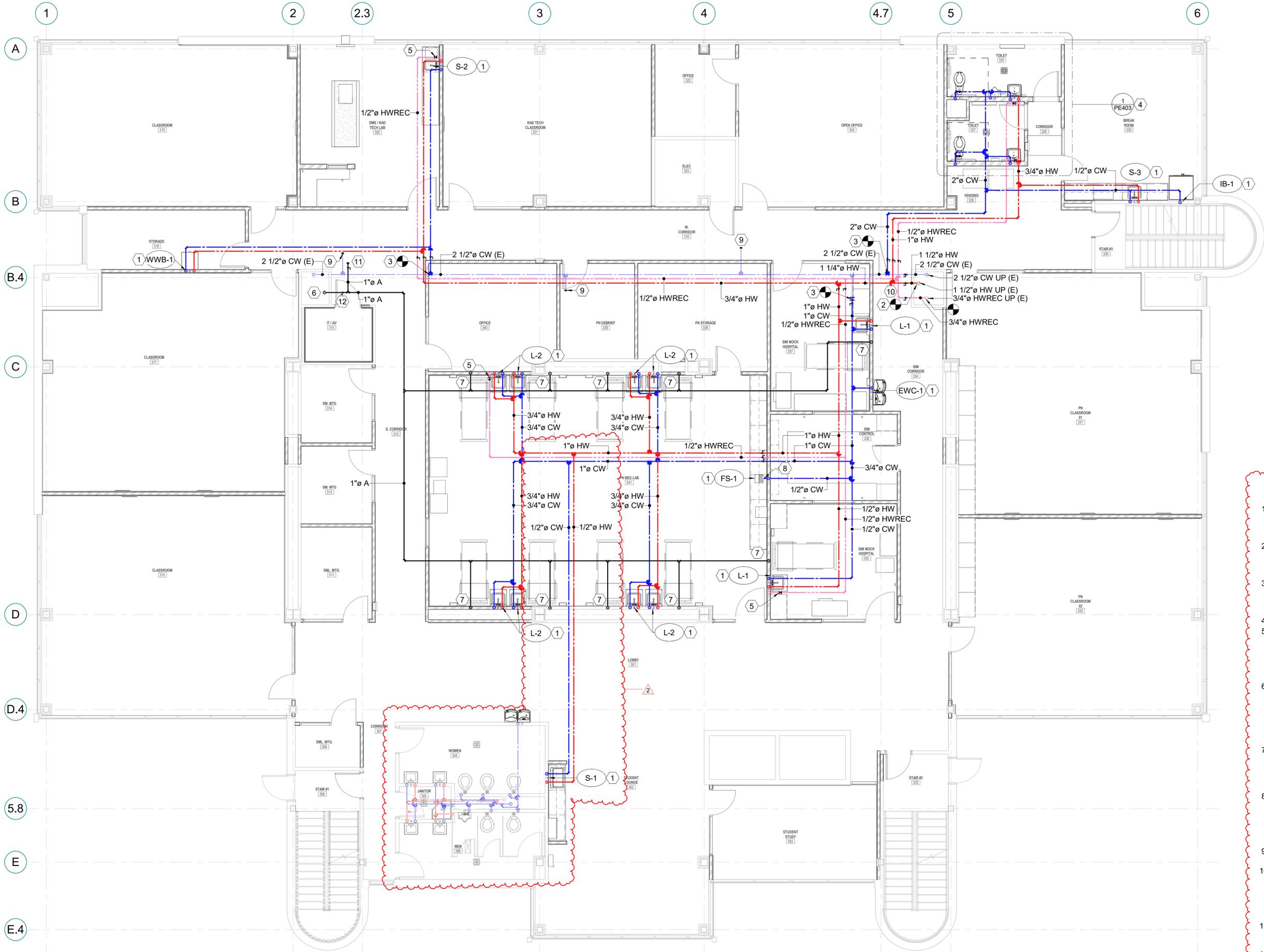
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LEVEL 3 PLUMBING
DOMESTIC DEMOLITION
PLAN

PD103.1

1 LEVEL 3 PLUMBING DOMESTIC DEMOLITION PLAN
3/16" = 1'-0"

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- GENERAL NOTES:**
1. PROVIDE SEISMIC JOINTS ON ANY PIPE PENETRATING A CMU WALL COORDINATE WITH ARCHITECTURAL PLANS FOR WALL TYPES AND LOCATIONS. FIELD VERIFY EXACT LOCATIONS.
 2. ALL EXPOSED DUCTWORK AND PIPING SHALL BE PAINTED. COORDINATE WITH ARCHITECT FOR COLOR AND FINISH.
 3. PROVIDE FIRE PROOF SEALING PER IBC 717 IN THE ANNULAR SPACE AROUND ANY FLOOR PENETRATIONS BY DUCTS, PIPES, OR OTHER MECHANICAL ELEMENTS.
 4. CONTRACTOR SHALL FIELD VERIFY EXISTING PLUMBING AND ARCHITECTURAL CONDITIONS, INCLUDING, BUT NOT LIMITED TO: EXISTING ROUTING AND LOCATION OF DUCTWORK, PIPING, ELECTRICAL AND STRUCTURAL ELEMENTS. CONTRACTOR SHALL FIELD VERIFY POTENTIAL CONFLICTS BETWEEN NEW PLUMBING ELEMENTS AND EXISTING CONDITIONS PRIOR TO BEGINNING FABRICATION OR ORDERING EQUIPMENT.
 5. ALL WORK AFFECTING OCCUPIED PORTIONS OF THE BUILDING SHALL BE PERFORMED AFTER HOURS.
 6. ALL ROOFING MODIFICATIONS SHALL BE PERFORMED BY WARRANTY HOLDING CONTRACTOR. COORDINATE WITH ARCHITECT.

- SHEET NOTES**
- 1 PROVIDE NEW PLUMBING FIXTURE IN THIS APPROXIMATE LOCATION. FIELD VERIFY EXACT LOCATION AND POINTS OF CONNECTION.
 - 2 TIE INTO EXISTING DOMESTIC HOT WATER PIPING IN THIS APPROXIMATE LOCATION. FIELD VERIFY EXACT ROUTING AND POINTS OF CONNECTION.
 - 3 TIE INTO EXISTING DOMESTIC COLD WATER PIPING IN THIS APPROXIMATE LOCATION. FIELD VERIFY EXACT ROUTING AND POINTS OF CONNECTION.
 - 4 SEE LARGE SCALE VIEW ON SHEET PE401.
 - 5 PROVIDE NEW THERMOSTATIC BALANCE VALVE (BELL AND GOSSETT TEMP SETTER OR EQUAL) IN THIS ACCESSIBLE LOCATION. SET MINIMUM FLOW TO 0.1 GPM. COORDINATE WITH ARCHITECT FOR ACCESS PANEL.
 - 6 PROVIDE COMPRESSED AIR PIPING DROP TO LEVEL 1. TIE INTO EXISTING COMPRESSED AIR PIPING ON LEVEL 1. EXISTING AIR COMPRESSOR LOCATED IN COMPRESSOR/VACUUM/STORAGE 105. FIELD VERIFY EXACT ROUTING AND POINT OF CONNECTION.
 - 7 PROVIDE COMPRESSED AIR PIPING DROP TO HEAD WALL UNIT. COORDINATE EXACT LOCATION WITH ARCHITECT. FIELD VERIFY. PROVIDE NEW SHUT-OFF VALVE AND QUICK CONNECT COUPLER.
 - 8 PROVIDE DOMESTIC COLD WATER CONNECTION TO OWNER PROVIDED WATER DISTILLER IN THIS APPROXIMATE LOCATION. FIELD VERIFY EXACT LOCATION. PROVIDE CONNECTION PER MANUFACTURER'S RECOMMENDATIONS.
 - 9 CAP DOMESTIC COLD WATER PIPING IN THIS APPROXIMATE LOCATION. FIELD VERIFY.
 - 10 PROVIDE NEW ISOLATION BALL VALVES ON DOMESTIC COLD WATER, DOMESTIC HOT WATER, AND DOMESTIC HOT WATER RECIRC PIPING MAINS SERVING LEVEL 3 IN THIS APPROXIMATE LOCATION. FIELD VERIFY EXACT LOCATION.
 - 11 PROVIDE COMPRESSED AIR PIPING STUB OUT WITH ISOLATION VALVE AND CAP FOR FUTURE USE. FIELD VERIFY.
 - 12 PROVIDE ISOLATION VALVE IN COMPRESSED AIR PIPING IN THIS APPROXIMATE LOCATION. FIELD VERIFY.

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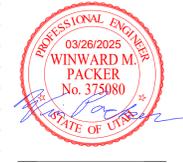
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PROVO M-TECH

PHASE V
REMODEL

125 NORTH 100 WEST
PROVO, UTAH 84601



revision information	
no.	date description
1	03.28.2025 PERMIT REVIEW #1
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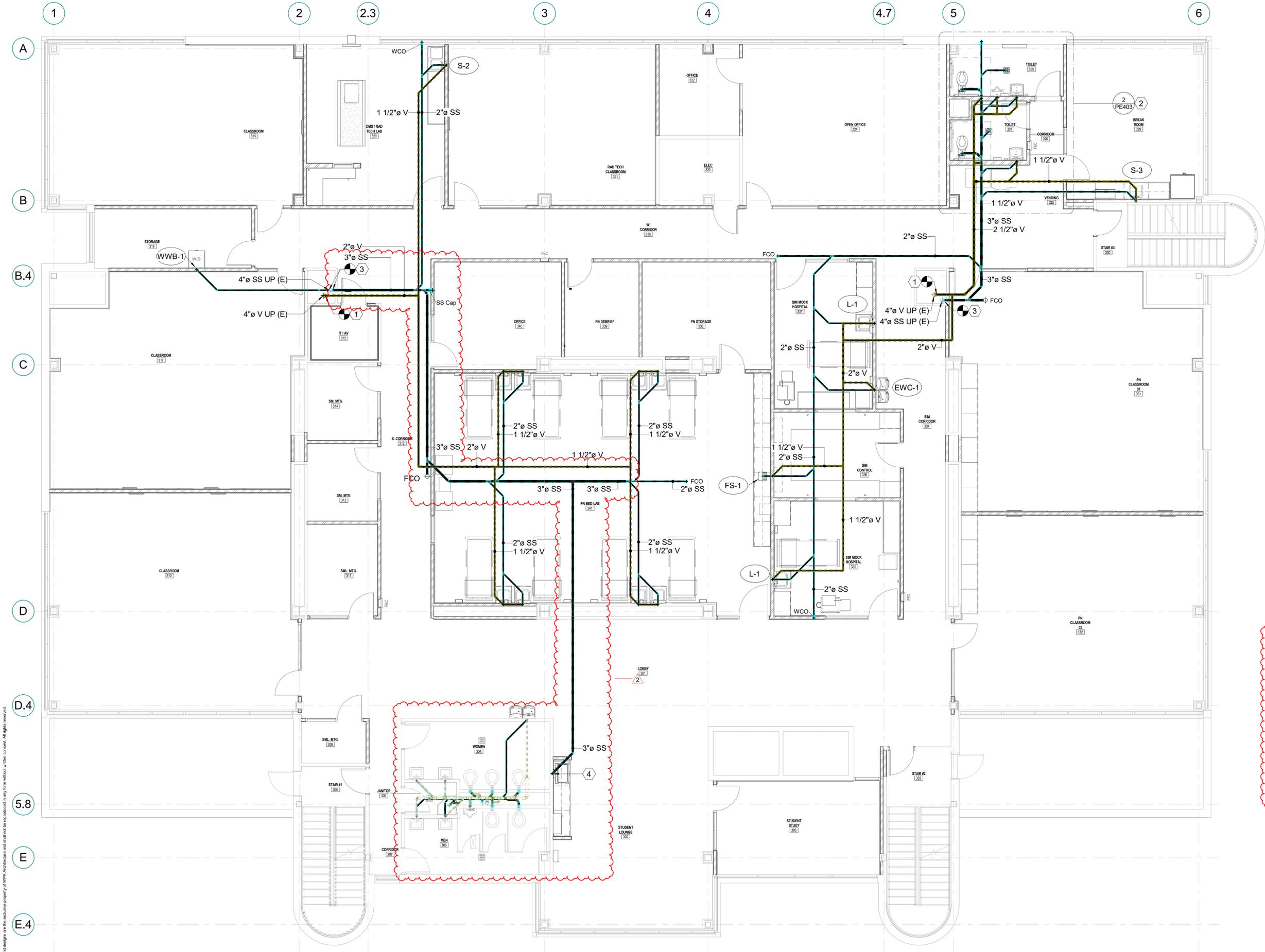
PLUMBING DOMESTIC WATER PLANS

PE103.1

1 LEVEL 3 DOMESTIC WATER & COMPRESSED AIR PLAN

3/16" = 1'-0"

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- GENERAL NOTES:**
1. PROVIDE SEISMIC JOINTS ON ANY PIPE PENETRATING A CMU WALL. COORDINATE WITH ARCHITECTURAL PLANS FOR WALL TYPES AND LOCATIONS. FIELD VERIFY EXACT LOCATIONS.
 2. ALL EXPOSED DUCTWORK AND PIPING SHALL BE PAINTED. COORDINATE WITH ARCHITECT FOR COLOR AND FINISH.
 3. PROVIDE FIRE PROOF SEALING PER IBC 717 IN THE ANNULAR SPACE AROUND ANY FLOOR PENETRATIONS BY DUCTS, PIPES, OR OTHER MECHANICAL ELEMENTS.
 4. CONTRACTOR SHALL FIELD VERIFY EXISTING PLUMBING AND ARCHITECTURAL CONDITIONS, INCLUDING, BUT NOT LIMITED TO: EXISTING ROUTING AND LOCATION OF DUCTWORK, PIPING, ELECTRICAL AND STRUCTURAL ELEMENTS. CONTRACTOR SHALL FIELD VERIFY POTENTIAL CONFLICTS BETWEEN NEW PLUMBING ELEMENTS AND EXISTING CONDITIONS PRIOR TO BEGINNING FABRICATION OR ORDERING EQUIPMENT.
 5. ALL WORK AFFECTING OCCUPIED PORTIONS OF THE BUILDING SHALL BE PERFORMED AFTER HOURS.
 6. ALL ROOFING MODIFICATIONS SHALL BE PERFORMED BY THE WARRANTY HOLDING CONTRACTOR. COORDINATE WITH ARCHITECT.

- SHEET NOTES**
1. TIE INTO EXISTING VENT PIPING IN THIS APPROXIMATE LOCATION. FIELD VERIFY EXACT ROUTING AND POINTS OF CONNECTION.
 2. SEE LARGE SCALE VIEW ON SHEET PE401.
 3. TIE INTO EXISTING SANITARY SEWER PIPING IN THIS APPROXIMATE LOCATION. FIELD VERIFY EXACT ROUTING AND POINTS OF CONNECTION.
 4. PROVIDE NEW AIR ADMITTANCE VALVE WITH MULTIPURPOSE RECESS WALL BOX IN THIS APPROXIMATE LOCATION. SEE DETAIL A1.1/PE501. TIE INTO NEW VENT PIPING. FIELD VERIFY EXACT ROUTING AND POINTS OF CONNECTION.

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WHW
ENGINEERING LLC
Professional Engineer
No. 375080
State of Utah

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PROVO, UTAH 84601



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PLUMBING WASTE AND VENT PLANS

1 LEVEL 3 WASTE & VENT
3/16" = 1'-0"

PE103.2

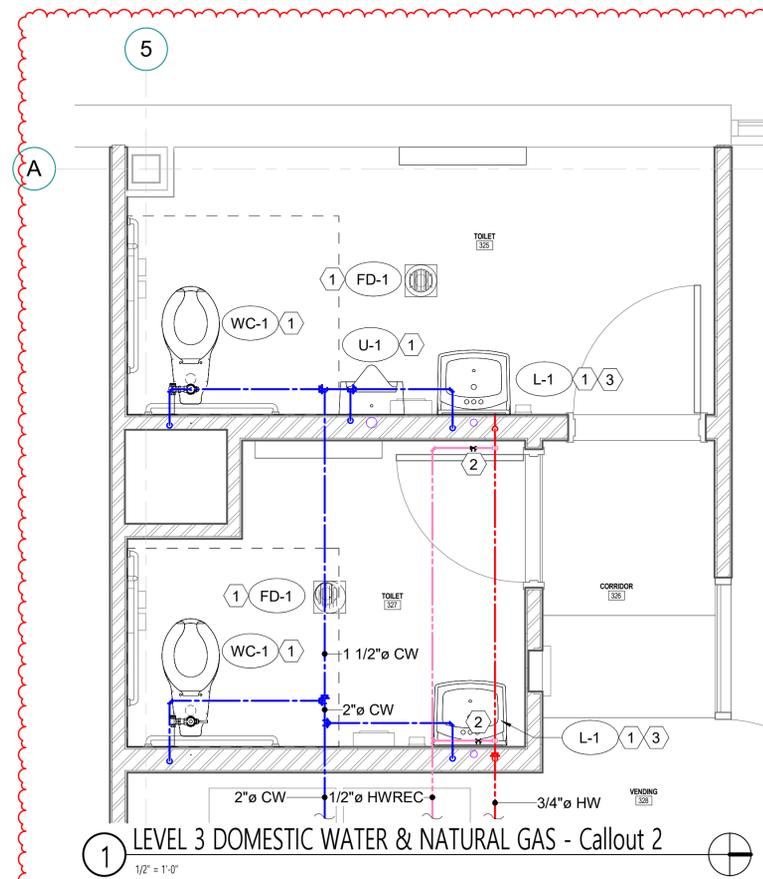
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GENERAL NOTES:

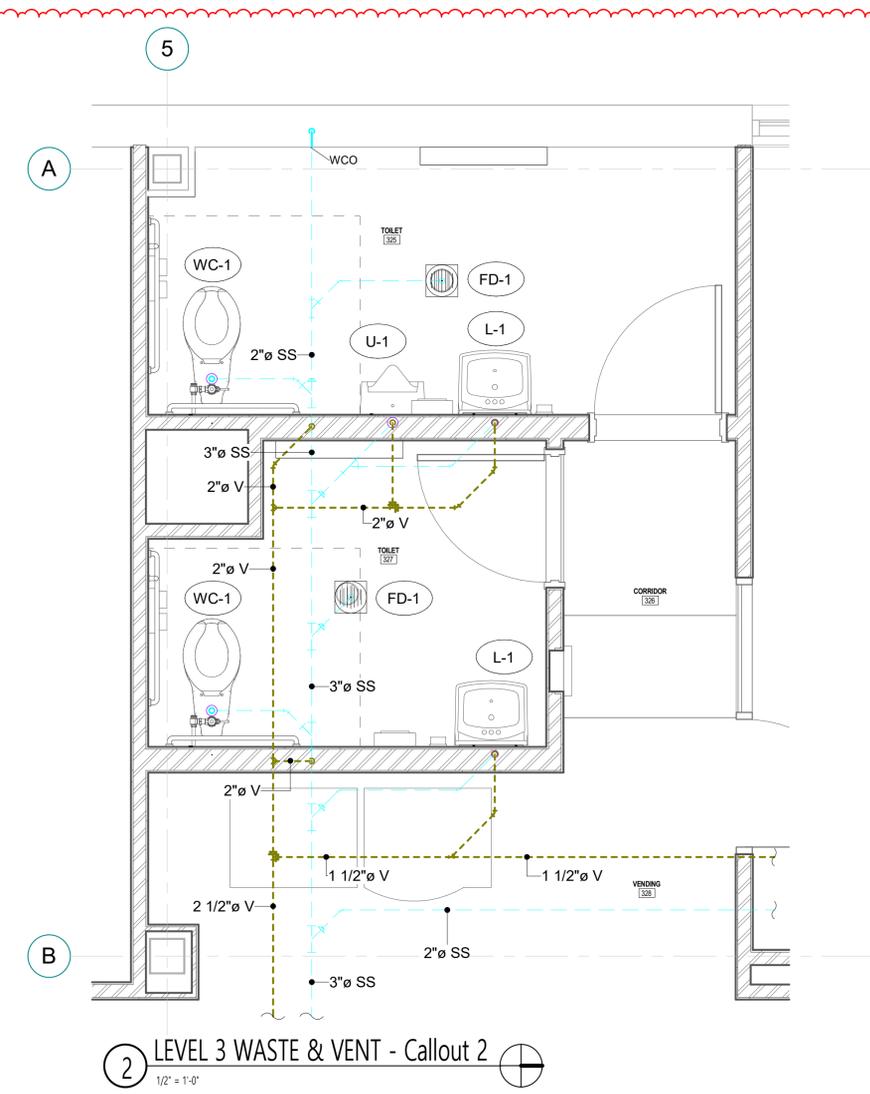
1. PROVIDE SEISMIC JOINTS ON ANY PIPE PENETRATING A CMU WALL. COORDINATE WITH ARCHITECTURAL PLANS FOR WALL TYPES AND LOCATIONS. FIELD VERIFY EXACT LOCATIONS.
2. ALL EXPOSED DUCTWORK AND PIPING SHALL BE PAINTED. COORDINATE WITH ARCHITECT FOR COLOR AND FINISH.
3. PROVIDE FIRE PROOF SEALING PER IBC 717 IN THE ANNULAR SPACE AROUND ANY FLOOR PENETRATIONS BY DUCTS, PIPES, OR OTHER MECHANICAL ELEMENTS.
4. CONTRACTOR SHALL FIELD VERIFY EXISTING PLUMBING AND ARCHITECTURAL CONDITIONS, INCLUDING, BUT NOT LIMITED TO: EXISTING ROUTING AND LOCATION OF DUCTWORK, PIPING, ELECTRICAL AND STRUCTURAL ELEMENTS. CONTRACTOR SHALL FIELD VERIFY POTENTIAL CONFLICTS BETWEEN NEW PLUMBING ELEMENTS AND EXISTING CONDITIONS PRIOR TO BEGINNING FABRICATION OR ORDERING EQUIPMENT.
5. ALL WORK AFFECTING OCCUPIED PORTIONS OF THE BUILDING SHALL BE PERFORMED AFTER HOURS.

SHEET NOTES

1. PROVIDE NEW PLUMBING FIXTURE IN THIS APPROXIMATE LOCATION. FIELD VERIFY EXACT LOCATION AND POINTS OF CONNECTION.
2. PROVIDE NEW THERMOSTATIC BALANCE VALVE (BELL AND GOSSETT TEMP SETTER OR EQUAL) IN THIS ACCESSIBLE LOCATION. SET MINIMUM FLOW TO 0.1 GPM. COORDINATE WITH ARCHITECT FOR ACCESS PANEL.
3. TIE DHWR PIPING INTO DHW PIPING WITHIN 2' OF THE LAVATORY. SEE DETAIL



1 LEVEL 3 DOMESTIC WATER & NATURAL GAS - Callout 2
1/2" = 1'-0"



2 LEVEL 3 WASTE & VENT - Callout 2
1/2" = 1'-0"



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PHASE V REMODEL

125 NORTH 100 WEST
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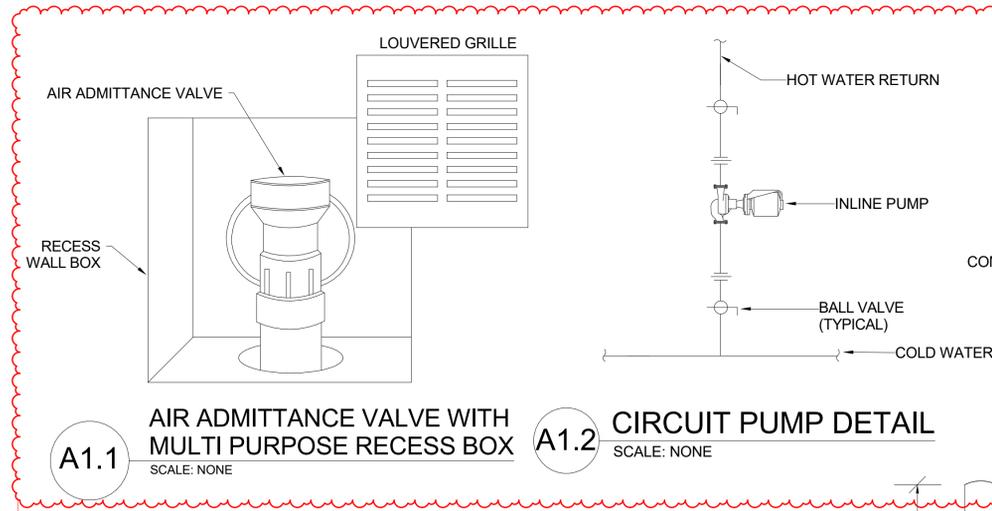
no.	date	description
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2	10.28.2025	ADDENDUM #01

milestone issue date	06.12.2025
milestone issue description	UPDATED PERMIT REVIEW SET
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latest revision description	ADDENDUM #01

LARGE SCALE PLUMBING PLANS

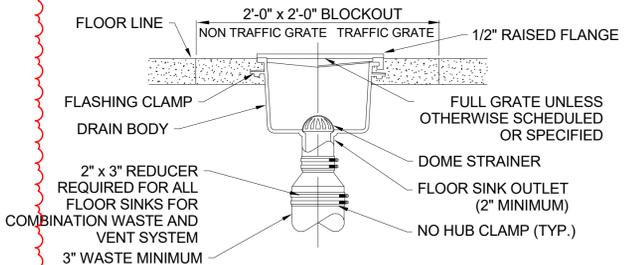
PE403

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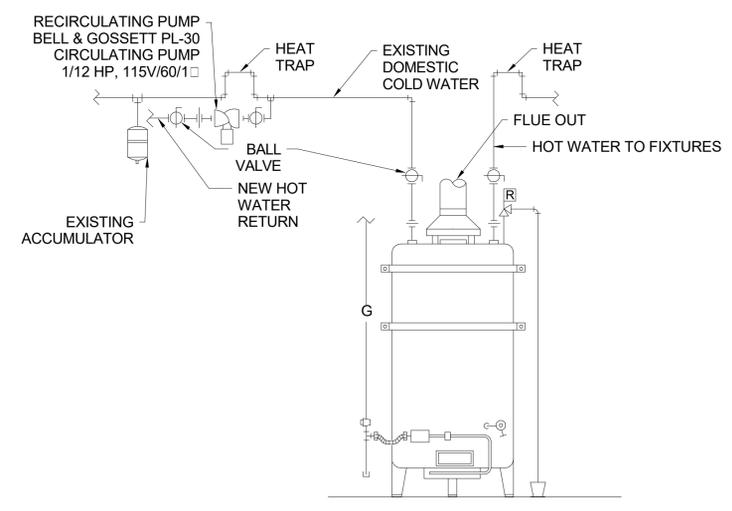


A1.1 AIR ADMITTANCE VALVE WITH MULTI PURPOSE RECESS BOX
SCALE: NONE

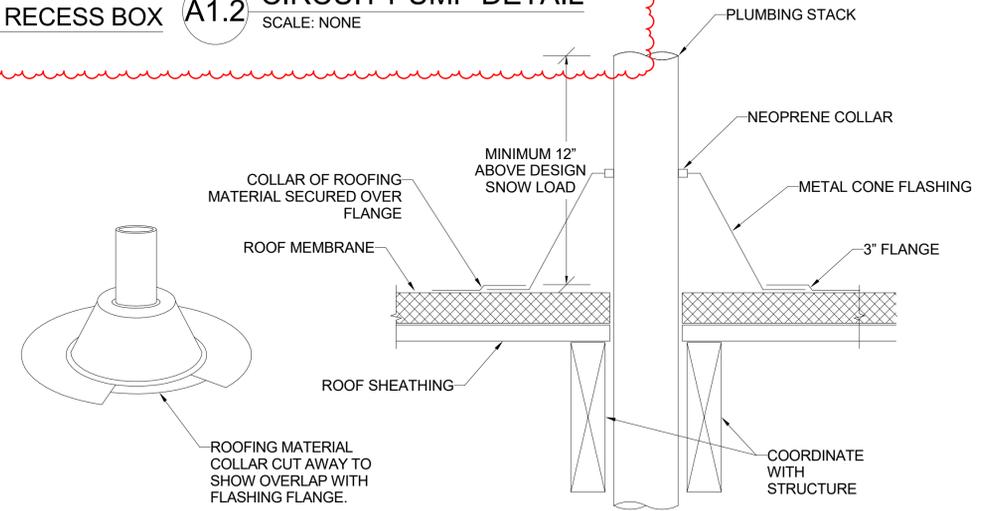
A1.2 CIRCUIT PUMP DETAIL
SCALE: NONE



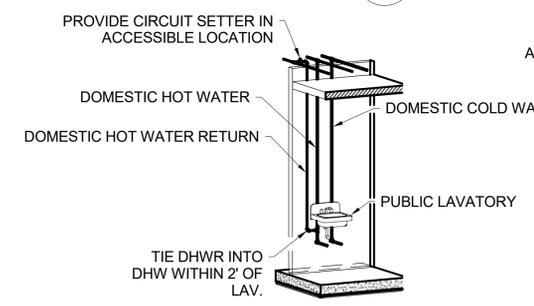
A2 FLOOR SINK DETAIL
SCALE: NONE



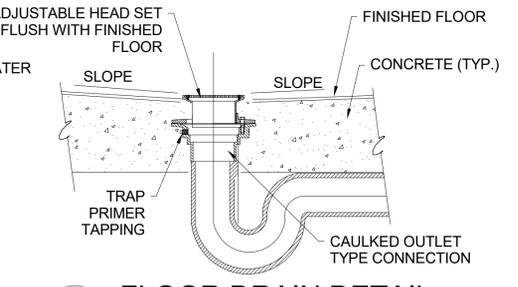
A3 EXISTING WATER HEATER DETAIL
SCALE: NONE



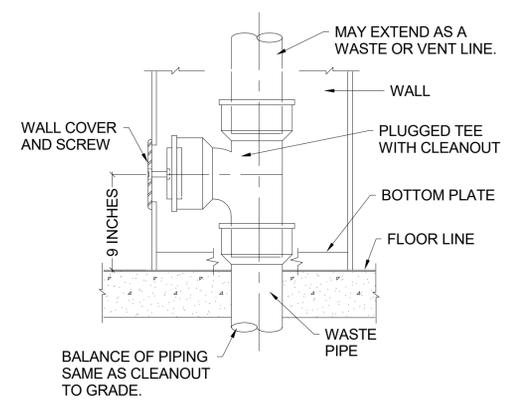
B1 VENT THRU ROOF DETAIL



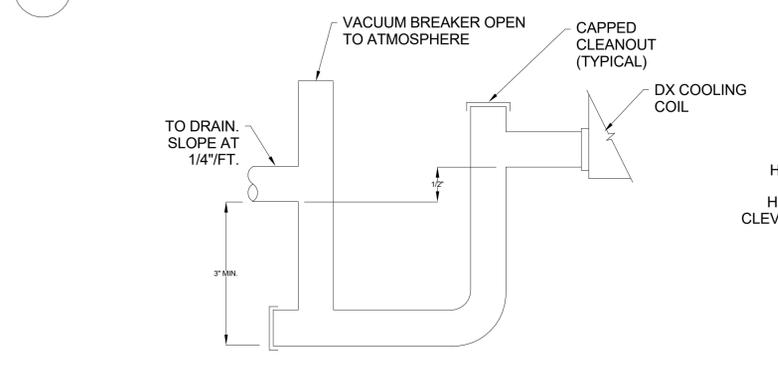
B2 DOMESTIC HOT WATER RETURN DETAIL
SCALE: NONE



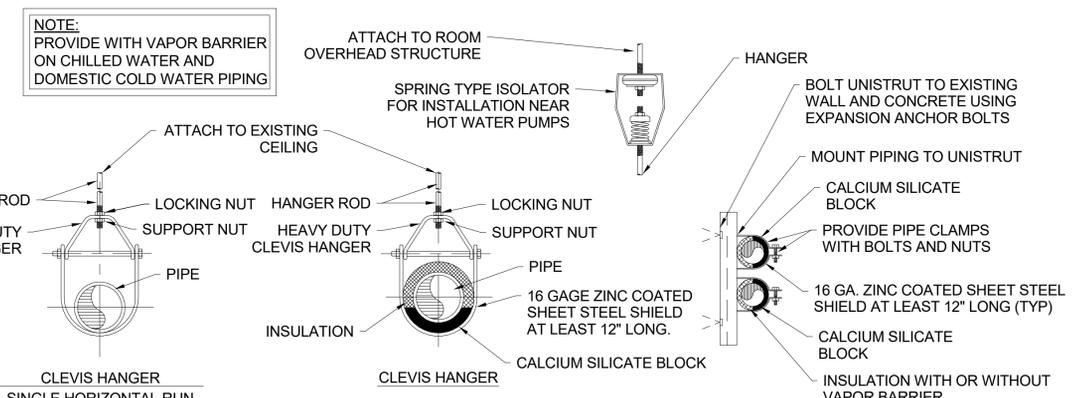
B3 FLOOR DRAIN DETAIL
SCALE: NONE



C1 WALL CLEAN-OUT DETAIL
SCALE: NONE



C2 COOLING COIL CONDENSATE DRAIN DETAIL
SCALE: NONE



C3 PIPE HANGER DETAIL

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PHASE V
REMODEL

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PROVO, UTAH 84601

PROFESSIONAL ENGINEER
03/26/2025
WINWARD M. PACKER
No. 375080
STATE OF UTAH

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PLUMBING DETAILS

PE501

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1 LEVEL 3 DEMOLITION
1/8" = 1'-0"

- GENERAL DEMOLITION NOTES:**
- UNLESS SPECIFICALLY NOTED OTHERWISE, REMOVE ALL ELECTRICAL ITEMS SHOWN IN DARK AND DASHED LINES. LIGHT AND SOLID ITEMS ARE TO REMAIN. DEMOLITION ITEMS ARE SHOWN TO GIVE A BASIC DESCRIPTION OF THE EXTENT OF DEMOLITION WORK, BUT MAY NOT BE INCLUSIVE. PROVIDE DEMOLITION WORK IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS:
 - DISCONNECT AND REMOVE ANY/ALL FIXTURES, DEVICES, EQUIPMENT, ETC. REQUIRED FOR PROPER COMPLETION OF THE WORK WHETHER SHOWN OR NOT.
 - RELOCATE, REWIRE, AND/OR RECONNECT ANY/ALL FIXTURES, DEVICES, EQUIPMENT, ETC. THAT FOR ANY REASON OBSTRUCTS CONSTRUCTION.
 - LEAVE ALL EXISTING FIXTURES, DEVICES, EQUIPMENT, ETC. IN PORTIONS OF THE BUILDING NOT BEING REMODELED, IN WORKING CONDITION. RESTORE ALL INTERRUPTED BRANCH CIRCUITS, FEEDERS, ETC.
 - REMOVE AND DISPOSE OF ALL RACEWAYS, CONDUCTORS, BOXES, DEVICES, EQUIPMENT, ETC. THAT ARE NOT TO BE REUSED. TERMINATE AT ACCESSIBLE JUNCTION BOX BY PROVIDING PROPER KNOCK-OUT CLOSURE, TAPE, CONDUCTORS, LABEL AS 'SPARE' WITH CIRCUIT NO., ZONE NO. OR OTHER CHARACTERISTIC IDENTIFYING SOURCE.
 - EXISTING RACEWAYS MAY BE REUSED, IF IN PLACE, WHERE POSSIBLE, AND WHERE IN COMPLIANCE WITH THE SPECIFICATIONS AND THE INTENT OF THE CONTRACT DOCUMENTS. UPGRADE AND OR PROVIDE NEW CONDUIT SUPPORTS WHERE NECESSARY FOR ALL RACEWAYS BEING REUSED. ENSURE INTEGRITY OF EXISTING RACEWAYS BEFORE REUSE.
 - CONCEAL ALL RACEWAY AND WIRING IN EXISTING WALLS, CEILINGS, FLOORS, ETC. THE USE OF WIREMOLD IS PERMITTED ONLY WHERE SPECIFICALLY NOTED ON DRAWING.
 - DO NOT PENETRATE STRUCTURAL ELEMENTS OF FLOORS, WALLS, CEILINGS, ROOFS, ETC.
 - COORDINATE WITH OWNER WHAT EQUIPMENT SHOULD BE DISPOSED OF AND WHAT EQUIPMENT IS TO BE RETURNED TO OWNER.
 - EXISTING FIRE ALARM AND SECURITY SYSTEMS MUST REMAIN OPERATIONAL DURING ALL PHASES OF CONSTRUCTION.
 - DISCONNECT, REMOVE AND LAWFULLY DISPOSE OF ALL EXISTING ELECTRICAL AND LOW VOLTAGE SYSTEM DEVICES LOCATED THROUGHOUT THE LEVEL 3 SPACES, EXCEPT FOR AREAS INDICATED AS WITHOUT SCOPE OR NOTED OTHERWISE. REMOVE ALL CONDUIT AND CABLING BACK TO SOURCE. WHERE WALLS ARE EXISTING TO REMAIN, PATCH AND REPAIR WHERE DEVICES ARE REMOVED AND PULL CABLING BACK TO SOURCE. ABANDON CONDUIT WITHIN REMAINING WALL. REMOVE ALL OTHER ASSOCIATED CONDUIT AND CABLING BACK TO SOURCE.
 - REFER TO MECHANICAL DEMOLITION DRAWINGS FOR ADDITIONAL WORK REQUIRED. REMOVE ELECTRICAL SERVICE TO ALL EQUIPMENT NOTED TO BE REMOVED.
- KEYED NOTES**
- D1 ALL EXISTING EQUIPMENT, LIGHTING AND OTHER ELECTRICAL WITHIN EXISTING ELECTRICAL ROOM IS TO REMAIN AND SHOWN FOR REFERENCE ONLY.



PROVO MTECH PHASE V REMODEL

125 NORTH 100 WEST
PROVO, UTAH 84601



revision information		
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latest revision description	ADD01

LEVEL 3 - DEMOLITION - FLOOR PLAN

E3.1

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LIGHTING GENERAL NOTES:

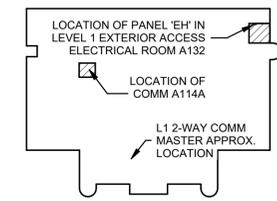
- REFER TO LIGHTING DETAILS SHEETS FOR TYPICAL CONTROL WIRING DIAGRAMS. PROVIDE COMPLETE SYSTEM WITH ALL REQUIRED CONDUIT, WIRING, SWITCHES, SENSORS, POWER PACK, ETC.
- LOCATE POWER PACKS AND ROOM CONTROLLERS ABOVE ACCESSIBLE CEILING NEAR ROOM ENTRANCES.
- CONFIRM ALL LOCATIONS OF LIGHT FIXTURES WITH ARCHITECT PRIOR TO INSTALLATION.
- PROVIDE UNSWITCHED HOT FOR ALL EMERGENCY LIGHTING CONTROLLERS OR EM BATTERY PACKS.
- INDICATED LOCATIONS OF OCCUPANCY AND DAYLIGHT SENSORS ARE APPROXIMATE LOCATIONS AND QUANTITIES. PROVIDE SENSOR LOCATIONS, QUANTITIES, AND TYPES AS RECOMMENDED BY THE MANUFACTURER. PROVIDE COMPLETE PRODUCT DATA AND SHOP DRAWINGS INDICATING THE PROPOSED TYPES, COVERAGE PATTERNS, LOCATIONS, QUANTITIES, ETC.
- COORDINATE THE LOCATION OF ALL CEILING SENSORS WITH CEILING GRIDS, LIGHT FIXTURES, CEILING DIFFUSERS, SPRINKLER HEADS, ETC.
- ALL LIGHT FIXTURES IN DAYLIGHT ZONES SHALL BE AUTOMATICALLY DIMMED PER DAYLIGHT SENSOR. PROVIDE ADDITIONAL RELAYS, ROOM CONTROLLERS, AND/OR DRIVERS AS REQUIRED FOR THE FIXTURES IN THE DAYLIGHT ZONES TO OPERATE INDEPENDENTLY FROM THE REST OF THE LIGHTING IN THE SPACE.

KEYED NOTES

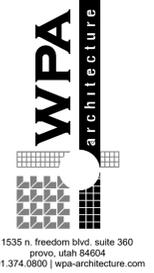
- BA1 BID ALTERNATE #1: REFER TO SPECIFICATION SECTION 123000 FOR INSTRUCTION RELATED TO BID ALTERNATE FOR AREAS SHOWN IN BLUE CROSSHATCH
- L1 MOUNT PENDANT LINEARS SUCH THAT THE BOTTOM OF THE FIXTURE RUNS FLUSH WITH THE WOOD GRID CEILING.



LEVEL 3 LIGHTING
1/8" = 1'-0"



KEYPLAN
1" = 50'-0"



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CEILING PLAN - LEVEL 3 - LIGHTING

E4.1

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Teaching & Training Solutions

Surface Mount Headwalls



Sapphire/Regal Series

Product Benefits:

Amico has developed a revolutionary headwall that is self-contained and alleviates the headaches associated with a nursing simulation lab installation.

The traditional method of outfitting a simulation lab with medical gas services can cost thousands of dollars for pumps, compressors and a network of plumbing. This Plug & Play training headwall simulates Oxygen, Air and even create suction simultaneously via the vacuum outlet by connecting the headwall to a portable compressor.

The compressor can be located anywhere you wish, you can even provide your own in-wall source if required and hook to a Central Compressor with or without a Central Vacuum Pump. The electrical receptacles can have the option of "hard wire".

Product Applications:

Educational Facilities

Teaching/Training

Universities

Simulation Centers

Vocational Schools

Nursing Labs

Mock Up Rooms

Institutions

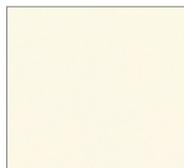
Standard Colors:



Wild Cherry



Fusion Maple



Antique White



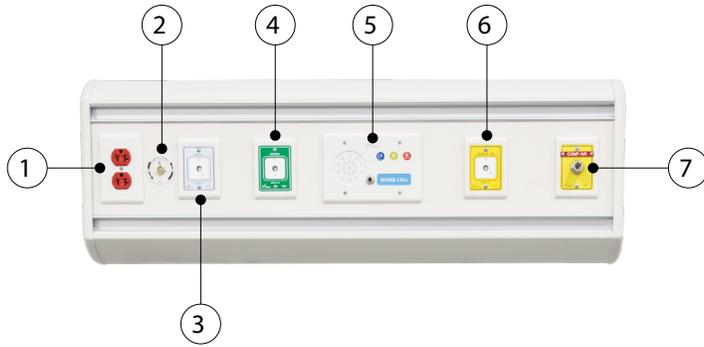
Key Features:

- Plug & Play headwall
- Typical widths: 24" (60.96 cm), 36" (91.44 cm), 48" (121.92 cm), 60" (152.4 cm)
- One full length, scratch-resistant accessory rail
- Three standard colors of hospital grade laminate to choose from
- Super silent, HP air compressor to simulate medical gases
- Rear connection option available for electrical and/or compressor and vacuum
- Mobile floor stand option
- Optional light for units 48" or wider

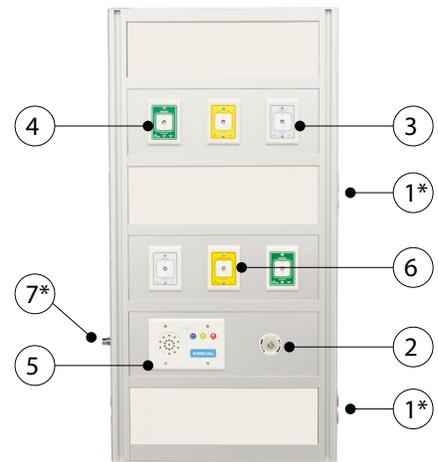
Technical Specifications



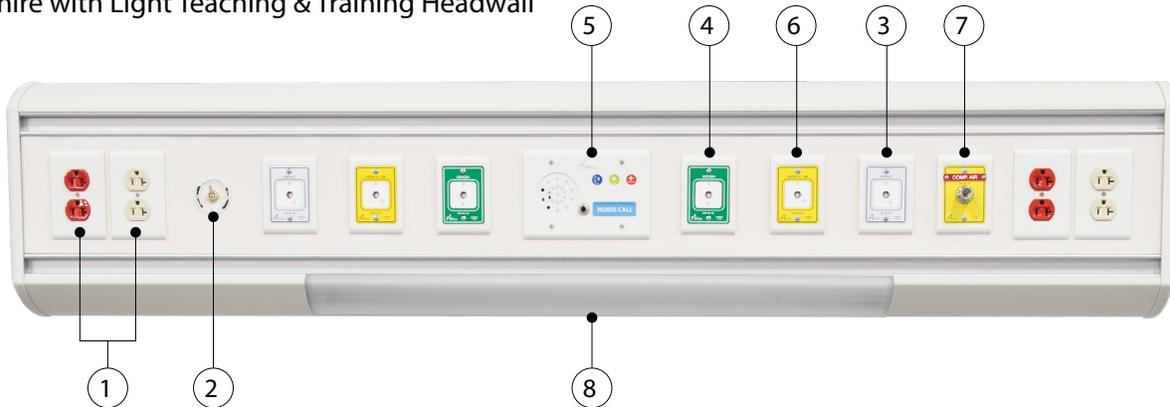
Sapphire Teaching & Training Headwall



Regal Teaching & Training Flatwall



Sapphire with Light Teaching & Training Headwall



Item #	Description	Item #	Description
1	Duplex Receptacle	5	Nurse Call Cover
2	Vacuum Switch	6	Medical Air Outlet
3	Vacuum Outlet	7	Compressed Air Outlet
4	Oxygen Outlet	8	Light (Optional)

* Not Shown

Distributed By:

Amico Beds Corporation reserves the right to change product specifications without notice.

Warranty: One year parts only.

HELPING TO DELIVER SAFETY, COMFORT AND CONVENIENCE

The labor and delivery experience can be unpredictable for everyone involved. To help manage this, Baxter offers a solution that can help adapt and deliver.

AFFINITY 4 BIRTHING BED

HELPING TO DELIVER SAFETY

- Patient Positioning
- Patient Transfers
- Patient Transports

HELPING TO DELIVER COMFORT

- Automatic Pelvic Tilt
- Wide Surface
- Lumbar and Seat Support

HELPING TO DELIVER CONVENIENCE

- Battery Backup
- Mattress Options
- Adjustable Calf Supports



AFFINITY 4 BIRTHING BED

HELPING TO DELIVER SAFETY

Designed to help deliver a safe and comfortable maternal environment.

HELPING TO DELIVER COMFORT

Keeping mom comfortable throughout the birthing experience should be paramount.

HELPING TO DELIVER CONVENIENCE

Designed to help facilitate smooth and efficient patient care.

MAXIMUM PATIENT WEIGHT

500lb bed weight limit.
400lb foot section weight limit.

PATIENT TRANSPORT

Ergonomic push handles.



GAS ASSIST BED TILT

The bed can achieve 8° of trend-like positioning and can be activated as needed in an emergency situation.

15° PELVIC TILT

Pelvic tilt designed to provide patient with support and comfort.



PATIENT TRANSFER

Zero-transfer gap for a seamless transfer of your patient.

MATTRESS OPTIONS

The cut of the mattress is designed to provide space which allows perineal access



"DUAL-LOCKING" CASTERS

Two points of contact designed to provide stability by helping with rolling or swiveling

BRAKE AND STEER PEDALS

Large surface with gripping pads



LUMBAR & SEAT SUPPORT

Customize patient comfort with the push of a button.

BATTERY BACKUP

Enables function of the bed during transport or loss of power.



STOW & GO FOOT SECTION

Exclusive, ergonomic design; foot section slides and stores under the bed.

LIGHT-WEIGHT FOOT SECTION

Handles and angular stand to keep mattress off the floor.



WIDE SLEEP DECK

35" surface width gives mom room in bed.

POSITIONING CALF SUPPORTS

Adjustable calf supports ergonomically designed to help support optimal positioning during delivery.



AFFINITY 4 BIRTHING BED

TECHNICAL SPECIFICATIONS

Product Number	P3700
Full Bed Length	90" (229 cm) P3700A-P3700C 92" (234 cm) P3700D-P3700E
Bed Width	
Siderails Up	39" (99 cm)
Siderails Down	36" (91 cm)
Bed Height	
Low (with mattress)	24" (61 cm)
High (with mattress)	39" (99 cm)
Maximum Height of Seat Section in Trend-like Position	40" (102 cm)
Mattress	
Length	78" (198 cm)
Width	35" (89 cm)
Thickness (head section)	5" (12.7 cm)
Thickness (foot section)	3.5" (8.9 cm)
Critical Angles	
Maximum Head Elevation	63°
Maximum Seat Elevation	15°
Maximum Trend-like Positioning	8°
Maximum Lift Capacity	
Bed	500 lbs (227 kg)
Foot Section	400 lbs (181 kg)
Caster Size	5" (12.7 cm) standard on bed / 6" (15 cm) option available
Bed Weight	480 lbs (218 kg)



STANDARD FEATURES

- V-Cut or Straight Cut Surfaces
- Removable Foot Section
- Battery Backup
- Powered Foot Section
- Four Wheel Dual-locking Casters
- OneStep** Siderail Release
- Plastic Blow-Molded Head Panel
- Automatic Nightlight
- Lock-out Controls
- Manual Trend-like Positioning
- Instant CPR
- Tuck away Labor Grips
- Automatic Seat Tilt (15°)
- Siderail Controls
- IV Pole
- Plastic Blow Molded Head Panel
- Hinged Foot Section Mattress
- Central Brake and Steer
- Fluid Basin

OPTIONAL FEATURES

- Prevention Surface
- Air package for lumbar and seat support
- Nurse Call, Lighting, Entertainment & UTV
- Contemporary Headboard
- Calf Supports
- Push Handles

ACCESSORIES

- Universal Instrument Tray
- Labor Bar
- Drainage Bag Hook Kit
- Permanent IV Pole
- Line Managers
- Foot Rest Bar (for lift off beds)
- Full Leg Supports
- Full Leg Supports, Telescoping
- Drapes - Medline/Proxima
- Oxygen Tank Holder

For more information, contact your Baxter Sales Representative, call us at **1-800-422-9837** or email us at **cfs_customer_service@baxter.com**.

Hillrom.com

Baxter International Inc.
One Baxter Parkway / Deerfield, Illinois 60015

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US-CS133-220001 [v3.0] 09/2024



Simply Effective.

The Hill-Rom® VersaCare® Hospital Bed

Hill-Rom

Enhancing outcomes for patients and their caregivers.



Helping you deliver great care.

Every day, caregivers must navigate an increasingly challenging health care landscape. From the demands of documentation to routine activities like transporting and repositioning patients, the strain of repetitive activity takes its toll.

At Hill-Rom, we think comfort and great care go hand in hand. For more than 80 years, we've designed beds to be as comfortable for caregivers as they are for patients. We've listened to and worked with nurses to elevate the standard of care that our beds help them to provide. And the VersaCare[®] Hospital Bed represents the culmination of that enduring partnership.





Simple, yet sophisticated.

The VersaCare® bed is designed to enable excellent care, especially for mid- to high-acuity patients. We've integrated a host of safety-promoting, leading-edge technologies into one versatile healing system — all controlled through a simple, intuitive interface. The VersaCare bed's connectivity, flexibility, and utility are just some of the reasons that the VersaCare bed is one of the most trusted names in Med-Surg.



The **Boost® one-button feature** helps patients move toward the head of the bed.

The **IntelliDrive® powered transport** lets staff handle the bed effortlessly.

The **Point-of-Care® control panel** uses easy-to-read digital displays and simple icons.

This **fully-featured low bed** can be adjusted to the optimal height for patient care with full functionality in the lowest position.

The **HandsFree® foot pedal system** allows caregivers to raise and lower the head of the bed and the height of the bed without using their hands.

The **LowChair®** position allows your patient to be placed in an upright sitting position while keeping the bed low.

The **FlexAfoot™ retractable foot mechanism** allows the caregiver to **customize the length of the bed up to 11"**.

There's great power in simplicity.

The VersaCare® bed combines ergonomic design with state-of-the-art engineering to deliver a powerful user experience. Of special note is the VersaCare system's Bed Exit feature with audible alarm. When used in conjunction with a falls protocol, the Bed Exit System can help reduce patient falls related to unsupervised bed egress.

By providing caregivers with optimal low bed height and full technology capabilities, the VersaCare bed frees them from physically demanding labor, empowers them to focus on helping patients heal, and helps them accomplish protocol compliance.





THE VERSACARE BED

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**ADJUST HEIGHT,
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AND OUT OF BED.**



Superior functionality for lasting value.

Hill-Rom believes that pursuing high standards of patient safety can pay long-term dividends. We've built the VersaCare® bed with a number of technologies that promote patient safety.

Comprehensive safety-promoting measures.

The VersaCare bed is designed to be able to adjust height, including low positions, to help make it easy for patients to get in and out of bed. Its LowChair® position allows a patient to sit upright while keeping the bed close to the floor.

The tastefully subdued running lights of SafeView® Alerts offer caregivers a visual indication of the safety condition of the bed, including the status of siderails, brakes, HOB and bed height.

If your patient's head-of-bed is lowered below 30 degrees, the Head-of-Bed alarm alerts you of the need to respond.

The 3-Level Bed Exit Alarm with advanced sensitivity detects whether the patient is lying in bed, sitting on the edge of bed, or is out of bed.

Safe skin at any level of acuity.

Our surfaces provide skin care that mitigates pressure, shear, friction, and moisture—the four main causes of pressure ulcers.

ACCUMAX® SURFACE

This non-powered dynamic pressure redistribution surface is designed with safeguards to provide pressure redistribution in all bed positions.

VERSACARE A.I.R.® SURFACE

The VersaCare A.I.R. integrated surface is a powered air surface designed to assist in the prevention and treatment of pressure ulcers. By integrating our advanced weight-based pressure redistribution system with our Point-of-Care® Controls, the VersaCare A.I.R. surface provides different safe skin technologies to help maintain your patient's skin integrity.

P500 SURFACE

Our advanced integrated surface helps to redistribute pressure and prevent the formation of ulcers. The P500 surface air system automatically adjusts to the patient's weight, size, movement and the head-of-bed articulation. Advanced Microclimate® technology helps manage heat and moisture, keeping the patient's skin cool and dry. And the X-Ray Cassette Sleeve makes thoracic X-rays quick and easy to perform.

Achieving innovations for high quality care.

Hill-Rom continuously innovates to ensure that we're providing the right tools to help you deliver the highest quality care. We take enormous pride in constructing equipment that enhances the caregiver experience, and we listen to our customers to see how we can build greater simplicity and ease of use into our products. It's just one indication of our commitment to the future and drives higher quality standards across our company.

To experience the difference, contact your Hill-Rom representative at **800-445-3730** or visit www.hill-rom.com.



Hill-Rom reserves the right to make changes without notice in design, specifications and models. The only warranty Hill-Rom makes is the express written warranty extended on the sale or rental of its products.

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Enhancing outcomes for
patients and their caregivers:

Hill-Rom