



ADDENDUM

Date Issued:	August 25, 2023
Project:	Intermountain Healthcare IMC- Angio Lab #3 Remodel 5121 South Cottonwood Street Murray, Utah 84107
Addendum Number:	1

The Contractors submitting proposals on the above-captioned project shall be governed by the following addendum, changes and explanations to the drawings and specifications and shall submit their bids in accordance therewith.

Item Number	General Items Description
1	Contractor to note that electrical isolation panel for the Angio Lab is Owner furnished and contractor installed.
2	All permit fees shall be paid by the Owner. Do not include in the bid.
3	All Post installed floor anchors on this project are to be supplied and installed by the contractor per the structural drawings and the equipment supplier recommendations. Contractor shall remove existing epoxy through bolt at the patient table base plate and provide and install new bolts for the new base installation.
4	The building shall remain occupied during the construction and some work will need to be coordinated and scheduled with the Owner off-hours as required. Floor above is the operating rooms and therefore saw cutting, core drilling and any noisy work shall need to be coordinated with the Owner during construction.
5	Coordinate all floor penetrations with Structural, Mechanical, Plumbing, Electrical and Philips Equipment drawings. Field verify existing conditions before proceeding with the work. Patch & repair all floor penetrations to match with adjacent existing.
6	All fire sprinkler heads throughout the project shall be concealed quick action heads. Heads are required to be placed centered on the ceiling tiles where occurs. Field verify all existing conditions before proceeding with the work.
7	Contractor shall coordinate with the Owner to access the occupied space at the floor below to remove portions of ceiling as required per the electrical, mechanical, plumbing and Philips equipment drawings for demolition and installation. Patch repair and re-install ceiling to match with adjacent existing at the lower level 1 after all work is completed.
8	Contractor shall re-install owner furnished equipment like glove dispenser, sharp disposal, etc. in the Angio Lab. Coordinate exact location with the Owner.
9	Provide in-wall backing for the new equipment in the equipment room as required in the Philips drawings and where new Owner provided wall mounted monitor etc. to be installed in the lab area. Remove and reinstall gypsum board as required on the room side. Finish and paint to match with adjacent existing. See project manual for physicist's report for lead shielded walls. All work at shielded walls is required to be patched and repaired to original condition to maintain lead shielding. Note that lead shielding exists up to the height of 7'-0" where noted in the physicist's report. Contractor shall field verify



Item Number	General Items Description
	existing conditions. New walls shall include lead shielding where called out in the physicists report located in the project specifications manual.
10	Contractor shall follow the direction of Intermountain infection control Nurse to keep the construction area clean per ICRA guidelines. Contractor is required to maintain negative pressure in the construction area during construction and dust partition shall only be removed after approval from the infection control Nurse.
11	Owner has performed asbestos test that has come out negative. Test report shall be provided to the contractor by the Owner.
12	Contractor shall completely remove all above ceiling structural supports of the ceiling light boom, monitor boom etc. that are called out in the plans to be demolished, unless noted otherwise.
13	Coordinate with Philips drawings for all acceptable tolerance of the ceiling height and floor levelness to meet requirements. Contact Philips Rep to finalize Unistrut channel and gypsum ceiling coordination at ceiling. Use self-leveling compound on the floor to achieve require floor levelness as required.

Sheet Number	Drawings
Architectural Drawings	
A103	See attached revised sheet with revisions shown clouded.
A113B	See attached revised sheet with revisions shown clouded.
A401	See attached revised sheet with revisions shown clouded.
A505C	See attached revised sheet with revisions shown clouded.
A601	See attached revised sheet with revisions shown clouded.
Q106	See attached revised sheet with revisions shown clouded.
Electrical Drawings	
ED101	See attached revised sheet with revisions shown clouded.
EP701	See attached revised sheet with revisions shown clouded.
EP702	See attached revised sheet with revisions shown clouded.
EP703	See attached revised sheet with revisions shown clouded.
EP704	See attached revised sheet with revisions shown clouded.
EY101	See attached revised sheet with revisions shown clouded.

Section	Specifications
08 71 00	<u>Door Hardware</u> : Specifications for Door Hardware have been included in the addendum.

Attachments:

Specifications Section: 087100 Door Hardware, Electrical Addendum #01.

Revised Sheet A103, A113B, A401, A505C, A601, Q106, ED101, EP701, EP702, EP703, EP704 & EY101.

SECTION 08 71 00 – DOOR HARDWARE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes commercial door hardware for the following:
 - 1. Swinging doors.
 - 2. Sliding doors.
 - 3. Other doors to the extent indicated.
- B. Door hardware includes, but is not necessarily limited to, the following:
 - 1. Mechanical door hardware.
 - 2. Electromechanical door hardware, power supplies, back-ups and surge protection.
 - 3. Automatic operators.
 - 4. Cylinders specified for doors in other sections.
- C. Related Sections:
 - 1. Section 08 06 71 – Door Hardware Schedule.
 - 2. Section 08 11 13 – Hollow Metal Doors and Frames.
 - 3. Section 08 14 16 – Flush Wood Doors.
 - 4. Section 08 71 13 – Automatic Door Operators.
 - 5. Section 08 74 00 – Access Control Hardware.
- D. Codes and References: Comply with the version year adopted by the Authority Having Jurisdiction.
 - 1. ANSI A117.1 - Accessible and Usable Buildings and Facilities.
 - 2. ICC/IBC - International Building Code.
 - 3. NFPA 80 - Fire Doors and Windows.
 - 4. NFPA 101 - Life Safety Code.
 - 5. NFPA 105 - Installation of Smoke Door Assemblies.
 - 6. State Building Codes, Local Amendments.
- E. Standards: All hardware specified herein shall comply with the following industry standards:
 - 1. ANSI/BHMA Certified Product Standards - A156 Series
 - 2. UL10C – Positive Pressure Fire Tests of Door Assemblies

1.3 SUBMITTALS

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

2. Electrical Coordination: Coordinate with related Division 26 Electrical Sections the voltages and wiring details required at electrically controlled and operated hardware openings.
- D. Keying Schedule: Prepared under the supervision of the Owner, separate schedule detailing final keying instructions for locksets and cylinders in writing. Include keying system explanation, door numbers, key set symbols, hardware set numbers and special instructions. Owner to approve submitted keying schedule prior to the ordering of permanent cylinders.
- E. Operating and Maintenance Manuals: Provide manufacturers operating and maintenance manuals for each item comprising the complete door hardware installation in quantity as required in Division 01, Closeout Submittals. The manual to include the name, address, and contact information of the manufacturers providing the hardware and their nearest service representatives. The final copies delivered after completion of the installation test to include "as built" modifications made during installation, checkout, and acceptance.
- F. Warranties and Maintenance: Special warranties and maintenance agreements specified in this Section.

1.4 QUALITY ASSURANCE

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

2. Provide electromechanical door hardware from the same manufacturer as mechanical door hardware, unless otherwise indicated.
- E. Regulatory Requirements: Comply with NFPA 70, NFPA 80, NFPA 101 and ANSI A117.1 requirements and guidelines as directed in the model building code including, but not limited to, the following:
1. NFPA 70 "National Electrical Code", including electrical components, devices, and accessories listed and labeled as defined in Article 100 by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
 2. Where indicated to comply with accessibility requirements, comply with Americans with Disabilities Act (ADA), "Accessibility Guidelines for Buildings and Facilities (ADAAG)," ANSI A117.1 as follows:
 - a. Handles, Pulls, Latches, Locks, and other Operating Devices: Shape that is easy to grasp with one hand and does not require tight grasping, tight pinching, or twisting of the wrist.
 - b. Door Closers: Comply with the following maximum opening-force requirements indicated:
 - 1) Interior Hinged Doors: 5 lbf applied perpendicular to door.
 - 2) Fire Doors: Minimum opening force allowable by authorities having jurisdiction.
 - c. Thresholds: Not more than 1/2 inch high. Bevel raised thresholds with a slope of not more than 1:2.
 3. NFPA 101: Comply with the following for means of egress doors:
 - a. Latches, Locks, and Exit Devices: Not more than 15 lbf to release the latch. Locks shall not require the use of a key, tool, or special knowledge for operation.
 - b. Thresholds: Not more than 1/2 inch high.
 4. Fire-Rated Door Assemblies: Provide door hardware for assemblies complying with NFPA 80 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire ratings indicated, based on testing according to NFPA 252 (neutral pressure at 40" above sill) or UL-10C.
 - a. Test Pressure: Positive pressure labeling.
- F. Each unit to bear third party permanent label demonstrating compliance with the referenced standards.
- G. Keying Conference: Conduct conference to comply with requirements in Division 01 Section "Project Meetings." Keying conference to incorporate the following criteria into the final keying schedule document:
1. Function of building, purpose of each area and degree of security required.

2. Plans for existing and future key system expansion.
 3. Requirements for key control storage and software.
 4. Installation of permanent keys, cylinder cores and software.
 5. Address and requirements for delivery of keys.
- H. Pre-Submittal Conference: Conduct coordination conference in compliance with requirements in Division 01 Section "Project Meetings" with attendance by representatives of Supplier(s), Installer(s), and Contractor(s) to review proper methods and the procedures for receiving, handling, and installing door hardware.
1. Prior to installation of door hardware, arrange for manufacturers' representatives to hold a project specific training meeting to instruct the installing contractors' personnel on the proper installation and adjustment of their respective products. Product training to be attended by installers of door hardware (including electromechanical hardware) for aluminum, hollow metal and wood doors. Training will include the use of installation manuals, hardware schedules, templates and physical product samples as required.
 2. Inspect and discuss electrical roughing-in, power supply connections, and other preparatory work performed by other trades.
 3. Review sequence of operation narratives for each unique access controlled opening.
 4. Review and finalize construction schedule and verify availability of materials.
 5. Review the required inspecting, testing, commissioning, and demonstration procedures
- I. At completion of installation, provide written documentation that components were applied to manufacturer's instructions and recommendations and according to approved schedule.
- 1.5 DELIVERY, STORAGE, AND HANDLING
- A. Inventory door hardware on receipt and provide secure lock-up and shelving for door hardware delivered to Project site. Do not store electronic access control hardware, software or accessories at Project site without prior authorization.
 - B. Tag each item or package separately with identification related to the final Door Hardware Schedule, and include basic installation instructions with each item or package.
 - C. Deliver, as applicable, permanent keys, cylinders, cores, access control credentials, software and related accessories directly to Owner via registered mail or overnight package service. Instructions for delivery to the Owner shall be established at the "Keying Conference".
- 1.6 COORDINATION
- A. Templates: Obtain and distribute to the parties involved templates for doors, frames, and other work specified to be factory prepared for installing standard and electrified hardware. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing hardware to comply with indicated requirements.

- B. Door Hardware and Electrical Connections: Coordinate the layout and installation of scheduled electrified door hardware and related access control equipment with required connections to source power junction boxes, low voltage power supplies, detection and monitoring hardware, and fire and detection alarm systems.
- C. Door and Frame Preparation: Related Division 08 Sections (Steel, Aluminum and Wood) doors and corresponding frames are to be prepared, reinforced and pre-wired (if applicable) to receive the installation of the specified electrified, monitoring, signaling and access control system hardware without additional in-field modifications.

1.7 WARRANTY

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

1.8 MAINTENANCE SERVICE

- A. Maintenance Tools and Instructions: Furnish a complete set of specialized tools and maintenance instructions as needed for Owner's continued adjustment, maintenance, and removal and replacement of door hardware.
- B. Continuing Service: Beginning at Substantial Completion, and running concurrent with the specified warranty period, provide continuous (6) months full maintenance including repair and replacement of worn or defective components, lubrication, cleaning, and adjusting as required for proper door opening operation. Provide parts and supplies as used in the manufacture and installation of original products.

PART 2 - PRODUCTS

2.1 HANGING DEVICES

- A. Hinges: ANSI/BHMA A156.1 certified butt hinges with number of hinge knuckles as specified in the Door Hardware Sets.
1. Quantity: Provide the following hinge quantity, unless otherwise indicated:
 - a. Two Hinges: For doors with heights up to 60 inches.
 - b. Three Hinges: For doors with heights 61 to 90 inches.
 - c. Four Hinges: For doors with heights 91 to 120 inches.
 - d. For doors with heights more than 120 inches, provide 4 hinges, plus 1 hinge for every 30 inches of door height greater than 120 inches.
 2. Hinge Size: Provide the following, unless otherwise indicated, with hinge widths sized for door thickness and clearances required:
 - a. Widths up to 3'0": 4-1/2" standard or heavy weight as specified.
 - b. Sizes from 3'1" to 4'0": 5" standard or heavy weight as specified.
 3. Hinge Weight and Base Material: Unless otherwise indicated, provide the following:
 - a. Exterior Doors: Heavy weight, non-ferrous, ball bearing hinges unless Hardware Sets indicate standard weight.
 - b. Interior Doors: Standard weight, steel, ball bearing hinges unless Hardware Sets indicate heavy weight.
 - c. Tornado Resistant Assemblies: At a minimum, provide heavy weight hinges with stainless steel screws used in accordance with and specified as part of a Severe Storm Shelter Opening meeting ICC 500 and FEMA 361.
 4. Hinge Options: Comply with the following where indicated in the Hardware Sets or on Drawings:
 - a. Non-removable Pins: Provide set screw in hinge barrel that, when tightened into a groove in hinge pin, prevents removal of pin while door is closed; for the following applications:
 - 1) Out-swinging exterior doors.
 - 2) Out-swinging access controlled doors.
 - 3) Out-swinging lockable doors.
 5. Acceptable Manufacturers:
 - a. Hager Companies (HA).
 - b. McKinney Products (MK).

2.2 CYLINDERS AND KEYING

- A. General: Cylinder manufacturer to have minimum (10) years experience designing secured master key systems and have on record a published security keying system policy.
- B. Source Limitations: Obtain each type of keyed cylinder and keys from the same source manufacturer as locksets and exit devices, unless otherwise indicated.
 - 1. Acceptable Manufacturers:
 - a. Assa
- C. Cylinders: Original manufacturer cylinders complying with the following:
 - 1. Mortise Type: Threaded cylinders with rings and straight- or clover-type cam.
 - 2. Rim Type: Cylinders with back plate, flat-type vertical or horizontal tailpiece, and raised trim ring.
 - 3. Bored-Lock Type: Cylinders with tailpieces to suit locks.
 - 4. Mortise and rim cylinder collars to be solid and recessed to allow the cylinder face to be flush and be free spinning with matching finishes.
- D. Keying System: Each type of lock and cylinders to be factory keyed. Conduct specified "Keying Conference" to define and document keying system instructions and requirements. Furnish factory cut, nickel-silver large bow permanently inscribed with a visual key control number as directed by Owner. Incorporate decisions made in keying conference, and as follows:
 - 1. Existing System: Master key or grand master key locks to Owner's existing system.
- E. Key Quantity: Provide the following minimum number of keys:
 - 1. Change Keys per Cylinder: Two (2)
 - 2. Master Keys (per Master Key Group): Two (2)

2.3 MECHANICAL LOCKS AND LATCHING DEVICES

- A. Cylindrical Locksets, Grade 1 (Heavy Duty): ANSI/BHMA A156.2, Series 4000, Grade 1 certified cylindrical (bored) locksets furnished in the functions as specified in the Hardware Sets. Lock chassis fabricated of heavy gauge steel, zinc dichromate plated, with through-bolted application. Furnish with solid cast levers, standard 2 3/4" backset, and 1/2" (3/4" at rated paired openings) throw brass or stainless steel latchbolt. Locks are to be non-handed and fully field reversible.
 - 1. Acceptable Manufacturers:
 - a. Sargent Hardware

- B. Lock Trim Design: As specified in Hardware Sets.

2.4 LOCK AND LATCH STRIKES

- A. Strikes: Provide manufacturer's standard strike with strike box for each latch or lock bolt, with curved lip extended to protect frame, finished to match door hardware set, unless otherwise indicated, and as follows:
 - 1. Flat-Lip Strikes: For locks with three-piece antifriction latchbolts, as recommended by manufacturer.
 - 2. Extra-Long-Lip Strikes: For locks used on frames with applied wood casing trim.
 - 3. Aluminum-Frame Strike Box: Provide manufacturer's special strike box fabricated for aluminum framing.
- B. Standards: Comply with the following:
 - 1. Strikes for Mortise Locks and Latches: BHMA A156.13.
 - 2. Strikes for Bored Locks and Latches: BHMA A156.2.
 - 3. Strikes for Auxiliary Deadlocks: BHMA A156.5.
 - 4. Dustproof Strikes: BHMA A156.16.

2.5 DOOR CLOSERS

- A. All door closers specified herein shall meet or exceed the following criteria:
 - 1. General: Door closers to be from one manufacturer, matching in design and style, with the same type door preparations and templates regardless of application or spring size. Closers to be non-handed with full sized covers including installation and adjusting information on inside of cover.
 - 2. Standards: Closers to comply with UL-10C and UBC 7-2 for Positive Pressure Fire Test and be U.L. listed for use of fire rated doors.
 - 3. Size of Units: Comply with manufacturer's written recommendations for sizing of door closers depending on size of door, exposure to weather, and anticipated frequency of use. Where closers are indicated for doors required to be accessible to the physically handicapped, provide units complying with ANSI ICC/A117.1.
 - 4. Closer Arms: Provide heavy duty, forged steel closer arms unless otherwise indicated in Hardware Sets.
 - a. Where closers are indicated to have mechanical dead-stop, provide heavy duty arms and brackets with an integral positive stop.
 - b. Where closers are indicated to have mechanical hold open, provide heavy duty units with an additional built-in mechanical holder assembly designed to hold open against normal wind and traffic conditions. Holder to be manually selectable to on-off position.

- c. Where closers are indicated to have a cushion-type stop, provide heavy duty arms and brackets with spring stop mechanism to cushion door when opened to maximum degree.
 - d. Closers shall not be installed on exterior or corridor side of doors; where possible install closers on door for optimum aesthetics. Provide drop plates or other accessories as required for proper mounting.
5. Closer Accessories: Provide door closer accessories including custom templates, special mounting brackets, spacers and drop plates, and through-bolt or security type fasteners as specified in the door Hardware Sets.
- B. Door Closers, Surface Mounted (Heavy Duty): ANSI/BHMA A156.4, Grade 1 surface mounted, heavy duty door closers with complete spring power adjustment, sizes 1 thru 6; and fully operational adjustable according to door size, frequency of use, and opening force. Closers to be rack and pinion type, one piece cast iron or aluminum alloy body construction, with adjustable backcheck and separate non-critical valves for closing sweep and latch speed control. Provide non-handed units and high impact, non-corrosive plastic covers standard.
1. Acceptable Manufacturers:
 - a. Sargent 351 Series

2.6 ARCHITECTURAL TRIM

A. Door Protective Trim

1. General: Door protective trim units to be of type and design as specified below or in the Hardware Sets.
2. Size: Fabricate protection plates (kick, armor, or mop) not more than 2" less than door width (LDW) on stop side and not more than 1" less than door width on pull side. Coordinate and provide proper width and height as required where conflicting hardware dictates. Height to be as specified in the Hardware Sets.
3. Metal Protection Plates: ANSI/BHMA A156.6 certified metal protection plates (kick, armor, or mop), beveled on four edges (B4E), fabricated from the following.
 - a. Stainless Steel: .050-inch thick, with countersunk screw holes (CSK).
 - b. Brass or Bronze: .050-inch thick, with countersunk screw holes (CSK).
 - c. Laminate Plastic or Acrylic: 1/8-inch thick, with countersunk screw holes (CSK).
4. Fasteners: Provide manufacturer's designated fastener type as specified in the Hardware Sets.
5. Metal Door Edging: Door protection edging fabricated from a minimum .050-inch thick metal sheet, formed into an angle or "U" cap shapes, surface or mortised mounted onto edge of door. Provide appropriate leg overlap to

account for protection plates as required. Height to be as specified in the Hardware Sets.

6. Acceptable Manufacturers:
 - a. Rockwood Manufacturing (RO).
 - b. Trimco (TC).

2.7 DOOR STOPS AND HOLDERS

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

2.8 ARCHITECTURAL SEALS

- A. General: Thresholds, weatherstripping, and gasket seals to be of type and design as specified below or in the Hardware Sets. Provide continuous weatherstrip gasketing on exterior doors and provide smoke, light, or sound gasketing on interior doors where indicated. At exterior applications provide non-corrosive fasteners and elsewhere where indicated.
- B. Smoke Labeled Gasketing: Assemblies complying with NFPA 105 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for smoke control ratings indicated, based on testing according to UL 1784.
 1. Provide smoke labeled perimeter gasketing at all smoke labeled openings.
- C. Fire Labeled Gasketing: :Assemblies complying with NFPA 80 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire ratings indicated, based on testing according to UL-10C.
 1. Provide intumescent seals as indicated to meet UL10C Standard for Positive Pressure Fire Tests of Door Assemblies, and UBC 7-2, Fire Tests of Door Assemblies.
- D. Sound-Rated Gasketing: Assemblies that are listed and labeled by a testing and inspecting agency, for sound ratings indicated, based on testing according to ASTM E 1408.

- E. Replaceable Seal Strips: Provide only those units where resilient or flexible seal strips are easily replaceable and readily available from stocks maintained by manufacturer.
- F. Acceptable Manufacturers:
 - 1. Pemko Manufacturing (PE).
 - 2. Reese Enterprises, Inc. (RS).

2.9 FABRICATION

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

PART 3 - EXECUTION

3.1 EXAMINATION

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

3.2 PREPARATION

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

3.3 INSTALLATION

- A. Install each item of mechanical and electromechanical hardware and access control equipment to comply with manufacturer's written instructions and according to specifications.
 - 1. Installers are to be trained and certified by the manufacturer on the proper installation and adjustment of fire, life safety, and security products including: hanging devices; locking devices; closing devices; and seals.
- B. Mounting Heights: Mount door hardware units at heights indicated in following applicable publications, unless specifically indicated or required to comply with governing regulations:
 - 1. Standard Steel Doors and Frames: DHI's "Recommended Locations for Architectural Hardware for Standard Steel Doors and Frames."

2. Wood Doors: DHI WDHS.3, "Recommended Locations for Architectural Hardware for Wood Flush Doors."
 3. Where indicated to comply with accessibility requirements, comply with ANSI A117.1 "Accessibility Guidelines for Buildings and Facilities."
 4. Provide blocking in drywall partitions where wall stops or other wall mounted hardware is located.
- C. Retrofitting: Install door hardware to comply with manufacturer's published templates and written instructions. Where cutting and fitting are required to install door hardware onto or into surfaces that are later to be painted or finished in another way, coordinate removal, storage, and reinstallation of surface protective trim units with finishing work specified in Division 9 Sections. Do not install surface-mounted items until finishes have been completed on substrates involved.
- D. Thresholds: Set thresholds for exterior and acoustical doors in full bed of sealant complying with requirements specified in Division 7 Section "Joint Sealants."
- E. Storage: Provide a secure lock up for hardware delivered to the project but not yet installed. Control the handling and installation of hardware items so that the completion of the work will not be delayed by hardware losses before and after installation.

3.4 FIELD QUALITY CONTROL

- A. Field Inspection: Supplier will perform a final inspection of installed door hardware and state in report whether work complies with or deviates from requirements, including whether door hardware is properly installed, operating and adjusted.

3.5 ADJUSTING

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

3.6 CLEANING AND PROTECTION

- A. Protect all hardware stored on construction site in a covered and dry place. Protect exposed hardware installed on doors during the construction phase. Install any and all hardware at the latest possible time frame.
- B. Clean adjacent surfaces soiled by door hardware installation.
- C. Clean operating items as necessary to restore proper finish, and provide final protection and maintain conditions that ensure door hardware is without damage or deterioration at time of owner occupancy.

3.7 DEMONSTRATION

- A. Instruct Owner's maintenance personnel to adjust, operate, and maintain mechanical and electromechanical door hardware.

3.8 DOOR HARDWARE SCHEDULE

- A. The hardware sets represent the design intent and direction of the owner and architect. They are a guideline only and should not be considered a detailed hardware schedule. Discrepancies, conflicting hardware and missing items should be brought to the attention of the architect with corrections made prior to the bidding process. Omitted items not included in a hardware set should be scheduled with the appropriate additional hardware required for proper application and functionality.

- B. Manufacturer's Abbreviations:

1. MK - McKinney
2. SA - Sargent
3. RO - Rockwood
4. PE - Pemko
5. AA - Assa
6. HE - HES

Hardware Schedule

Set: 1.0

Doors: A112 (Relocated door and hardware- 45 Min Fire Rated)

Reuse all existing hardware including keypad lock, door closer etc. except following new:

3 Hinge	TA2714	US26D	MK
1 Door Stop	409 (441H as required)	US32D	RO
3 Silencer	608		RO

Set: 2.0

Doors: A113A, A113B (Sliding Barn Door)

Hardware per manufacturer.

Set: 3.0

Doors: A114A, A114B, A114C

6 Hinge	TA2714	US26D	MK
2 Flush Bolt	555	US26D	RO
1 Lock (Closet lock)	10G04 LL L/C	626	SA
1 Cylinder	88672	626	AA
1 Dust Proof Strike	570	US26D	RO
2 Kickplate	K1050 10" x 2" LDW	US10	RO

2 Wall Stop	409	US32D	RO
1 Gasketing	S773D		PE

Set: 4.0

Doors: A114D

3 Hinge	TA2714	US26D	MK
1 Lock (Closet lock)	10G04 LL L/C	626	SA
1 Cylinder	88672	626	AA
1 Kickplate	K1050 10" x 2" LDW	US10	RO
1 Wall Stop	409	US32D	RO
1 Gasketing	S773D		PE

Set: 5.0

Doors: A115

3 Hinge	TA2714	US26D	MK
1 Lock (Privacy)	10XG60 LL	626	SA
1 Cylinder	88672	626	AA
1 Door Closer	P351	689	SA
1 Kickplate	K1050 10" x 2" LDW	US10	RO
1 Door Stop	409 (441H as required)	US32D	RO
3 Silencer	608		RO

END OF SECTION 08 71 00



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Electrical Addendum #1

Date: August 9, 2023
To: Sourabh Sinha
Company: NJRA Architects
Job: IMED Angio #3 Remodel
Job No: 230128
Cc:

From: Jason Worthen
Email: Jason.worthen@speceng.com
Phone: 801-401-8442
Re:

This Addendum shall be considered part of the Contract Documents and Project Manual for the above mentioned project as though it had been issued at the same time and shall be incorporated integrally therewith. Where provisions of the following supplementary data differ from those of the original Contract Documents and Project Manual, the Addendum shall govern and take precedence.

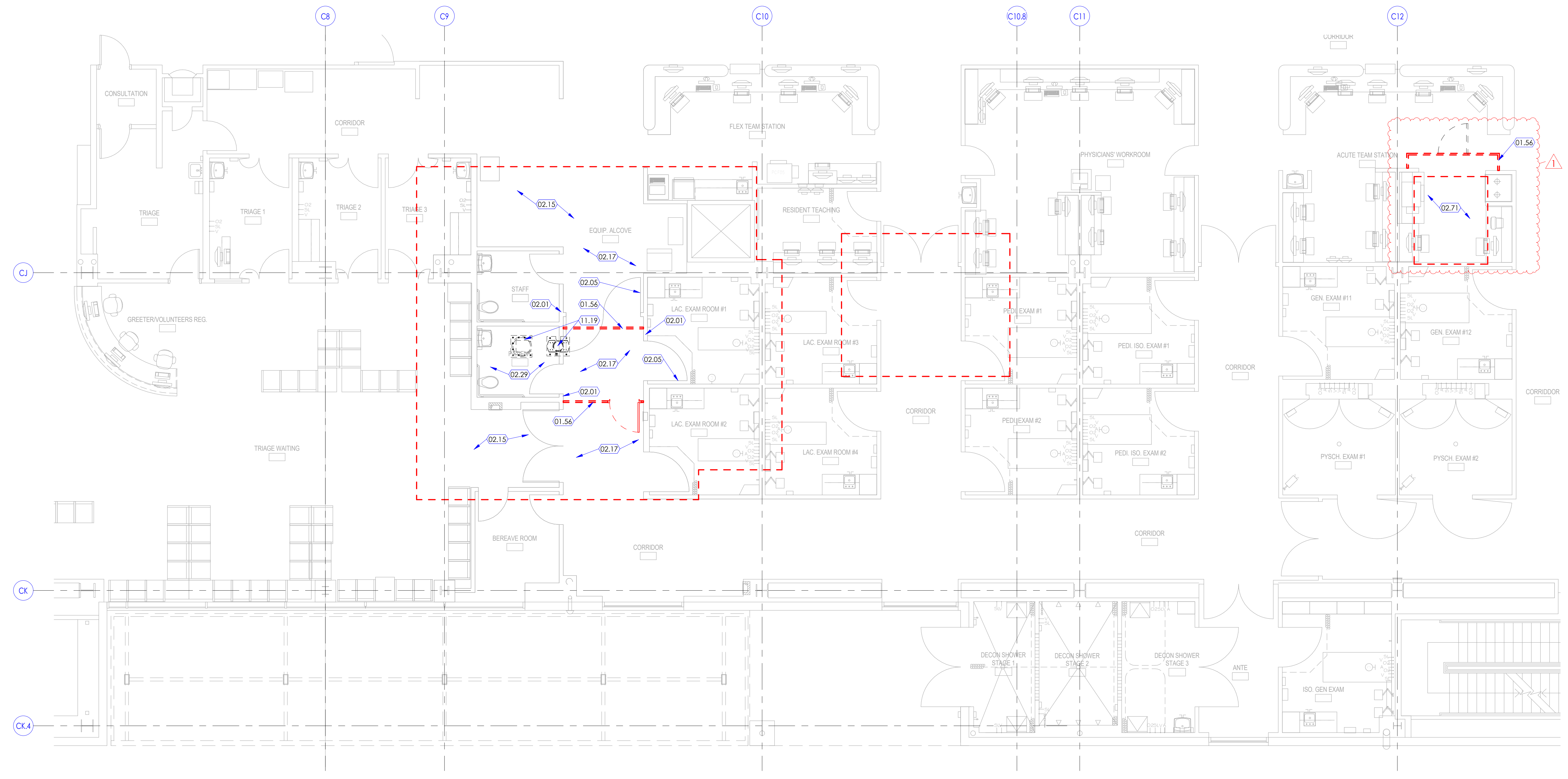
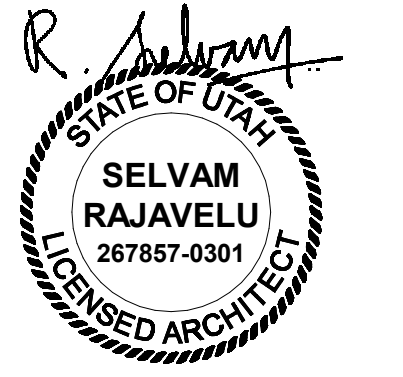
Electrical Addendum

Drawings

1. ED101 – Level 1 Electrical Demolition Plan
 - a. Showed nurse call pull station and dome light being relocated.
2. EP701 – Phillips Drawings
 - a. Updated to the latest Phillips drawings revision.
3. EP702 – Phillips Drawings
 - a. Updated to the latest Phillips drawings revision.
4. EP703 – Phillips Drawings
 - a. Updated to the latest Phillips drawings revision.
5. EP704 – Phillips Drawings
 - a. Updated to the latest Phillips drawings revision.
6. EY101 – Level Auxiliary Plan
 - a. Added relocated nurse call pull station and dome light to new restroom.

END OF ADDENDUM

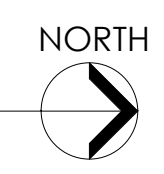
Attachments < ED101, EP701, EP702, EP703, EP704, EY101 >



KEYED NOTES

- 01.56 DASHED LINE INDICATES FLOOR TO DECK DUST PROOF CONSTRUCTION BARRIER TO PREVENT DUST AND DIRT MIGRATION AND TO SEPARATE AREAS OCCUPIED BY THE OWNER FROM FUMES AND NOISE. CONSTRUCTION BARRIER TO BE ERRECTED WITH PRE-MADE POLYCARBONATE TYPE BARRIER SYSTEM. BASIS OF DESIGN: STARC BARRIER SYSTEM. TAPE & SEAL ALL JOINTS AND OPENINGS. SEAL JOINTS AT PERIMETER. PARTITION TO BE EQUIPPED WITH 4'-0" LOCKABLE MAN DOOR WITH STICKY MATS ON BOTH SIDES OF DOOR. COORDINATE WITH OWNER FOR EXACT LOCATION OF CONSTRUCTION BARRIER.
- 02.01 WALL, EXISTING TO REMAIN. PROTECT WALL FROM DAMAGE DURING CONSTRUCTION. PATCH REPAIR AND PAINT AS REQUIRED TO ACCOMPLISH WORK INDICATED IN THE DRAWINGS.
- 02.05 DOOR, FRAME, HARDWARE EXISTING TO REMAIN. PROTECT DOOR FROM DAMAGE DURING CONSTRUCTION. DOORS IN THE SCAN ROOM ARE LEAD SHIELDED.
- 02.15 CEILING, GRIDS, LIGHTS DIFFUSERS ETC EXISTING TO REMAIN IN THIS AREA. PROTECT FROM DAMAGE DURING CONSTRUCTION. REMOVE AND REINSTALL WHERE REQUIRED TO ACCOMPLISH ABOVE CEILING WORK DESCRIBED IN THE MECHANICAL, STRUCTURAL, PLUMBING OR ELECTRICAL DRAWINGS.
- 02.17 FLOOR COVERING, EXISTING TO REMAIN. PROTECT FLOOR COVERING FROM DAMAGE DURING CONSTRUCTION.
- 02.29 CEILING, GRIDS, GYPSUM BOARD, LIGHT, DIFFUSER ETC EXISTING IN THIS AREA TO BE PARTIALLY REMOVED AND REINSTALLED TO ORIGINAL CONDITION AFTER ABOVE CEILING WORK IS COMPLETED.
- 02.71 THIS AREA IS RIGHT BELOW THE NEW TOILET AT THE UPPER LEVEL. CAREFULLY REMOVE CEILING TO COMPLETE PLUMBING WORK AS OUTLINED IN THE PLUMBING DRAWINGS. REPAIR AND REINSTALL CEILING TO ORIGINAL CONDITION AFTER ABOVE CEILING WORK IS COMPLETED.
- 11.19 DASHED LINES INDICATE ANGIO LAB C-ARM SHF PATIENT TABLE METAL ANCHOR FLOOR PLATES TO BE INSTALLED AT THE FLOOR ABOVE. NOTE THAT REMOVAL OF THE EXISTING ANCHOR THROUGH BOLT AND INSTALLATION OF THE NEW ANCHORS THROUGH BOLT IS RESPONSIBILITY OF THE GENERAL CONTRACTOR. CONTRACTOR SHALL CORE-DRILL FLOOR SLAB WHERE REQUIRED. COORDINATE WITH OWNERS VENDOR PHILIPS AND SEE STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION. REMOVE, REINSTALL, PATCH AND REPAIR EXISTING CEILING TO ACCESS SPACE. RELOCATE AND OR RE-ROUTE HVAC DUCT, DIFFUSER, PLUMBING, PIPING, ELECTRICAL ETC. AS REQUIRED TO COMPLETE WORK. FIELD VERIFY EXISTING CONDITIONS BEFORE PROCEEDING WITH THE WORK.

1 Lower Level 1 Floor Plan
SCALE: 3/16" = 1'-0"



Intermountain Health
Intermountain Medical Center
Angio Lab #3 Remodel Project

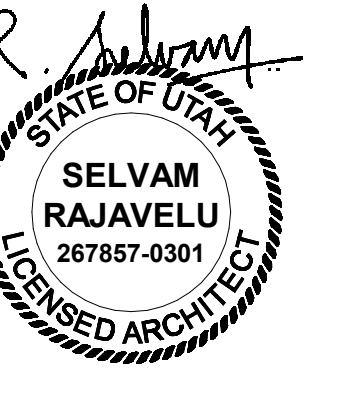
5121 South Cottonwood Street
Murray, UT 84107

GENERAL NOTES

NJRA Project # 22247.00
Construction Documents June 30, 2023
1 Addendum #1 Aug 25, 2023

Floor Plan
Lower Level 1

A103

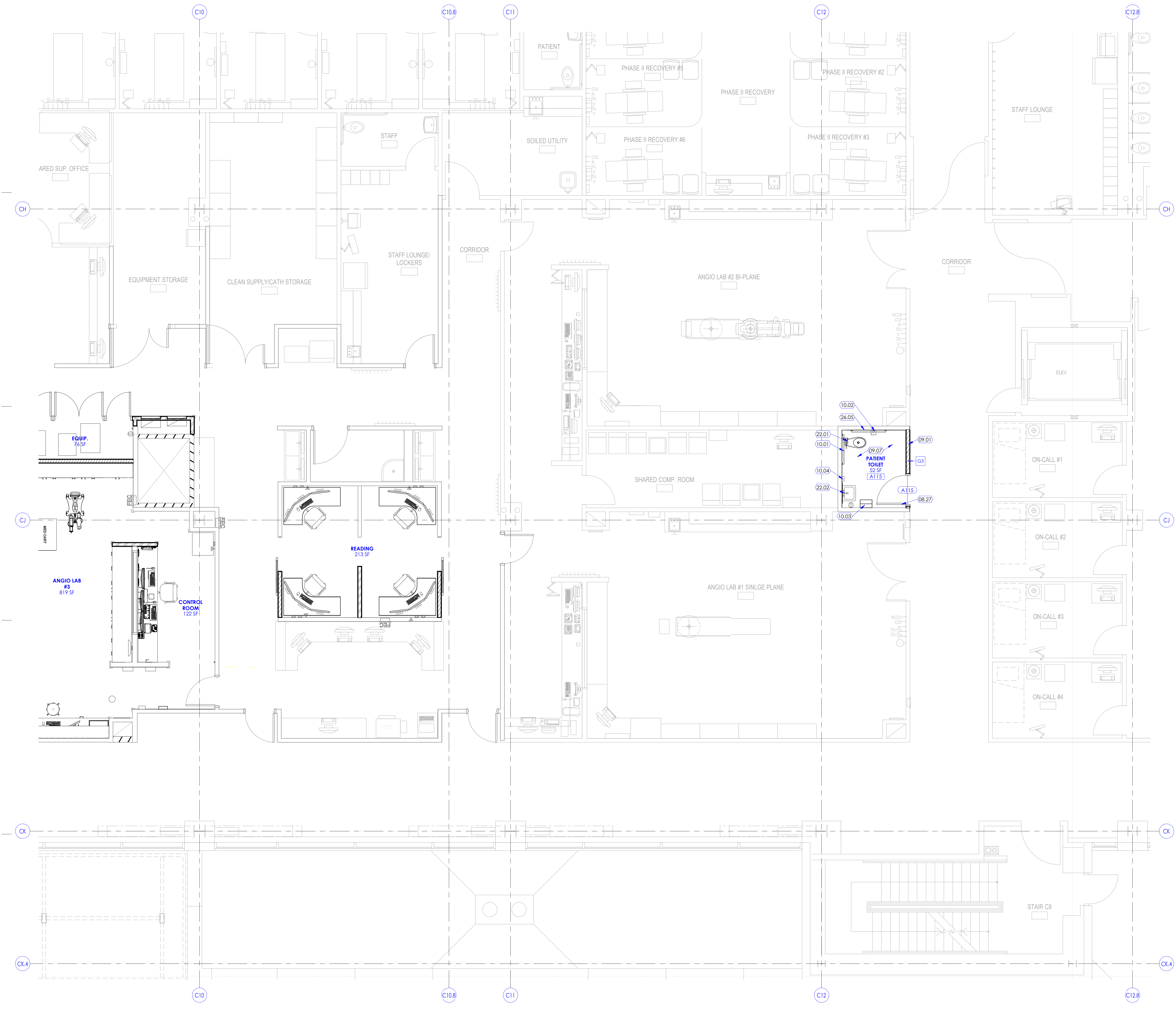


KEYED NOTES

- 08.27 NEW FLUSH WOOD DOOR AND HOLLOW METAL DOOR FRAME. SEE DOOR SCHEDULE AND HARDWARE SPECIFICATIONS. FIELD VERIFY DOOR FINISH TO MATCH WITH ADJACENT EXISTING.
- 09.01 METAL STUD FRAMING. BASED ON THE LOCATION INDICATED IN FLOOR PLAN, USE 3-5/8" (OR 6" THICK OR 1-1/2" THICK AS OCCURS), 18 GAUGE METAL STUDS AT 16" O.C. WITH TRACK RUNNERS AT TOP AND BOTTOM. USE 12 GAUGE STUDS AROUND DOOR FRAMES. IN PLACES WHERE FRAMING RUNS FROM FLOOR TO STRUCTURE ABOVE, PROVIDE SLIP CONNECTION AS PER DETAIL 9/A5028 TO ACCOMMODATE STRUCTURE DEFLECTION ABOVE. IN PLACES WHERE FRAMING IS SUSPENDED FROM STRUCTURE ABOVE, SLIP CONNECTION IS NOT REQUIRED.
- 09.07 FLOOR COVERING. SEE FINISH FLOOR PLANS FOR FLOOR COVERING INDICATED WITH A FLOOR FINISH TAG (AS F1, F2, F3, ETC.). SEE FINISH SCHEDULE ON SHEET A603A FOR MATERIAL, SIZE, COLOR, ETC. FOR EACH FLOOR FINISH TAG.
- 10.01 GRAB BAR. PROVIDE GRAB BARS REQUIRED FOR WATER CLOSET, SHOWER, ETC. SEE RELEVANT DETAILS 1/G003 AND 1/G004 FOR MOUNTING HEIGHT, LOCATION, ETC.
- 10.02 TOILET PAPER DISPENSER. OWNER FURNISHED. CONTRACTOR INSTALLED. CONTRACTOR SHALL PROVIDE BACKING IN WALL AS REQUIRED. SEE RELEVANT DETAILS 1/G003 AND 1/G004 FOR MOUNTING HEIGHT, LOCATION, ETC.
- 10.03 PAPER TOWEL DISPENSER. OWNER FURNISHED. CONTRACTOR INSTALLED. CONTRACTOR SHALL PROVIDE BACKING IN WALL AS REQUIRED. SEE RELEVANT DETAILS 1/G003 AND 1/G004 FOR MOUNTING HEIGHT, LOCATION, ETC.
- 10.04 SOAP DISPENSER. OWNER FURNISHED. CONTRACTOR INSTALLED. CONTRACTOR SHALL PROVIDE BACKING FOR ALL OWNER FURNISHED ITEMS. SEE RELEVANT DETAILS 1/G003 AND 1/G004 FOR MOUNTING HEIGHT, LOCATION, ETC.
- 22.01 WATER CLOSET. SEE RELEVANT DETAILS 1/G003 AND 1/G004 FOR MOUNTING HEIGHT, LOCATION, ETC. SEE PLUMBING DRAWINGS.
- 22.02 LAVATORY (SINK). SEE RELEVANT DETAILS 1/G003 AND 1/G004 FOR MOUNTING HEIGHT, LOCATION, ETC. SEE PLUMBING DRAWINGS.
- 26.05 NURSE CALL. SEE ELECTRICAL DRAWINGS.

GENERAL NOTES

KEY PLAN



1 Floor Plan Level 1 - Area B
SCALE: 1/4" = 1'-0"

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Intermountain Health
Intermountain Medical Center
Angio Lab #3 Remodel Project

5121 South Cottonwood Street
Murray, UT 84107

NJRA Project # 22247.00
Construction Documents June 30, 2023
1 Addendum #1 Aug 25, 2023

Floor Plan
Level 1 - Area
B

A113B

KEYED NOTES

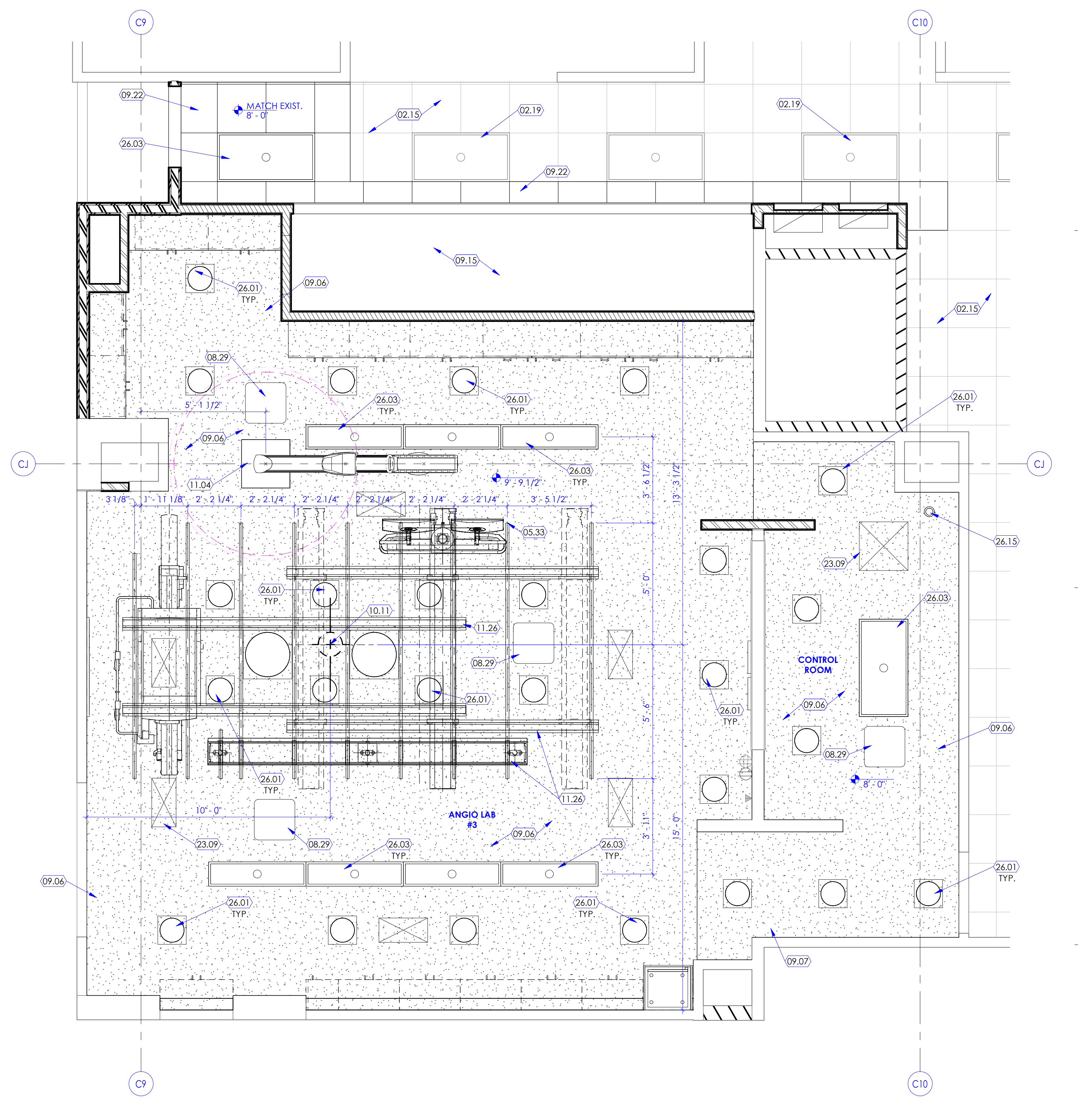
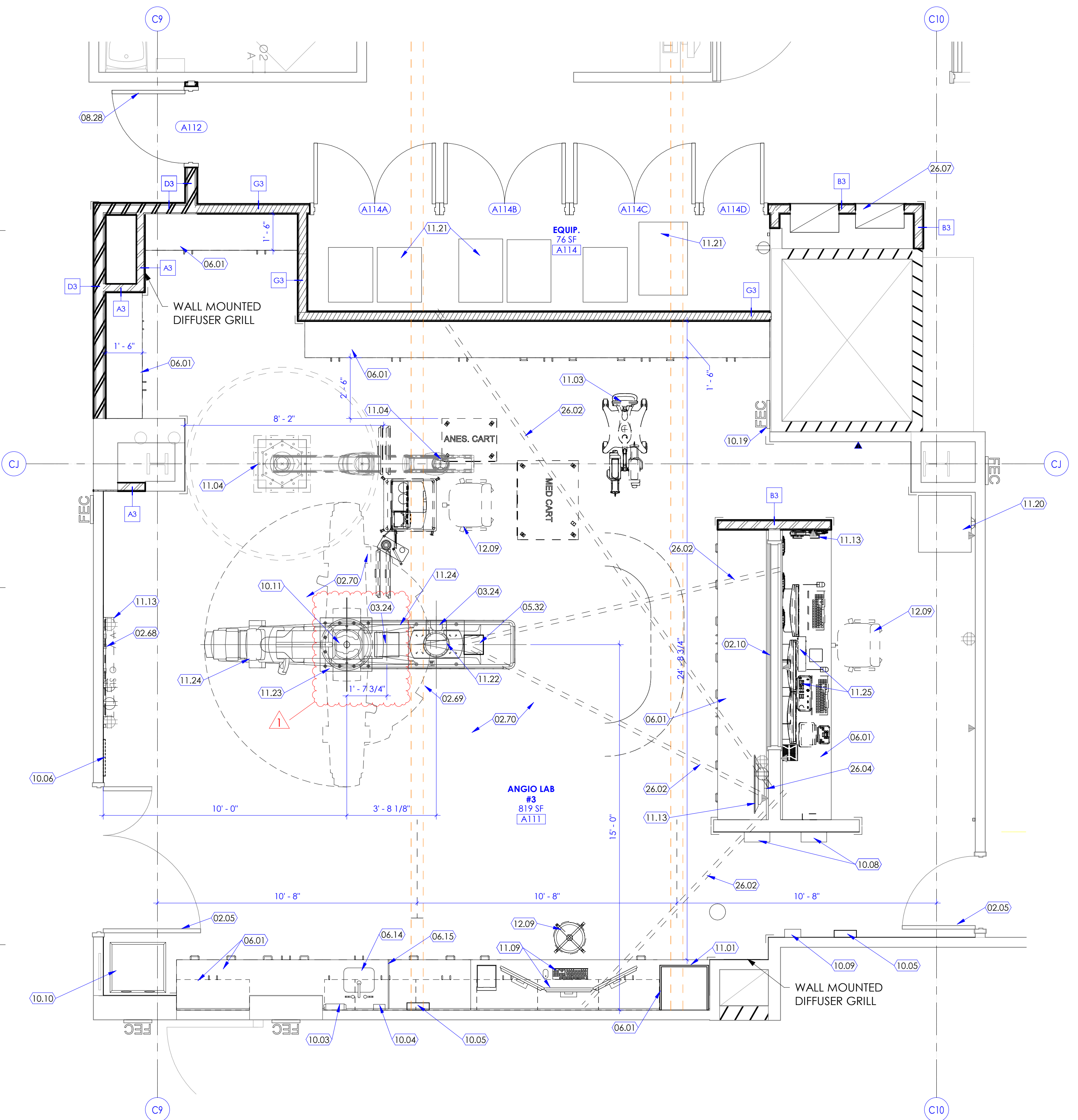
- 02.05 DOOR FRAME, HARDWARE EXISTING TO REMAIN. PROTECT DOOR FROM DAMAGE DURING CONSTRUCTION. DOORS IN THE SCAN ROOM ARE LEAD SHIELDED.
- 02.10 EXISTING LEAD SHIELDED WINDOW TO REMAIN. PROTECT DURING CONSTRUCTION.
- 02.15 CEILING, GRIDS, LIGHTS DIFFUSERS ETC EXISTING TO REMAIN IN THIS AREA. PROTECT FROM DAMAGE DURING CONSTRUCTION. REMOVE AND REINSTALL WHERE REQUIRED TO ACCOMPLISH ABOVE CEILING WORK DESCRIBED IN THE MECHANICAL, STRUCTURAL, PLUMBING OR ELECTRICAL DRAWINGS.
- 02.19 LIGHT FIXTURE, EXISTING TO REMAIN. SEE ELECTRICAL DRAWINGS FOR MORE INFORMATION.
- 02.68 EXISTING MED GAS TO REMAIN. SEE PLUMBING DRAWINGS.
- 02.69 DASHED LINE INDICATES EXISTING STRUCTURAL STEEL BEAM UNDER THE FLOOR SLAB TO REMAIN AND TO BE PROTECTED DURING CONSTRUCTION. FIELD VERIFY AND COORDINATE ALL CORE DRILLING AND ANCHORAGE IN THE PROXIMITY OF THE BEAM TO AVOID DAMAGE TO STRUCTURE. PATCH REPAIR ANY FIRE PROOFING THAT MAY COME OFF DURING CONSTRUCTION.
- 02.70 SEE PHILIPS EQUIPMENT DRAWINGS FOR FLOOR LEVELNESS TOLERANCE IN THIS AREA. USE SELF LEVELING COMPOUND IF REQUIRED.
- 03.24 CORE DRILL EXISTING CONCRETE FLOOR IN THIS AREA TO RUN CONDUIT FOR ELECTRICAL AND OTHER REQUIREMENTS. FIELD VERIFY EXISTING FLOOR BEAM LOCATION BEFORE CORE DRILLING TO AVOID DAMAGING BEAM. CONTACT STRUCTURAL ENGINEER AND ARCHITECT WITH ANY QUESTIONS. NOT ALL CORE DRILL LOCATIONS ARE SHOWN IN THIS PLAN. COORDINATE WITH ELECTRICAL, MECHANICAL, PLUMBING, STRUCTURAL AND PHILIPS DRAWINGS FOR MORE INFORMATION.
- 05.32 10'X10'X6" STAINLESS STEEL PEDESTAL BOX ANCHORED TO THE FLOOR WITH REMOVABLE COVER TO HOUSE POWER, DATA AND MEDGAS CONNECTIONS AS OUTLINED IN THE ELECTRICAL, MECHANICAL AND PHILIPS DRAWINGS. EXACT SIZE AND LOCATION TO BE COORDINATED WITH PHILIPS. CORE DRILL CONCRETE FLOOR TO RUN CONDUITS.
- 05.33 CEILING MOUNTED UNISTRUT SYSTEM TO SUPPORT NEW PHILIPS ANGIO EQUIPMENT. SEE STRUCTURAL AND VENDOR EQUIPMENT DRAWINGS. PROVIDE PVC CAPS WITH MATCHING HOSPITAL STANDARD COLOR WHERE UNISTRUTS ARE EXPOSED. BOTTOM OF UNISTRUT SHOULD BE 9'-9 5/16" FROM TOP OF CLEAN FLOOR PLATE. COORDINATE WITH PHILIPS FOR MORE INFORMATION AND ACCEPTABLE TOLERANCES.
- 06.01 CABINET, COUNTERTOP ETC. SEE CABINET LEGEND ON SHEET 1/A505A, AND INTERIOR ELEVATIONS, FOR CABINET TYPES SUCH AS BASE CABINETS, WALL CABINETS, TALL CABINETS, ETC.
- 06.14 PROVIDE 1/2" THICK SOLID SURFACE SINK. BASIS OF DESIGN: STARON A1181-BW BRIGHT WHITE. SEE PLUMBING DRAWINGS FOR PLUMBING, PIPING, FAUCET AND CONTROL REQUIREMENTS. OFFSET FAUCET WITH SINK DRAIN HOLE SO THAT WATER DOESN'T DIRECTLY FALL INTO THE DRAIN.
- 06.15 PROVIDE 1/2" THICK SOLID SURFACE SPLASH GUARD AT THE SINK ATTACHED TO THE SOLID SURFACE COUNTERTOP.
- 08.28 RELOCATED EXISTING FIRE RATED DOOR, HARDWARE, KEYPAD ACCESS ON NEW DOOR HOLLOW METAL FRAME. SEE DOOR SCHEDULE.
- 08.29 18'X18' CEILING MOUNTED GASKETED GFRG ACCESS PANELS. FINISH AND PAINT TO MATCH WITH THE ADJACENT GYPSUM CEILING. COORDINATE EXACT LOCATION WITH OWNER AND VENDORS.
- 09.06 PAINTED GYPSUM BOARD CEILING. SEE DETAILS ON SHEET A503A. ALSO REFER TO FINISH PLANS.
- 09.07 FLOOR COVERING. SEE FINISH FLOOR PLANS FOR FLOOR COVERING INDICATED WITH A FLOOR FINISH TAG (AS F1, F2, F3, ETC.). SEE FINISH SCHEDULE ON SHEET A603A FOR MATERIAL, SIZE, COLOR, ETC. FOR EACH FLOOR FINISH TAG.
- 09.15 STEEL COMPONENTS OF FLOOR STRUCTURE (AND/OR ROOF WHERE OCCURS) SHALL BE EXPOSED. NO CEILING OR PAINTING IS REQUIRED.
- 09.22 REMOVE, MODIFY AND REINSTALL EXISTING CEILING TILES ON NEW CEILING GRIDS IN THIS AREA TO MATCH EXISTING EXISTING. PROVIDE NEW TILES WHERE DAMAGED.
- 10.03 PAPER TOWEL DISPENSER, OWNER FURNISHED, CONTRACTOR INSTALLED. CONTRACTOR SHALL PROVIDE BACKING IN WALL AS REQUIRED. SEE RELEVANT DETAILS 1/G003 AND 1/G004 FOR MOUNTING HEIGHT, LOCATION, ETC.
- 10.04 SOAP DISPENSER, OWNER FURNISHED, CONTRACTOR INSTALLED. CONTRACTOR SHALL PROVIDE BACKING FOR ALL OWNER FURNISHED ITEMS. SEE RELEVANT DETAILS 1/G003 AND 1/G004 FOR MOUNTING HEIGHT, LOCATION, ETC.
- 10.05 GLOVE DISPENSER, O.F.C.I.
- 10.06 PATIENT TRANSFER BOARD, O.F.C.I.
- 10.08 SHARPS CONTAINER, O.F.C.I.
- 10.09 AVA GUARD, O.F.C.I.
- 10.10 GARBAGE CAN, O.F.C.I.
- 10.11 PHILIPS EQUIPMENT ISO CENTER. SEE EQUIPMENT DRAWINGS FROM OWNERS VENDOR PHILIPS.
- 10.19 FIRE PROTECTION CABINET FOR STORING PORTABLE FIRE EXTINGUISHERS. CABINET SHALL BE RECESSED IN STUD FRAMED WALL. SEE DETAIL 3/A506A.
- 11.01 UNDER COUNTER MEDICATION REFRIGERATOR, O.F.C.I. COORDINATE CLEARANCE REQUIREMENTS WITH OWNER. SEE ELECTRICAL DRAWINGS FOR POWER REQUIREMENT.
- 11.03 PHILIPS PORTABLE INJECTOR, O.F.O.J. PROVIDE POWER. SEE ELECTRICAL DRAWINGS.
- 11.04 CEILING MOUNTED MEDGAS BOOM, PROVIDED AND INSTALLED BY OWNER'S VENDOR "GETING". PROVIDE STRUCTURAL SUPPORT. SEE STRUCTURAL, PLUMBING AND ELECTRICAL DRAWINGS FOR MORE INFORMATION TO PROVIDE POWER DATA AND MEDGAS CONNECTIONS.
- 11.09 COMPUTER, NOT IN CONTRACT. OWNER FURNISHED OWNER INSTALLED.
- 11.13 TELEVISION (TV), MONITOR, NOT IN CONTRACT. OWNER FURNISHED CONTRACTOR INSTALLED. PROVIDE WALL MOUNTED METAL BRACKET TO SUPPORT THE TV. BRACKET SIZE AND MODEL SHALL BE BASED ON THE TV SIZE. PROVIDE PLYWOOD BACKING IN WALL AS REQUIRED TO SUPPORT THE TV BRACKET. PROVIDE POWER, DATA AND HDMI PORT. SEE ELECTRICAL DRAWINGS.
- 11.20 ACCUCOSE, OWNER FURNISHED AND INSTALLED. SEE ELECTRICAL DRAWINGS FOR POWER AND DATA REQUIREMENTS. EXISTING CAMERA AT THE CEILING FOR ACCUCOSE NEEDS TO BE REMOVED AND RE-INSTALLED AS REQUIRED. EQUIPMENT PROVIDED AND INSTALLED BY OWNER'S VENDOR PHILIPS. SEE ELECTRICAL DRAWINGS FOR ALL POWER, DATA AND CONDUIT REQUIREMENTS. CONTACT PHILIPS FOR MORE INFORMATION AND CLEARANCE REQUIREMENTS.
- 11.22 SWIVEL FLOOR METAL PLATE FOR PATIENT TABLE RECESSED INTO THE CONCRETE SLAB. SEE STRUCTURAL AND PHILIPS DRAWINGS FOR ANCHORAGE REQUIREMENTS. PLATE PROVIDED BY PHILIPS. COORDINATE LOCATION OF THE EXISTING FLOOR BEAM BELOW FOR ANCHORAGE BEFORE PROCEEDING WITH THE WORK.

GENERAL NOTES

- A. SEE SHEET G003 AND G005 FOR SYMBOLS, GENERAL NOTES AND LEGEND.
- B. SEE SHEET A505A FOR CABINET LEGEND.
- C. SEE SHEET A601A FOR DOOR SCHEDULE.
- D. SEE SHEET A602A FOR WINDOW SCHEDULE.
- E. SEE SHEET A603A FOR FINISH SCHEDULE AND GENERAL NOTES.
- 11.23 FLOOR CLEA FLOOR METAL PLATE FOR FLOOR MOUNTED C-ARM RECESSED INTO THE CONCRETE SLAB. SEE STRUCTURAL AND PHILIPS DRAWINGS FOR ANCHORAGE REQUIREMENTS. PLATE PROVIDED BY PHILIPS.
- 11.24 PHILIPS BI-PLANE FLOOR AND CEILING MOUNTED ANGIO EQUIPMENT. SEE PHILIPS EQUIPMENT DRAWINGS ON EQ SHEETS FOR MORE INFORMATION. EQUIPMENT PROVIDED AND INSTALLED BY OWNER'S VENDOR.
- 11.25 PHILIPS ANGIO COMPUTER, MONITOR AND OTHER DEVICES, PROVIDED AND INSTALLED BY OWNERS VENDOR PHILIPS. SEE EQUIPMENT DRAWINGS FOR MORE INFORMATION. SEE ELECTRICAL DRAWINGS FOR POWER, DATA AND CONDUIT REQUIREMENTS.
- 11.26 ALUMINUM CEILING RAILS ANCHORED TO UNISTRUT SYSTEM TO SUPPORT PHILIPS CEILING MOUNTED ANGIO EQUIPMENT. ALUMINUM RAILS TO BE PROVIDED AND INSTALLED BY PHILIPS. COORDINATE WITH PHILIPS EQUIPMENT DRAWINGS FOR ALL REQUIREMENTS.
- 12.09 FURNITURE, NOT IN CONTRACT. OWNER FURNISHED OWNER INSTALLED.
- 23.09 MECHANICAL DIFFUSER. SEE MECHANICAL DRAWINGS.
- 26.01 DIMMABLE LIGHT FIXTURE. SEE ELECTRICAL DRAWINGS FOR POWER, DATA AND CONDUIT REQUIREMENTS. DOES NOT REPRESENT ALL CONDUITS REQUIRED IN THE PROJECT. SEE ELECTRICAL AND PHILIPS VENDOR DRAWINGS FOR MORE INFORMATION AND REQUIREMENTS.
- 26.03 LIGHT FIXTURE. SEE ELECTRICAL DRAWINGS.
- 26.04 MONITOR OUTLETS.
- 26.07 NEW ISOLATION PANEL. SEE ELECTRICAL DRAWINGS FOR MORE INFORMATION.
- 26.15 CEILING MOUNTED SECURITY CAMERA. SEE ELECTRICAL DRAWINGS.

NJRA ARCHITECTS

NJRA Architects, Inc.
5272 S. College Drive, Suite 104
Murray, Utah 84123
801.364.9259
www.njraarchitects.com



1 Enlarged Floor Plan - Angio Lab #3
SCALE: 3/8" = 1'-0"

2 Enlarged Reflected Ceiling Plan - Angio Lab #3
SCALE: 3/8" = 1'-0"

Intermountain Health
Intermountain Medical Center
Angio Lab #3 Remodel Project

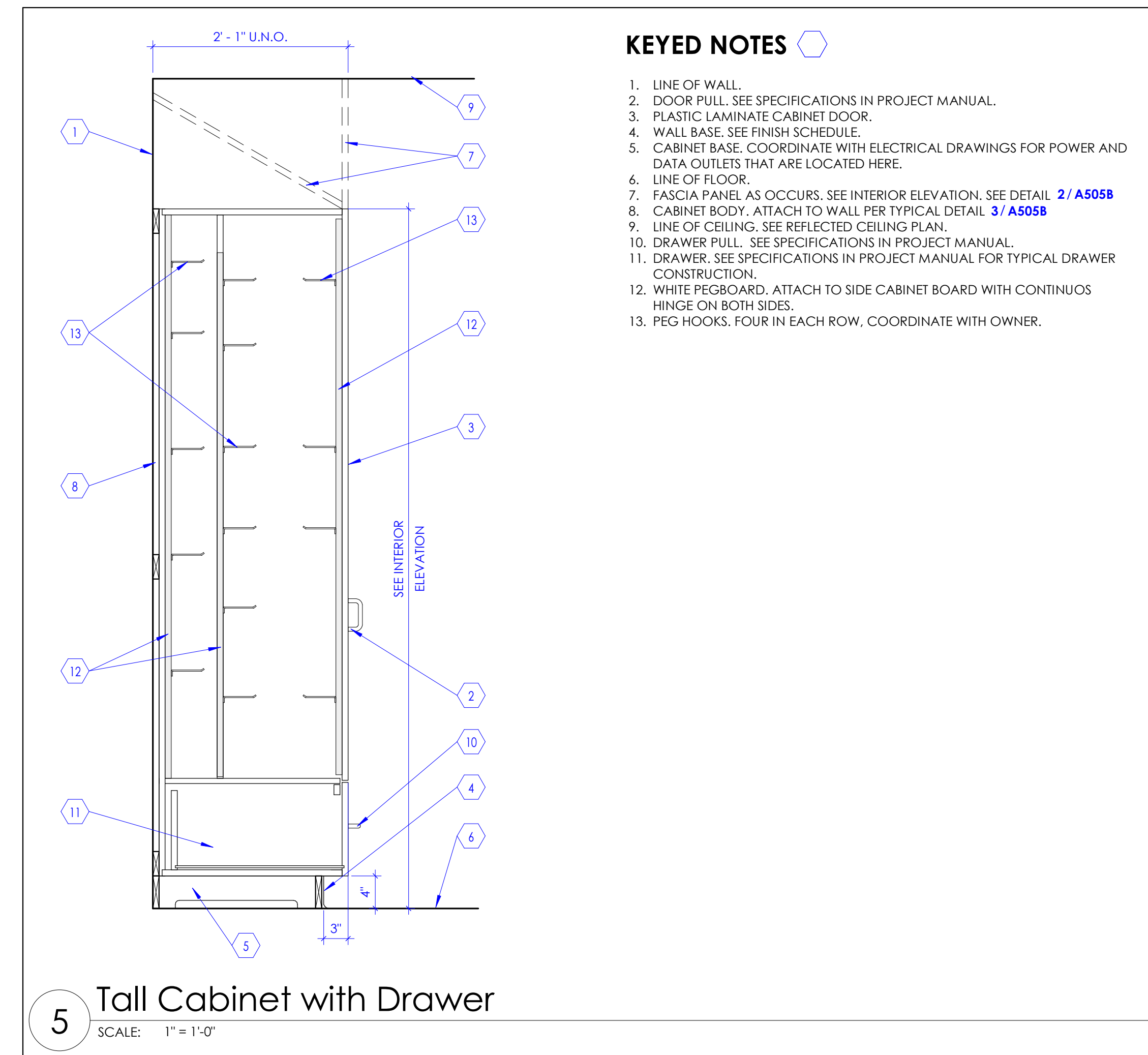
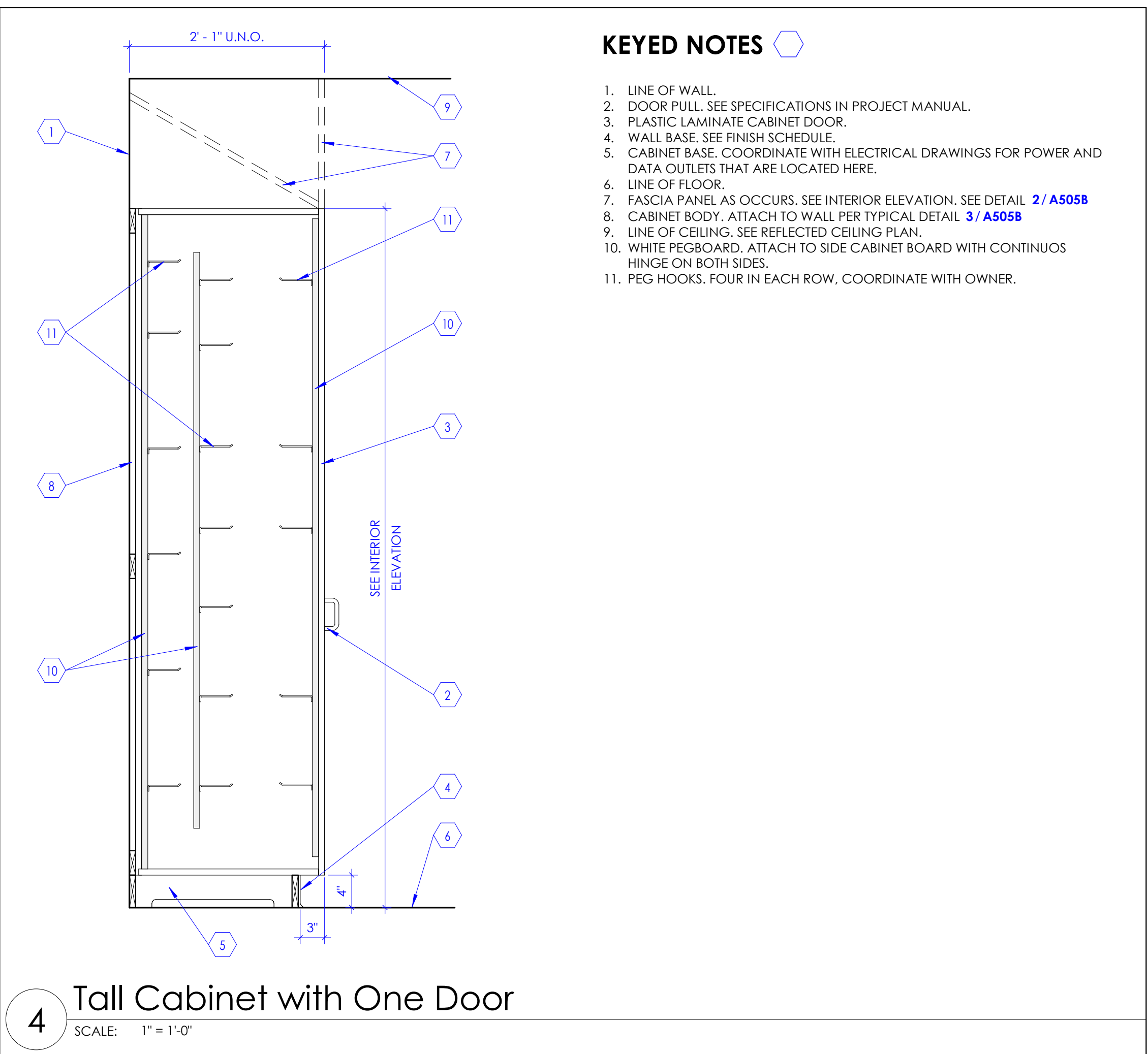
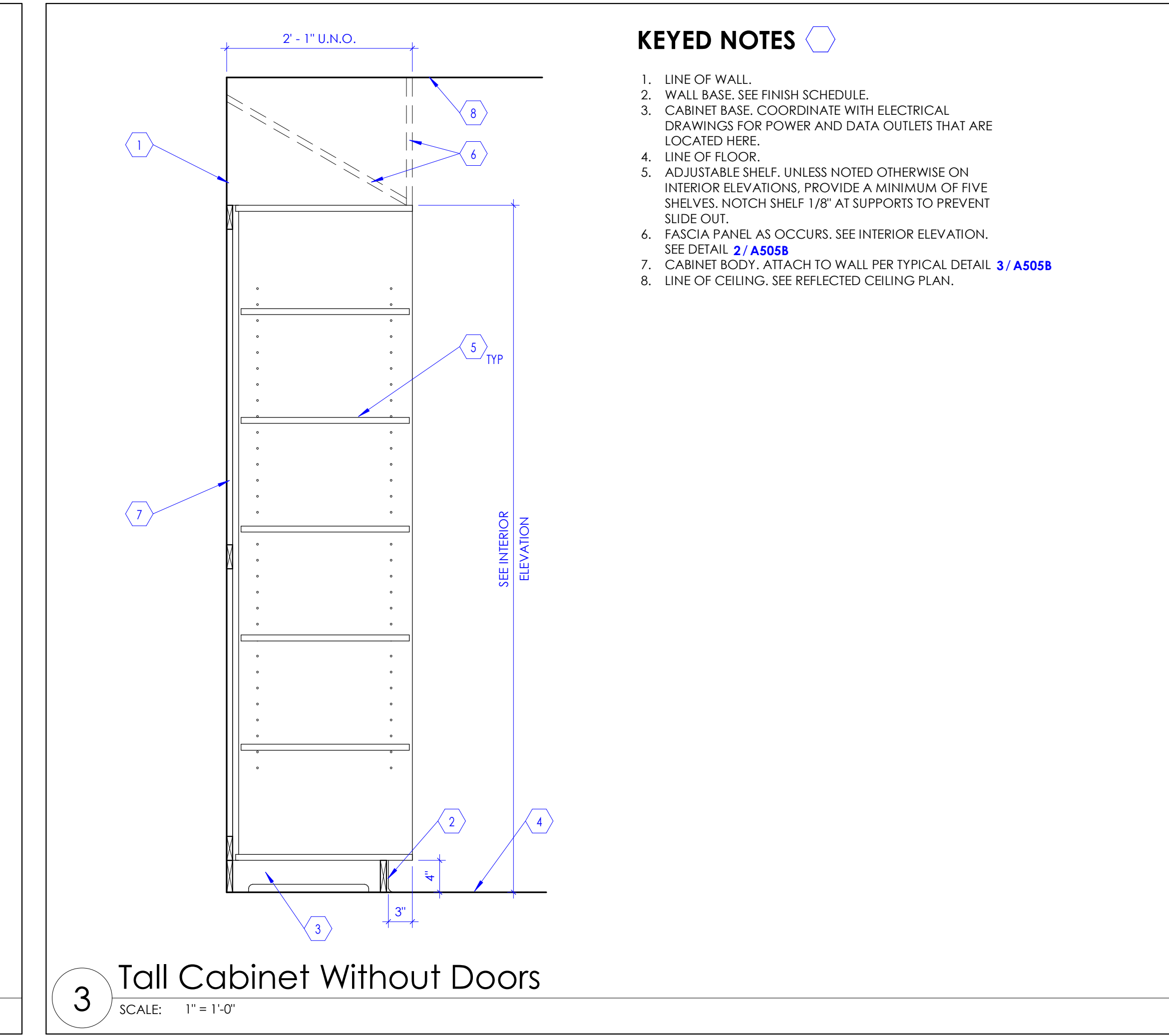
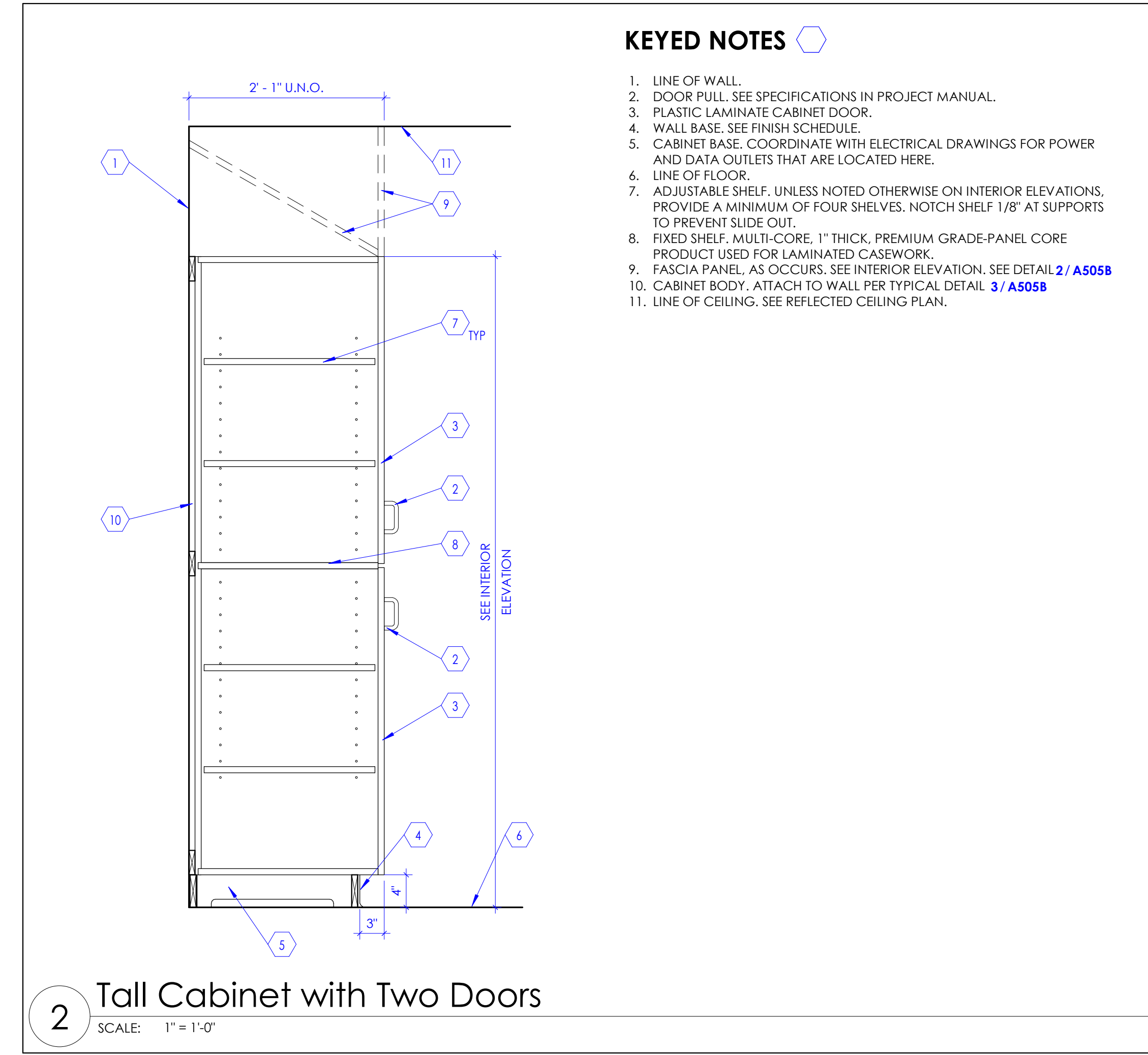
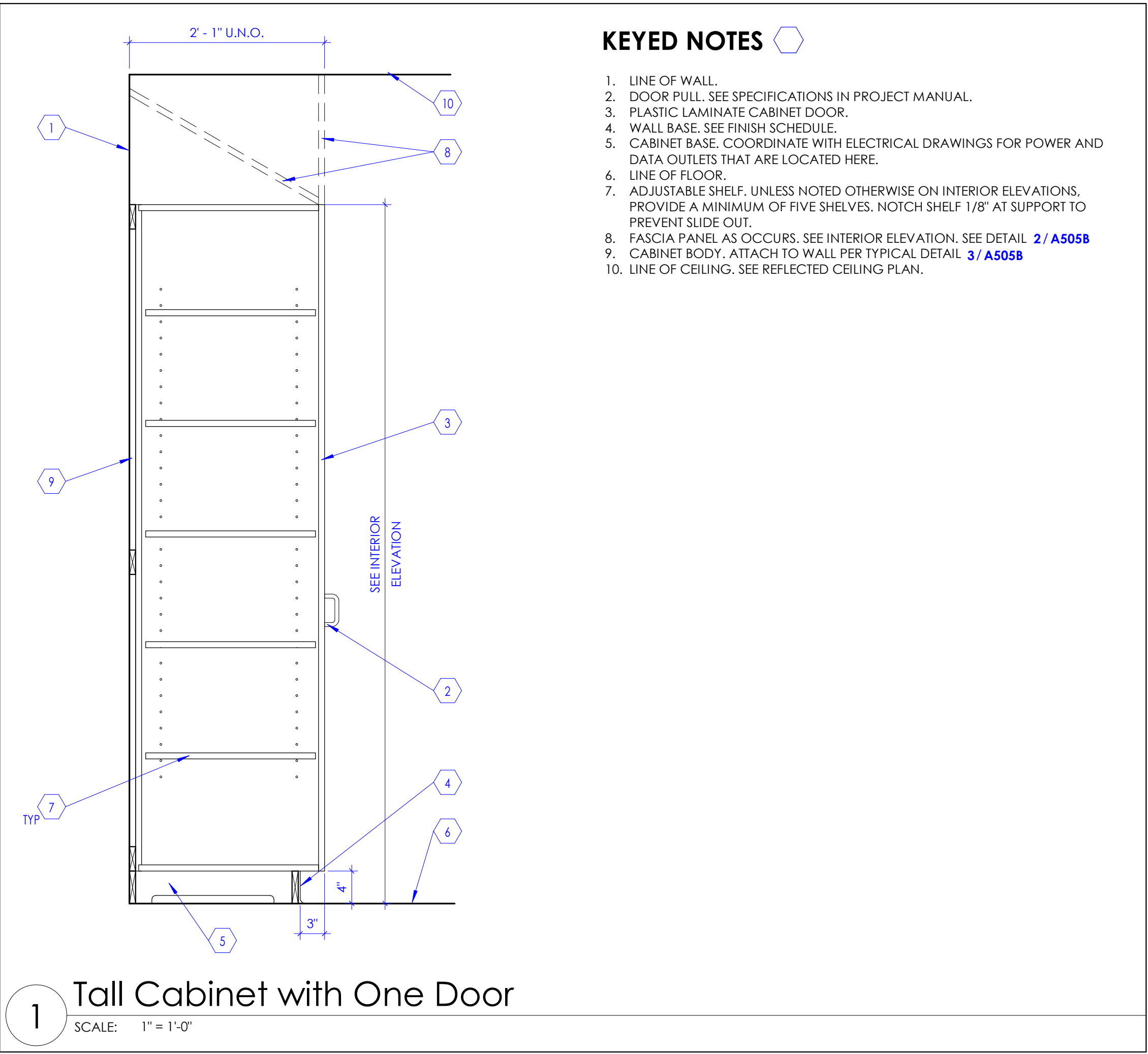
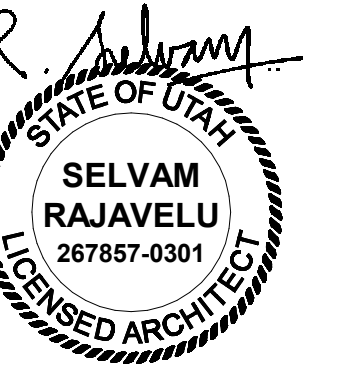
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Enlarged Views

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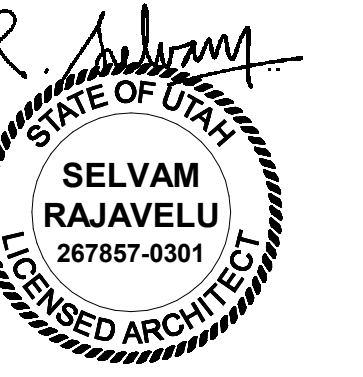
Intermountain Health
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Angio Lab #3 Remodel Project

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Murray, UT 84107

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Cabinet
Details

A505C

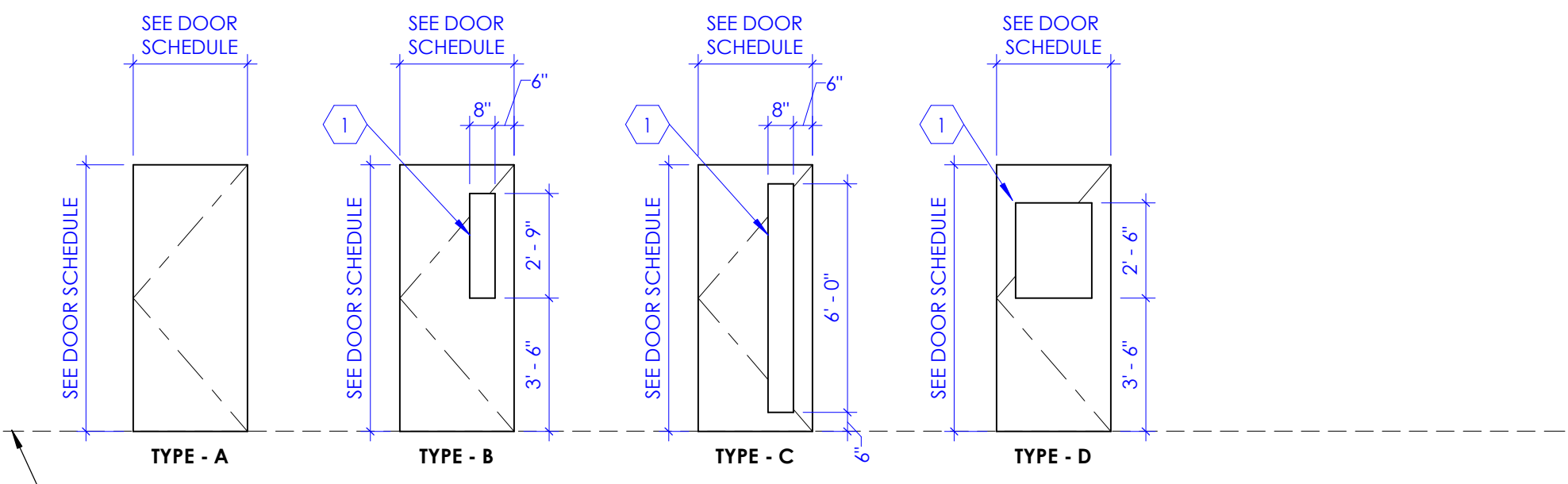


DOOR SCHEDULE

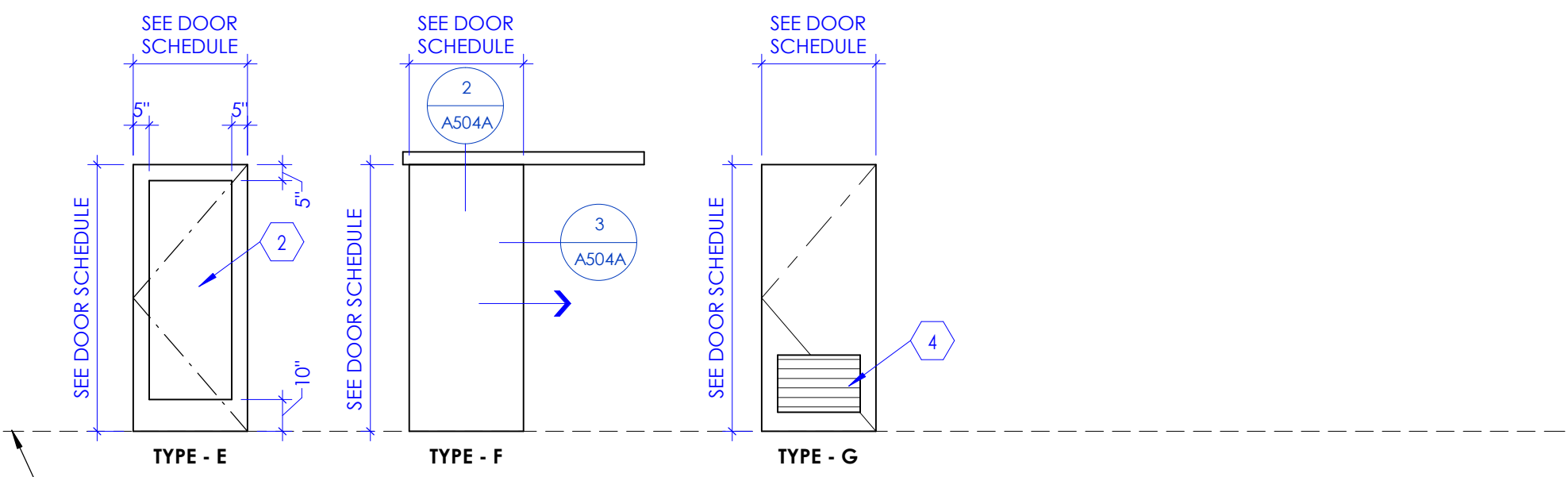
DOOR #	# OF PANELS	WIDTH		DOOR SIZE				FRAME			DETAILS			DOOR #	FIRE RATING (MINUTES)	HARDWARE GROUP	COMMENTS
		W1	W2	HEIGHT	THICKNESS	MATERIAL	TYPE (1/A601A)	TYPE (2/A601A)	DEPTH	MATERIAL	JAMB	HEAD	THRESHOLD				
A112	1	3'-0"	EXIST.	7'-0"	1 3/4"	WD	B	1	7 1/8"	HM	1/A504A	1/A504A	A112	45	01	1, 2	
A113A	1	3'-6"		7'-0"	2"	AL	F	-	-	-	3/A504A	2/A504A	A113A		02	3, 4	
A113B	1	3'-6"		7'-0"	2"	AL	F	-	-	-	3/A504A	2/A504A	A113B		02	3, 4	
A114A	2	2'-6"	2'-6"	7'-0"	1 3/4"	WD	G	1	5 7/8"	HM	1/A504A	1/A504A	A114A		03	5, 6	
A114B	2	2'-6"	2'-6"	7'-0"	1 3/4"	WD	G	1	5 7/8"	HM	1/A504A	1/A504A	A114B		03	5, 6	
A114C	2	2'-6"	2'-6"	7'-0"	1 3/4"	WD	G	1	5 7/8"	HM	1/A504A	1/A504A	A114C		03	5, 6	
A114D	1	2'-6"		7'-0"	1 3/4"	WD	G	1	5 7/8"	HM	1/A504A	1/A504A	A114D		04	5, 6	
A115	1	3'-0"		7'-0"	1 3/4"	WD	A	1	5 7/8"	HM	1/A504A	1/A504A	A115		05	6, 7	

KEYED NOTES

- VISION PANEL, GLAZING IN VISION PANEL SHALL BE 1/4" THICK, CLEAR, TEMPERED, GLAZING. FOR WOOD DOOR, PROVIDE WOOD TRIM FRAME FLUSH WITH THE FACE OF THE DOOR, AROUND THE VISION PANEL OPENING. STAIN AND SPECIES OF WOOD TRIM SHALL MATCH WOOD DOOR. FOR HOLLOW METAL DOOR, PROVIDE METAL TRIM AROUND VISION PANEL. GLAZING SHALL BE FIRE RATED IF DOORS ARE REQUIRED TO BE FIRE RATED.
- FOR EXTERIOR DOORS OF THIS TYPE, GLAZING SHALL BE TINTED, INSULATED, TEMPERED, LOW E, AND 1" THICK. FOR INTERIOR DOORS OF THIS TYPE, GLAZING SHALL BE CLEAR, TEMPERED AND 1/4" THICK.
- STAINLESS STEEL WELDED WIRE MESH (15 GAUGE) ATTACHED TO DOOR. PROVIDE FRAME AROUND THE OPENING IN DOOR TO SECURE THE MESH IN PLACE.
- METAL LOUVER IN DOOR FOR VENTILATION.



DASHED LINE DENOTES FINISH FLOOR



DASHED LINE DENOTES FINISH FLOOR

1 Door Types

NOTE: REFER TO "DOOR SCHEDULE" TABLE FOR DOOR TYPES REQUIRED FOR THIS PROJECT. SOME DOOR TYPE ELEVATIONS INDICATED ABOVE, MAY NOT BE APPLICABLE TO THIS PROJECT.

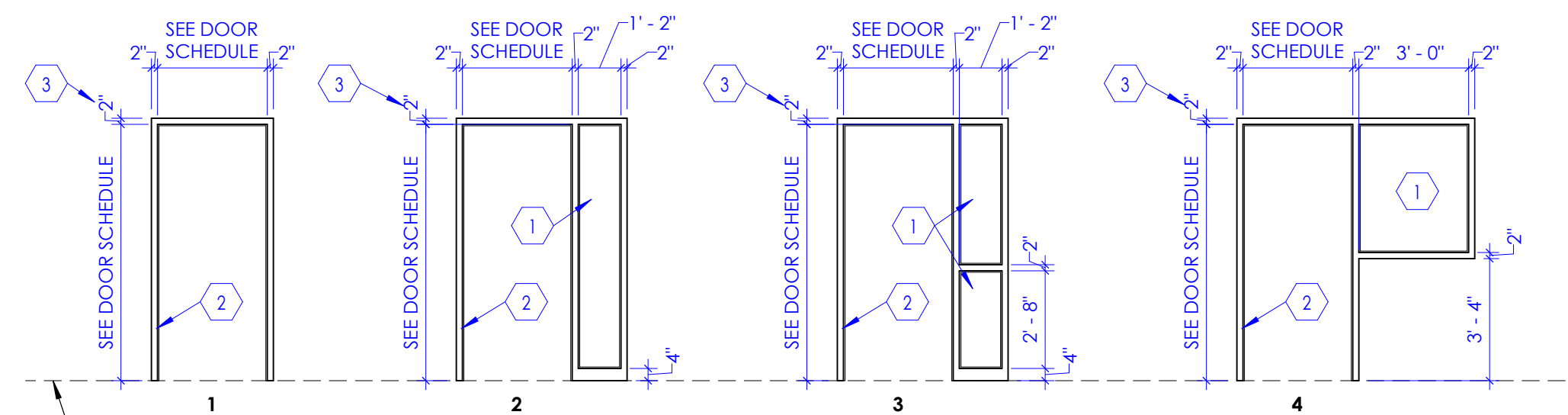
SCALE: 1/4" = 1'-0"

COMMENTS

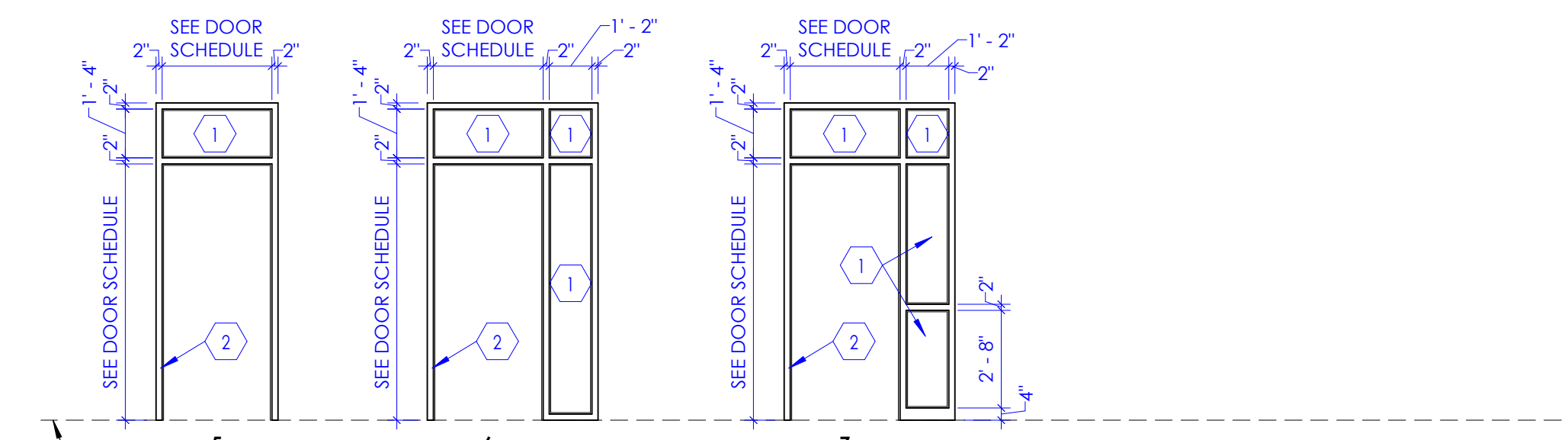
- RE-USE EXISTING WOOD DOOR, HARDWARE, KEYPAD ACCESS, PROVIDE NEW WHERE CALLED OUT IN HARDWARE SCHEDULE.
- PROVIDE NEW HOLLOW METAL DOOR FRAME.
- SLIDING BARN DOOR- SPRING ACTION SELF-CLOSING AND SMOKE RATED.
- HARDWARE BY DOOR MANUFACTURER
- CLOSET WOOD DOORS ON HOLLOW METAL FRAME.
- DOOR FINISH TO MATCH ADJACENT EXISTING.
- NEW DOOR, FRAME AND HARDWARE. SEE DOOR HARDWARE SPECIFICATIONS.

KEYED NOTES

- GLAZING SHALL BE CLEAR, TEMPERED, AND 1/4" THICK.
- DOOR FRAME, SEE DOOR SCHEDULE.
- WHERE DOOR OCCURS AT MASONRY WALL (8" HIGH, C.M.U. BLOCKS), AND WITH A TYPICAL DOOR HEIGHT OF 7'-0", USE 4" FRAME AS FRAME HEAD INSTEAD OF THE STANDARD 2" FRAME.



DASHED LINE DENOTES FINISH FLOOR



DASHED LINE DENOTES FINISH FLOOR

2 Frame Types

NOTE: REFER TO "DOOR SCHEDULE" FOR FRAME TYPES REQUIRED FOR THIS PROJECT. SOME FRAME TYPE ELEVATIONS INDICATED ABOVE MAY NOT BE APPLICABLE TO THIS PROJECT.

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

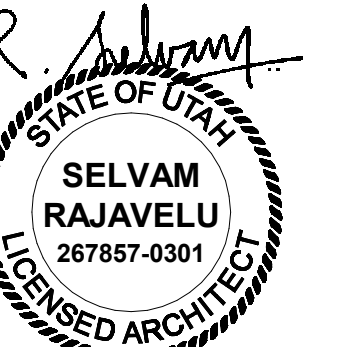
Intermountain Health
Intermountain Medical Center
Angio Lab #3 Remodel Project

5121 South Cottonwood Street
Murray, UT 84107

NJRA Project # 22247.00
Construction Documents June 30, 2023
1 Addendum #1 Aug 25, 2023

Door Schedule

A601A



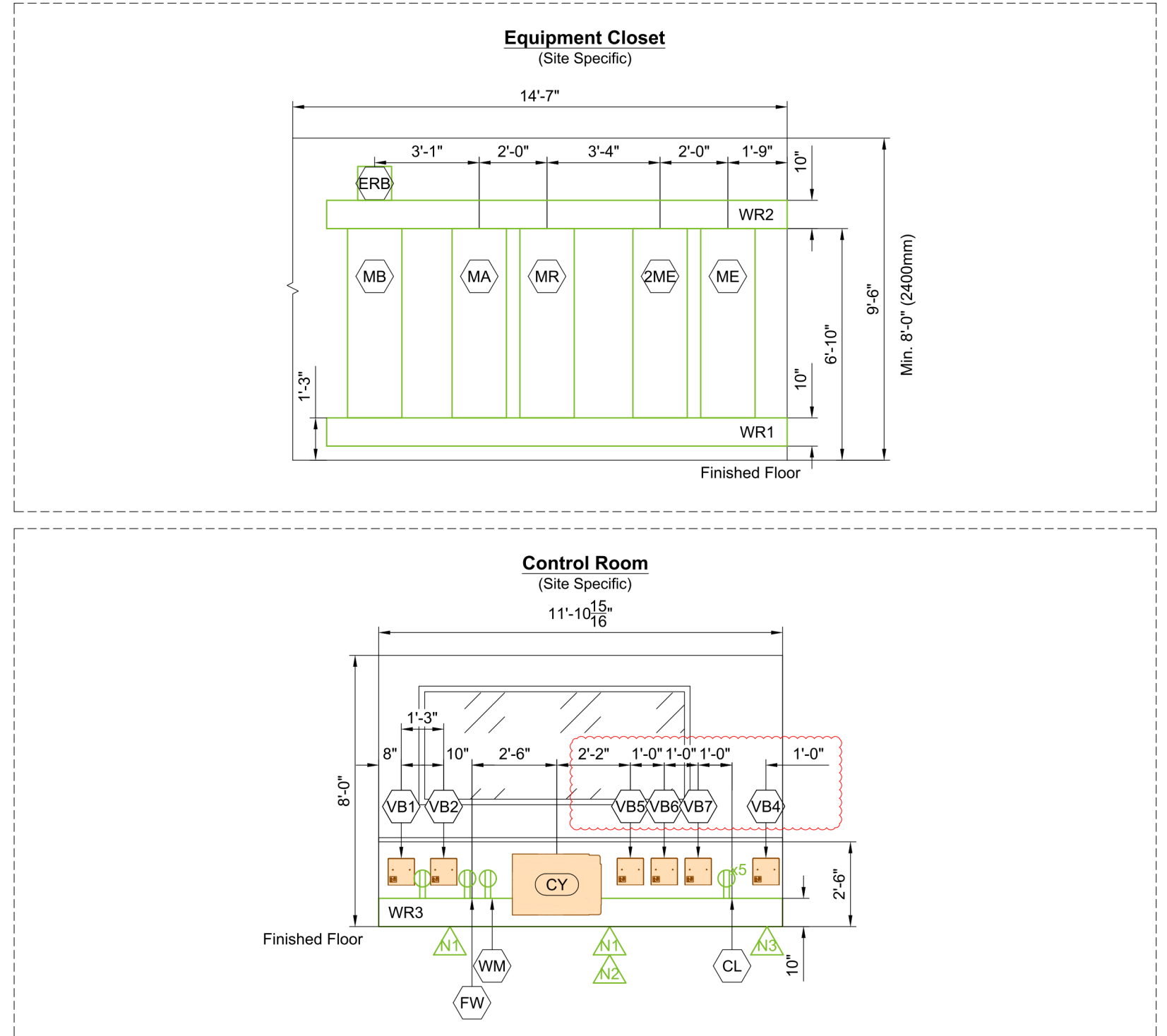
PHILIPS

Project Details
Project: Azurion 7 B20/12, B20/15 - Swivel - Catalyst Intermountain Medical Center
Sail Lake City, UT
Room: Lab 3

PHILIPS CONTACTS
Project Manager: Ray Kline
Contract Number: (801) 440-0381
Email: ray.kline@philips.com
Date: 1-27-14/Rev. 18
Order: 660058748.010000
Drawn By: Isabelle Bruno

Note: The use of 90 degree ellis is not acceptable. Use 45 degree bends at all raceway corners. For raceway (conduit) runs, use the minimum bending radius specific to the raceway (conduit) diameter. The use of crossover turns at all applicable locations is required. The above mentioned recommendations will help to ensure the integrity of the cables and fiber optic runs.

Counterpoint Height Guide:
30" (762mm) for standard seated height.
36" (914mm) for standard standing height.
Ensure that the wall junction boxes are mounted perpendicular to the floor.
Verify exact ceiling height of Equipment and Control Room Area.
Architect to coordinate with users/technicians to determine final placement of control desk components prior to installation in order to avoid rework. Architect to coordinate with Philips Project Manager to reflect final placement on Philips drawings.

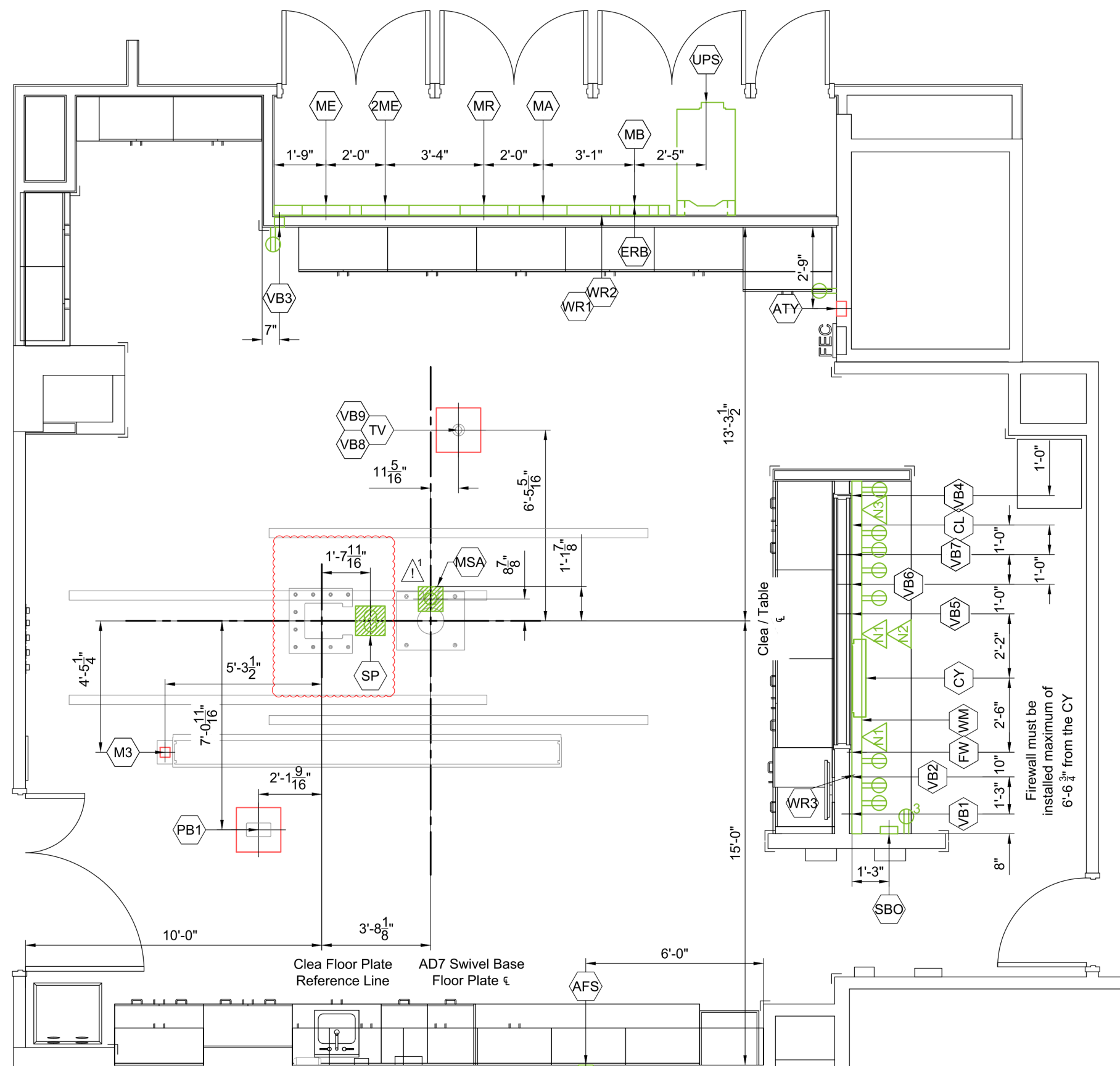


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Electrical Layout
1/4" = 1'-0"
Required Unistrut Height: 9'-9 1/8" ± 3/8" / -0 (2980mm, ±4mm / -0)
Unistrut Height measured from top of Clea floor plate to bottom of Unistrut.

Planning Issues and Considerations
Contractor/Structural Engineer to verify location of underfloor beams does not interfere with mounting of floor boxes. Refer to S1 sheet for floor support details.

Working Space General Notes:
Working space clearance, shown by the green dashed lines in front of system cabinets, is to be designed at 3'-6" (1070mm), with a minimum clearance of 2'-6" (770mm).
3'-6" (1070mm) is the minimum working space clearance required when cabinets are facing one another.
Customer's Architect/Engineer of record to determine if any additional local clearances are necessary.

General Notes for Testing and Service Purpose: (22.0)
The conduit must meet these 3 criteria:
Accessible for the FSE during install & Annual PM Electrical Safety Testing.
Max Length of the ground wire stays below 60'-0".
All ground to be used.

The calculated ground resistance to the address wire would need to be subtracted from the measured ground bonding between the ERB and accessible part.
Conduit is added to bypass long hallways during testing purposes. Conduit must be above. Verify with field and customer requirement.
Exam room placement of conduit termination should be on shared wall with equipment room, if possible. If not, exam room wall closest to the equipment room.

E1

THIS SHEET IS PART OF THE DOCUMENT SET LISTED ON SHEET C1 AND SHOULD NOT BE SEPARATED.

PHILIPS

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Raceway (Conduit) Required																																																																																																																																																																																																																																																																			
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1. All raceway (conduit) runs must take most direct route point to point. A Greenlee pull string/measuring tape (part no. 435, or equivalent) must be provided with raceway (conduit) runs.																																																																																																																																																																																																																																																																			
A Raceway (Conduit) supplied/installed by contractor - Philips cables installed by Philips B Raceway (Conduit) supplied/installed by contractor - Philips cables installed by contractor C Raceway (Conduit) and cables supplied and installed by contractor D Raceway (Conduit) existing - cables supplied and installed by Philips E Raceway (Conduit) existing - cables supplied by Philips and installed by contractor F Raceway (Conduit) existing - cables supplied and installed by contractor G Optional equipment, verify with local Philips Service																																																																																																																																																																																																																																																																			
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E3

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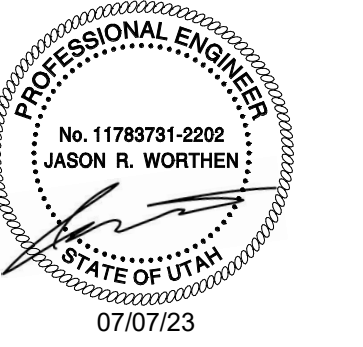
Intermountain Health
Intermountain Medical Center
Angio Lab #3 Remodel Project

1211 South Cottonwood Street
Murray, UT 84107

NJRA Project # 22247.00
Construction Documents June 30, 2023
Addendum #1 August 25, 2023

Philips
Equipment

Q106

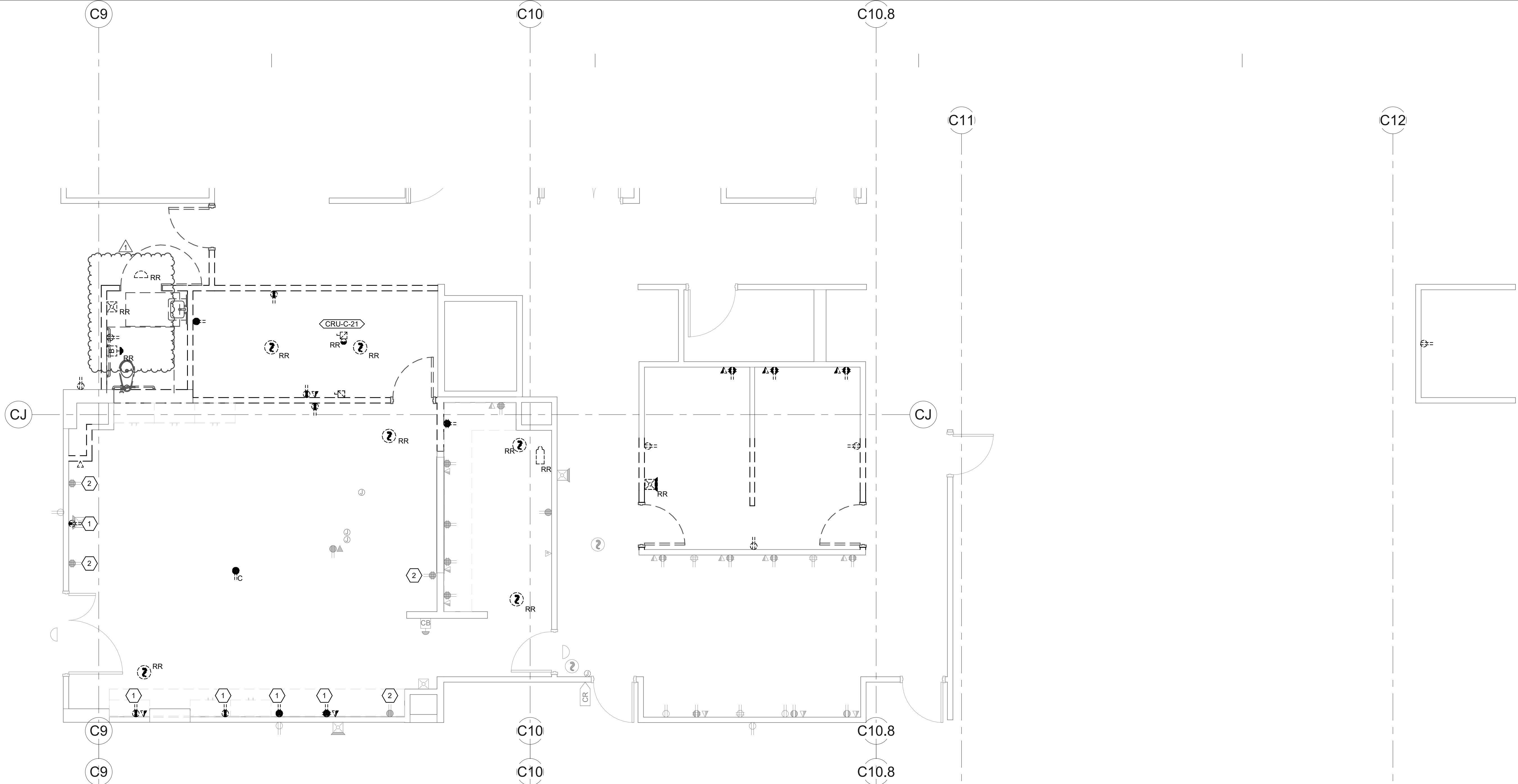


GENERAL SHEET NOTES

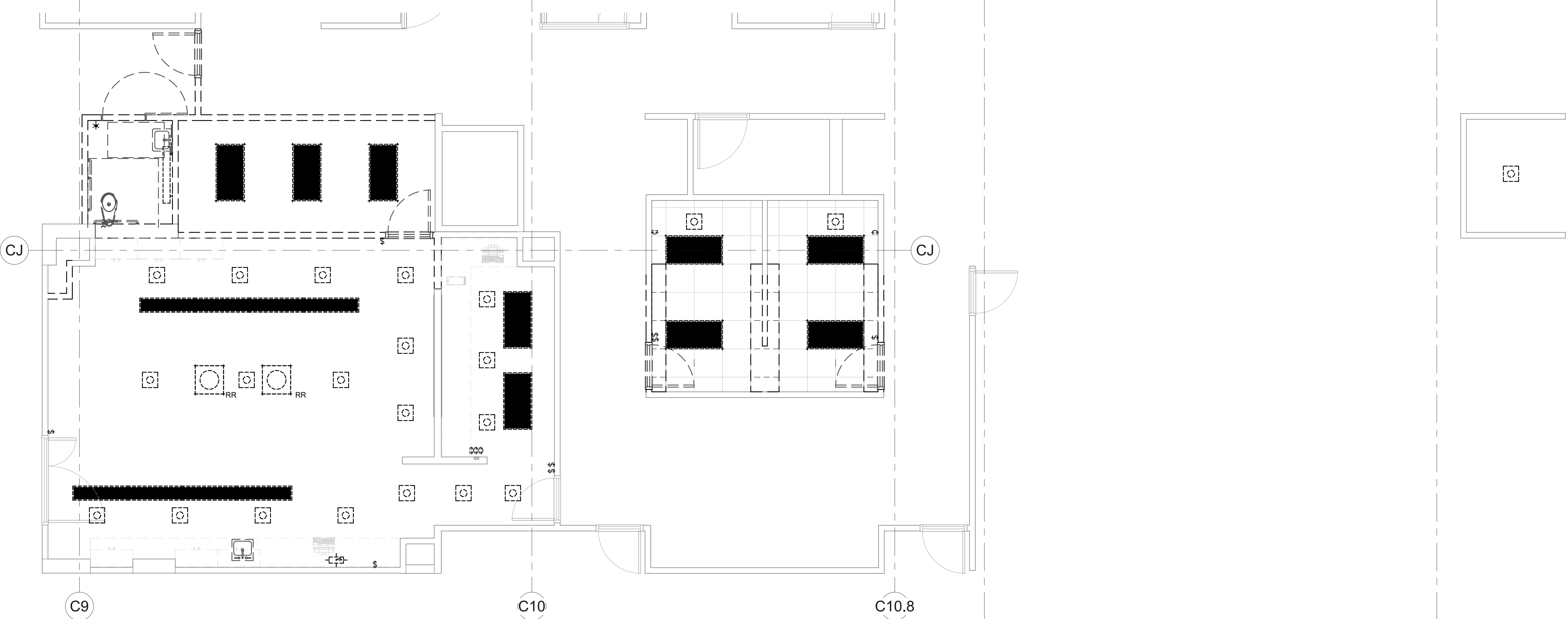
- UNLESS NOTED OTHERWISE REMOVE ALL LIGHTING FIXTURES DEVICES AND EQUIPMENT SHOWN DASHED. REMOVE CONDUIT AND WIRING BACK TO PANELBOARD OF ORIGIN OR TO FIRST ACTIVE DEVICE THAT REMAINS.
- SALVAGE ALL LIGHT FIXTURES, TWIST-LOCK RECEPTACLES AND WALLPLATES, CEILING SPEAKERS AND SECURITY AND FIRE ALARM DEVICES TO OWNER. PROTECT SALVAGED EQUIPMENT FROM DAMAGE.
- PRIOR TO SUBMITTING BID, VISIT THE SITE AND FIELD VERIFY THE EXTENT OF ELECTRICAL DEMOLITION WORK TO MEET THE INTENT OF THE BID DOCUMENTS AND INCLUDE ALL COSTS IN BID.
- PRIOR TO REMOVAL OF ANY ELECTRICAL EQUIPMENT OR WIRING, FIELD VERIFY THAT THE EQUIPMENT OR WIRING IS INACTIVE OR NO LONGER IN USE.
- REMOVE ALL DEVICES, RACEWAYS AND WIRING FROM WALLS TO BE REMOVED. WHERE ACTIVE RACEWAYS OCCUR IN WALLS TO BE REMOVED, RE-ROUTE THE RACEWAY WITH ASSOCIATED WIRING TO KEEP THE CIRCUIT OPERATIONAL.
- REMOVE ALL FIRE ALARM DEVICES WHERE EXISTING WALLS AND CEILINGS ARE BEING REMOVED WITH ASSOCIATED CONDUIT AND WIRING. EXISTING FIRE ALARM DEVICES AND SYSTEM NOT INDICATED FOR REMOVAL SHALL REMAIN ACTIVE THROUGHOUT DEMOLITION AND CONSTRUCTION UNTIL THE NEW SYSTEM IS TESTED AND OPERATIONAL. MAINTAIN ALL CLASS A FIRE ALARM INITIATING AND INDICATING LOOPS WHERE EXISTING DEVICES ARE REMOVED.
- REMOVE ALL ABANDONED RACEWAY, CONDUIT, WIRING AND CABLING WHETHER ABANDONED PREVIOUS TO THIS PROJECT OR AS A RESULT OF THIS PROJECT. NOT ALL ABANDONED ITEMS ARE SHOWN ON THESE PLANS AND FIELD VERIFICATION OF DEMOLITION SCOPE EXTENT IS REQUIRED.
- DEVICES MARKED "RR" ARE TO BE REMOVED AND RELOCATED PER NEW PLANS. EXTEND CIRCUITING AS REQUIRED FOR RELOCATION.
- REFER TO ARCHITECTURAL DRAWINGS FOR REMOVAL OF MOTORS, CONDUIT, CONDUCTOR AND CONTROL WIRING ASSOCIATED WITH EXISTING MOTORIZED DOORS, PARTITIONS AND LIGHTING.
- REMOVE FEEDERS FOR ALL DEMOLISHED PANELS, DISCONNECTS, ETC. BACK TO SOURCE
- ALL ITEMS INDICATED TO REMAIN SHALL BE PROTECTED DURING ALL PHASES OF CONSTRUCTION.
- CONTRACTOR TO TRACE AND LABEL ALL EXISTING LOADS TO REMAIN, THAT ARE CURRENTLY FED FROM PANELS THAT ARE BEING DEMOLISHED IN THIS PHASE. THESE LOADS TO BE RE-FED FROM NEW PANELS IN NEXT PHASE.
- ALL HVAC UNITS TO BE REMOVED BY MECHANICAL CONTRACTOR UNLESS NOTED OTHERWISE. REMOVE ALL ASSOCIATED RACEWAYS AND CONDUCTORS BACK TO SOURCE.

SHEET KEYNOTES

- EXISTING DUPLEX RECEPTACLE TO BE REPLACED WITH A NEW FOUR-PLEX RECEPTACLE AND RE-CIRCUITED TO NEW ISOLATION PANEL.
- EXISTING RECEPTACLE TO BE RE-CIRCUITED TO NEW ISOLATION PANEL.



1 LEVEL 1 ELECTRICAL DEMOLITION PLAN
SCALE: 1/4" = 1'-0"



2 LEVEL 1 CEILING DEMOLITION PLAN
SCALE: 1/4" = 1'-0"

Intermountain Health
Intermountain Medical Center
Angio Lab #3 Remodel Project

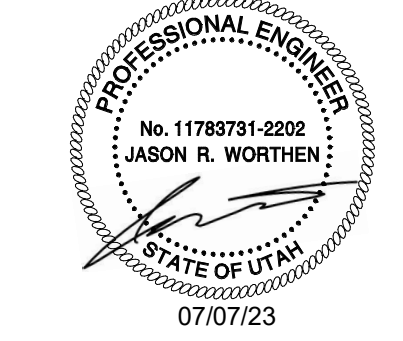
5121 South Cottonwood Street
Murray, UT 84107

NJRA Project # 22247.00
Construction Documents July 7, 2023
Addendum #1 08/09/23

**LEVEL 1
ELECTRICAL
DEMOLITION
PLAN**

ED101

C:\Users\jrw.SPECEING.000\Documents\230128 - Elec Central\jason.worthen.rvt



Emergency Power

Philips does not require equipment to be on emergency power. If the customer deems it necessary for the equipment to be supplied with emergency power, the following specifications must be applied:

The Mains 40E cabinet feeding an Azurion system will have an absolute peak current of $\approx 300A$ @ 480V. Maximum momentary current $\approx 80A$ per phase when averaged over a 5-second window. Note that during acquisition, the current harmonics (including sub- and inter-harmonics) up to 1 kHz can be substantial. Account for 30% for the mains frequency \pm the frame speed, up to 20% for the 5th harmonics, up to 10% for the 7th harmonics.

Maximum differential mode induced disturbance voltage on these wires shall be $\le 3V$ peak at all frequencies. Maximum common mode current on these wires shall be less than 3 micro-amp at frequencies between 30-1000MHz to meet EMC regulations.

For systems delivered to site before Jan 2016 or with SIB (system interface box) 4522163320978. When this interface is used a Sub-D capacitive filter adapter with 5.0in ferrite beads and chassis shall be placed on X14 of the SIB input in the MA-cabinet (e.g. Amphenol FCE1783AD205).

General Electrical Information

- General**
The customer shall be solely responsible, at its expense, for preparation of the site, including any required electrical alterations. The site preparation shall be in accordance with this plan and specifications, the architectural/construction drawings and in compliance with all safety and electrical codes, the customer shall be solely responsible for obtaining all electrical permits from jurisdictional authority.
- Materials and Labor**
The customer shall be solely responsible, at its expense, to provide and install all electrical ducts, boxes, raceways (conduits, wireways, auxiliary gutters etc.), fittings, bushing, etc. As separately specified herein.
- Electrical Ducts and Boxes**
Electrical ducts and boxes shall be accessible and have removable covers. Floor ducts and boxes shall have watertight covers. Ducts shall be divided into as many as four separate channels by metal dividers, separately specified hereon, to separate wiring and/or cables into groups as follows: Group A: Branch circuit equipment supply mains power wires together with the branch circuit isolated equipment bonding wire. Group B: Equipment Secondary Circuit AC supply and associated isolated ground cable/wire harnesses. Group C: Equipment signal wires and cable harnesses plus equipment low-voltage DC supply cable/wire harnesses. Group D: X-Ray high-voltage cables, the use of 90 deg. elbows is not acceptable. On ceiling duct and wall duct use 45 deg. bends at all corners. All intersecting points in duct to have cross over tunnels supplied and installed by contractor to maintain separation of cables based on 725.136 for low voltage signaling cables and conductors and 517.80 for communications and signaling cables in health care applications. Secondary circuits of transformer powered communications and signaling systems are not required to be enclosed in raceways unless otherwise specified by Chapter 7 or Chapter 8. All wire harnesses of the Azurion system are required to be run in a raceway (wireway) dedicated to Azurion wire harnesses. No foreign wiring shall be run in the same wireway together with the Azurion wire harnesses. Separation between Group A and other groups is mandatory along the full run of group A wires. Separation between groups B, C, and D is recommended for the first 3 meters behind the equipment cabinets and for the locations where wire-harness over-length is suspended.
- Raceways (Conduit)**
Raceway (Conduit) point-to-point runs shall be as direct as possible. Empty conduit runs used for cables may require pull boxes located along the run. Consult with Philips. A pull wire or cord shall be installed in each conduit run. Best practice to name the electrical duct prior to their termination point must maintain separation from other cables via use of dividers, cross over tunnels, or conduit supplied and installed by contractor from entrance into duct to exit from duct. Do not use flex conduit unless approved by Philips Service.
- Conductors**
All conductors, separately specified, shall be 90°C stranded copper, rung out and marked.
- Disconnecting Means**
A disconnecting means shall be provided as separately specified.
- Warning Lights and Door Switches**
"X-ray on" warning lights and x-ray termination door switches should be provided at all entrances to x-ray rooms as required by code.
- Dimmer Switches**
X-ray room lights should be provided with dimmer switches.

Electrical Requirement Notes for Systems with Mains 40E Cabinet

Electrical power distribution at the facility shall comply with:

Utilization voltages per ANSI C84.1 - 2008 range A.

Voltage to be supplied is 3 phase, Wye or symmetric Delta 3-phase -4PE.

Phase conductors to be sized for instantaneous voltage drop per NEC 517.73 and Philips recommendations.

All Philips equipment is grounded via the equipment insulated ground wire. Metal raceway bonding shall be used as a secondary ground fault path only for the supply mains to the equipment. The raceway system ground and isolated equipment ground shall be bonded together in the ERB terminal jumpers.

The Philips system has a private ground domain per clause 200.96B of the NEC. The raceway from the X-ray breaker (CB) to the Mains 40E Cabinet shall be supplemented by an internal insulated equipment grounding conductor installed in accordance with clause 200.46(D) of the NEC. The Azurion equipment ground domain and the branch circuit ground domain are bonded together in the ERB via a ground bonding jumper.

ANSI / NFPA 70 - National Electrical Code
Article 250 - Grounding
Article 517 - Healthcare Facilities
ANSI / NFPA 99 - Healthcare Facilities

Electrical Notes

- The contractor will supply & install all breakers, shunt trip and incoming power to the breakers. The exact location of the breakers and shunt trips will be determined by the architect or contractor.
- The contractor shall supply & install all pull boxes, raceway runs, stainless steel covers, etc. Conduits/raceways must be free from bends and sharp edges over its entire length. A Greenlee pull string/measuring tape (part no. 435, or equivalent) must be provided with raceway runs to validate runs are within length restrictions.
- All pre-terminated, cut to length cables, will be supplied and installed by Philips. All cables and conductors to the equipment supply mains branch circuit breaker shall be supplied and installed by the contractor, subject to local arrangements.
- Provide and install 50mm diameter chase nipples between adjacent wall boxes.
- Electrical raceway ducts shall be installed with removable covers. The raceway should be accessible for the entire length. In case of non-accessible floors, walls and ceilings, an adequate number of access hatches should be supplied to enable installation of cabling. Approved raceways may be substituted. All raceways will be designed in a manner that will not allow cables to fall out of the raceway when the covers are removed. In most cases, this will require above-ceiling raceway to be installed with the covers removable from the top. Raceway systems as illustrated on this drawing are based upon length of furnished cables. Any changes in routing of raceway systems could exceed maximum allowable length of furnished cables. Conduits or raceways installed above ceilings must be kept as near as practicable to finished ceilings and still permit accessibility.
- Raceway sizes shall be verified by the architect, electrical engineer or contractor, in accordance with the local or National Electrical Code, whichever governs.
- Convenience outlets are not shown on the plans. Their number and location are to be specified by the customer/architect.
- Electrical contractor shall install grounding and bonding conductors at raceway openings within wall boxes as required by national and local electrical codes. Ground bond wires and lugs shall be installed in such a way to prevent the inadvertent contact with the installed Philips equipment with the installed Philips isolated ground scheme and maintain patient safety.
- Install an insulated stranded ground wire per feeder/conductor size from the Main Disconnect (CB) to the ERB (minimum size 4 AWG) and from the ERB to the Mains 40E Cabinet (minimum size 4 AWG).
- Philips equipment must be electrically isolated from conduits, raceways, ducts, seismic anchoring, floor anchoring, etc.
- Ceiling electrical boxes displayed on EL1/EL2 are the minimum sizes needed for cable trays.

Power Quality Guidelines

- Power supplied to medical imaging equipment must be separate from power feeds to air conditioning, elevators, outdoor lighting, and other frequently switched or motorized loads. Such loads can cause waveform distortion and voltage fluctuations that can hinder high quality imaging.
- Equipment that utilizes the facility power system to transmit control signals (especially clock systems) may interfere with medical imaging equipment, thus requiring special filtering.
- The following devices provide a high impedance, nonlinear voltage source, which may affect image quality: Static UPS systems, Series filters, Power conditioners, and Voltage regulators.
- Do not install such devices in the supply mains branch circuit of the Azurion system without consulting Philips installation or service personnel.
- Line impedance is the combined resistance and inductive reactance of the electrical system and includes the impedance of the power source, the facility distribution system, and all phase conductors between the source and the imaging equipment. The minimum conductor size is based on the total line impedance and NEC requirements. Impedance calculations are to be performed by an electrical engineer.

Project Details

Project: Azurion 7 B2012, B2015 - Swivel - Catalyst
Location: Intermountain Medical Center
Room: Intermountain Medical Center
Room: Lab 3

Project Details:
Drawing Number: N-WES210091 G
Date Drawn: 12/24/2023
Date: 1:27PM/16:51 Rev: 18
Client: 600255748_010000
Drawn By: Isabelle Barro

EN

Electrical Legend

Item Number	Description	Detail Sheet
WB	Local building steel (i.e. structural steel, ground rod). (Not shown on plan)	ED2
ERB	Equip-Potential Reference Bar mounted in a 12" (305mm) W x 12" (305mm) H x 4" (105mm) D pull box with hinged cover, surface mounted to the bottom of "WR2"	ED2
ME	Customer/Contractor provided 19 1/2" (490mm) W x 67" (1705mm) H x 4" (105mm) including rubber isolation strips D flanged-edge terminal back box, surface mounted 82" (2085mm) A.F.F. to top of box. Weight is approximately 125 lbs (56.7 kg) per box. Please see ED3 for ordering instructions for back boxes.	ED3
CT	Grounding terminal block	ED3
WB	Grommet opening on "WR3". Approximate location shown is recommended and may be changed - verify relocation with local Philips Service.	ED3
WR	4" (105mm) W x 4" (105mm) H x 4" (105mm) D pull box with removable screw-type cover plate, flush mounted. Exact height to be determined. Verify location with local Philips Service.	ED3
WR	10" (255mm) W x 4" (105mm) D wall raceway, surface mounted with removable screw-type cover plate. "WR1" is as 5" (130mm) A.F.F. to bottom of raceway. "WR2" is at 82" (2085mm) A.F.F. to bottom of raceway.	ED3
WR	10" (255mm) W x 4" (105mm) D wall raceway, surface mounted with removable screw-type cover plate. "WR3" is at finished floor. "WR3" may need to be cut at the location of the "CY" connection box.	ED3
PH	Stub up point for physiological monitoring cables. Run conduit to customer's physiological console location. Contact manufacturer for power requirements, etc. Not shown.	ED4
ATV	Auxiliary Box - 6" (155mm) W x 6" (155mm) H x 4" (105mm) D wall box, flush mounted with removable screw-type cover plate. Location shown is recommended and may be changed - verify height and relocation with local Philips Service.	ED4
WL	Warning Light - Provide a surface or flush mounted light fixture above door to indicate when X-ray is on, if required by local code or physicist of record. (Not shown on plan)	ED4
DS	Door Switch - 120V/5A switch limited to open when door is open. Mount in upper corner on strike side of main entry door(s) (Cooper no. 1685 or equivalent), if required by local code or physicist of record. See Sheet "ED5" diagram for connection details. (Not shown on plan)	ED4
FW	Approximate location shown for Firewall is recommended and may be changed - verify relocation with local Philips Service. Firewall must be installed maximum of 6'-8-3/4" from the CY.	ED4

Electrical Legend

Item Number	Description	Detail Sheet
CB	480V, 3 phase, Type D 80 A circuit breaker with long time delay (e.g. Square D HDL90800 or equivalent). Run power from breaker to "MA", leaving an 8" (244mm) tail at "MA". See Sheet "ED1" for power quality requirements. Location per local code or owner requirements. (Not shown on plan)	ED1
ST	Shunt Trip (Emergency off) - Large mushroom-headed button on remote control station with contacts to operate feature of "CB" (if required by local code or owner, and mandatory for VA and D.O.I installations). If UPS is utilized, EPO switch will run 2 sets of communication wires to input breaker to UPS and to UPS itself (Not shown on plan)	ED5
CB2	UPS input breaker. 125A, 3-pole circuit breaker with shunt trip. (Not shown on plan).	ED5
UPS	UPS - 75 kVA.	ED5
SB	Signaling Box Option (wall mounted in the control area). Exact height to be determined. Location shown is recommended and may be changed - verify relocation with customer/contractor.	ED5
AFS	6" (155mm) W x 6" (155mm) H x 4" (105mm) D pull box with removable screw-type cover plate, flush mounted. Exact height to be determined. Location shown is recommended and may be changed - verify relocation with local Philips Service.	ED5

Project Details

Project: Azurion 7 B2012, B2015 - Swivel - Catalyst
Location: Intermountain Medical Center
Room: Intermountain Medical Center
Room: Lab 3

Project Details:
Drawing Number: N-WES210091 G
Date Drawn: 12/24/2023
Date: 1:27PM/16:51 Rev: 18
Client: 600255748_010000
Drawn By: Isabelle Barro

EL1

See E1 - E4 sheets for conduit and raceway requirements.

Electrical Legend

Item Number	Description	Detail Sheet
MSA	10" (255mm) W x 10" (255mm) L x 6" (155mm) D floor box, under the floor with a 5" (130mm) core drill up to the underside of AD7 sawfil floor plate cable opening. Contractor to provide protection around core drill hole so that there are no sharp edges for protection of cables. Consult with local Philips Service.	ED3
SP	12" (305mm) W x 12" (305mm) L x 4" (105mm) D floor box, under the floor with 5" (130mm) core drill up to the underside of Clea floor plate. See "Detail - Clea Floor Plate Cable Entrance" on Sheet "ED3" for cable routing methods. Contractor to provide protection around core drill hole so that there are no sharp edges for protection of cables. Consult with local Philips Service.	ED3
PB	18" (460mm) W x 18" (460mm) L x 6" (155mm) D ceiling box, flush mounted with removable screw-type cover plate. Provide one 3" (80mm) diameter knockout.	N1
VB	18" (460mm) W x 18" (460mm) L x 6" (155mm) D ceiling box, flush mounted with removable screw-type cover plate. Provide a 2 1/2" (65mm) round cutout (Two 2 1/2" (65mm) round cutouts are required for systems with two monitor carriages - verify with local Philips Service). "VB9" and "VB8" to be mounted on back of FV.	N1
MS	4" (105 mm) W x 4" (105 mm), x 2 1/2" (65 mm) D ceiling box, flush mounted with removable screw-type cover plate. Recommended location is near or above the cable spooler. Hardware 120 - 240 VAC, 50 - 60 Hz hospital power to "MD".	N1

Electrical Legend

Item Number	Description	Detail Sheet
DS	120V/20A dedicated duplex outlet for service in the equipment room. (Not shown on plan)	
DS	120V/20A dedicated duplex outlet.	
DS	250V/30A dedicated duplex outlet for optional third party equipment (e.g. Spectracines Laser - Not shown on plan)	
DS	120VAC with 1Amp power draw SBO (Signaling Box Option)	

Network Connectors

R445 type Ethernet 10/100/1000 Mbit network connector with access to customer's network. Locate within 10" (305mm) of network card. Network fiber optic and Ethernet cabling, connectors, wall boxes, patch panels, etc. are the responsibility of the purchaser. Philips assumes no responsibility for procurement, installation, or maintenance of these components.

R445 type Ethernet 10/100/1000 Mbit network connector. Access to customer's network via their remote access server is needed for Remote Service Network (RSN) connectivity.

R445 type Ethernet 10/100/1000 Mbit network connector with access to customer's network. Required for Collaboration Live to access from the network of the healthcare facility to the internet for outbound connections.

Project Details

Project: Azurion 7 B2012, B2015 - Swivel - Catalyst
Location: Intermountain Medical Center
Room: Intermountain Medical Center
Room: Lab 3

Project Details:
Drawing Number: N-WES210091 G
Date Drawn: 12/24/2023
Date: 1:27PM/16:51 Rev: 18
Client: 600255748_010000
Drawn By: Isabelle Barro

EL2

See E1 - E4 sheets for conduit and raceway requirements.

Electrical Layout

1/4" = 1'-0"
Required Unistrut Height: 9' - 9 3/4" + 3/8" / -0 (2980mm, +4mm / -0)
Unistrut Height measured from top of Clea floor plate to bottom of Unistrut.

Planning Issues and Considerations

- Contractor/Structural Engineer to verify location of underfloor beams does not interfere with mounting of floor boxes. Refer to S1 sheet for floor support details.

Working Space General Notes:

- Working space clearance, shown by the green dashed lines in front of system cabinets, is to be designed at 3'-6 3/4" (1070mm), with a minimum clearance of 2'-6 3/4" (770mm).
- 3'-6 3/4" (1070mm) is the minimum working space clearance required when cabinets are facing one another.
- Customer's Architect/Engineer of record to determine if any additional local clearances are necessary.

General Notes for Testing and Service Purposes:

(22.0)

- The conduit must meet these 3 criteria:
- Accessible for the FSE during install & annual PM Electrical Safety testing.
- Max Length of the ground wire stays below 60'-0"
- All ground to be used.

The calculated ground resistance to the actual wire would need to be subtracted from the measured ground bonding between the ERB and accessible part.

Conduit is added to bypass long hallways during testing purposes. Conduit must be alone. Verify with field and customer requirement.

Exam room placement of conduit termination should be on shared wall with equipment room, if possible. If not, exam room wall closest to the equipment room.

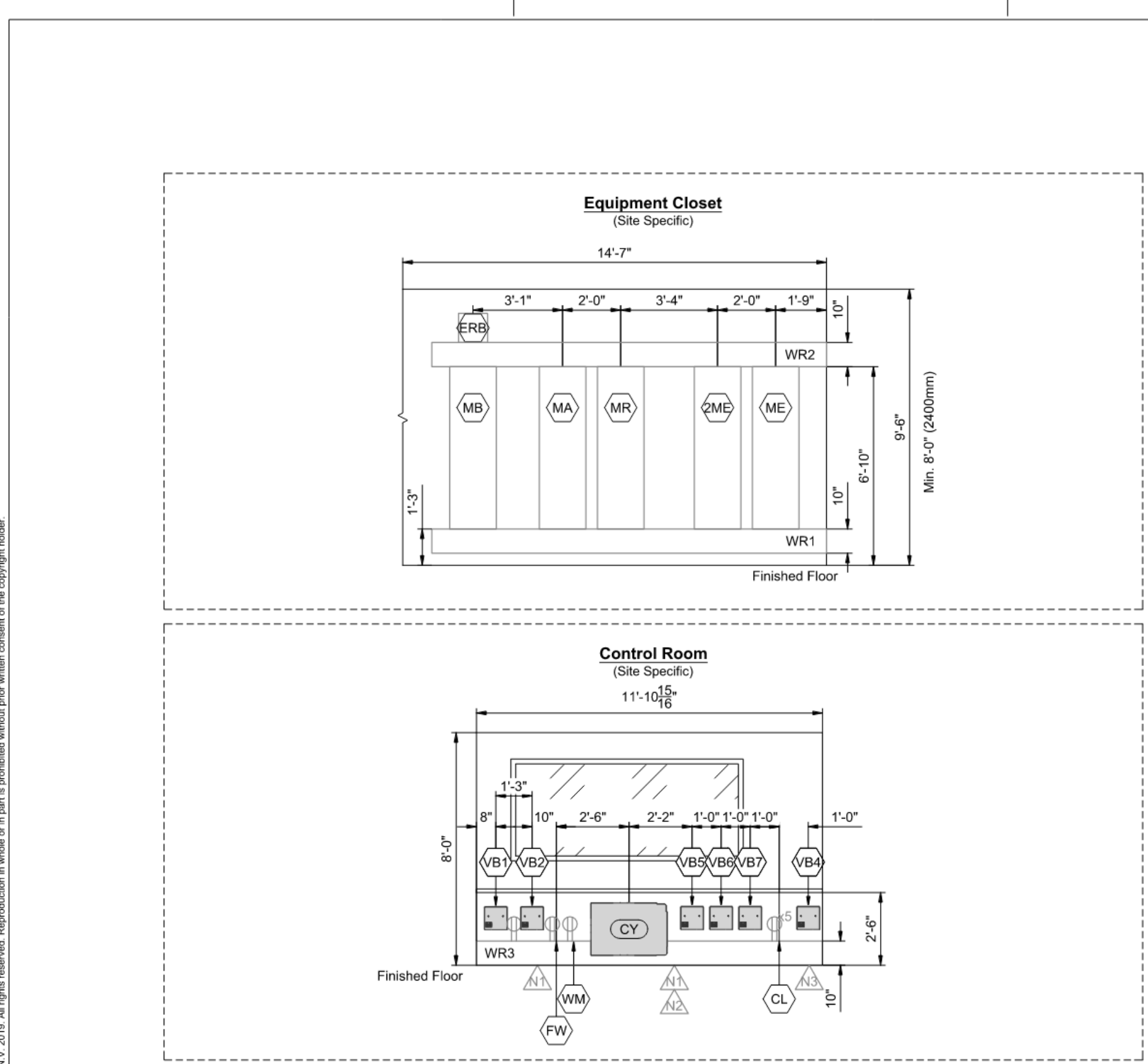
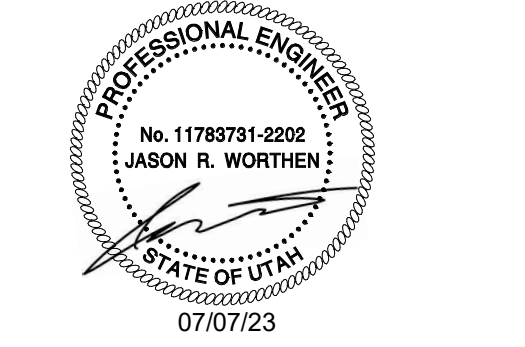
Project Details

Project: Azurion 7 B2012, B2015 - Swivel - Catalyst
Location: Intermountain Medical Center
Room: Intermountain Medical Center
Room: Lab 3

Project Details:
Drawing Number: N-WES210091 G
Date Drawn: 12/24/2023
Date: 1:27PM/16:51 Rev: 18
Client: 600255748_010000
Drawn By: Isabelle Barro

EL1

Refer to Electrical Legend - Sheet EL1-EL2 and Raceway/Conduit - Sheet ED-E4



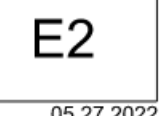
Note: The use of 90 degree ells is not acceptable. Use 45 degree bends at all raceway corners. For raceway (conduit) runs, use the minimum bending radius specific to the raceway (conduit) diameter. The use of crossover tunnels at all applicable locations is required. The above mentioned recommendations will help to ensure the integrity of the cables and fiber optic runs.

- Counter-top Height Guide:
30" (762mm) for standard seated height.
36" (915mm) for standard standing height.
- Ensure that the wall junction boxes are mounted perpendicular to the floor.
- Verify exact ceiling height of Equipment and Control Room Area.
- Architect to coordinate with end user/technicians to determine final placement of control desk components prior to installation in order to avoid rework. Architect to coordinate with Philips Project Manager to reflect final placement on Philips drawings.

PHILIPS

Project: Azurion 7 B20112, B20115 - Swivel - Intermountain Medical Center
Room: Lab 3
Salt Lake City, UT

Project Manager: Ray Kroze
Contact Number: (801) 440-0281
Email: ray.kroze@philips.com
Date Drawn: 7/24/2023
Checked: 1/27/2024 Rev: 18
Order: 6605592148_010000
Drawn By: Isabelle Barro



05.27.2022

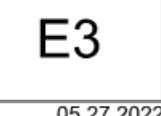
Raceway (Conduit) Required																				
General Notes																				
1. All raceway (conduit) runs must take most direct route point to point.																				
A. Greenies pull string/measuring tape (part no. 435, or equivalent) must be provided with raceway (conduit) runs																				
<table border="0"> <tr> <td>P</td><td>Power (AC)</td></tr> <tr> <td>R</td><td>Power (DC)</td></tr> <tr> <td>G</td><td>Ground</td></tr> <tr> <td>S</td><td>Signal</td></tr> <tr> <td>H</td><td>High Tension</td></tr> <tr> <td>C</td><td>Cooling Hose</td></tr> <tr> <td>A</td><td>Air Supply Hose</td></tr> </table>							P	Power (AC)	R	Power (DC)	G	Ground	S	Signal	H	High Tension	C	Cooling Hose	A	Air Supply Hose
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R	Power (DC)																			
G	Ground																			
S	Signal																			
H	High Tension																			
C	Cooling Hose																			
A	Air Supply Hose																			
Run No.	From	To	Raceway (Conduit) Quantity	Cable Type (")	Minimum Raceway (Conduit) Size	Maximum Raceway (Conduit) Length														
C 1	ERB	GE	1	G	1 1/2"	6'														
C 2	ERB	Room	1	G	1 1/2"	-														
C 3	MA	WL	1	P	1 1/2"	55'														
C 4	ATY	DS	1	S	1 1/2"	55'														
A 5	ATY	MA	1	S	2 1/2"	41'														
A 6	ATY	TV	1	S	2 1/2"	65'														
A 7	SP	ME	2	C	1 1/2"	44'														
A 8	SP	ME	1	P	1 1/2"	52'														
A 9	SP	ME	1	S	1"	52'														
G 40	SP	ME	1	H	2 1/2"	50'														
A 11	SP	MR	1	P	2"	47'														
A 12	SP	MR	1	S	2 1/2"	47'														
A 13	SP	MR	1	S	2"	50'														
A 14	MSA	MA	1	S	3"	39'														
A 15	MSA	MA	1	P	1 1/2"	39'														
A 16	MSA	MR	1	P	2"	39'														
A 17	MSA	MR	1	S	2"	39'														
A 18	TV	MA	1	P	1 1/2"	60'														
A 19	TV	MA	1	S	2 1/2"	60'														
A 20	TV	MR	1	P	1 1/2"	60'														
A 21	TV	MR	1	S	2 1/2"	60'														
A 22	TV	MR	1	P	1 1/2"	60'														
A 23	TV	MR	1	S	2 1/2"	65'														
A 24	CY	MR	1	S	2"	55'														
A 25	CY	MR	1	P	1 1/2"	55'														
A 26	CY	MR	1	S	2 1/2"	55'														
A 27	MR	MR	1	S	1 1/2"	82'														
A 28	MR	MR	1	H	2 1/2"	47'														
A 29	MR	MR	1	S	1"	49'														
A 30	MR	MR	1	P	1"	49'														

Raceway (Conduit) Required																				
General Notes																				
1. All raceway (conduit) runs must take most direct route point to point.																				
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P	Power (AC)																			
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G	Ground																			
S	Signal																			
H	High Tension																			
C	Cooling Hose																			
A	Air Supply Hose																			
Run No.	From	To	Raceway (Conduit) Quantity	Cable Type (")	Minimum Raceway (Conduit) Size	Maximum Raceway (Conduit) Length														
A 31	PB	ME	2	C	1 1/2"	54'														
A 32	PB	MR	2	C	2 1/2"	47'														
A 33	PB	MR	1	S	2 1/2"	45'														
A 34	PB	MR	1	P	1 1/2"	45'														
A 35	PB	MA	1	S	2"	45'														
A 36	TV	MR	2	S	1 1/2"	-														
C 37	MSA	MR	2	S	1 1/2"	-														
G 38	MSA	MR	1	S	3"	-														
G 39	MR	MR	1	S	2"	33'														
G 40	Party	Party	-	-	-	-														
G 41	Party	ERB	-	G	-	-														
A 42	VB	MR	1	S	1"	82'														
A 43	VB	MR	1	S	1"	82'														
A 44	VB	MR	1	S	1"	82'														
A 45	VB	MR	1	S	1"	82'														
A 46	VB	MR	1	S	1"	82'														
A 47	VB	MR	1	S	1"	82'														
A 48	VB	MR	1	S	1"	82'														
A 49	VB	MR	1	S	1"	91'														
A 50	MSA	MR	1	P	1 1/2"	75'														
A 51	MSA	MR	1	S	1 1/2"	75'														
G 52	MR	MR	1	G	1"	60'														
A 53	MR	MR	1	S	1 1/2"	82'														
A 54	MR	MR	1	S	1"	91'														
C 55	Power Supply	MA	-	P	-	-														
C 56	Power Panel	MR	1	P	Per N.E.C.	Per N.E.C.														
C 58	CR	MR	1	G	Per N.E.C.	Per N.E.C.														
C 59	MR	MR	1	G	Per N.E.C.	Per N.E.C.														
C 60	MR	MR	1	G	Per N.E.C.	Per N.E.C.														

PHILIPS

Project: Azurion 7 B20112, B20115 - Swivel - Intermountain Medical Center
Room: Lab 3
Salt Lake City, UT

Project Manager: Ray Kroze
Contact Number: (801) 440-0281
Email: ray.kroze@philips.com
Date Drawn: 7/24/2023
Checked: 1/27/2024 Rev: 18
Order: 6605592148_010000
Drawn By: Isabelle Barro



05.27.2022

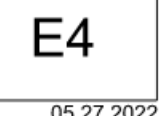
Raceway (Conduit) Required																				
General Notes																				
1. All raceway (conduit) runs must take most direct route point to point.																				
A. Greenies pull string/measuring tape (part no. 435, or equivalent) must be provided with raceway (conduit) runs																				
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A	Air Supply Hose																			
Run No.	From	To	Raceway (Conduit) Quantity	Cable Type (")	Minimum Raceway (Conduit) Size	Maximum Raceway (Conduit) Length														
C 61	MA	ERB	1	G	Per N.E.C.	Per N.E.C.														
C 62	MR	MR	1	G	Per N.E.C.	Per N.E.C.														
C 63	MR	MR	1	P	Per N.E.C.	Per N.E.C.														
C 64	MR	MR	1	P	Per N.E.C.	Per N.E.C.														
C 65	MR	MR	1	S	Per N.E.C.	Per N.E.C.														
C 66	MR	MR	1	P	Per N.E.C.	Per N.E.C.														
C 67	MR	MR	1	P	Per N.E.C.	Per N.E.C.														
C 68	MR	MR	1	S	Per N.E.C.	Per N.E.C.														
C 69	MR	MR	1	S	Per N.E.C.	Per N.E.C.														
C 70	MR	MR	1	S	1"	82'														

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Run No.	From	To	Raceway (Conduit) Quantity	Cable Type (")	Minimum Raceway (Conduit) Size	Maximum Raceway (Conduit) Length														
A 71	MR	MR	1	S	1"	82'														

PHILIPS

Project: Azurion 7 B20112, B20115 - Swivel - Intermountain Medical Center
Room: Lab 3
Salt Lake City, UT

Project Manager: Ray Kroze
Contact Number: (801) 440-0281
Email: ray.kroze@philips.com
Date Drawn: 7/24/2023
Checked: 1/27/2024 Rev: 18
Order: 6605592148_010000
Drawn By: Isabelle Barro



05.27.2022

Power Quality Requirements (Mains 40E Cabinet)	
Maximum Rated Power	100kW
Supply Configuration	3 phase, equally sized insulated power conductors and an insulated equipment grounding conductor. Insulated grounding conductor shall have the same or larger size than line conductors. Line wires shall be no smaller than 6 AWG, 90°C temperature or higher temperature rating. The conductor size is dependent on the upstream circuit breaker rating. Minimum 4 AWG for 80A circuit breaker rating.
Nominal Line Voltage	480 VAC, 60 Hz
Line Voltage Variation	Voltage variations are never to exceed +10% when measured using 10 minute mean RMS values with a measurement window of 1 week. At least 95% of all measured 10 minute mean RMS values shall be within ±5% of the configured nominal voltage.
Line Voltage Balance	2% maximum of nominal voltage between phases
Frequency Variation	± 1.0 Hz
Voltage Surges	To 110% of steady-state voltage 100 msecs. Maximum duration, 6 per hour max.
Voltage Sags	To 90% of steady-state voltage 100 msecs. Maximum duration, 6 per hour max.
Line Impulses	1000 VPK above phase-neutral RMS absolute maximum. No more than 1 impulse per hour to exceed 500 VPK.
Neutral-Ground Voltage	2.0V maximum RMS value
Neutral-Ground Impulses	No more than 1 per hour that exceeds 25V and 1 mill-Joule
High Frequency Noise	3.0V steady-state maximum. Over 3.0V permitted for 100 msec. maximum, 1 per hour max.
Grounded Conductor Impedance	0.1 Ohms @ 60 Hz maximum

Branch Circuit and Wire Gauge Requirements (Mains 40E Cabinet)	
Branch Power	100 kVA (system only; verify UPS power requirements)
Max. Standby Current	8A per phase
Circuit Breaker (CB)	3 Phase, Type D 80A with long-time delay
For information only: Terminal block accommodates AWG 80 to AWG 4 in mains cabinet. Engineer of record responsible for calculating phase conductor and equipment ground conductor sizes. Recommended phase conductor and equipment ground conductor sizes for 1% impedance of supply conductors to circuit breaker (CB).	
Max. Instantaneous Power (at X-ray tube power 100 kV 1000mA current)	100 kW
Max. Inst. Current @ CB (RMS value over half-cycle)	300A @ 480V
Max. Phase-phase Impedance @ CRC	0.455 Ω
Long Term Rating	63A @ 480V
Momentary Rating (using a window of 5 seconds)	125A @ 480V

PHILIPS

Project: Azurion 7 B20112, B20115 - Swivel - Intermountain Medical Center
Room: Lab 3
Salt Lake City, UT

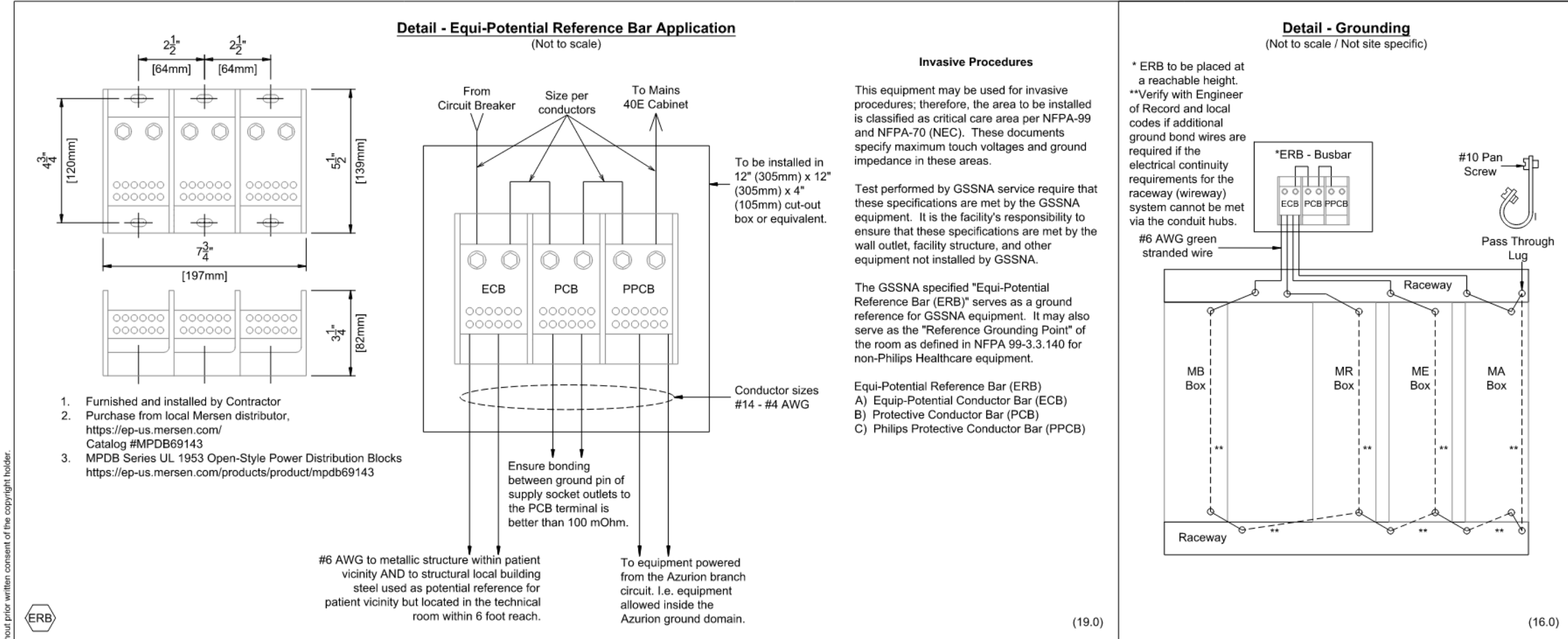
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Drawn By: Isabelle Barro



05.27.2022

Intermountain Health
Intermountain Medical Center
Angio Lab #3 Remodel Project

5121 South Cottonwood Street
Murray, UT 84107



PHILIPS

Project: Azurion 7 B2012, B2015 - Swivel - Catalyst Intermountain Medical Center Salt Lake City, UT
Room: Lab 3

Philips Contacts:
Project Manager: Ray Kone
Contract Number: 8011440281
Email: ray.kone@philips.com
Drawn By: Isabelle Bruno

Project Details:
Drawing Number: N-WES210091 G
Date Drawn: 7/24/2023
Code: 1-2FM456 Rev. 18
Order: 6600592746 010000

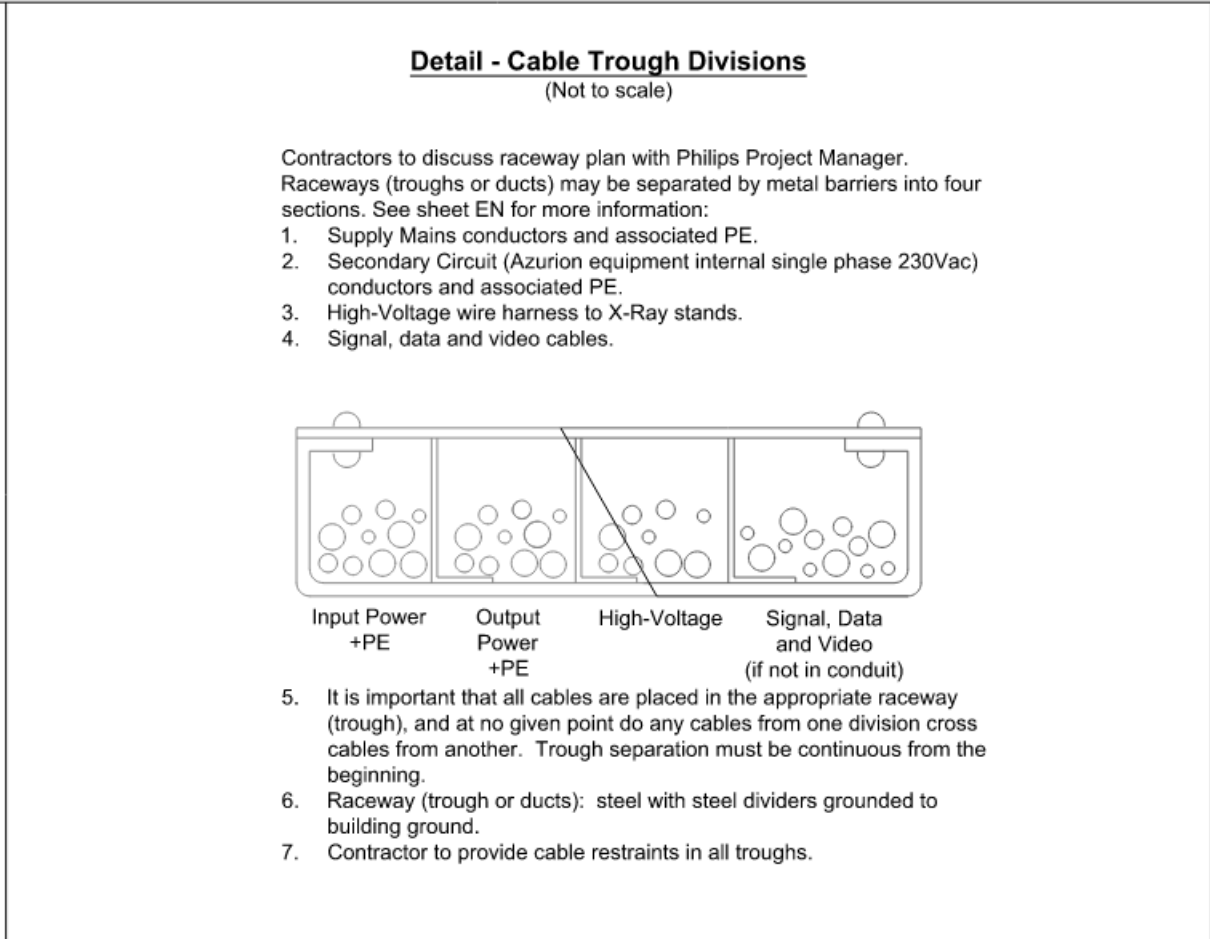
ED2



PROVISIONAL

THIS SHEET IS PART OF THE DOCUMENT SET LISTED ON SHEET C1 AND SHOULD NOT BE SEPARATED.

05.27.2022



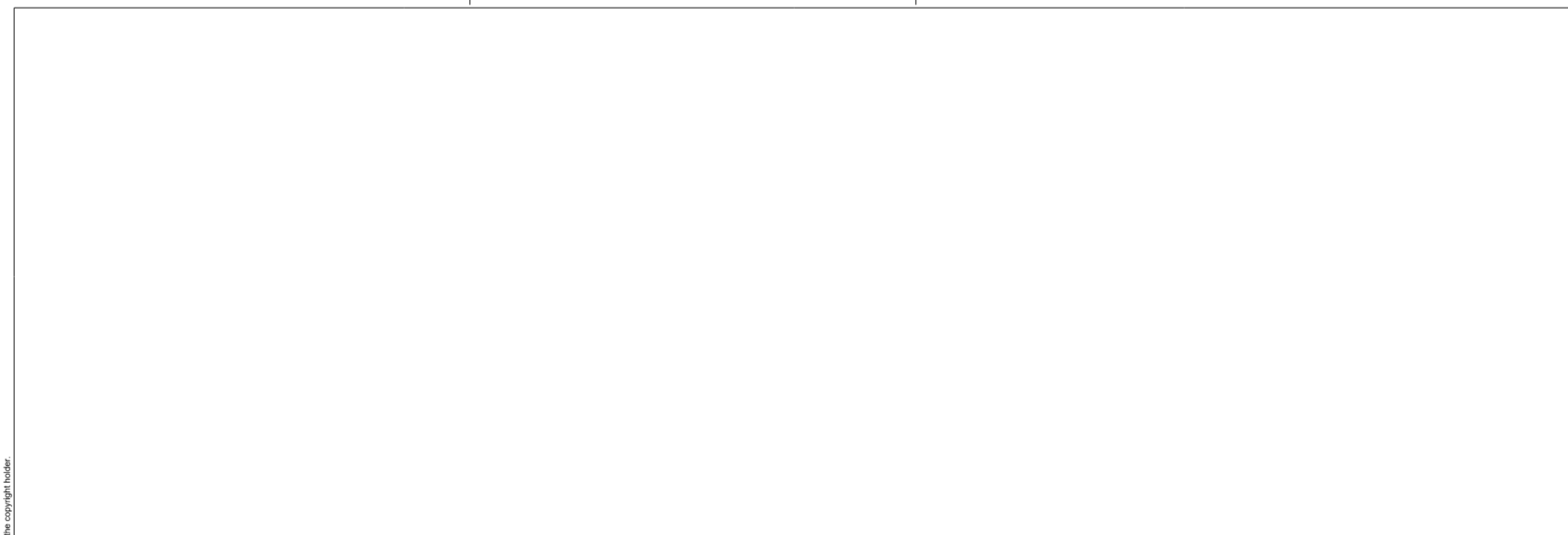
Detail - Back Box Mounting
(Not to scale)

Back Box Ordering Details
Koneer Metals Method of Business Transactions to Philips Customers
Part #8989122037 Philips Xray Back Box

- These ordering methods:
-Email: ray.kone@philips.com
-Phone: 260-495-1824
-Fax: 260-495-1822
- Payment Terms - Credit Card Only
-Amex/Car
-Visa
-Discover
-American Express
- Lead Time
-2 Week Lead time
- Freight
-All shipments will be shipped on skid
-Freight will be the cost and added (P&H) to the invoice at time of shipment.

THIS SHEET IS PART OF THE DOCUMENT SET LISTED ON SHEET C1 AND SHOULD NOT BE SEPARATED.

05.27.2022



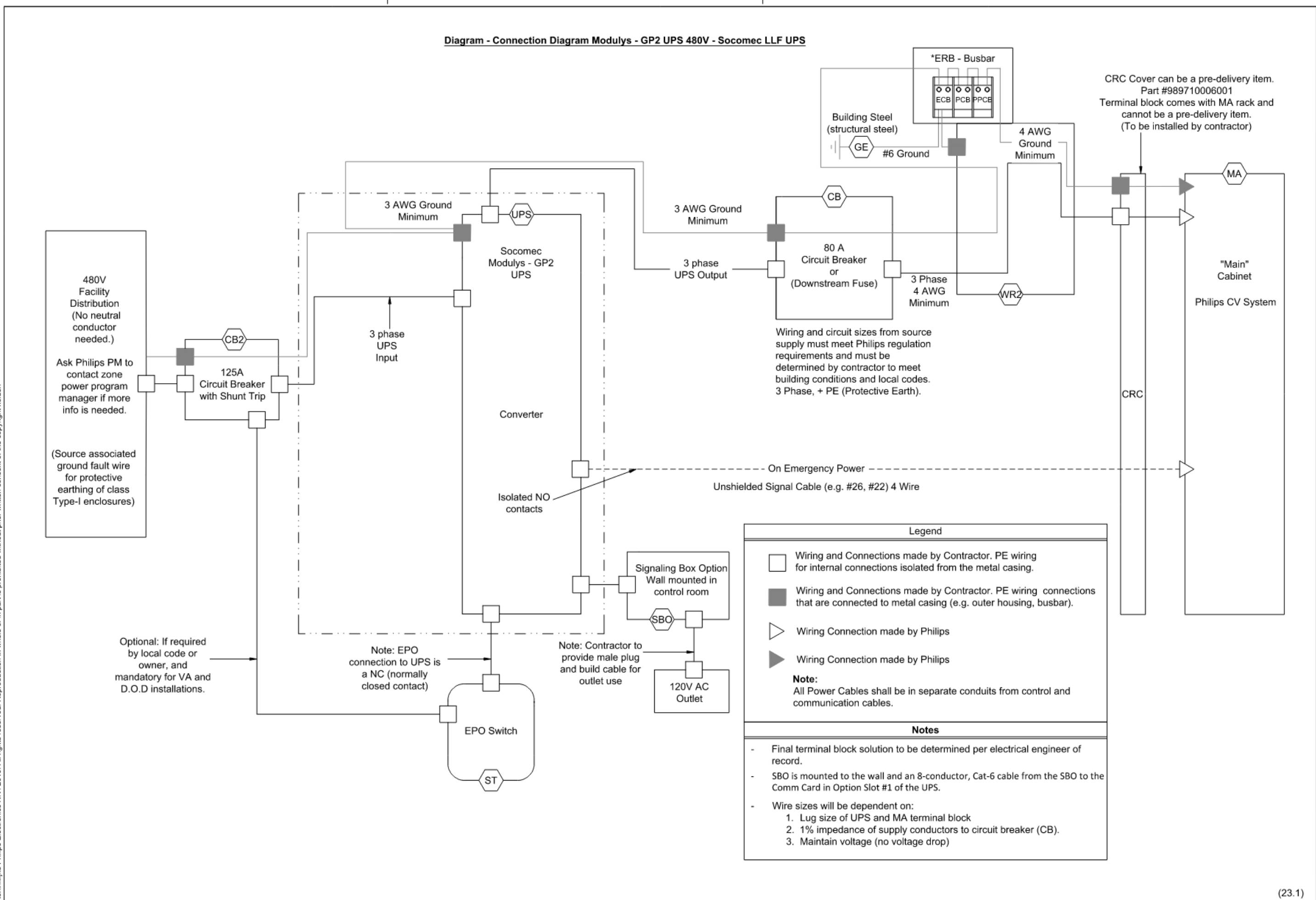
PHILIPS

Project: Azurion 7 B2012, B2015 - Swivel - Catalyst Intermountain Medical Center Salt Lake City, UT
Room: Lab 3

Philips Contacts:
Project Manager: Ray Kone
Contract Number: 8011440281
Email: ray.kone@philips.com
Drawn By: Isabelle Bruno

Project Details:
Drawing Number: N-WES210091 G
Date Drawn: 7/24/2023
Code: 1-2FM456 Rev. 18
Order: 6600592746 010000

ED4



PHILIPS

Project: Azurion 7 B2012, B2015 - Swivel - Catalyst Intermountain Medical Center Salt Lake City, UT
Room: Lab 3

Philips Contacts:
Project Manager: Ray Kone
Contract Number: 8011440281
Email: ray.kone@philips.com
Drawn By: Isabelle Bruno

Project Details:
Drawing Number: N-WES210091 G
Date Drawn: 7/24/2023
Code: 1-2FM456 Rev. 18
Order: 6600592746 010000

ED5

Philips Collaboration Live

1. Collaboration Live Server - powered by Reacts

The Collaboration Live server is a cloud-hosted enterprise solution that provides contact management, secure connectivity and streaming services for Collaboration Live text, audio and video features. This server is accessed from a separate PC installed in the Azurion control room and remote client end-points over the internet using an industry standard TLS method of connectivity. The server is hosted by IT (Innovative Imaging Technologies, Montreal, Canada).

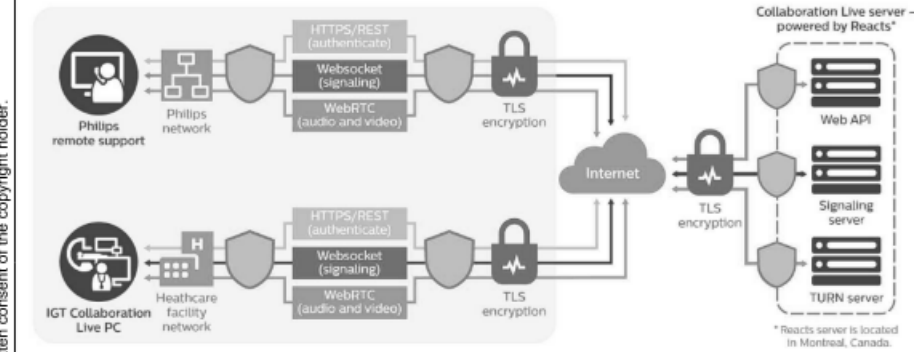
2. Connectivity

In order to connect to the Collaboration Live server, the system will need access from within the healthcare facility network to the internet for outbound connections over port 443, and UDP and TCP protocol must be allowed. We recommend whitelisting the following domains:

- reacts.com
- reacts.com

The minimum bandwidth of 0.5 Mbit/s upload and 0.5 Mbit/s download is required for connectivity. The recommended bandwidth for optimal performance is 1.5 Mbit/s upload and 1.5 Mbit/s download.

Collaboration Live network diagram



The privacy policy of IT Reacts is available online:
<https://reacts.com/en/legality/privacy>

The security overview of IT Reacts is available online from the Security and Privacy Page:
<https://reacts.com/security-overview/>

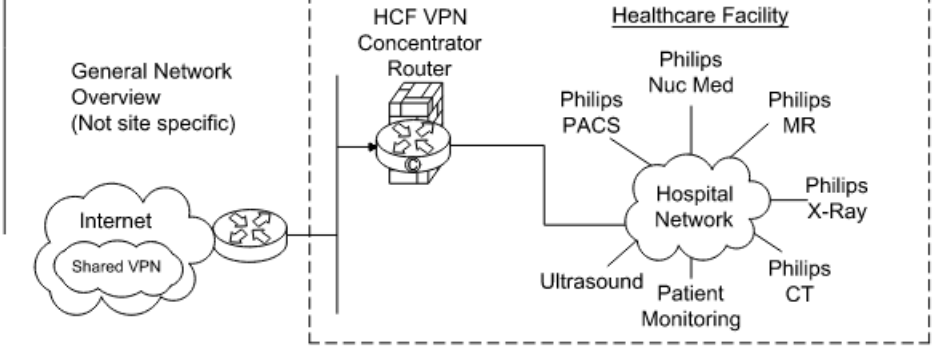
Philips Healthcare Remote Services Network (RSN)

Secure broadband connection required for Philips remote technical support, diagnostics, and applications assistance

Broadband Site-to-Site Connectivity (Preferred)

This connectivity method is designed for customers who prefer a connection from the RSN Data Center to the Health Care Facility (HCF) utilizing their existing VPN equipment.

- Connectivity Details:**
- A Site-to-Site connection from the RSN data center's Cisco router will be established to the HCF's VPN concentrator.
 - The VPN Tunnel will be an IPSEC, 3DES encrypted Tunnel using IKE as standard, but alternative standards are also available, such as AES, MD5, SHA, Security Association lifetime and Encryption Mode.
 - Every system that we will be servicing remotely will have a static NAT IP that we configure on the RSN Data center side.

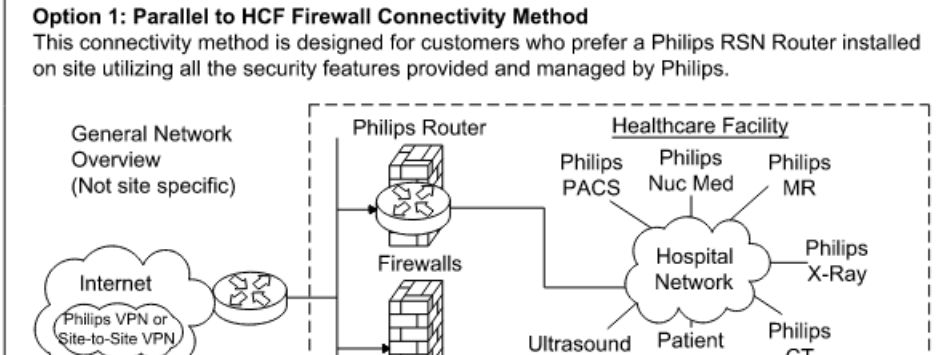


- Action Required by Hospital:**
- Review and approve connection details.
 - Complete appropriate Site Checklist.
 - Configure and allow Site-to-Site access prior to setting up connectivity depending on the access criteria that the HCF decides to implement (ex. Source IP filtering, destination IP filtering, NAT assignment, etc.).
 - Route traffic from within the hospital network with destination addresses 192.68.48.0/22 to the designed IP provided by Philips.

Broadband Router Installed at Health Care Facility

This connectivity method is designed for customers who have a dedicated high speed connection for Philips equipment.

- Connectivity Details:**
- An RSN Cisco 3711 or 1712 router will be preconfigured and installed at the HCF by Philips in conjunction with the HCF IT representative.
 - The VPN Tunnel will be an IPSEC, 3DES encrypted Tunnel using IKE and will be established from the RSN DC and terminated at the RSN Router on-site.
 - One to One NAT is used to limit access to Philips equipment only.
 - Router Config and IP auditing is enabled for Customer IT to view via website 24/7.
 - Dedicated DSL connections are also supported.

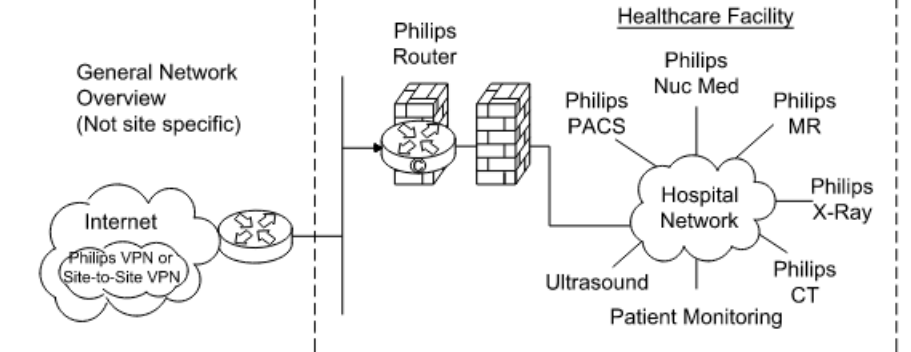


- Action Required by Hospital:**
- Assign a fixed public IP Address from the ISP to be configured on the Philips router. This is the DOTTED link on the picture connected to the firewall.
 - Assign a Back end IP for the Philips router on the Hospital Network.
 - Complete appropriate Site Checklist.
 - Route traffic from within the hospital network with destination addresses 192.68.48.0/22 to internal Philips router Ethernet interface. This is the DASHED line connected to the firewall.

THIS SHEET IS PART OF THE DOCUMENT SET LISTED ON SHEET 01 AND SHOULD NOT BE SEPARATED.

Option 2: Back End Connected to the HCF Firewall Connectivity Method

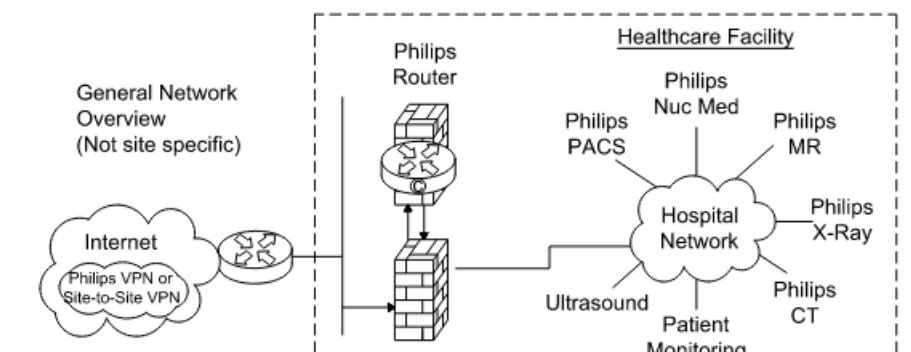
This connectivity method is designed for customers who prefer a Philips RSN Router installed on site by setting up an IP-Based policy allowing access thru existing HCF Firewall to Philips equipment.



- Action Required by Hospital:**
- Assign a fixed public IP Address from the ISP to be configured on the Philips router. This is the DOTTED link on the picture connected to the firewall.
 - Assign a Back end IP for the Philips router on the Hospital Network.
 - Complete appropriate Site Checklist.
 - Route traffic from within the hospital network with destination addresses 192.68.48.0/22 to internal Philips router Ethernet interface. This is the DASHED line connected to the firewall.
 - Configure and allow on the firewall on the DASHED line interface access between the IP address allocated by the hospital to the Philips internal Ethernet router interface and the target modality IP address.

Option 3: Router Installed Inside the HCF's DMZ

This connectivity method is designed for customers who prefer the RSN Router installed inside an existing, or new DMZ, allowing access to Philips equipment.



- Action Required by Hospital:**
- Assign a fixed public IP Address from the ISP to be configured on the Philips router. This is the DOTTED link on the picture connected to the firewall.
 - Assign a Back end IP for the Philips router on the Hospital Network.
 - Complete appropriate Site Checklist.
 - Route traffic from within the hospital network with destination addresses 192.68.48.0/22 to internal Philips router Ethernet interface. This is the DASHED line connected to the firewall.
 - Configure and allow on the firewall on the DASHED line interface IPSEC protocol communication by opening protocol 500, 51, 47 and port 21 + TACACS. Traffic should be between external IP Address located on the Philips router and the RSN Data center IP address 192.68.48/24 and IP address ACSN TACAS.
 - Configure and allow on the firewall on the DASHED line interface access between the IP address allocated by the hospital to the Philips internal Ethernet router interface and the target modality IP address.

PHILIPS

Project Name: **Intermountain Medical Center**
 Location: **Salt Lake City, UT**
 Building: **INDMTN Lab 3**

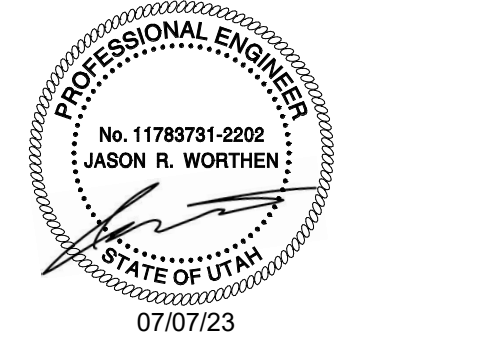
Project Details:
 Project Number: **1911400201**
 Contract Number: **1911400201**
 Email: ray.harding@philips.com
 Designer: **Ray Harding, PE**

Project Details:
 Project Name: **Intermountain Medical Center**
 Project Number: **1911400201**
 Contract Number: **1911400201**
 Date Drawn: **7/24/2023**
 Date: **1-27-2024**
 Designer: **Ray Harding, PE**

N1
 05.27.2022



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 Murray, Utah 84123
 801.384.9259
www.njraarchitects.com

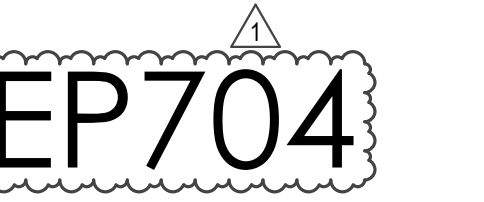


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 801-328-5151
 Fax: 801-328-5155
www.spectrum-engineers.com

Intermountain Health
Intermountain Medical Center
Angio Lab #3 Remodel Project
 5121 South Cottonwood Street
 Murray, UT 84107

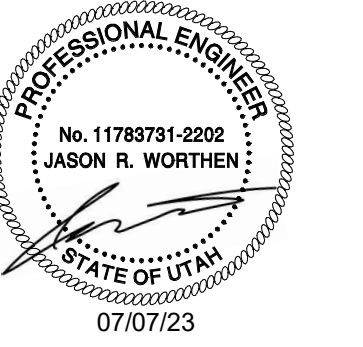
NJRA Project # 22247.00
 Construction Documents July 7, 2023
 Addendum #1 08/09/23

PHILLIPS DRAWINGS





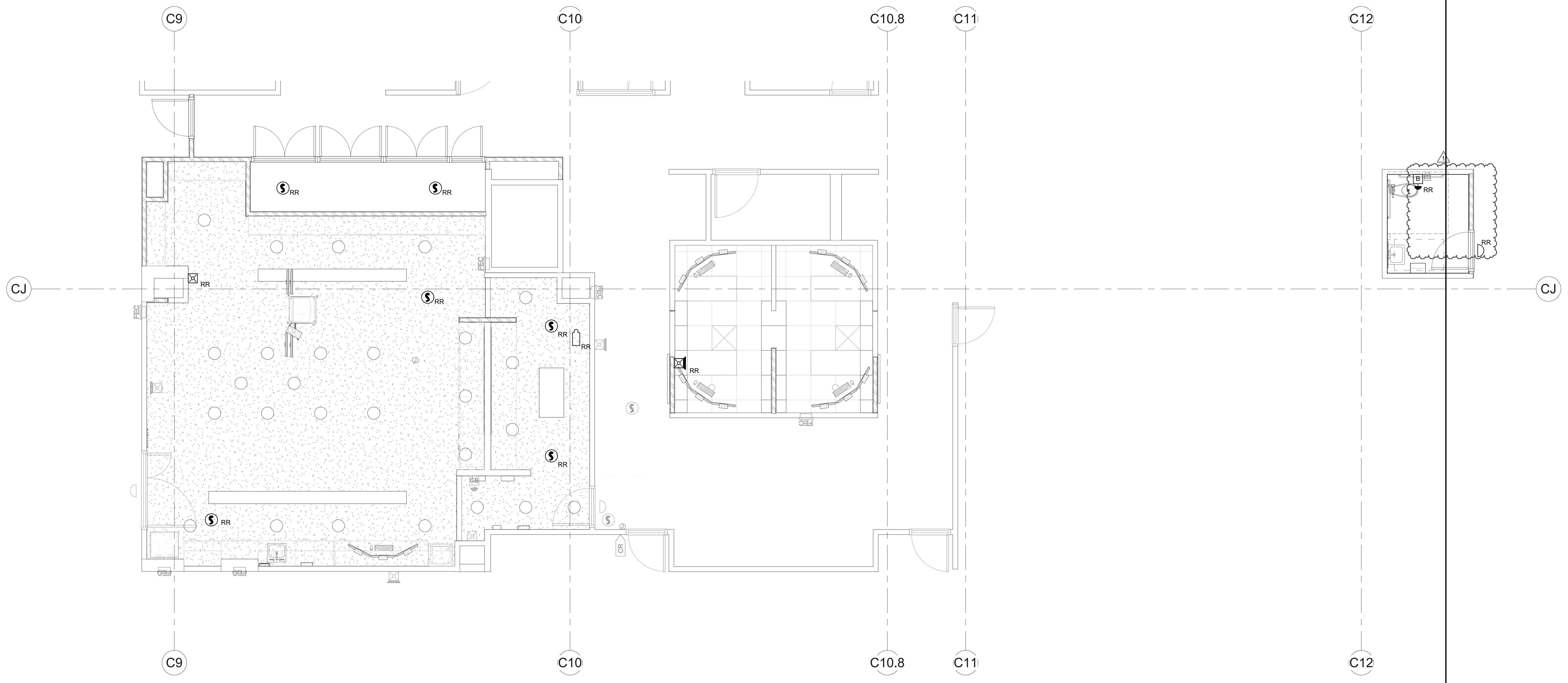
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GENERAL SHEET NOTES

SHEET KEYNOTES



C:\Users\jw.SPECENG.000\Documents\230128 - Elec Central\jason.worthen.rvt

1 LEVEL 1 AUXILIARY PLAN
 SCALE: 1/4" = 1'-0"

Intermountain Health
Intermountain Medical Center
Angio Lab #3 Remodel Project

5121 South Cottonwood Street
 Murray, UT 84107

NJRA Project # 22247.00
 Construction Documents July 7, 2023
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**LEVEL 1
 AUXILIARY
 PLAN**

EY101