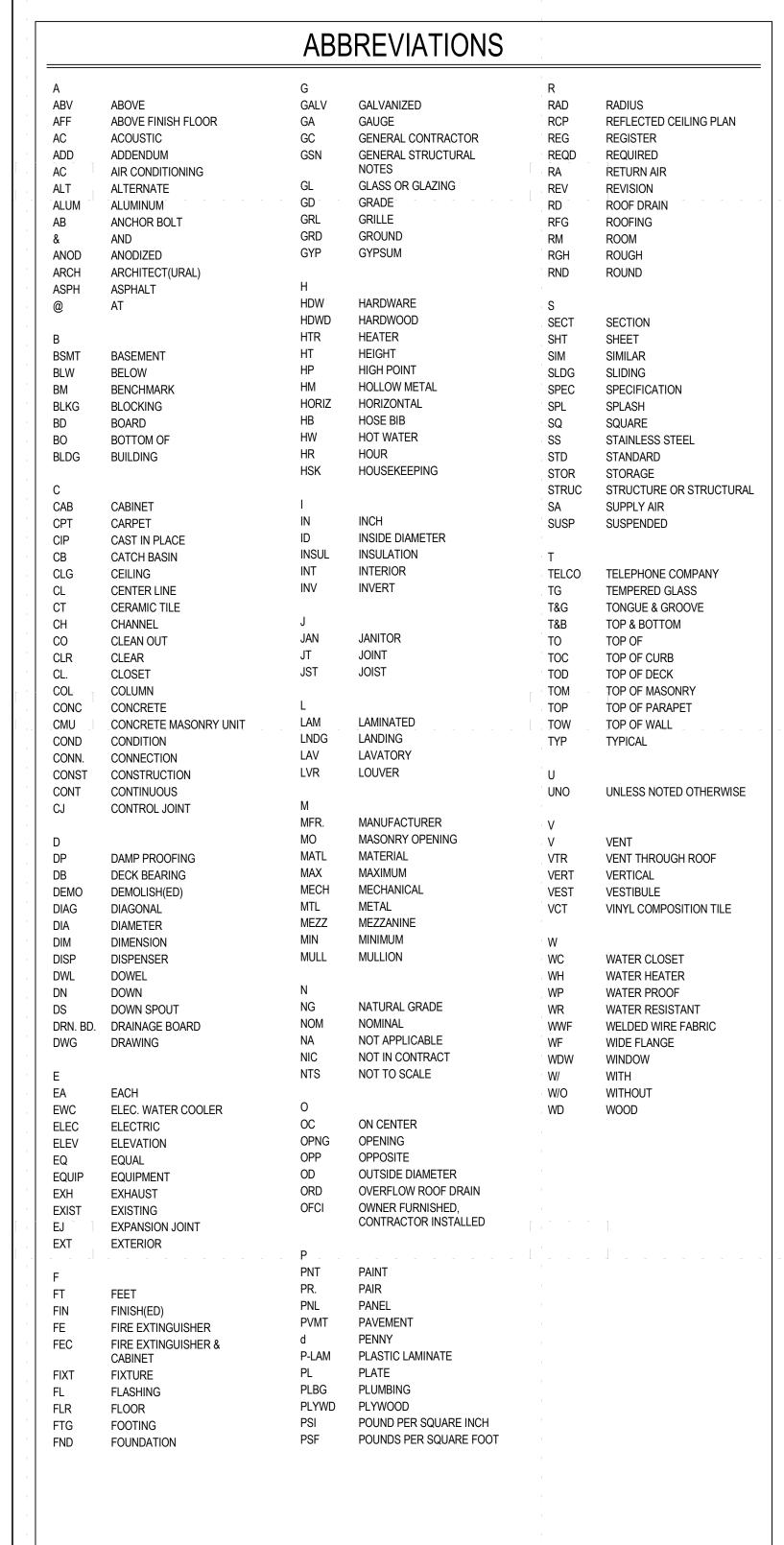
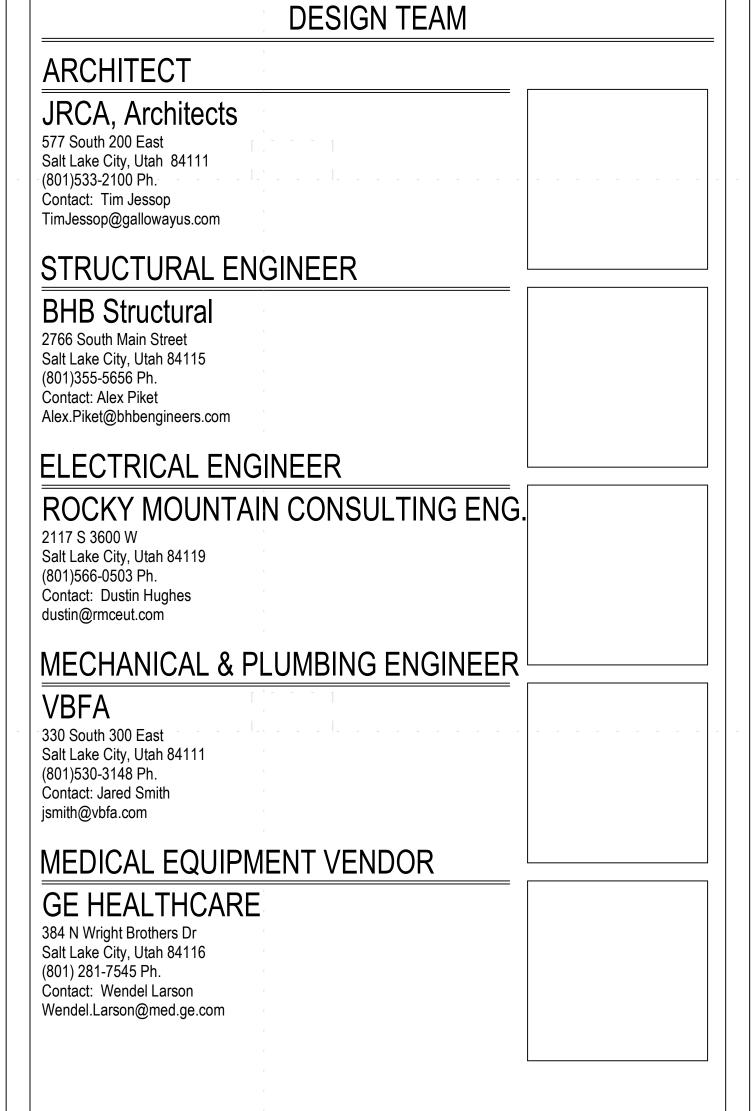
W Intermountain Healthcare

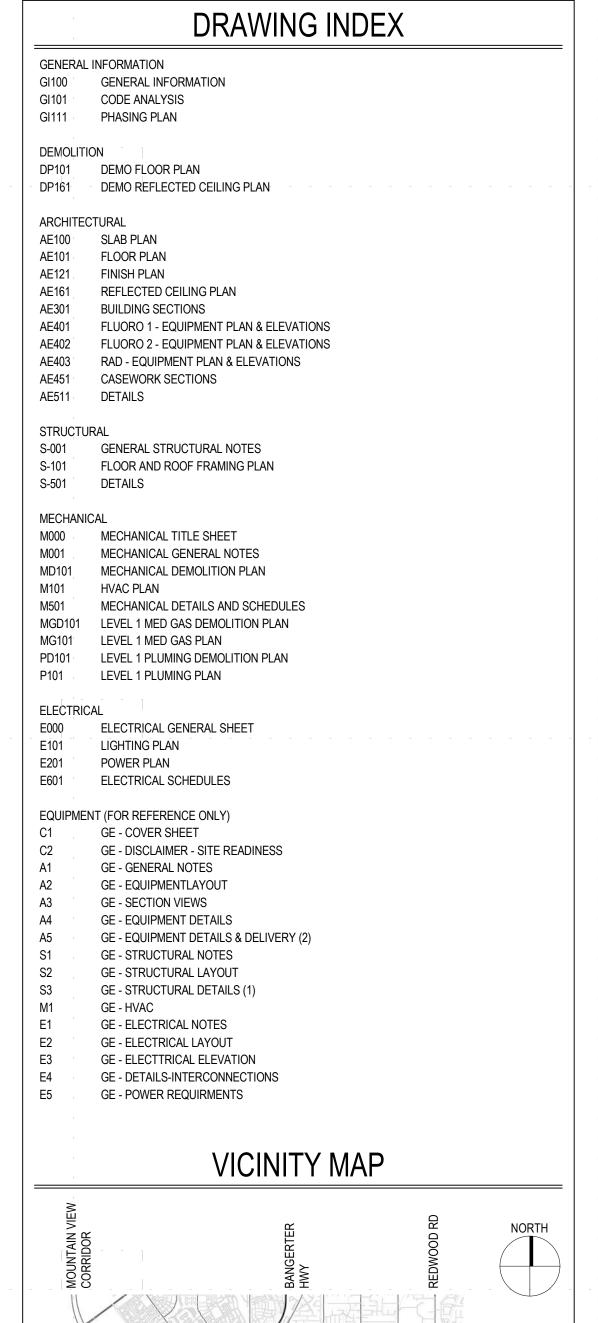
RIVERTON HOSPITAL - FLUOROSCOPY REMODEL

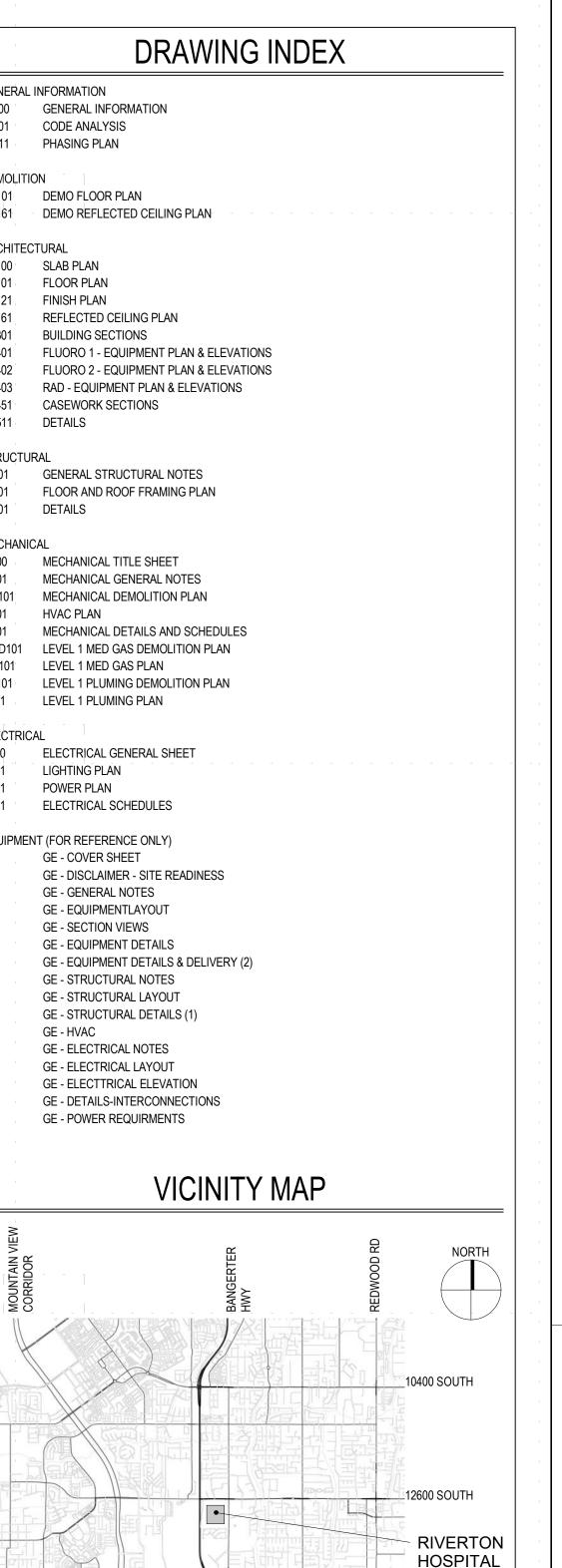
3741 W 12600 S Riverton, UT 84065



ΜΔΤΕΡΙΔΙ	S / SYMBOLS	<u> </u>
IVIATEINIAE		
PLYWOOD (SECTION)	Ę	CENTERLINE
WOOD MOLDING	AEXXX	BUILDING SECTION FLAG
CONCRETE (SECTION)	SIM	
GYPSUM BOARD (SECTION)	AEXXX SIM	WALL SECTION / EXTERIOR ELEVATION
TILE (PLAN)	1	INTERIOR ELEVATION
COMPACTED GRAVEL (SECTION)	AEXXX	INTERIOR ELEVATION
COMPACTED SUBGRADE	AEXXX SIM	DETAIL
STEEL FRAMING (PLAN, SECTION)	A	GRID HEAD
CMU (PLAN, SECTION)	(1i)	WINDOW TAG
BRICK VENEER (PLAN, SECTION)	(101A)	DOOR TAG
STONE VENEER (PLAN, SECTION)	ROOM NAME 101	ROOM TAG
RIGID INSULATION (SECTION)	A	WALL TYPE
LANDSCAPE - PLANTING	?	KEYNOTE TAG
		REVISION TAG
	G3	WINDOW GLAZING TAG
ELEVA ⁻ N	TION ————————————————————————————————————	ELEVATION, (DATUM)
1 AEXXX	VIEW NAME SCALE SCALE	DRAWING TITLE





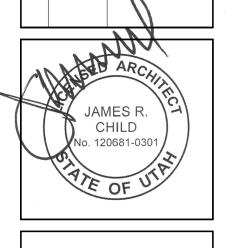




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GENERAL NOTES:

- WHILE THE DOCUMENTS ARE SEPARATED BY SHEET NUMBERS FOR CONVENIENCE IN REFERENCING DOCUMENTATION, SHEET NAMES AND NUMBERS ARE NOT INTENDED TO DEFINE SCOPE. CONTRACTORS AND SUBCONTRACTORS ARE RESPONSIBLE FOR ALL WORK DESCRIBED IN THE ENTIRE PACKAGE.
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PROJECT #: 21031

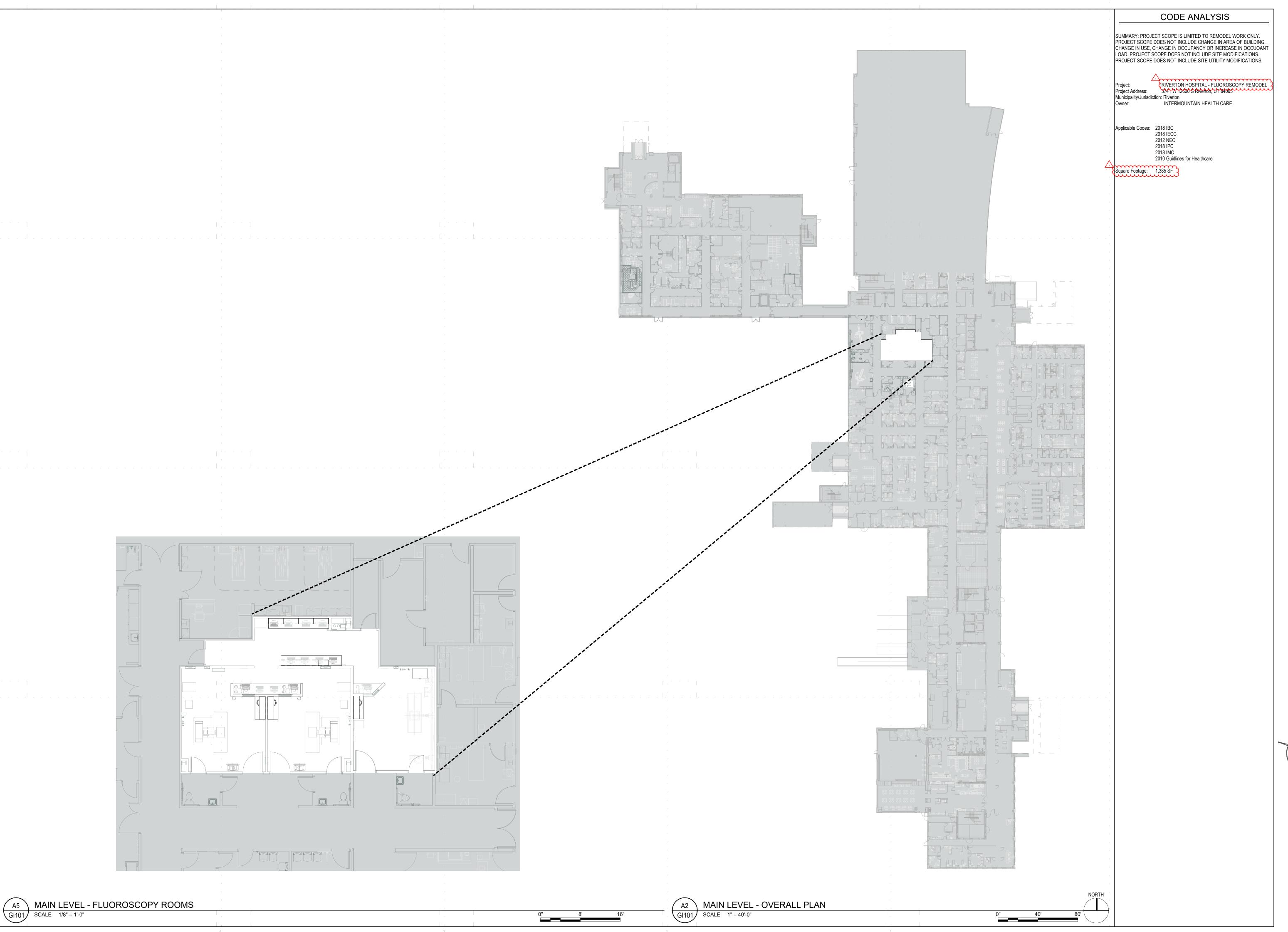
CONSTRUCTION DOCUMENTS

11/03/2021

GENERAL INFORMATION

GI100

CONSTRUCTION DOCUMENTS 11/03/2021



JRCA
ARCHITECTS
AGalloway Co.

577 South 200 East SLC, Utah 84111 O: (801) 533-2100 GallowayUS.com jrcadesign.com

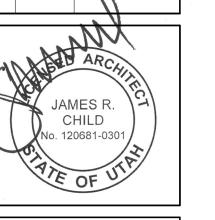
Intermountain Healthcare
RIVERTON HOSPITAL - FLUOROSCOPY REMODEL

PROJECT #: 21031

CONSTRUCTION DOCUMENTS
11/03/2021

DATE REVISION

12-06-21 PERMIT COMMENTS



CODE ANALYSIS

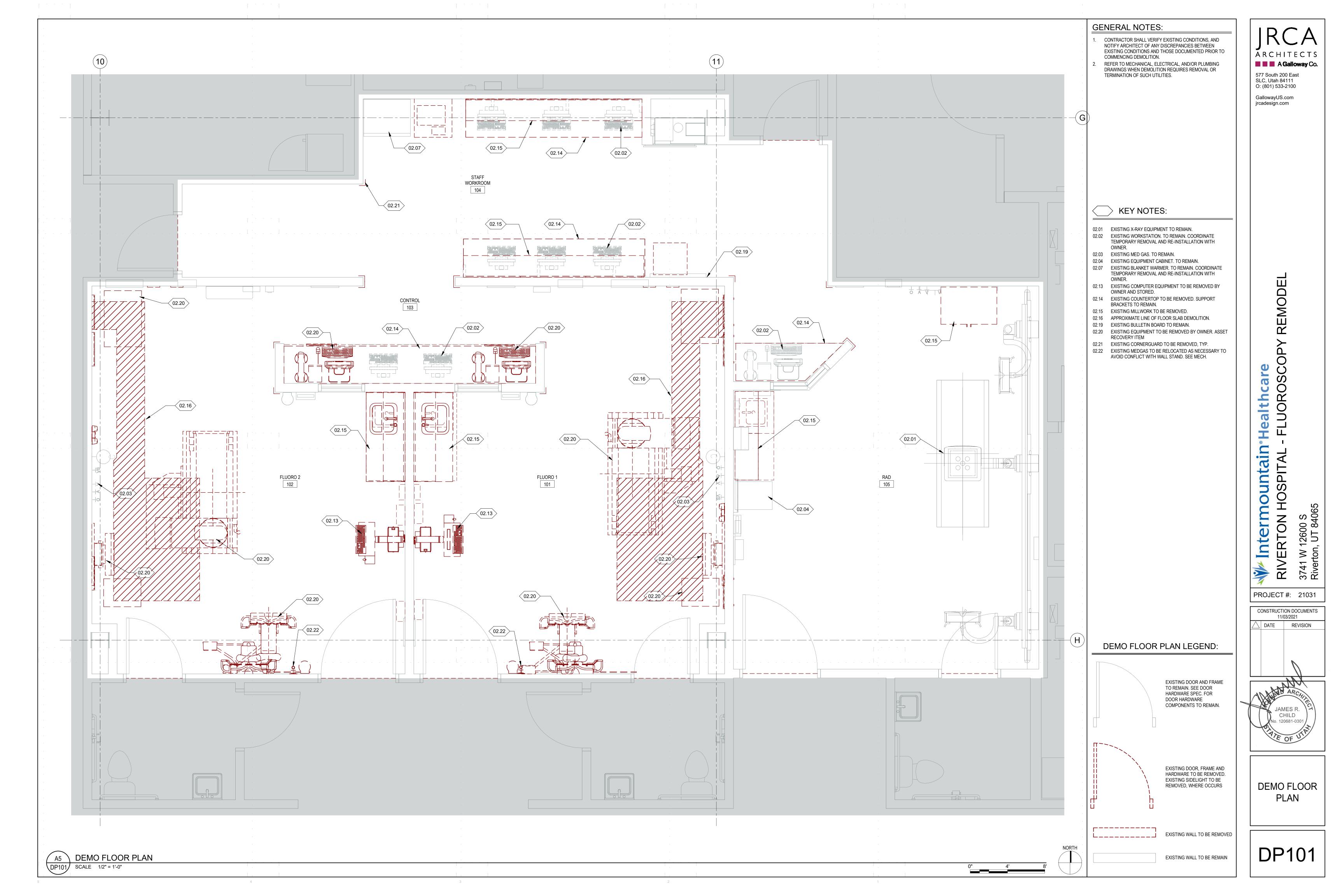
GI101

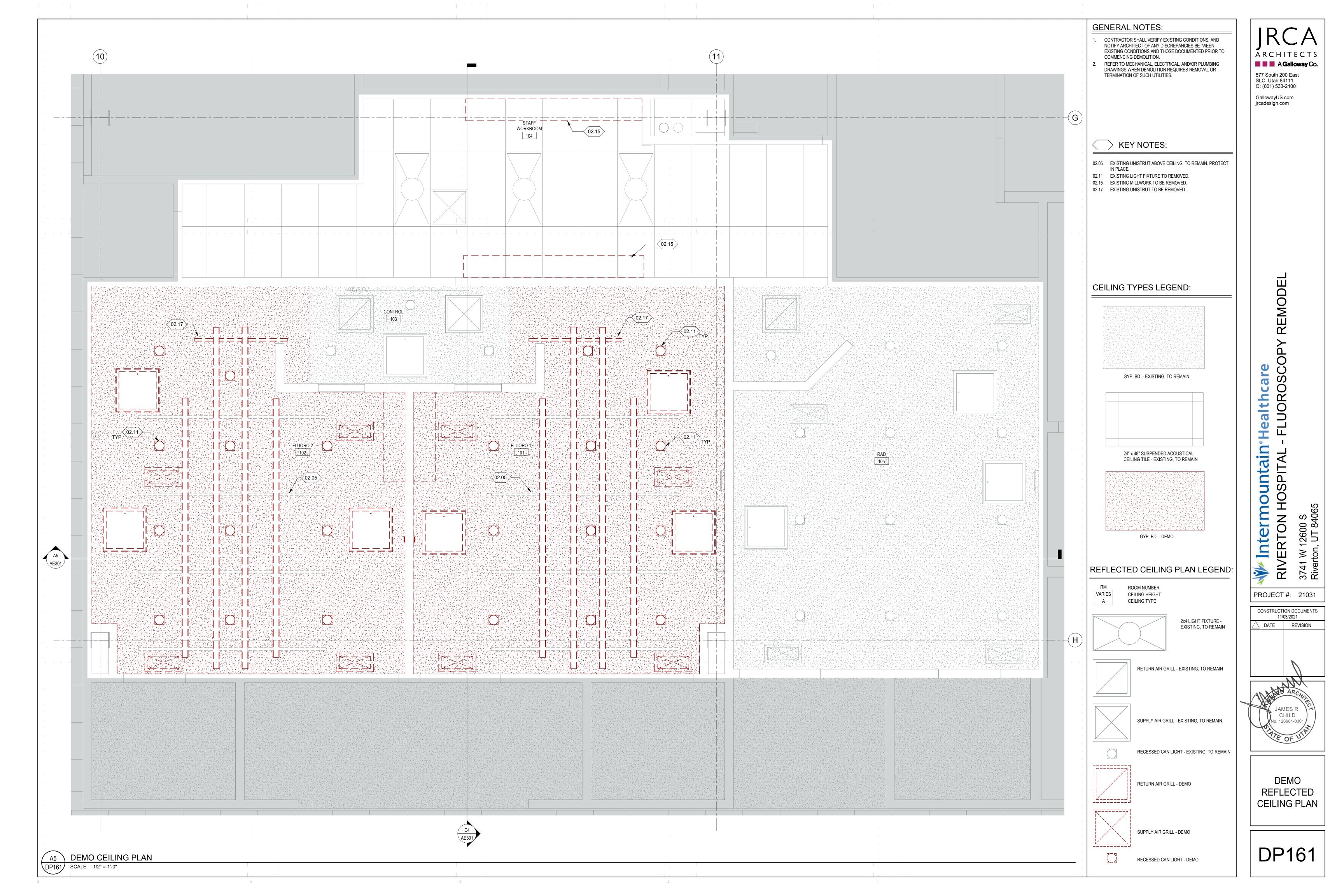


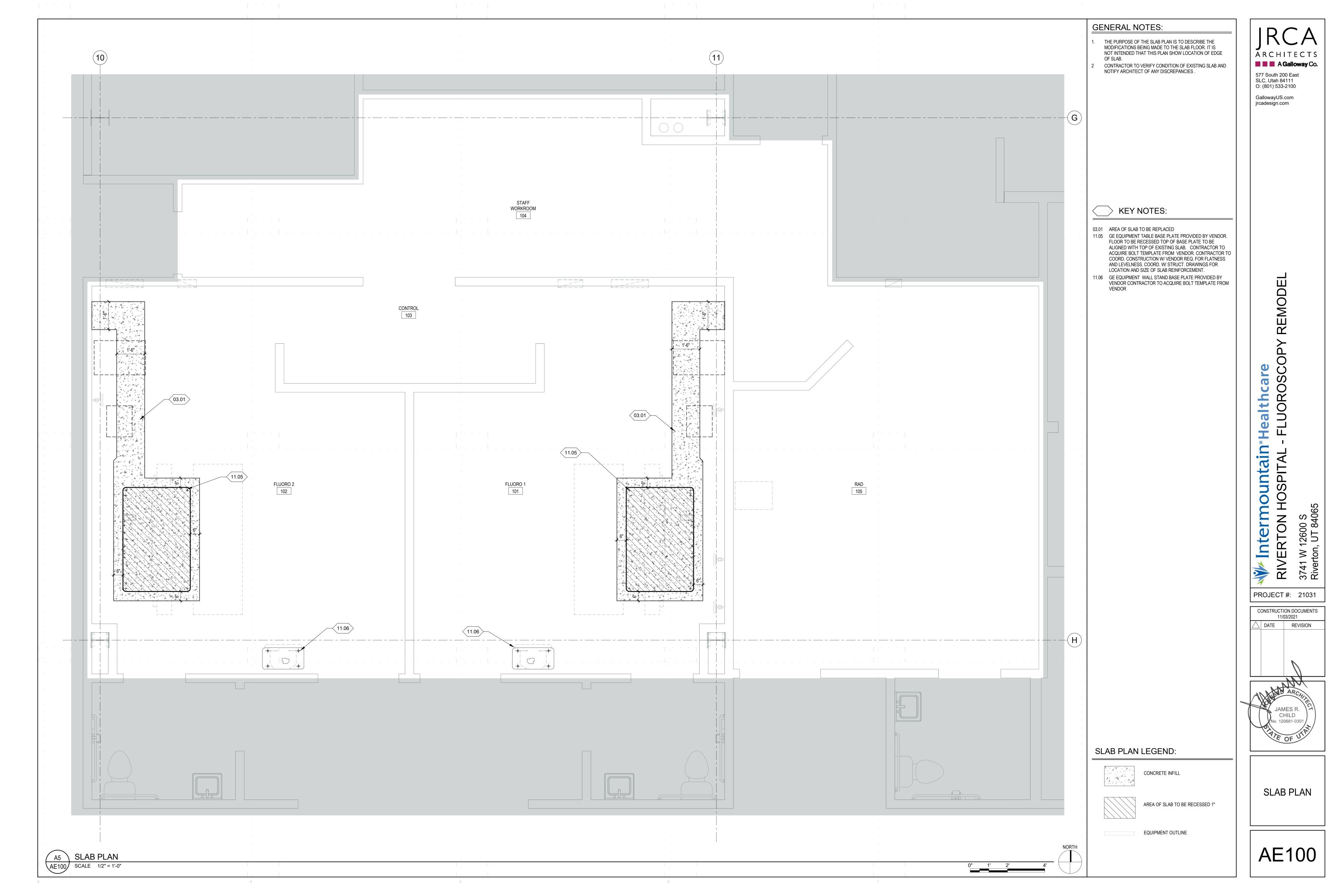
ĀRCHITECTS A Galloway Co.

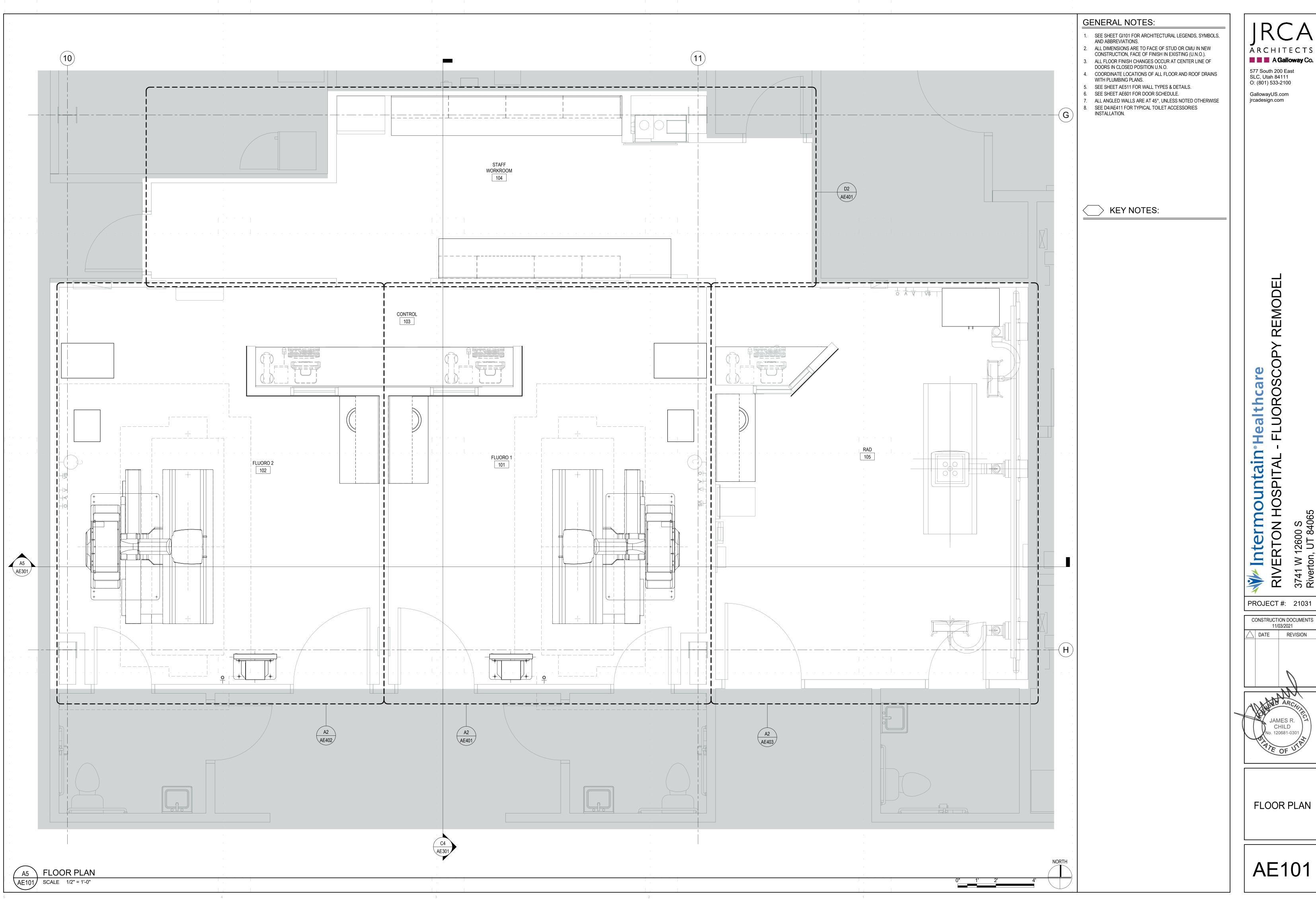
CONSTRUCTION DOCUMENTS 11/03/2021

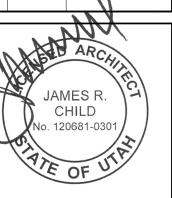
PHASING PLAN

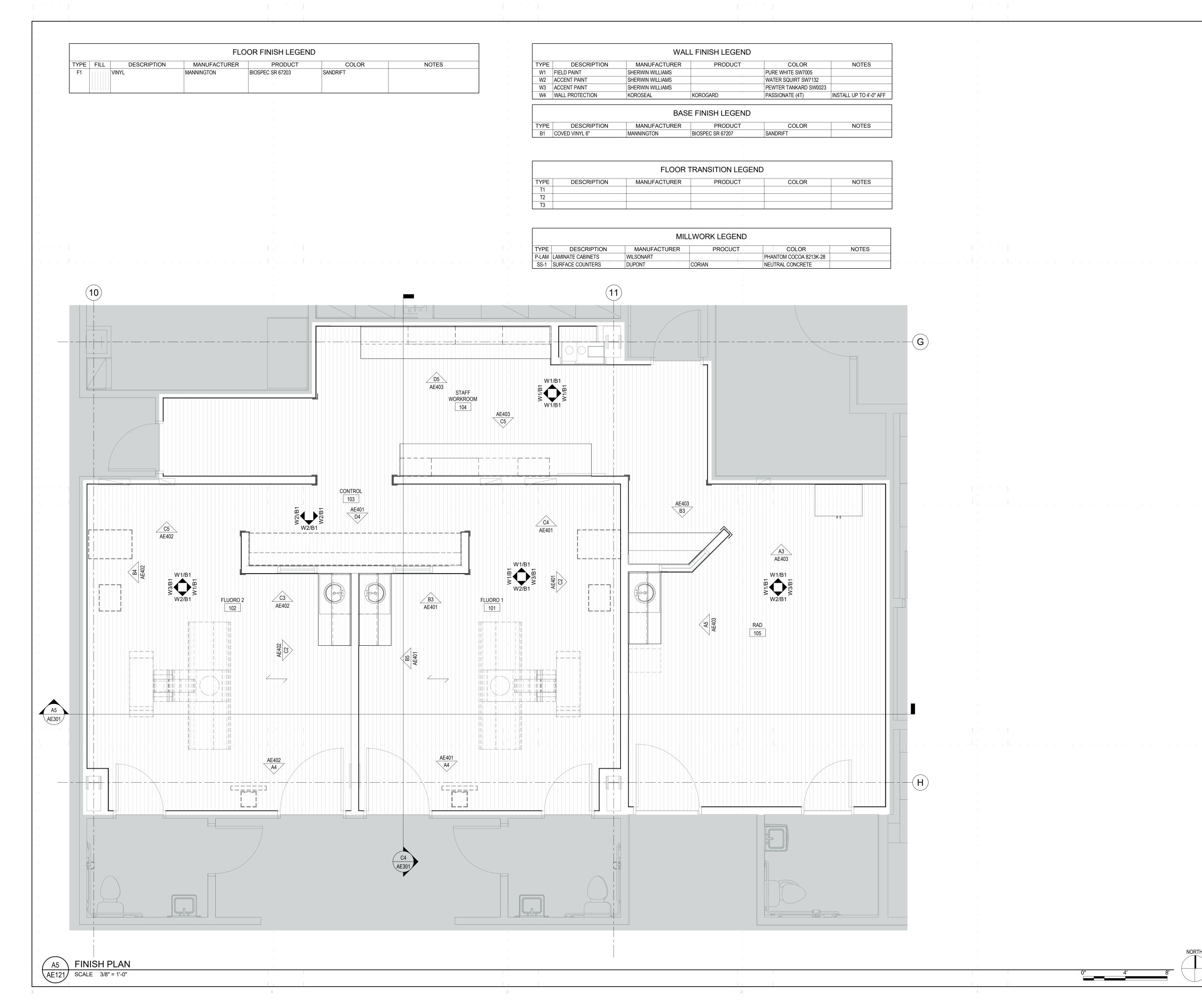












GENERAL NOTES:

- ALL FINISH MATERIALS, EITHER SPECIFIED OR IMPLIED, ARE TO BE IN ACCORDANCE WITH ASTM E84 AS A CLASS A TYPE FINISH
- LOCATE FLOOR TRANSITIONS AT EXISTING WELD SEAMS TO
- PRESERVE ADJACENT FLOORING. INSTALL FLOORING TRANSITION STRIPS AT DISSIMILAR
- MATERIALS. PROVIDE A SMOOTH TRANSITION AT ALL FLOOR MATERIALS -CONTRACTOR TO INSTALL ALL FLOOR FINISHES AT SAME LEVEL, DESPITE DIFFERENT THICKNESSES. PROVIDE FLOOR
- TRANSITIONS WHERE REQUIRED. ALL HM DOORS AND FRAMES TO BE PAINTED, SEMI-GLOSS FINISH. MATCH EXISTING FRAME COLOR.
- ALL GYP BOARD HORIZONTAL SURFACES, CEILINGS AND SOFFITS TO BE PAINTED
- ALL EXISTING ELECTRICAL COVER PLATES TO BE REMOVED AND REINSTALLED BY CONTRACTOR TO FACILITATE PAINT APPLICATION
- ALL EXISTING TACK BOARDS, PICTURES, AND DISPLAY BOARDS TO BE REMOVED AND REINSTALLED BY PAINT CONTRACTOR. PATCH AND REPAIR WALL PRIOR TO PAINT (BY PAINT CONTRACTOR)
- ALL EXISTING CORNER GUARDS TO BE REMOVED AND REPLACED BY CONTRACTOR.
- 0 ALL EXISTING PLUMBING ESCHUTEONS TO BE REMOVED AND REINSTALLED BY CONTRACTOR TO FACILITATE PAINT
- ALL EXISTING FLOOR FINISHES IN AREAS SCHEDULED TO RECEIVE NEW FLOORING ARE TO BE REMOVED BY
- 12 CONTRACTOR TO PATCH, REPAIR, PREP SUB FLOOR AS REQUIRED BY MANUFACTURER
- 13 ALL EXISTING BASE IN AREAS SCHEDULED TO RECEIVE BASE ARE TO BE REMOVED BY CONTRACTOR.
- 14 UPON REMOVAL OF EXISTING BASE, PATCH AND REPAIR WALL AS REQUIRED SO THAT NO DAMAGE OR BLEMISHES WILL SHOW WITH THE INSTALL OF NEW RUBBER BASE. 15 ALL EXISTING ACCESSORIES (SOAP DISPENSER, GLOVE
- DISPENSER, SANITIZER DISPENSER, TOWEL DISPENSER, ETC) TO BE REMOVED AND REINSTALLED BY CONTRACTOR. PATCH AND REPAIR WALL AS REQUIRED TO FACILITATE PAINT APPLICATION. 6 CONTRACTOR TO REMOVE ALL EXISTING NAILS, SCREWS &
- HARDWARE VISIBLE ON WALL SURFACE TO BE REMOVED. PATCH, REPAIR AND PREP WALL FOR PAINT.
- 17 FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO BID





FINISH PLAN LEGEND:

WALL FINISH TYPE / BASE TYPE



FLOOR FINISH INSTALLATION DIRECTIONAL ARROW

AE121

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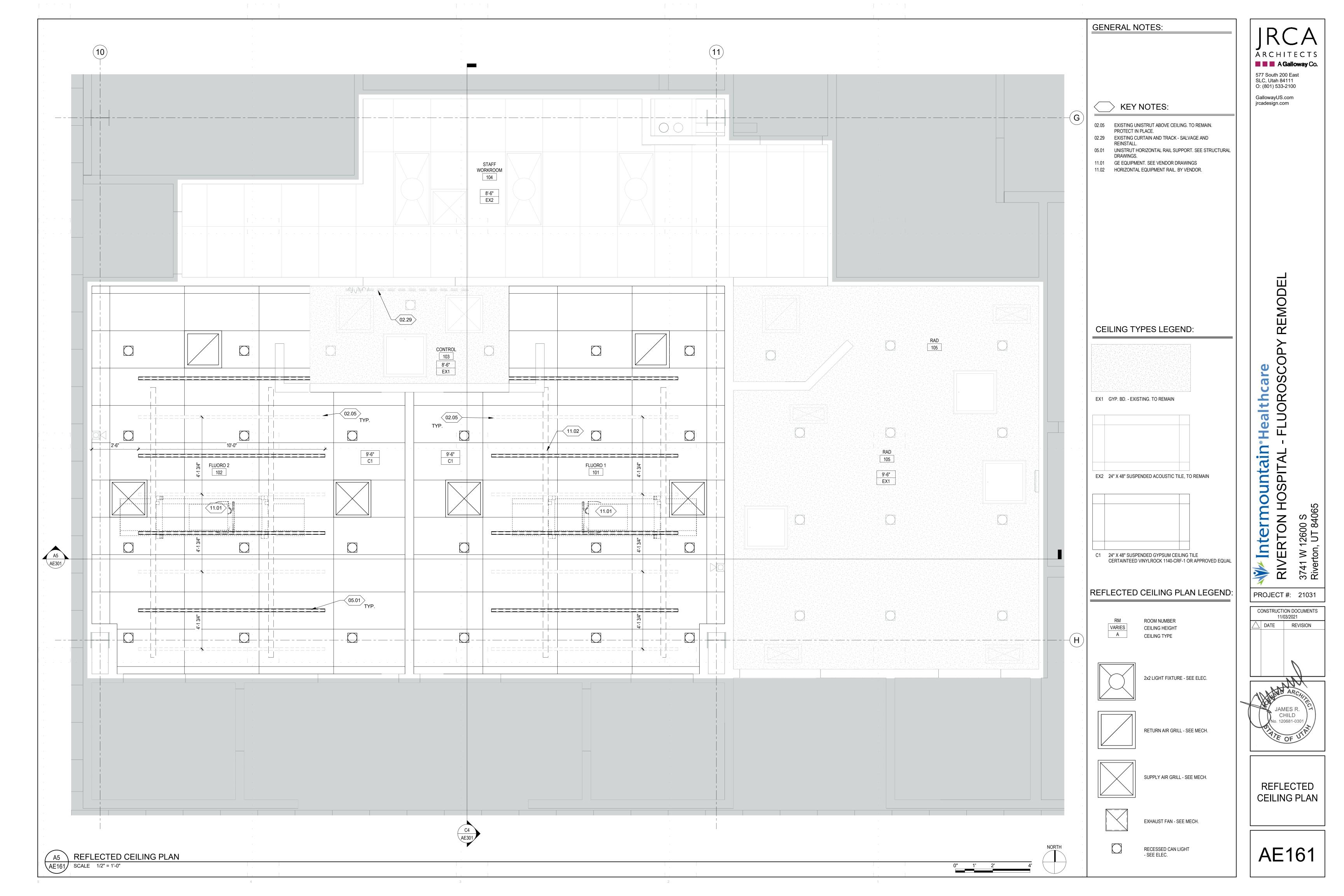
jrcadesign.com

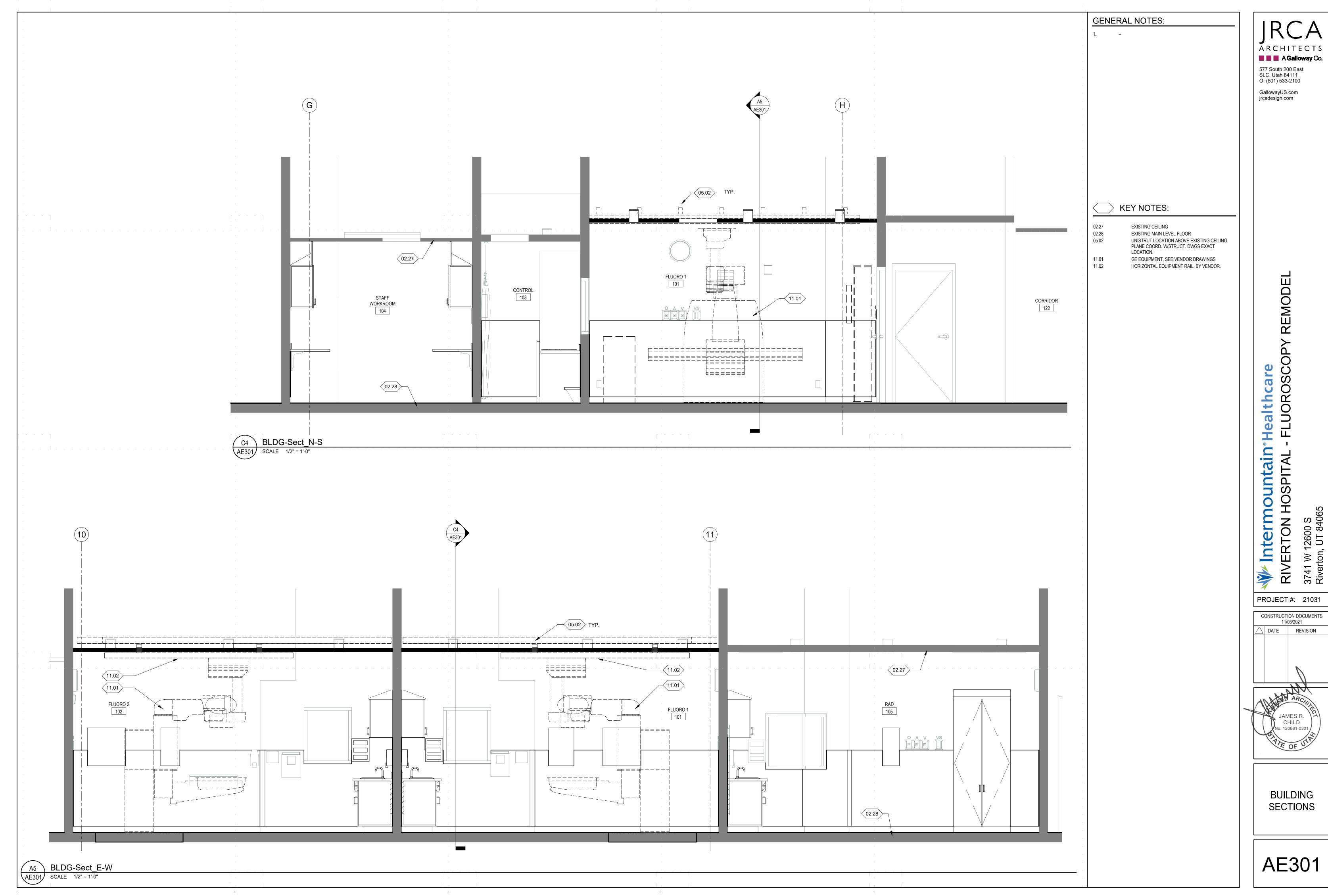
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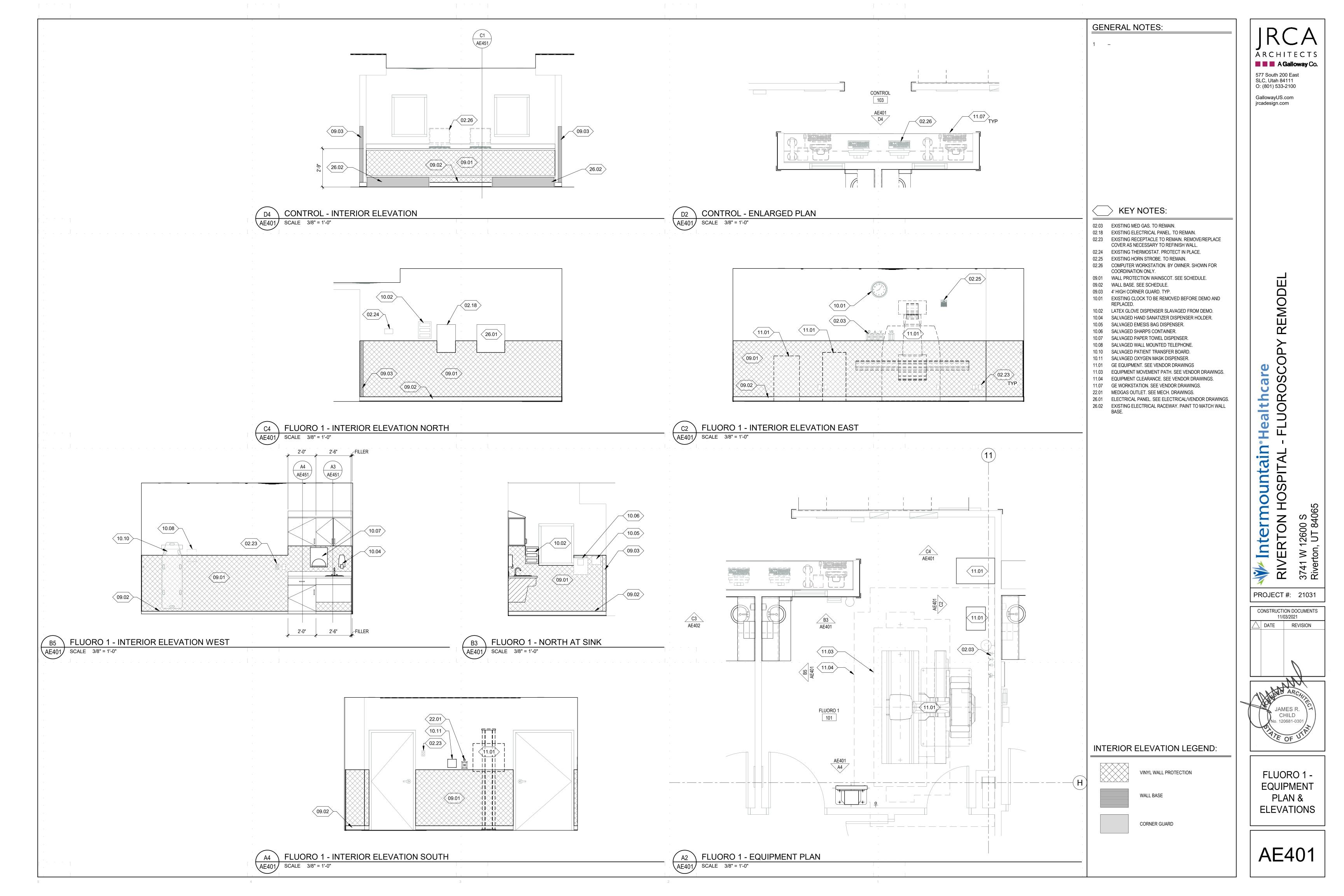
PROJECT #: 21031

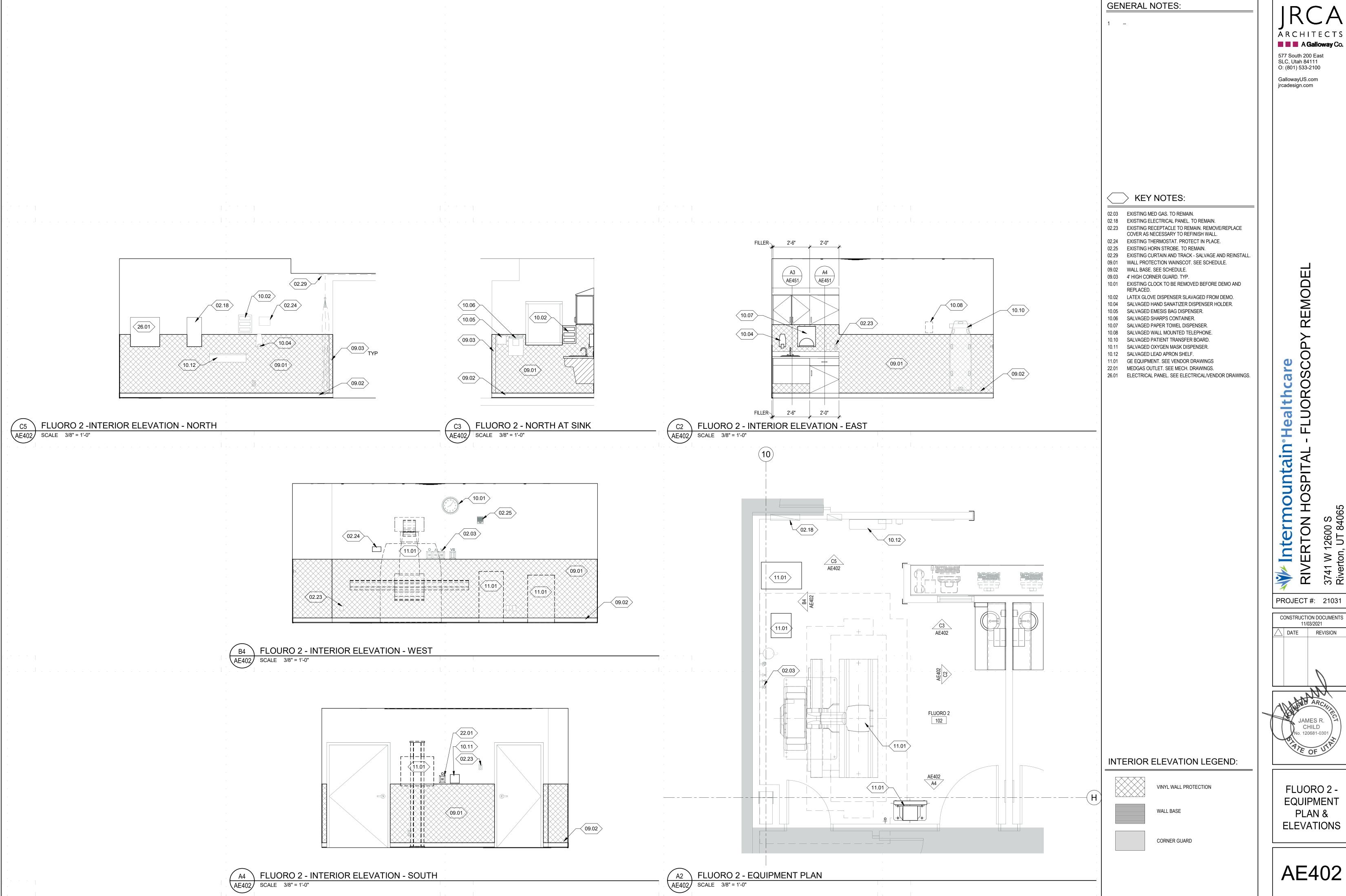
CONSTRUCTION DOCUMENTS 11/03/2021

FINISH PLAN









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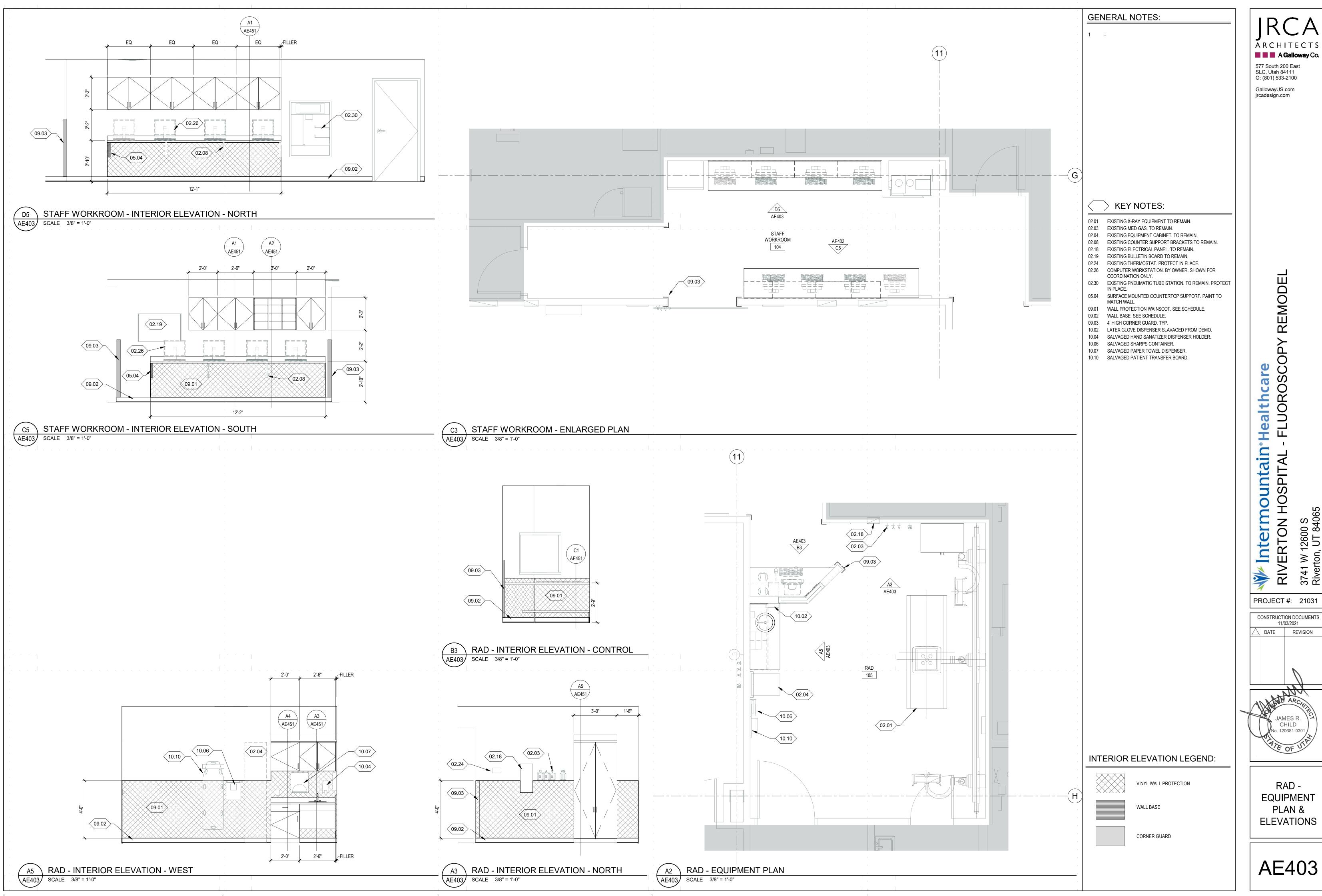
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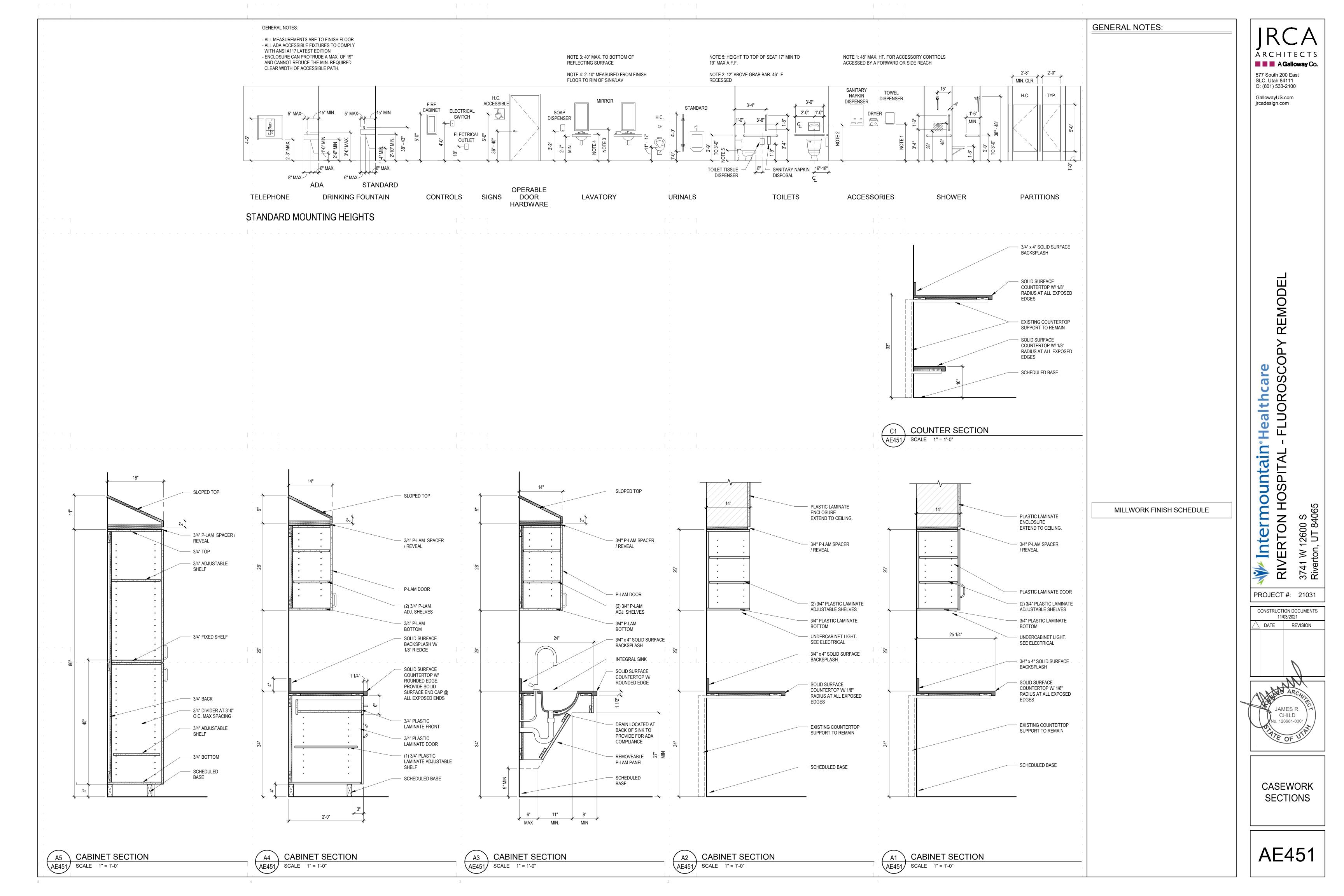
PROJECT #: 21031

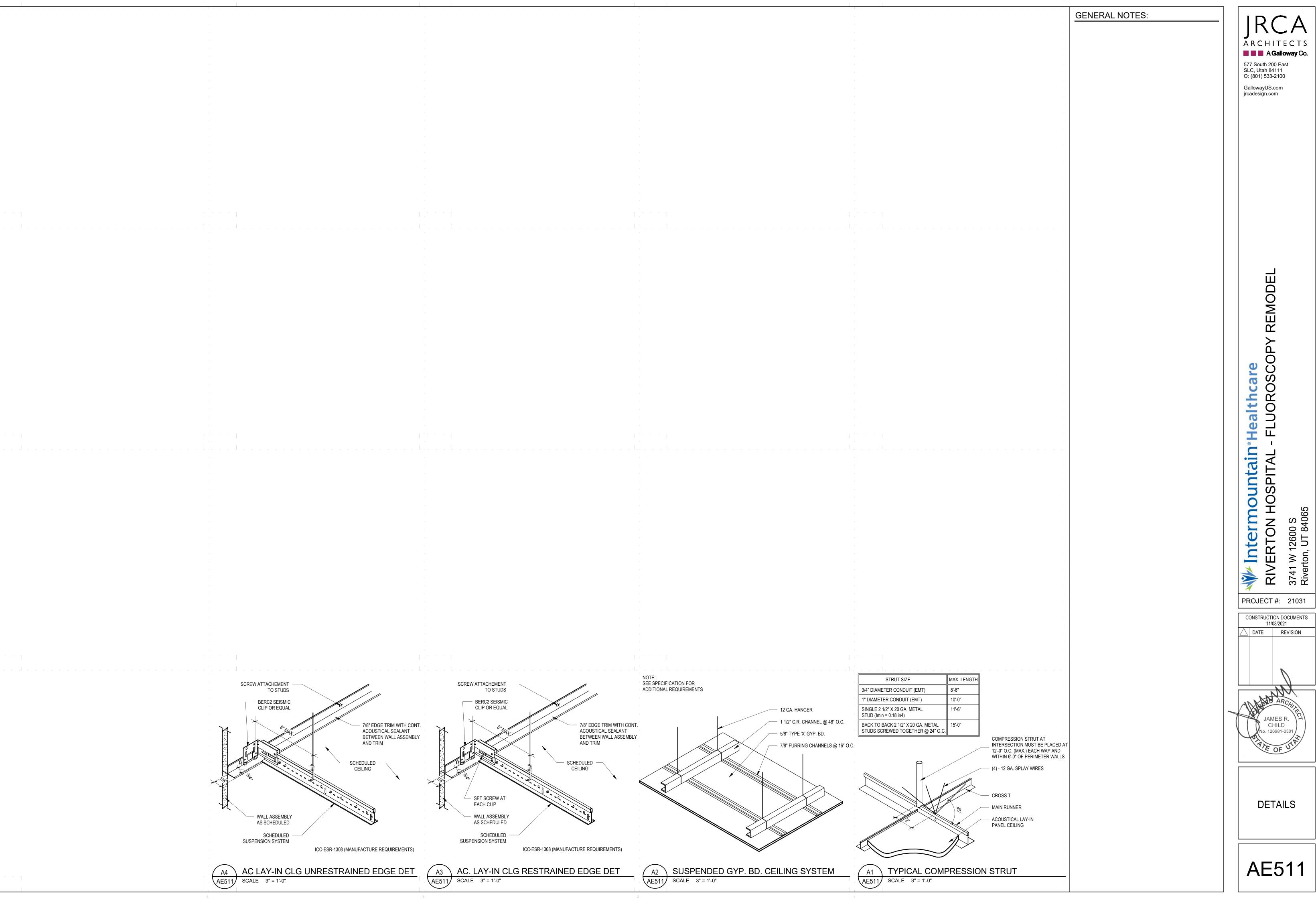
DATE REVISION

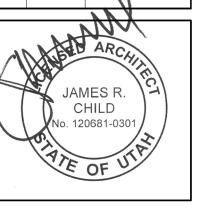
FLUORO 2 -**EQUIPMENT** PLAN & **ELEVATIONS**

AE402









GENERAL STRUCTURAL NOTES

GENERAL

- 1. The structural notes are intended to complement the project specifications. Specific notes and details in the drawings shall govern over the structural notes and typical details.
- 2. Typical details and sections shall apply where specific details are not shown.
- 3. The structural drawings are not all-inclusive and do not contain all dimensions, elevations, openings, mechanical shafts and penetrations needed to build the structure. The contractor shall coordinate these items with the Architectural, Mechanical and Electrical drawings.
- 4. Omissions or conflicts between the contract drawings and/or specifications shall be brought to the attention of the architect/engineer before proceeding with any work involved. In case of conflict, follow the most stringent requirement as directed by the architect/engineer at no additional cost to the owner
- 5. The contractor shall submit a written request to the architect/engineer before proceeding with any changes, substitutions or modifications. Any work done by the contractor before receiving written approval will be at the contractor's risk.
- 6. The contractor shall coordinate with all trades any items that are to be integrated into the structural system such as openings, penetrations, mechanical and electrical equipment, etc. Sizes and locations of mechanical and other equipment that differs from those shown on the contract drawings shall be reported to the architect/engineer.
- 7. The contractor shall provide adequate shoring and bracing as required for the chosen method of erection. Shoring and bracing shall remain in place until final connections for the permanent members are completed. The building shall not be considered stable until all connections are completed. Walls shall not be considered self-supporting and shall be braced until the floor/roof system is completed.
- 8. Site observations by BHB Consulting Engineers' field representative shall not be construed as approval of construction procedures nor special inspection.
- 9. Detailing and shop drawing production for structural elements will require information (including dimensions) contained in the architectural, structural and/or other consultants' drawings. The structural drawings shall be used in conjunction with the architectural and other consultant's drawings. Some dimensions and elements such as elevations, depressions, slopes, mechanical housekeeping pads, etc. are not shown in the structural drawings. All dimensions shown on structural drawings shall be verified by contractor with architectural, mechanical and electrical drawings.
- 10. Contractor shall review shop drawings for compliance with contract documents, and stamp shop drawings with review stamp prior to submission to architect for review. Review of shop drawings by BHB Consulting Engineers is for general compliance only and is not intended for approval. The shop drawing review shall not relieve the contractor from the responsibility of completing the project according to the contract documents. Fabrication shall not begin until shop drawings review process is complete. Shop drawings made from reproductions of the contract drawings will be rejected unless the contractor signs a release agreement prior to the shop drawings being reviewed.
- 11. Only an authorized representative of BHB Consulting Engineers may make changes to these contract drawings. BHB Consulting Engineers shall not be held responsible or liable for any claims arising directly or indirectly from changes made without written authorization by an authorized representative of BHB Consulting Engineers.

BASIS OF DESIGN

_		01 0201011					
		overning Code Risk Category	International Building Code 2018 IV				
	a. b.	eismic Loads Seismic Importance Factor, I _e Seismic Design Category Site Specific Ground Motion Hazard Analysis	1.5D - defaultNot Required per exceptions in section 11.4.8 of ASCE 7				
	d.	Mapped Spectral Acceleration	$S_s = 1.16g$ $S_1 = 0.416g$				
	e.	Soil Site Class	D				
	f.	Soil Site Coefficients	$F_a = 1.20$				
			$F_v = N/A$				
	g.	5% Damped Design Spectral Response Ac	Acceleration				
			$S_{DS} = 2/3 * F_a * S_S = 0.928g$				
			$S_{D1} = 2/3 * F_v * S_1 = N/A$				
	h.	Component Amplification Factor	$a_p = 1.0$				
	i.	Component Response Modification Factor	$R_p = 1.5$				
	j.	System Over-strength Factor	$\Omega_0 = 1.5$				
	k.	Heigh in structure of point of attachment	z = 0 ft				

EXISTING CONDITIONS

I. Average roof height of structure

- 1. Structural connections and the framing systems shown in the structural drawings are based on a limited site survey. The contractor shall verify the existing conditions of exposed framing systems, connections, walls, and other structural elements within the project area. If existing conditions vary from the information in the contract documents, the contractor shall notify the architect/engineer prior to proceeding with the fabrication or construction of any affected elements.
- 2. Existing framing systems and foundations taking new loads are assumed to be in good condition, unless noted otherwise in the contract documents. The contractor shall immediately notify the architect/engineer of any deficiencies in the existing structure that are observed or revealed during construction (e.g. corrosion of steel members, cracking or crumbling of concrete, checking or splitting of wood members) prior to proceeding with the fabrication or construction of any affected elements.
- 3. The contractor shall use the foundation systems indicated on the plans for reference only, and shall field verify foundation sizes, locations, and thicknesses during construction. The contractor shall notify the architect/engineer if existing foundations vary from the information in the contract documents prior to proceeding with the fabrication or construction of any affected elements.
- 4. While performing work adjacent to existing structures, the contractor shall be responsible for adequate shoring and protection of all existing structures, utilities, and services which will be affected by the work in the contract documents.

POST-INSTALLED ANCHORS

- General Post-Installed Anchor Notes
- a. Do not install adhesive anchors in concrete if less than 21 days old; do not install mechanical anchors, screw anchor or powder actuated anchors in concrete less than 7 days old. Contractor must obtain written approval from the engineer to install prior to these time periods. Do not apply full load to anchors until concrete has reached 28-day compression strength.
- b. Anchors or adhesives specified in details shall be provided; alternative anchors or adhesives may be used if the contractor provides calculations demonstrating that the alternative can achieve the performance values of the specified product. These calculations, along with an ICC-ES ESR or IAPMO-UES ER approval for use in cracked concrete and compliant with the specified codes herein, must be submitted to the structural engineer prior to use.
- c. Follow all the manufacturer's recommendations and certification testing reports for anchor installation. See specific anchors below for more information.
- d. No anchor shall be installed within 1.5 anchor rod diameters of an abandoned hole that has been filled with non-shrink grout; increase distance to 3 anchor rod diameters when the abandoned hole has not been filled.

2. Adhesive Anchors

- a. For anchors in concrete, the adhesives shall be as follows:
 - 1. SET-3G (ICC-ES ESR-4057) by Simpson Strong-Tie
 - 2. Pure 110+ (ICC-ES ESR-3298) by Dewalt
 - 3. AC200+ (ICC-ES ESR-4027) by Dewalt
 - 4. HIT-RE 500-V3 (ICC-ES ESR-3814) by Hilti Inc. 5. HIT-HY 200 (ICC-ES ESR-3187) by Hilti Inc.
- b. Adhesive shall be within the manufacturer's recommended lifetime and prior to expiration date. Do not use adhesive that has not been stored per manufacturer's recommendations or may have experienced freeze thaw cycles or extreme heat.
- c. Do not install adhesive anchor in wet or damp hole unless product is approved for such conditions without strength reduction. Do not install adhesive anchors if concrete temperature is below 50-degree F unless adhesive is approved for lower temperature without strength reduction. Refer to manufacturer's published installation instructions.
- d. Follow all the manufacturer's recommendations and certification testing reports regarding hole cleaning prior to adhesive installation. All holes shall be drilled with ANSI standard bits designed for concrete. Diamond core drilled holes are not allowed unless indicated in specific details or approved by the structural engineer prior to use.

REQUIREMENTS FOR SPECIAL INSPECTION, MATERIAL TESTING, AND STRUCTURAL OBSERVATION

STATEMENT OF SPECIAL INSPECTION AND QUALITY ASSURANCE Special inspection and quality assurance (including structural testing), as required by section 1704 and 1705 of the 2018 IBC, shall be provided by an independent agency employed by the owner for the items in this section and other areas of the approved construction documents, unless waived by the building official. The names and credentials of the Special Inspectors to be used shall be submitted to the Building Official for approval. Responsibilities of the Special Inspector Special Inspector shall review all work listed in the special inspection schedules herein for conformance with the approved construction plans, specifications and 2018 IBC. Testing and inspection reports shall be sent on a weekly basis to the architect, be brought to the immediate attention of the contractor for correction, and if

engineer, building official and contractor for review. All items not in compliance shall uncorrected, to the architect, engineer and building official. Once corrections have been made by the contractor, the special inspector shall submit a final signed report to the building official stating that the work requiring special inspection was, to the best of the special inspector's knowledge, in conformance with the approved construction plans, specifications and 2018 IBC. **Responsibilities of the Contractor** The contractor shall submit a written statement of responsibility to the owner and the building official prior to the commencement of work in accordance with 2018 IBC section 1704.4. This statement shall indicate that the contractor will coordinate and cooperate with the required inspections contained herein. The contractor shall notify the designated special inspector that work is ready for inspection at least 24 hours before said inspection is required. All work requiring special inspection shall remain open and accessible until it has been observed by the special inspector and deemed acceptable through inspection report. Special inspection during fabrication is not required if the fabricator is registered and

approved by the authority having jurisdiction to perform such work without special

inspection. Upon completion of fabrication, the approved fabricator shall submit a

The contractor shall be responsible for their own quality control including materials,

certificate of compliance for submittal to the building official.

POST-INSTALLED ANCHOR INSPECTIONS

ITEM FOR VERIFICATION &	INSPECTION FR	EQUENCY	COMMENTS		
INSPECTION	CONTINUOUS	PERIODIC	COMMENTS		
Post-Installed Anchors and Reinf	forcing Bars (20	18 IBC Sec	tion 1705.1.1)		
Adhesive Anchors and Reinforcing Bars	X	-	Special inspection shall be performed permanufacturer's requirements and approved ICC-ES reports noted in POST-INSTALLED ANCHOR section of the General Structural Notes prior to installation of epoxy and anchor rod. If the anchor is not installed in a horizontal, upwardly inclined or overhead orientation meant to resist sustained tension loads special inspection may be reduced to a periodic frequency.		
Mechanical Anchors and Screw Anchors	-	x	Special inspection shall be provided pe manufacturer's requirements and approved ICC-Es reports noted in POST-INSTALLED ANCHOR section of the General Structural Notes prior to installation of mechanical or screw anchor.		

fabrication, erection, etc.

NON-STRUCTURAL COMPONENT CONSTRUCTION INSPECTIONS

Architectural Components located in Seismic Design Categories C, D, E and F (2018 IBC Sections

ITEM FOR VERIFICATION &	INSPECTION FREQUENCY		COMMENTS
INSPECTION	CONTINUOUS	PERIODIC	COMMENTS
Erection and fastening of interior and exterior nonbearing walls	-	x	Verify appropriate materials, fasteners and attachment at commencement of work and at completion. (Not required if <30 feet or for interior walls < 15 psf.)
Access floors	-	x	Verify that anchorage complies with approved construction documents and the Post Installed Anchors section of this Special Inspection section of the General Structural Notes.
Storage racks	-	x	Verify that anchorage complies with approved construction documents and the Post Installed Anchors section of this Special Inspection section of the General Structural Notes.

Mechanical and Electrical Components located in Seismic Design Categories C, D, E and F (2018 IBC)

meenamear and Electrical Comp	onents recated	00.0	Jesign categories 4, 5, 1 and 1 (2020 150)			
Sections 1705.12.4 and 1705.12.	6)					
ITEM FOR VERIFICATION &	INSPECTION FR	EQUENCY	COMMENTS			
INSPECTION	CONTINUOUS	PERIODIC	COMMENTS			
Anchorage of emergency or standby	_	Х	Verify that anchorage complies with approved			
power systems		_ ^	construction documents.			
Piping systems carrying flammable, combustible or highly toxic materials	-	Х	Verify that installation and restraint comply with approved construction documents.			
HVAC ductwork containing hazardous materials	-	х	Verify that installation and restraint comply with approved construction documents.			
Designated seismic systems	-	х	Verify that manufacturer's certificate of compliance conforms to the requirements of Section 13.2 of ASCE 7-16. Verify that the label, anchorage or mounting conforms to the manufacturer's certificate of compliance.			

STRUCTURAL OBSERVATION PROGRAM

If structural observations are required, they shall be done by the Engineer of Record or an approved subordinate at the stages of construction listed in the Construction Notification Phases section of these notes. At the conclusion of the project, the designated structural observer shall submit to the building official a written statement that the site visits have been made and identify any reported deficiencies that to the best of the structural observer's knowledge have not been resolved (See IBC 2018 1704.6).

STRUCTURAL OBSERVATION PROGRAM REQUIRED BY	YES	NO
CODE:	х	

CONSTRUCTION MILESTONE SCHEDULE

CONTRACTOR TO NOTIFY ENG	INEER AT THE FOLLOWING CONSTRUCTION PHASES:
STEEL	
Unistrut Framing	After substantial portion of framing is installed

DEFERRED SUBMITTALS

For the purposes of this section, deferred submittals are defined as per section 107.3.4.1 of the IBC 2018. Submittal documents for deferred submittal items shall be submitted to the engineer, architect and building official for their review for general conformance with the design of the building.

DEFERRED STRUCTURAL SUBMITTALS FOR THIS PROJECT ARE

Unistrut Systems

A Galloway Co.

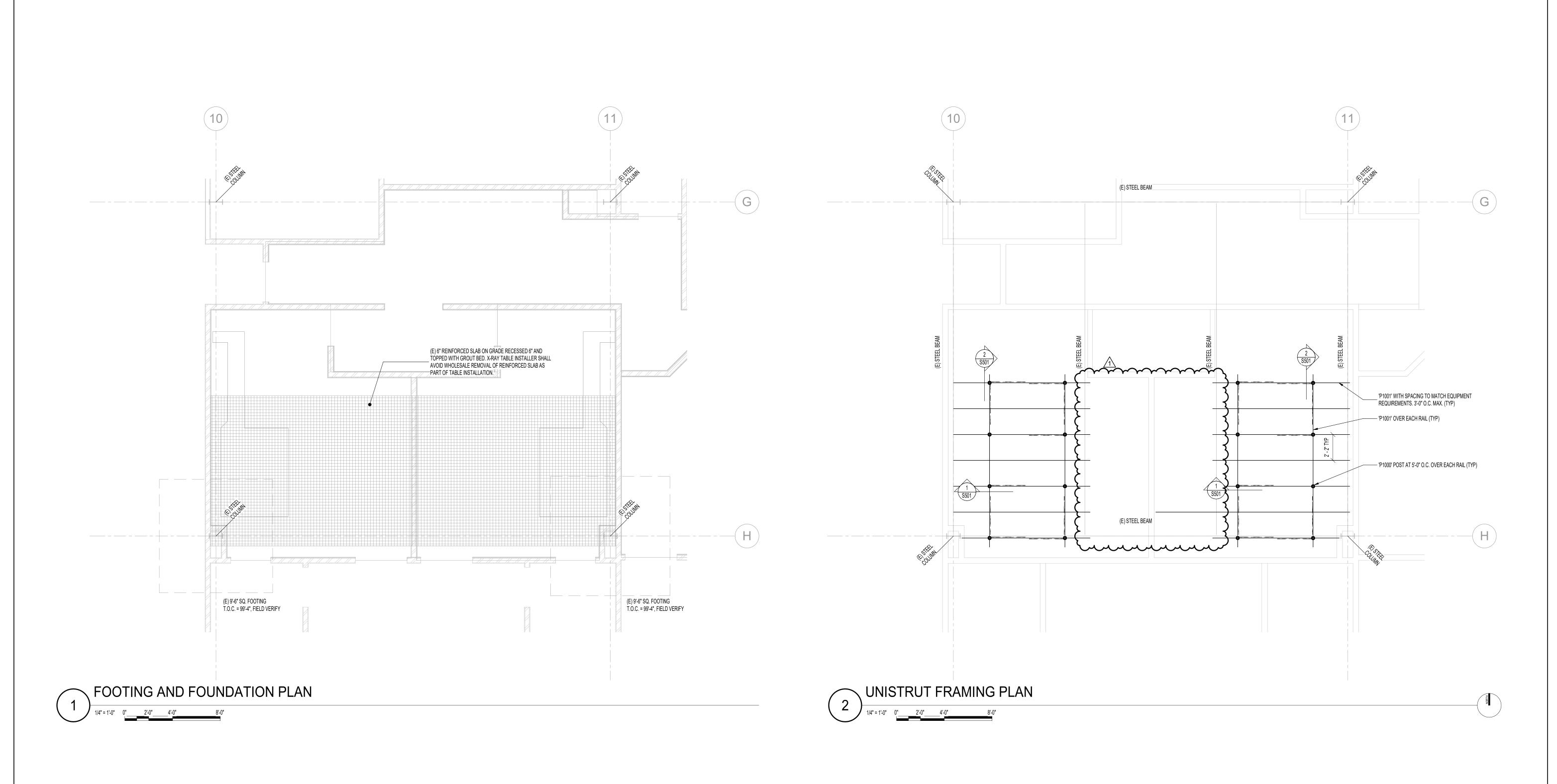
jrcadesign.com

577 South 200 East SLC, Utah 84111 O: (801) 533-2100 GallowayUS.com

lealthcare untain HOSPIT PROJECT #: 21031 CONSTRUCTION DOCUMENTATION

10/25/2021 DATE REVISION

GENERAL STRUCTURAL NOTES



JRCA
ARCHITECTS
AGalloway Co.

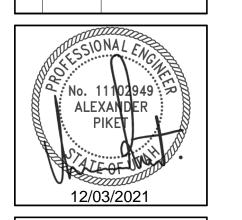
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jrcadesign.com

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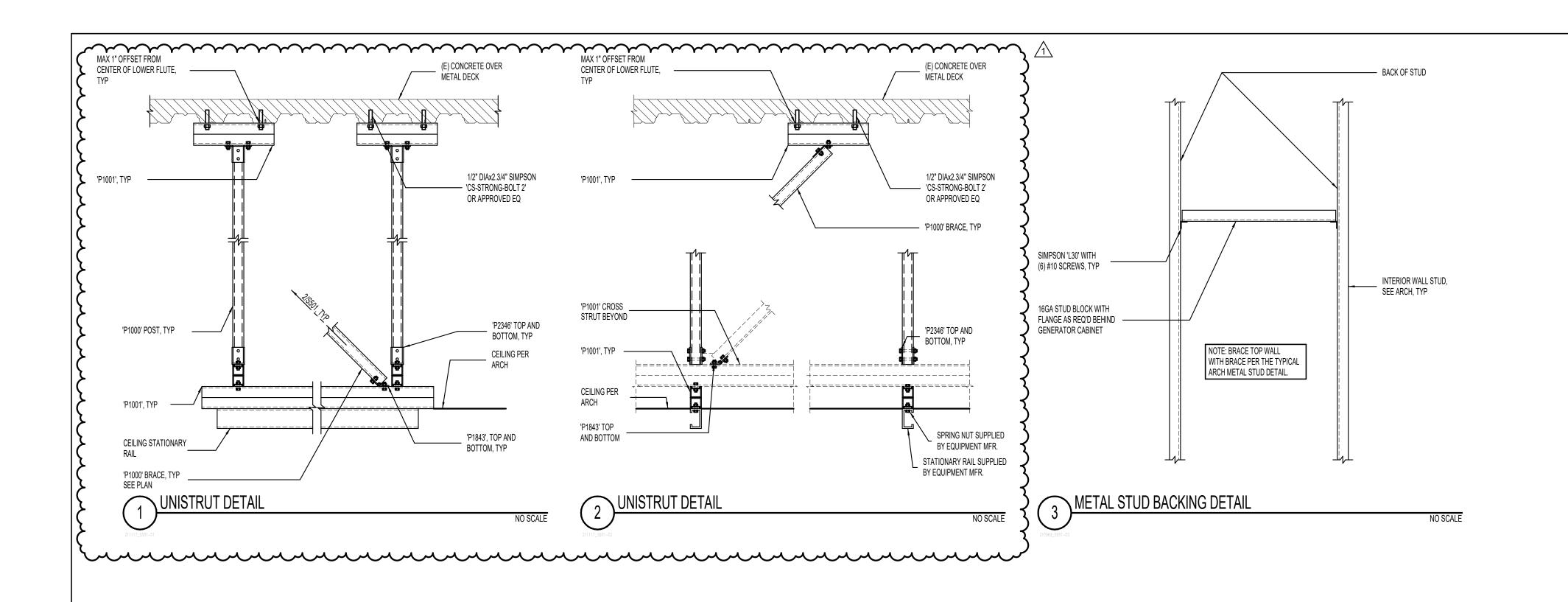
PROJECT #: 21031

CONSTRUCTION DOCUMENTATION 10/25/2021



FLOOR AND UNISTRUT FRAMING PLAN

S101

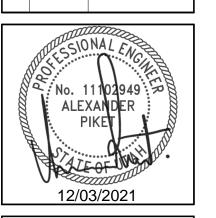


ARCHITECTS A Galloway Co. 577 South 200 East SLC, Utah 84111 O: (801) 533-2100 GallowayUS.com jrcadesign.com

RIVERTON HOSPITAL -FLUOROSCOPY REMODEL 3741 W 12600 S Riverton, UT 84065

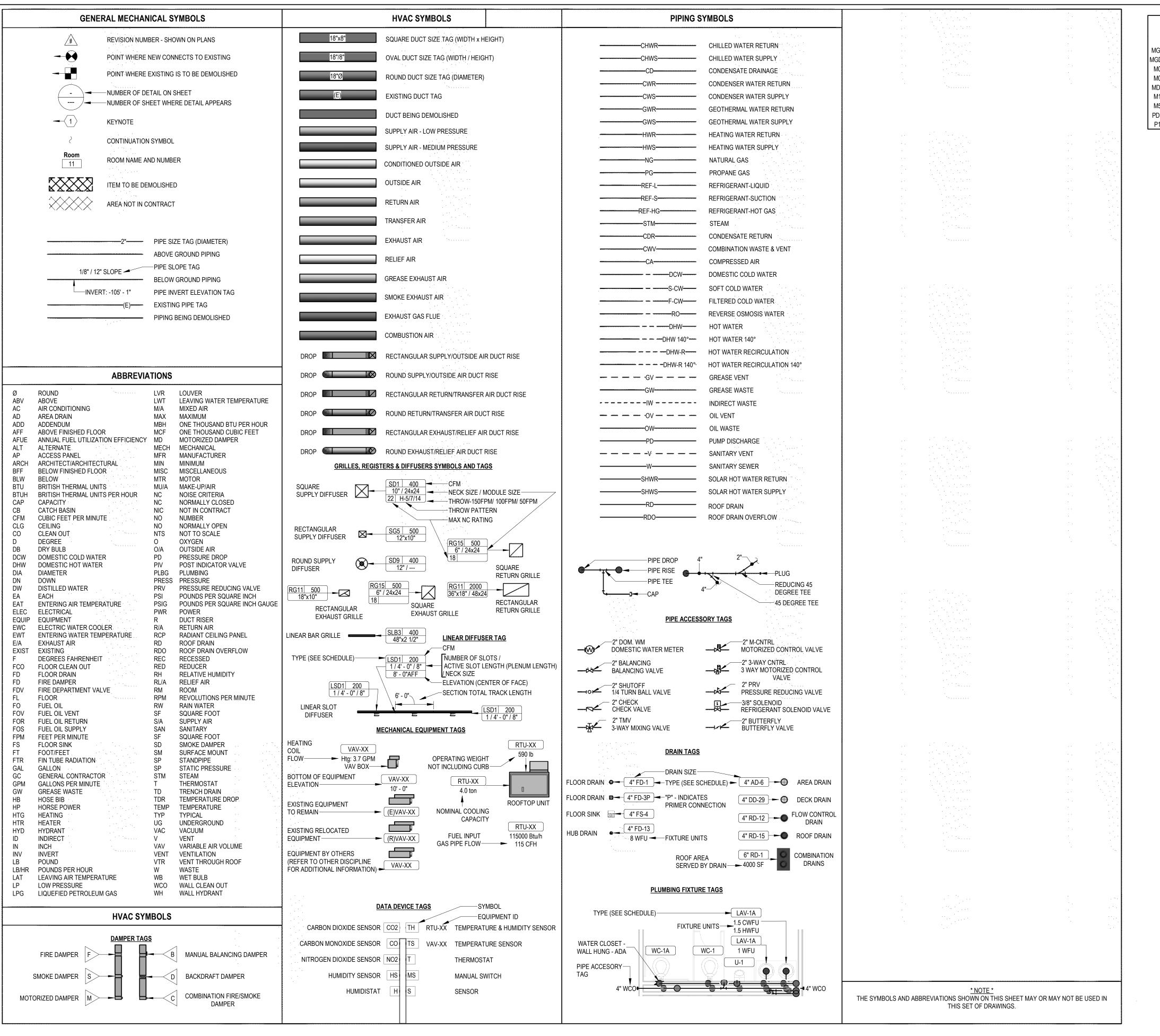
PROJECT #: 21031

CONSTRUCTION DOCUMENTATION 10/25/2021 \(\) DATE REVISION 1 12/03/2021 ADDENDUM



DETAILS

S501



MECHANICAL SHEET INDEX

MG101 LEVEL 1 MED GAS PLAN

MGD101 LEVEL 1 MED GAS DEMOLITION PLAN

M000 MECHANICAL TITLE SHEET
M001 MECHANICAL GENERAL NOTES
MD101 MECHANICAL DEMOLITION PLAN

M101 HVAC PLAN
M501 MECHANICAL DETAILS AND SCHEDULES

PD101 LEVEL 1 PLUMBING DEMOLITION PLAN P101 LEVEL 1 PLUMBING PLAN JRCA
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Murray, Utah 84107 O: (801)530-3148

www.vbfa.com

VBFA Project #: 21411

GallowayUS.com

RIVERTON HOSPITAL - FLUOROSCOPY
REMODEL
1234 STREET ADDRESS
SALT LAKE CITY, UTAH 84

PROJECT #: ...

DATE

21031

Title Sheet Revision

No: 10188004-2202

SMITH

CONSTRUCTION DOCUMENTS

11/02/2021

REVISION



M000

FIRE PROTECTION GENERAL NOTES

- NO FIRE PROTECTION LINE SHALL BE DESIGNED OR INSTALLED PRIOR TO CLOSE COORDINATION WITH ALL OTHER DISCIPLINES. DUCTWORK, MECHANICAL PIPING AND PLUMBING TAKE SPACE PRECEDENCE OVER FIRE PROTECTION REMOVAL AND REINSTALLATION AT THE FIRE PROTECTION CONTRACTORS EXPENSE.
- ALL WORK DONE SHALL BE PERFORMED WITH WATER CONTROL IN MIND. CONTAINMENT OF WATER IS NECESSARY TO PREVENT WATER FROM DAMAGING SURROUNDING AREA.
- 3. COORDINATE EXACT LOCATION OF PIPING WITH STRUCTURAL MEMBERS, LIGHTS, REFLECTED CEILING PLANS, CABLE TRAY, ELECTRICAL CONDUITS, DUCTWORK, MECHANICAL AND PLUMBING PIPING, AND ALL OTHER TRADES AND ALL EXISTING CONDITIONS.
- 4. FIRE SUPPRESSION CONTRACTOR SHALL BE RESPONSIBLE TO REMOVE AND/OR REROUTE ANY AND ALL FIRE PROTECTION PIPING, VALVING, SUPPORTS OR SYSTEMS, OTHERWISE WITHIN THE FIRE SUPPRESSION DISCIPLINE REGARDLESS OF WHO INSTALLED THEM OR WHEN THEY WERE INSTALLED, IN ORDER TO ACCOMMODATE MECHANICAL, PLUMBING, ELECTRICAL OR OTHER SYSTEMS. COORDINATE WORK WITH MECHANICAL, ELECTRICAL, PLUMBING OR OTHER CONTRACTORS UNTIL SUBSTANTIAL COMPLETION OF PROJECT.
- 5. PROVIDE ALTERATIONS TO THE EXISTING FIRE PROTECTION SYSTEM AS REQUIRED TO ACCOMMODATE THE NEW FLOOR PLAN AND NEW CEILING TYPES. PROVIDE A COMPLETE WET TYPE SYSTEM INCLUDING NEW MAINS, BRANCHES, HEADS, VALVES, AND ACCESSORIES AS REQUIRED. REUSE EXISTING SYSTEM EQUIPMENT WHERE APPLICABLE. THE SYSTEM SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS AND AS PER REQUIREMENTS OF THE STATE BUILDING CODE, LOCAL FIRE DEPARTMENT, AND ALL FEDERAL, STATE, AND LOCAL AUTHORITIES, NFPA, AND FACTORY MUTUAL.
- 6. THE BUILDINGS COMPLETE OPERATIONAL FIRE PROTECTION SYSTEMS SHALL REMAIN IN PLACE. THIS CONTRACTOR SHALL REPAIR ANY DAMAGE TO THIS SYSTEM CREATED BY THE REMOVAL OF ANY OTHER MECHANICAL SYSTEMS OR COMPONENTS.
- 7. THIS CONTRACTOR SHALL COORDINATE PHASING OF SPRINKLER WORK WITH THE GENERAL CONTRACTOR PRIOR TO STARTING WORK.
- 8. PROVIDE A COMPLETE WET TYPE FIRE PROTECTION SYSTEM AS REQUIRED TO ACCOMMODATE THE FLOOR PLAN AND CEILING TYPES INCLUDING MAINS, BRANCHES, HEADS, VALVES, AND ACCESSORIES AS REQUIRED. THE SYSTEM SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS OF THE STATE BUILDING CODE, LOCAL FIRE DEPARTMENT, AND ALL FEDERAL, STATE, AND LOCAL AUTHORITIES, NFPA, AND FACTORY MUTUAL.
- 9. THE SPRINKLER SYSTEM SHALL BE DESIGNED BASED UPON ACTUAL WATER FLOW TEST DATA OBTAINED AT OR NEAR THE JOB SITE.
- 10. REFER TO REFLECTED CEILING PLANS FOR ADDITIONAL INFORMATION REGARDING SPRINKLER HEAD LOCATION AND PIPE, UNLESS NOTED OTHERWISE.
- 11. DIVISION 21 CONTRACTOR SHALL COORDINATE WITH THE ELECTRICAL CONTRACTOR FOR PROPER INSTALLATION OF THE FIRE PROTECTION SYSTEMS ALARM DEVICES INVOLVED WITH FIRE SPRINKLER SYSTEM.
- 12. ALL SPRINKLER SYSTEM PIPING SHALL BE CONCEALED ABOVE THE SUSPENDED CEILING SYSTEM, UNLESS NOTED OTHERWISE. WRITTEN AUTHORIZATION SHALL BE OBTAINED FROM THE ARCHITECT PRIOR TO EXPOSING ANY PIPING IN ANY ROOM WHICH HAS A SUSPENDED CEILING.
- 13. THIS CONTRACTOR SHALL PROVIDE ALL ADDITIONAL SPRINKLER HEADS AS REQUIRED TO ENSURE AN APPROVED FIRE PROTECTION SYSTEM AT NO ADDITIONAL COST TO THE OWNER.
- 14. AUXILIARY DRAINS SHALL BE EXPOSED WITH 1" DRAIN VALVES. WHEN 5 OR MORE GALLONS ARE TRAPPED, THIS CONTRACTOR SHALL PROVIDE FIXED PIPING TO AN ADEQUATELY SIZED RECEPTOR WHICH IS CAPABLE OF ACCEPTING THE FULL FLOW OF THE DRAIN. WHEN LESS THAN 5 GALLONS ARE TRAPPED, A HOSE BIB SHALL BE PROVIDED AT THE DRAIN VALVE.
- 15. AUXILIARY DRAINS SHALL NOT BE LOCATED ABOVE PLASTER OR GYPSUM BOARD CEILING SYSTEMS. ONLY BY A SPECIFIC WRITTEN INSTRUCTION FROM THE ENGINEER WILL A VARIANCE BE PROVIDED.
- 16. AN INSPECTOR'S TEST CONNECTION SHALL BE PROVIDED FOR EACH FIRE SPRINKLER ZONE. THIS CONTRACTOR SHALL PROVIDE FIXED PIPING FROM THE TEST CONNECTION TO AN ADEQUATELY SIZED RECEPTOR WHICH IS CAPABLE OF ACCEPTING THE FULL FLOW OF THE TEST. (EXTERIOR DISCHARGE OF THE TEST CONNECTION SHALL BE PERMITTED ONLY BY SPECIFIC WRITTEN INSTRUCTION FROM THE ENGINEER.)
- 17. SHOW ALL ROOM NUMBERS ON SHOP DRAWING PLANS.
- 18. FLOW TEST DATA FROM #/#/# INDICATES THE FOLLOWING: STATIC PRESSURE # PSI. RESIDUAL PRESSURE: # PSI AT ## GPM. THE HYDRANTS TESTED ARE APPROXIMATELY ### FEET AWAY FROM THE CENTER OF THE SITE LOCATED OFF THE ##"" WATER MAIN IN ## STREET AT AN ELEVATION OF ### FEET ABOVE SEA LEVEL. SEE CIVIL PLANS FOR HYDRANT LOCATION. THE CONTRACTOR SHALL PERFORM A FIRE FLOW TEST IN ACCORDANCE WITH NFPA 291 TO VERIFY THE FLOW TEST DATA GIVEN ABOVE. THE DATA GIVEN ABOVE SHALL BE THE BASIS OF DESIGN UNLESS THE AVAILABLE PRESSURE OR FLOW HAS DECREASED. NOTIFY OWNERS REPRESENTATIVE IF FLOW TEST DATA DIFFERS FROM THE DATA ABOVE. A FIRE PROTECTION ENGINEER OR AN ENGINEER EXPERIENCED IN WATER FLOW TESTING SHALL PERFORM OR WITNESS THE REQUIRED FLOW TESTING AND SIGN THE REPORT PRIOR TO THE FIRST SPRINKLER SYSTEM SUBMITTAL.
- 19. ROUTE SPRINKLER PIPING SUCH THAT IT DOES NOT RUN ABOVE ELECTRICAL PANELS, SWITCHGEAR, OR SIMILAR EQUIPMENT. SPRINKLER MAINS SHALL NOT RUN THROUGH ELECTRICAL OR COMMUNICATION ROOMS. SPRINKLER HEADS IN THESE ROOMS SHALL BE SERVED BY A DEDICATED BRANCH LINE FOR EACH ROOM. BRANCH LINE TO ENTER ROOM ABOVE DOOR.
- 20. THIS DRAWING INDICATES A GENERAL PIPING ARRANGEMENT AND SUGGESTED SIZING ONLY. THIS CONTRACTOR SHALL DETERMINE THE ACTUAL PIPE SIZING REQUIRED AND COORDINATE WORK WITH ALL OTHER TRADES TO AVOID CONFLICTS.
- 21. THIS CONTRACTOR SHALL PREPARE HYDRAULIC CALCULATIONS BASED UPON THE CONFIGURATION OF THE ACTUAL SYSTEM DESIGN AS SHOWN ON THIS CONTRACTOR'S SHOP DRAWINGS.

PLUMBING GENERAL NOTES

- UNLESS OTHERWISE NOTED, SLOPE PIPE AS FOLLOWS: WASTE BRANCHES: 1/4" PER FOOT; WASTE MAINS: 1/4" PER FOOT; ROOF DRAIN/ROOF DRAIN OVERFLOW: 1/8" PER FOOT. VERIFY ALL SLOPING WITH LOCAL CODES.
- 2. ALL WORK DONE SHALL BE PERFORMED WITH WATER CONTROL IN MIND. CONTAINMENT OF WATER IS NECESSARY TO PREVENT WATER FROM DAMAGING AREAS ON FLOORS BELOW.
- 3. PLUMBING DRAWINGS ARE SCHEMATIC IN NATURE. FIELD VERIFY EXACT PIPE ROUTING AND COORDINATE WITH ALL OTHER TRADES.
- 4. ALL PIPING IN PLUMBING CHASES SHALL BE ARRANGED TO ALLOW MAINTENANCE ACCESS.
- 5. NO PIPING TO RUN OVER ELECTRICAL PANELS, VFD'S OR MCC'S. PROTECT EQUIPMENT WITH A 42" DEEP ZONE IN FRONT OF PANELS, VFD'S, AND MCC'S.
- 6. COORDINATE FAN ROOM FLOOR DRAIN AND FLOOR SINK LOCATIONS WITH COOLING COIL, EVAPORATIVE SECTION, AND HEATING COIL LOCATIONS.
- 7. CONTRACTOR TO PROVIDE VALVE IDENTIFICATION AND LOCATION ON ALL CEILING TILES WHERE VALVES ARE LOCATED.

TO THE CONTRACTOR TO FIELD VERIFY THE EXACT LOCATION AND SIZE OF ALL PIPING.

- 8. PIPING AND ROUTING SHOWN, INCLUDING ALL BELOW FLOOR DECK PIPING IS APPROXIMATE. IT IS UP
- 9. REFER TO ARCHITECTURAL DRAWINGS FOR FIXTURE MOUNTING HEIGHTS, DIMENSIONS AND OTHER REQUIREMENTS.
- 10. CONTRACTOR TO VERIFY CONNECTION SIDE OF ADA FIXTURES AND ADJUST ACCORDINGLY. INSTALL FLUSH VALVES HANDLES ON WIDE SIDE OF ALL FIXTURES.
- 11. LOCATE ALL VENTS MINIMUM 25' AWAY FROM AIR INTAKES.
- 12. INSTALL ALL DOMESTIC WATER LINES BELOW DUCTWORK.
- 13. INSTALL A 24" X 24" ACCESS DOOR BELOW ALL ISOLATION VALVES, BALANCING VALVES AND WATER HAMMER ARRESTORS WHERE MOUNTED ABOVE HARD CEILINGS.
- 14. MOUNT ALL ISOLATION VALVES, CONTROL VALVES, BALANCING VALVES, ETC. NEAR CEILING HEIGHT FOR ACCESSIBILITY.
- 15. INSTALL ALL EQUIPMENT WITH SUFFICIENT CLEARANCE FOR MAINTENANCE PER MANUFACTURERS RECOMMENDATION.
- COORDINATE ALL FLOOR PENETRATIONS WITH STRUCTURAL AND PROVIDE SLEEVES AS NECESSARY.
- 17. COORDINATE THE LOCATION OF THE FLOOR DRAIN, SHOWER DRAIN, OR FLOOR SINK WITH ARCHITECTURAL AND STRUCTURAL, TYPICAL.
- 18. SEE PLUMBING FIXTURE SCHEDULE FOR PIPE SIZES OF WASTE, VENT AND DOMESTIC WATER TO/FROM SINGLE FIXTURE.
- 19. HOSE BIBBS SHOWN AT LAVATORIES ARE TO BE MOUNTED AT AN ACCESSIBLE LOCATION UNDER THE LAVATORY.
- 20. LOCATE CIRCUIT SETTERS, VALVES, WATER HAMMER ARRESTORS, ETC. IN ACCESSIBLE LOCATIONS. PROVIDE 24" X 24" ACCESS PANEL WHERE ITEM IS LOCATED ABOVE A HARD CEILING. PROVIDE APPROPRIATELY SIZED ACCESS DOORS TO ANY OF THESE ITEMS INSTALLED IN A WALL. COORDINATE ACCESS DOOR SIZE, LOCATION, AND STYLE WITH ARCHITECT.
- 21. FIELD VERIFY LOCATION AND INVERTS OF SITE UTILITIES PRIOR TO INSTALLATION.
- 22. FIELD VERIFY ALL NEW WATER, WASTE AND VENT PIPING CONNECTIONS AND PROVIDE NEW CONNECTIONS AS REQUIRED FOR PROPERLY OPERATING SYSTEMS.
- 23. WASTE AND VENT PIPING BELOW FLOOR AND THROUGH FLOOR TO BE 2" MINIMUM.
- 24. INSTALL CLEANOUTS IN DRAIN PIPING AS INDICATED, AND WHERE NOT INDICATED, ACCORDING TO THE FOLLOWING.
 - A. SIZE SAME AS DRAINAGE PIPING UP TO 4" NPS. USE 4" NPS FOR LARGER. DRAINAGE PIPING UNLESS LARGER CLEANOUT IS INDICATED.
 - B. LOCATE AT MINIMUM INTERVALS OF 50 FT FOR PIPING 4" NPS AND SMALLER AND 100 FT FOR LARGER PIPING.
 - C. LOCATE AT THE BASE OF EACH VERTICAL STACK.

MEDICAL GAS GENERAL NOTES

- MEDICAL GAS PIPING IS TO BE RUN ABOVE THE CEILING, UNLESS NOTED OTHERWISE.
- 2. MEDICAL GAS PIPING IS SCHEMATIC IN NATURE. FIELD VERIFY EXACT PIPE ROUTING AND COORDINATE WITH ALL OTHER TRADES.
- 3. MOUNT ALL SERVICE VALVES NEAR CEILING HEIGHT FOR ACCESSIBILITY.
- 4. ALL SERVICE VALVES SHALL BE LOCKABLE. PROVIDE FRANGIBLE LOCK FOR ALL SERVICE VALVES.
- 5. ALL ZONE VALVE BOXES REQUIRE SOURCE AIR FROM LEFT SIDE AND CONTROLLED AIR FROM RIGHT

MECHANICAL GENERAL NOTES

- 1. COORDINATE EXACT PLACEMENT OF DIFFUSERS, GRILLES AND REGISTERS WITH ARCHITECTURAL REFLECTED CEILING PLAN, TYPICAL.
- 2. SEE DETAIL FOR DIFFUSER CONNECTIONS TO DUCTWORK, TYPICAL.
- 3. BRANCH DUCTWORK SHALL BE SIZED TO MATCH THE NECK INLET SIZE OF THE DIFFUSERS, REGISTER OR GRILLE IT SERVES UNLESS NOTED OTHERWISE, TYPICAL.
- 4. COORDINATE EXACT MOUNTING LOCATION OF ALL THERMOSTATS WITH LATEST REVISION OF ARCHITECTURAL ELEVATION AND FURNISHINGS PLANS, TYPICAL.
- 5. THE MECHANICAL CONTRACTOR SHALL PROVIDE FIRE, SMOKE OR COMBINATION FIRE/SMOKE DAMPERS AT ALL LOCATIONS SHOWN ON THE CONTRACT DOCUMENTS AND AS REQUIRED TO MEET THE INTEGRITY OF ALL SMOKE AND FIRE PARTITIONS. THE CONTRACTOR SHALL REFER TO THE LATEST ARCHITECTURAL LIFE SAFETY PLANS FOR ALL FIRE AND SMOKE PARTITION LOCATIONS. DAMPERS ARE TO BE PROVIDED WITH SHUTOFF/TEST SWITCH AT EACH LOCATION.
- 6. PROVIDE AND INSTALL TURNING VANES IN ALL SQUARE LOW PRESSURE DUCTWORK AT ELBOWS OR TEES, TYPICAL.
- 7. INSTALL ALL TERMINAL BOXES IN EASILY ACCESSIBLE AND SERVICEABLE LOCATIONS, MEETING ALL
- 8. DUCTWORK SIZES SHOWN ARE INSIDE CLEAR DIMENSIONS. REFER TO MECHANICAL SPECIFICATIONS FOR EXTENT OF DUCT INSULATION AND LINER AND ADJUST SHEET METAL DIMENSION.

MANUFACTURERS REQUIRED CLEARANCES ON EACH SIDE, SEE DETAILS, TYPICAL.

- PROVIDE AND INSTALL REMOTE DAMPER OPERATORS FOR ALL DAMPERS INSTALLED ABOVE
- PROVIDE AND INSTALL HIGH EFFICIENCY TAKE-OFF FITTINGS AND BALANCING DAMPER AT ALL BRANCH CONNECTIONS TO LOW PRESSURE DUCTWORK. PROVIDE BALANCING DAMPERS AT EACH

BRANCH TAKE OFF TO SERVE DIFFUSER OR GRILLE AS WELL AS WHERE INDICATED.

INACCESSIBLE CEILING, SEE MECHANICAL SPECIFICATIONS FOR EQUIPMENT REQUIREMENTS,

- 11. PROVIDE AND INSTALL HIGH EFFICIENCY OR CONICAL TAKE-OFFS AT ALL BRANCH CONNECTIONS TO MEDIUM PRESSURE DUCTWORK.
- 12. WHERE DUCTWORK CROSSES, SUPPLY DUCTWORK IS USUALLY BELOW RETURN AND EXHAUST DUCT. RETURN DUCTWORK IS USUALLY BELOW EXHAUST DUCTS.
- 13. AT LOCATIONS WHERE DIFFUSERS OR GRILLES ARE UNDER DUCTWORK, CONTRACTOR TO FABRICATE TRANSITION BOOT FROM FLEX CONNECTION TO DIFFUSER OR GRILLE WITH BALANCING DAMPER TYPICAL
- 14. THE MECHANICAL CONTRACTOR SHALL PROVIDE CEILING MOUNTED ACCESS DOORS FOR ALL FIRE, SMOKE AND COMBINATION FIRE/SMOKE DAMPERS INSTALLED ABOVE INACCESSIBLE CEILING. FIELD VERIFY EXACT INSTALLATION LOCATIONS PRIOR TO COMMENCING WORK AND COORDINATE INSTALLATIONS WITH LATEST ARCHITECTURAL REFLECTED CEILING PLANS.
- 15. ALL VAV BOXES TO HAVE REHEAT COILS, EXCEPT AS NOTED. PROVIDE EQUIPMENT TAG TO MATCH SCHEDULE. PROVIDE A MINIMUM OF TWO DUCT DIAMETERS OF STRAIGHT ROUND DUCT TO INLET OF VAV BOX. BOX SHALL BE HARD CONNECTED (CONICAL) TO MEDIUM PRESSURE DUCT, TYPICAL.
- 16. PROVIDE ACCESS DOORS TO ACCESS VAV BOX CONTROLS ABOVE HARD CEILINGS. PROVIDE MINIMUM 24" X 24".
- 17. FLEX DUCT IS REQUIRED FOR ALL DIFFUSERS AND GRILLES INSTALLED IN LAY-IN CEILINGS. FOR DIFFUSERS AND GRILLES IN HARD LID CEILINGS, THE DUCTWORK SHALL BE EXTENDED ALL THE WAY TO THE DIFFUSER AND SHALL BE CONNECTED WITH A HARD CONNECTION OR A FLEX DUCT CONNECTION WITH A MUD RING AND LAY-IN DIFFUSER AS SHOWN ON PLANS.
- 18. THE CONTRACTOR SHALL INFORM THE DESIGNER OF ANY PROPOSED DEVIATIONS FROM THE CONTRACT DOCUMENTS.
- 19. PROVIDE ACCESS TO ALL TEMPERATURE CONTROLS ABOVE CEILING. LOCATE IN ACCESSIBLE LOCATION. WHERE THERE ARE HARD CEILINGS THE CONTRACTOR SHALL PROVIDE 24" X 24" ACCESS DOOR
- 20. SUPPLY AND RETURN PIPING TO COILS ARE THE SAME SIZE.

SENSOR LOCATIONS.

- 21. CONTRACTOR SHALL LOCATE THERMOSTATS AND TEMPERATURE SENSORS AT 5'-0" AFF, A MINIMUM OF 8" FROM LIGHT SWITCH, UNLESS OTHERWISE NOTED ON THE ARCHITECT'S ELEVATIONS. COORDINATE EXACT LOCATIONS WITH ARCHITECT.
- 22. REFER TO MECHANICAL PIPING OR ZONING DRAWINGS FOR THERMOSTAT AND TEMPERATURE
- 23. CONDENSATE DRAINS SHALL BE SUPPLIED FOR ALL COOLING EQUIPMENT. CONTRACTOR SHALL ENSURE PROPER INSTALLATION AND DRAINAGE AS REQUIRED BY FEDERAL, STATE, AND LOCAL CODES. CONDENSATE PIPINE SHALL BE TYPE "L" COPPER UNLESS OTHERWISE NOTED IN THE
- 24. PROVIDE A 4" HOUSEKEEPING PAD FOR EACH PIECE OF MECHANICAL EQUPMENT THAT IS FLOOR
- 25. ALL SUPPLY, RETURN, AND EXHAUST DUCTWORK SHALL BE RATED FOR PRESSURE CLASS OF 2" W.G. UNLESS NOTED OTHERWISE ON THE PLANS OR IN THE SPECIFICATIONS.
- 26. THIS CONTRACTOR SHALL BE REQUIRED TO REPLACE FILTERS ON HVAC EQUIPMENT AFTER ALL DUST PRODUCING CONSTRUCTION HAS BEEN COMPLETED AND PRIOR TO THE FINAL PUNCH.

MOUNTED. COORDINATE SIZES WITH MECHANICAL EQUIPMENT SELECTED.

MECHANICAL PIPING GENERAL NOTES

- PROVIDE ALL MATERIALS AND EQUIPMENT AND PERFORM ALL LABOR REQUIRED TO INSTALL
 COMPLETE AND OPERABLE PIPING SYSTEMS AS INDICATED ON THE DRAWINGS, AS SPECIFIED AND
 AS REQUIRED BY CODE.
- UNLESS OTHERWISE NOTED: ALL MECHANICAL PIPING IS OVERHEAD TO RUN ABOVE DUCTWORK AND TIGHT TO UNDERSIDE OF STRUCTURE.
- 3. INSTALL PIPING SO THAT ALL VALVES, STRAINERS, UNIONS, TRAPS, FLANGES, AND OTHER APPURTENANCES REQUIRING ACCESS ARE ACCESSIBLE.
- 4. ALL VALVES SHALL BE INSTALLED SO THAT VALVES REMAINS IN SERVICE WHEN EQUIPMENT OR PIPING ON EQUIPMENT SIDE OF VALVE IS REMOVED.
- 5. PROVIDE AIR VENT AT HIGH POINT OF EACH DROP IN THE HEATING AND CHILLED WATER PIPING
- 6. ALL VALVES SHALL BE ADJUSTED FOR SMOOTH AND EASY OPERATION AND TAGGED.
- 7. PROVIDE ISOLATION VALVES AT EACH EXIST/ENTRANCE INTO SHAFT WHETHER OR NOT SHOWN.
- 8. COORDINATE LOCATION OF THERMOSTAT WITH ARCHITECTURAL FURNISHING PLANS. MOUNT THERMOSTAT AT HEIGHT AS SPECIFIED ON ARCHITECTURAL PLANS OR SPECIFICATIONS.

- PROJECT GENERAL NOTES
- 1. THE PROJECT GENERAL NOTES APPLY TO ALL DISCIPLINES.
- 2. REMOVE ALL UNUSED PIPING, DUCTWORK, EQUIPMENT, AND ACCESSORIES.
- 3. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFYING ALL EXISTING CONDITIONS FOR PLUMBING AND MECHANICAL SYSTEMS WITHIN THE TENANT SPACE AND WITHIN CLOSE PROXIMITY TO THE TENANT SPACE. THE CONTRACTOR WILL FIELD VERIFY AS MUCH AS IS REASONABLE BEFORE THE FINAL BID. AFTER THE FINAL BID THE CONTRACTOR WILL NOTIFY THE OWNER, ARCHITECT, AND MECHANICAL DESIGN ENGINEER IMMEDIATELY UPON DISCOVERY OF EXISTING CONDITIONS THAT MAY AFFECT THE DESIGN.
- 4. THE MECHANICAL CONTRACTOR SHALL PERFORM SERVICE AND REPAIR ON THE EXISTING EQUIPMENT AND ITS ACCESSORIES AS FOLLOWS: CLEAN ALL COILS, REPLACE THE FILTERS AND BELTS, INSPECT, REPAIR, OR REPLACE THE ECONOMIZERS, DRIVERS AND FAN BEARINGS, MOTORS, CONTROL COMPONENTS, VALVES, AND ANY OTHER ITEM NECESSARY FOR A COMPLETE AND PROPER OPERATING SYSTEM. THIS CONTRACTOR SHALL ALSO VISIT THE SITE, PRIOR TO FINAL BIDDING, AND VERIFY ALL EXISTING SITE CONDITIONS. PROVIDE ALL MATERIAL AND COMPONENTS AS NEEDED TO BRING THE UNITS TO FULL COMPLIANCE OF THE LANDLORD'S CRITERIA AND LOCAL AUTHORITY HAVING JURISDICTION.
- 5. WHERE FLOOR DRAINS OCCUR WITH THE LIMITS OF CONSTRUCTION, PREVENT CONSTRUCTION DEBRIS FROM ENTERING DRAIN BODY BY SEALING DRAIN OPENING PRIOR TO START OF WORK. UNSEAL DRAINS AT COMPLETION OF CONSTRUCTION.
- 6. COORDINATE INSTALLATION OF PIPING, DUCTWORK, CONDUIT, LIGHTS, CABLE TRAY, STRUCTURE, EQUIPMENT, CEILINGS, ARCHITECTURAL COMPONENTS, AND ANYTHING ELSE PERTAINING TO THE PROJECT TO PREVENT CONFLICTS.
- 7. THE CONTRACTOR SHALL BE FAMILIAR WITH ALL THE CONDITIONS BOTH EXISTING AND THOSE ILLUSTRATED BY THESE DOCUMENTS AND THOSE OF OTHER DISCIPLINES, INCLUDING, BUT NOT LIMITED TO ARCHITECTURAL, CIVIL, ELECTRICAL, VENTILATION, PLUMBING, AND OTHER SYSTEMS INVOLVED ON THIS PROJECT.
- 8. FINAL PRODUCT SHALL BE A COMPLETE AND FUNCTIONING SYSTEM, AND SHALL CONFORM TO ALL REQUIREMENTS OF APPLICABLE FEDERAL, STATE, AND LOCAL CODES, INCLUDING BUT NOT LIMITED TO THE INTERNATION BUILDING CODE, INTERNATIONAL MECHANICAL CODE, AND INTERNATIONAL PLUMBING CODE.
- 9. LOCATE EQUIPMENT REQUIRING ACCESS 2'-0" MAXIMUM ABOVE CEILING.
- 10. ALL ROOF MOUNTED EQUIPMENT SHALL BE A MINIMUM 10'-0" FROM EDGE OF ROOF.
- 11. COORDINATE INSTALLATION OF DUCTWORK, PIPING AND MECHANICAL EQUIPMENT WITH NEC CLEARANCES INCLUDING THE SPACE ABOVE ELECTRICAL PANELS, TRANSFORMERS AND OTHER ELECTRICAL EQUIPMENT. NO PIPING OR DUCTWORK TO RUN OVER ELECTRICAL PANELS, VFD'S OR MCC'S. PROTECT EQUIPMENT WITH A 42" DEEP ZONE IN FRONT OF PANELS, VFD'S AND MCC'S. PROVIDE PANS IF REQUIRED UNDER PIPING.
- 12. FIRE SEAL AROUND DUCT AND PIPING PENETRATIONS OF FIRE RATED WALLS. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR CAULKING AND SEALING ALL PENETRATIONS IN FIRE AND SMOKE RATED PARTITIONS TO MAINTAIN RATINGS. REFER TO SPECIFICATION.
- 13. PROVIDE SLEEVES AND/OR OPENINGS TO RUN PIPES AND DUCTS THROUGH FOUNDATIONS, FLOORS,
- 14. TRANSITION PIPING AND DUCTWORK SIZES TO MATCH THE SIZE OF EQUIPMENT CONNECTION.
- 15. REFER TO PLUMBING SERIES DRAWINGS FOR GAS PIPING.

WALLS, AND ROOF,

- 16. ALL PIPE AND DUCT SIZES SHOWN SHALL BE CONTINUED IN THE DIRECTION OF FLOW UNTIL ANOTHER SIZE IS SHOWN.
- 17. FOR DETAILS, EQUIPMENT CONNECTIONS, AND PIPE SIZES NOT SHOWN ON THE SEGMENTS, REFER TO DETAILS. SCHEDULES, AND SPECIFICATIONS.
- 18. INSTALL ALL EQUIPMENT IN ACCORDANCE WITH THE RESPECTIVE MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS, AT A LEVEL OF WORKMANSHIP CONSISTENT WITH THE SPECIFICATIONS.
- 19. MECHANICAL CONTRACTOR SHALL ENSURE THAT ALL EQUIPMENT IS PROVIDED AND INSTALLED WITH CLEARANCES PER MANUFACTURERS RECOMMENDATIONS. THE CONTRACTOR SHALL MAINTAIN
- 20. INSTALL EXPOSED PIPING AND DUCTWORK AS HIGH AS PRACTICAL IN ROOMS WITHOUT CEILINGS.

PROPER SERVICE SPACE FOR COIL PULLS, BAS DEVICES, MAINTENANCE ACCESS, ETC.

- 21. LOCATIONS OF PIPING, DUCTWORK AND EQUIPMENT AS INDICATED ON THE DRAWING, ARE APPROXIMATE AND SUBJECT TO MINOR ADJUSTMENTS IN THE FIELD, INCLUDING, BUT NOT LIMITED TO, OFFSETS AND TRANSITIONS. NEW DUCTWORK, PIPING AND EQUIPMENT SHALL BE COORDINATED WITH STRUCTURE, LIGHTS, REFLECTED CEILING PLANS, CABLE TRAY, ELECTRICAL CONDUIT, PLUMBING, MECHANICAL AND FIRE PROTECTION PIPING, MEDICAL GASES, ALL OTHER TRADES AND ALL OTHER EXISTING CONDITIONS TO AVOID INTERFERENCE IN THE FIELD.
- 22. THE CONTRACTOR SHALL INFORM THE DESIGNER OF ANY PROPOSED DEVIATIONS FROM THE
- 23. IF CONTRACTOR ENCOUNTERS MATERIAL WHICH MAY CONTAIN ASBESTOS, IMMEDIATELY STOP
- WORK IN THIS AREA AND NOTIFY THE OWNER.

 24. DETAILS REFERENCE ALL SHEETS.

CONTRACT DOCUMENTS.

- 25. INSTALL ALL PIPING AND DUCTWORK WITHOUT FORCING OR SPRINGING.
- 26. ROUTE DOMESTIC WATER, FIRE PROTECTION, SANITARY WASTE, ROOF DRAIN, CAMPUS CHILLED OR HOT WATER, AND ANY OTHER UTILITY SERVICES TO SITE UTILITIES 5'-0" FROM BUILDING UNLESS NOTED OTHERWISE. REFER TO CIVIL PLANS.
- 27. LOCATE VALVING, ACCESSORIES, AND EQUIPMENT IN ACCESSIBLE LOCATIONS. WHERE LOCATED ABOVE HARD CEILING PROVIDE AN ACCESS DOOR IN CEILING. MINIMUM ACCESS DOOR SIZE OF 24" X 24". COORDINATE EXACT LOCATION AND STYLE WITH ARCHITECT. EQUIPMENT SHALL BE LOCATED IN THE CEILING CAVITY SO IT CAN BE SAFELY SERVICED FROM SOMEONE STAND ON A LADDER PLACED BELOW THE CEILING ACCESS.
- 28. WHERE VALVING, ACCESSORIES, OR EQUIPMENT IS LOCATED IN A WALL, PROVIDE AN APPROPRIATELY SIZED ACCESS DOOR. COORDINATE ACCESS DOOR SIZE, LOCATION, AND STYLE
- 29. CONTRACTOR TO PROVIDE VALVE IDENTIFICATION AND LOCATION ON ALL CEILING TILES WHERE VALVES ARE LOCATED.

* NOTE *

ALL OF THE GENERAL NOTES ON THIS SHEET ARE TO BE APPLIED TO ALL OTHER DRAWINGS IN THIS SET.



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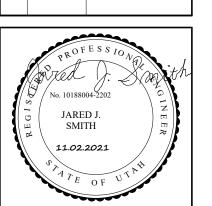




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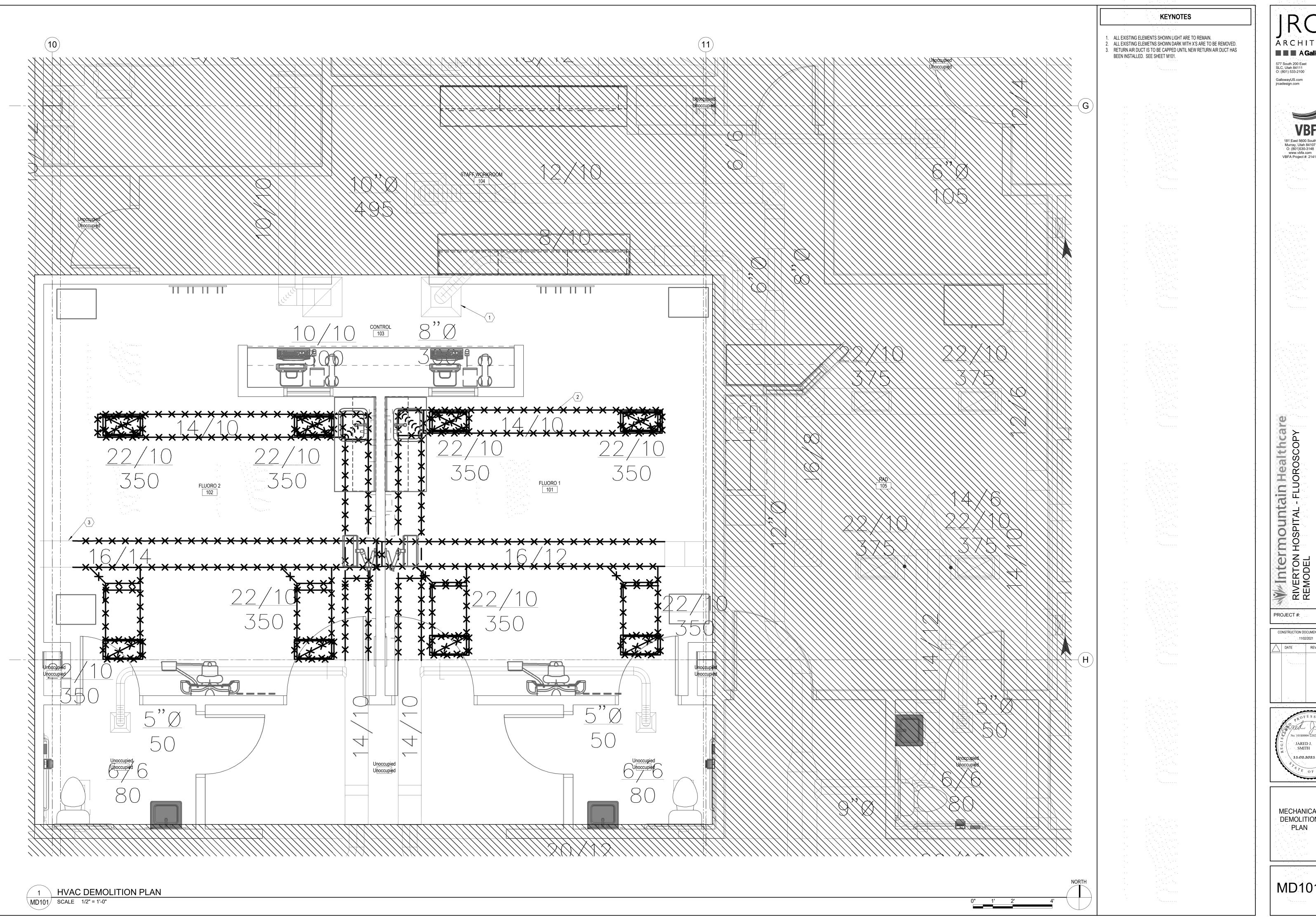
CONSTRUCTION DOCUMENTS
11/02/2021

DATE REVISION



MECHANICAL GENERAL NOTES

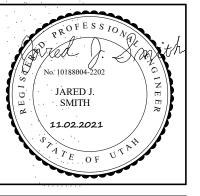
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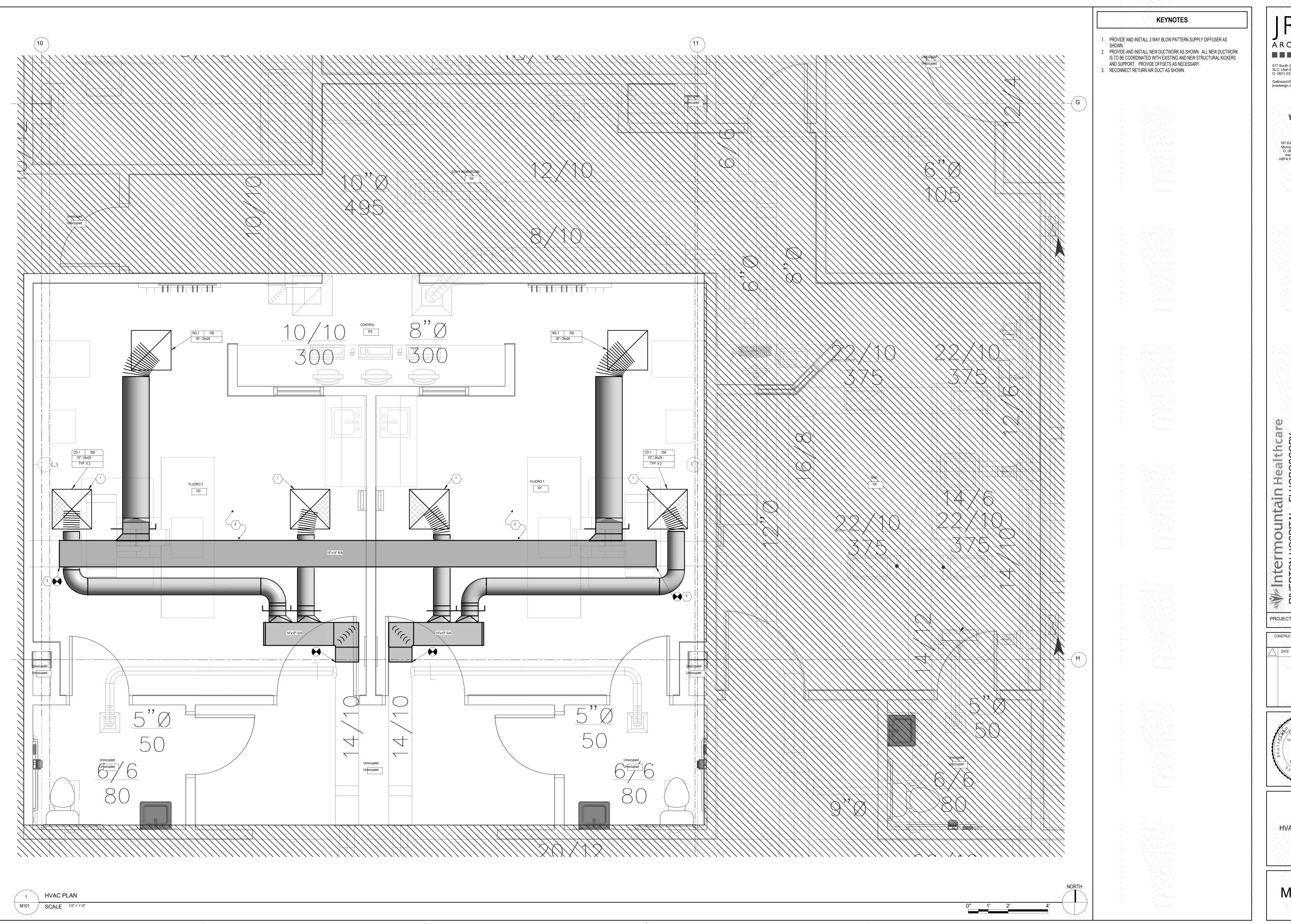
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DATE REVISION



MECHANICAL DEMOLITION

MD101



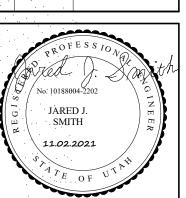
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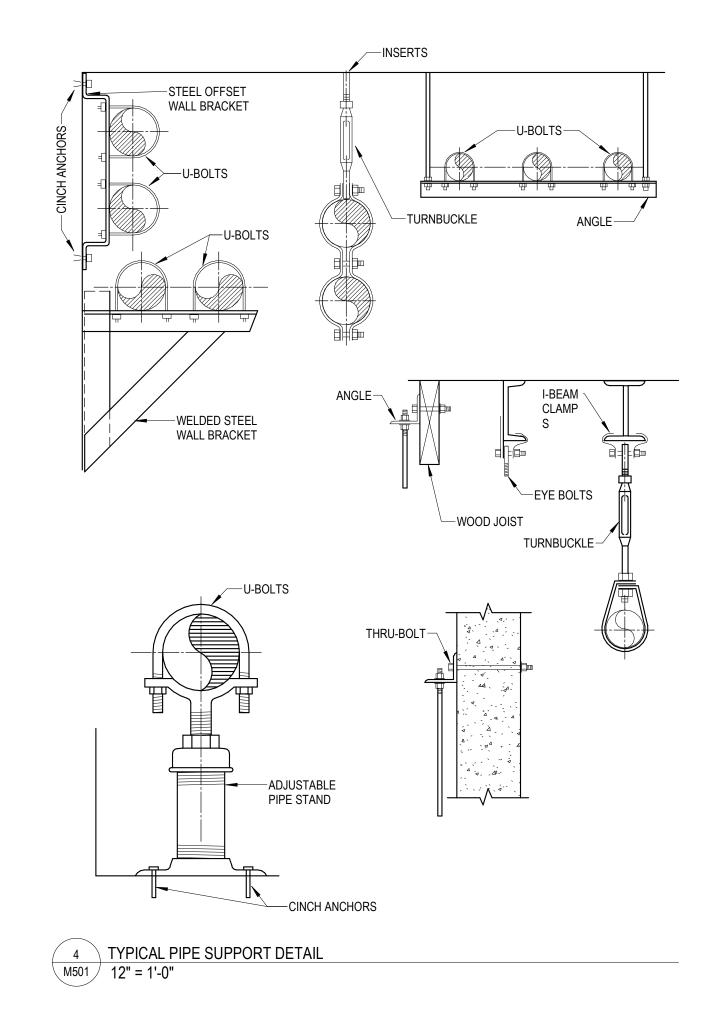
MIntermountain Healthcare RIVERTON HOSPITAL - FLUOROSCOPY REMODEL

PROJECT #: 21031 CONSTRUCTION DOCUMENTS 11/02/2021 DATE REVISION



HVAC PLAN

M101



PLUMBING FIXTURE SCHEDULE								
ID	FIXTURE	CW HV		V (IN)	NOTES	SPECIFICATION		
S-8	SINK	1/2 1/	2 2	2	INTEGRAL BASIN, MANUAL FAUCET	SINK (BASIN INTEGRAL TO COUNTERTOP): CHICAGO 786-GN8FCXKABCP FAUCET, 4" WRIST BLADES, GN8 RIGID/SWING CONVERTIBLE GOOSE NECK SPOUT WITH 1.5 GPM FC LAMINAR FLOW CONTROL AND PLAIN END SPOUT AND RING. FLEXIBLE STAINLESS STEEL SUPPLIES WITH LOOSE KEY ANGLE STOPS; CHICAGO 327-XCP OPEN-GRID STRAINER AND CAST BRASS P-TRAP WITH CLEAN OUT PLUG. PROVIDE ADA COMPLIANT UNDER COUNTER PIPING WRAP BY TRUE-BRO. COLOR TO BE WHITE.		

1. ALL UNDER GROUND WASTE AND VENT SHALL BE 2" OR GREATER PER DRAWINGS.

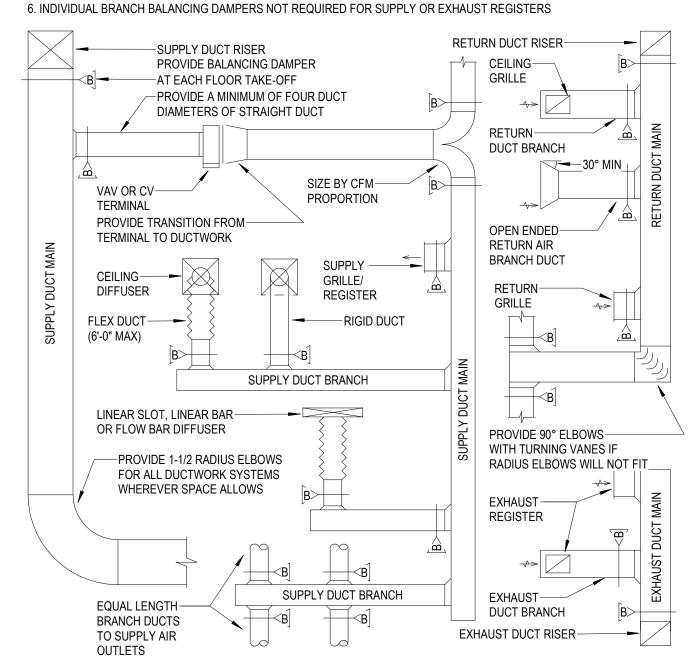
GRILLES, REGISTERS AND DIFFUSERS SCHEDULE									
						FACE	NECK	INSTALLATION	
ID	DESCRIPTION	MANUFACTURER	MODEL	QTY	SYSTEM	SIZE	SIZE	BORDER TYPE	SPECIFICATION
CD-1	3-CONE DIFFUSER	Titus	TMS	4	S/A	24x24	10"	TYPE 3 (LAY-IN)	HIGH PERFORMANCE 3-CONE DIFFUSER W/ 3 WAY BLOW PATTERN
RG-1	PERFORATED DIFFUSER WITH DEFLECTORS	Titus	PAR	2	R/A	24x24	16"	TYPE 3 (LAY-IN)	PERFORATED DIFFUSER

	MEDICAL GAS OUTLETS SCHEDULE									
	# OF OUTLETS					PIPE DROP SIZE TO OUTLET(S)				
SYMBOL	ROOM	O2	MA	MV	O2	MA	MV	REMARKS		
MO-1	SEE PLANS	1	-	-	1/2	-	-	1,2		

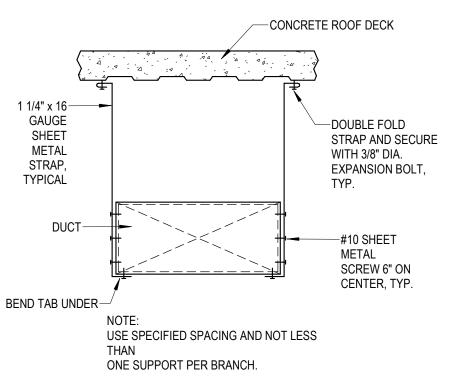
UNLESS NOTED OTHERWISE, ALL OUTLETS ARE CHEMETRON-STYLE QUICK-CONNECTS REFER TO ARCHITECTURAL ELEVATIONS AND REFLECTED CEILING PLANS FOR EXACT LOCATION AND PLACEMENT OF... 1. PIPE DROP SIZES ARE FOR ONE SET OF OUTLETS 2. WALL MOUNTED OUTLETS

NOTES:

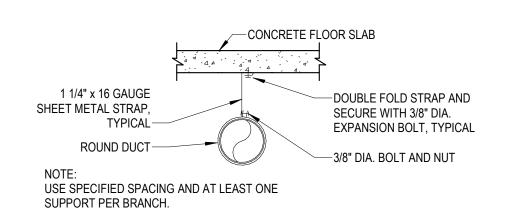
1. REFER TO HVAC FLOOR PLANS FOR DUCT SIZES 2. REFER TO SCHEDULES FOR GRILLES, REGISTERS, DIFFUSERS AND TERMINAL SIZES AND TYPES 3. PROVIDE A MANUAL TYPE BALANCING DAMPER FOR EACH SUPPLY OUTLET AND RETURN INLET 4. ALL DUCT RUNOUTS TO DIFFUSERS SHALL BE THE SAME SIZE AS DIFFUSER NECK SIZE, UNLESS OTHERWISE 5. PROVIDE 12" AIR CUSHION AT THE END OF EACH SUPPLY MAIN AND BRANCH DUCT

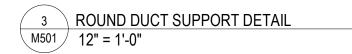


1 DUCTWORK INSTALLATION DIAGRAM M501 NO SCALE











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Intermountain Healthcar RIVERTON HOSPITAL - FLUOROSCOPY REMODEL

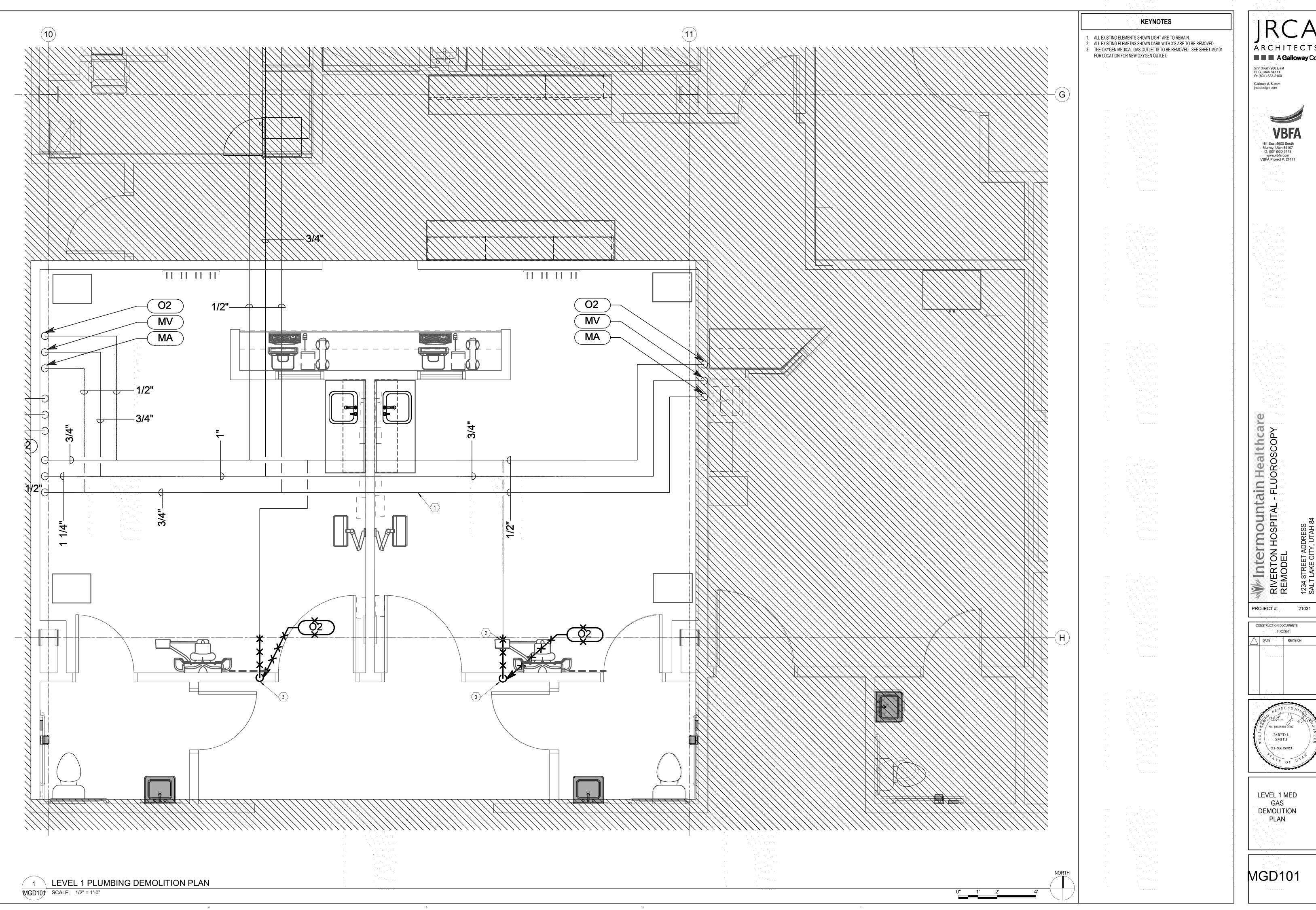
PROJECT #: 21031

CONSTRUCTION DOCUMENTS \ DATE REVISION

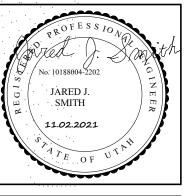


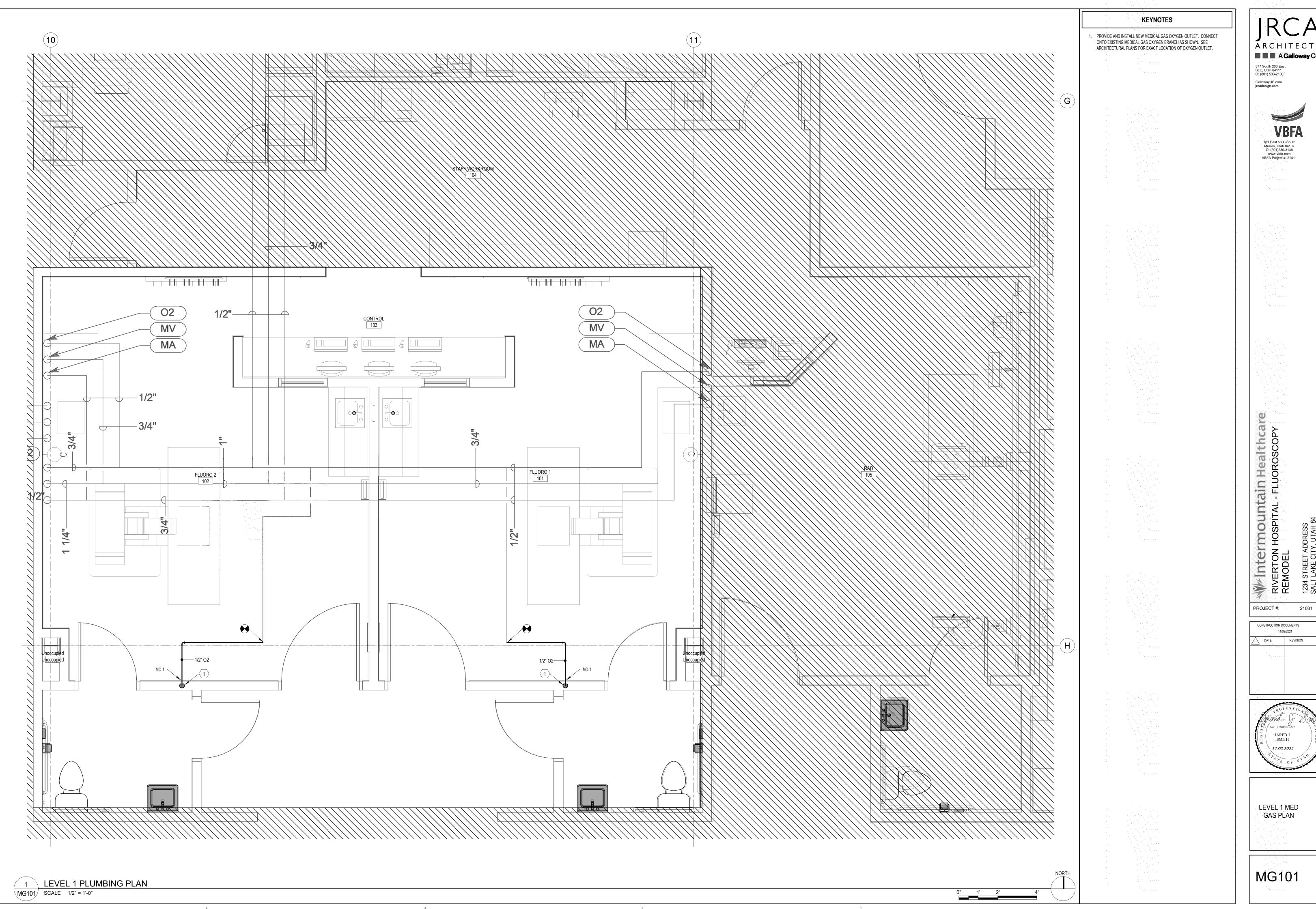
MECHANICAL DETAILS AND SCHEDULES

M501

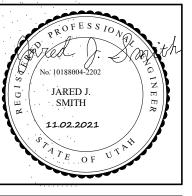


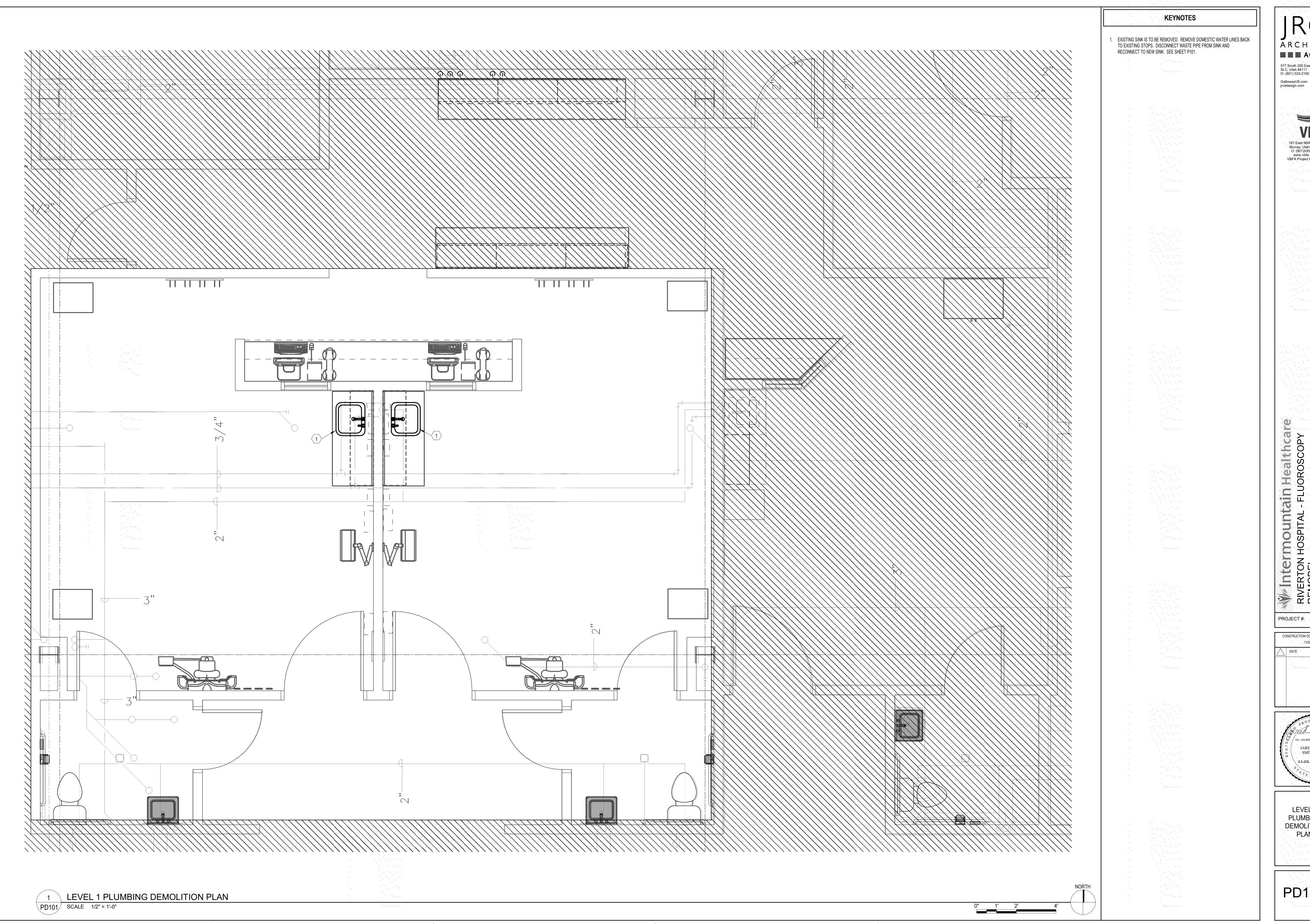
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ARCHITECTS A Galloway Co.





ARCHITECTS A Galloway Co.

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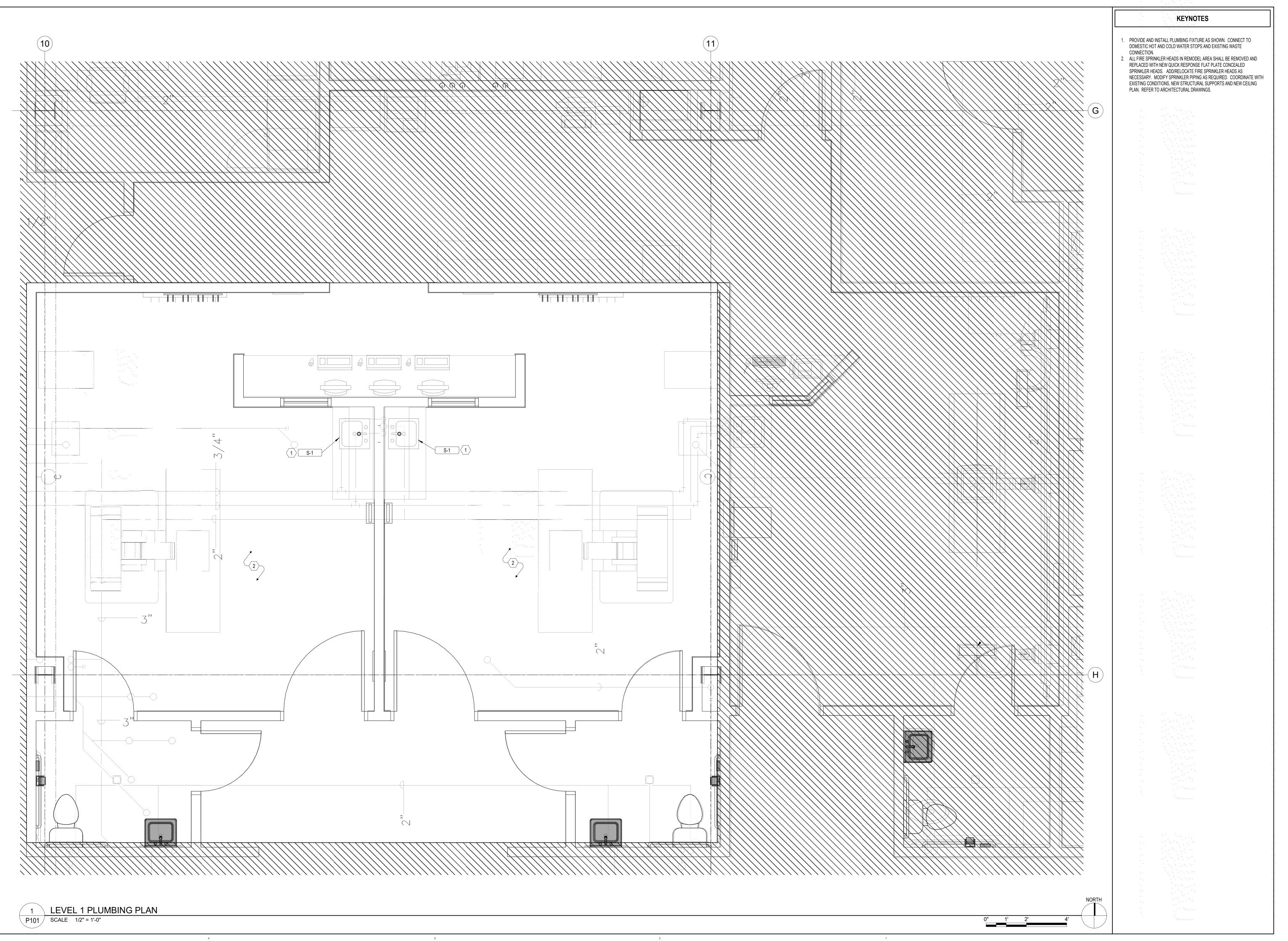


MIntermountain Healthcare RIVERTON HOSPITAL - FLUOROSCOPY REMODEL

PROJECT #: 21031 \ DATE REVISION

LEVEL 1 PLUMBING DEMOLITION PLAN

PD101



ARCHITECTS

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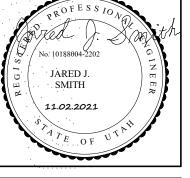


MIntermountain Healthcare RIVERTON HOSPITAL - FLUOROSCOPY REMODEL

PROJECT #: 21031

CONSTRUCTION DOCUMENTS
11/02/2021

PROFESSION DE MANTE



LEVEL 1 PLUMBING PLAN

P101

ELECTRICAL GENERAL NOTES

GENERAL NOTES:

- THE ELECTRICAL SYSTEMS DEFINED BY THESE PLANS AND THE SPECIFICATIONS ARE TO BE CONSTRUCTED AS COMPLETE AND OPERABLE SYSTEMS AND SHALL BE BID WITH THIS INTENT. THE CONTRACTOR SHALL VISIT THE SITE, READ ALL THE RELEVANT DOCUMENTS, AND BECOME FAMILIAR WITH THE TYPE OF CONSTRUCTION AND WORK TO BE ACCOMPLISHED. SHOULD ANY ERROR, OMISSION, OR CONFLICT EXIST IN EITHER THE PLANS OR SPECIFICATIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING BEFORE SUBMITTING THEIR BID PRICE SO A CHANGE CAN BE ISSUED IN A PRE-BID ADDENDUM. OTHERWISE, THE CONTRACTOR AND/OR EQUIPMENT SUPPLIERS SHALL SUPPLY THE PROPER MATERIALS AND LABOR TO INSTALL COMPLETE AND OPERABLE SYSTEMS INCLUSIVE OF THE ORIGINAL BID. WHEN EACH ELECTRICAL SYSTEM IS COMPLETE, THE CONTRACTOR SHALL TEST AND CONFIRM ITS PROPER OPERATION. ANY INCOMPLETE SYSTEM SHALL BE MADE COMPLETE AND OPERABLE PRIOR TO PROJECT CLOSEOUT.
- THE ARCHITECTURAL AND MECHANICAL PLANS ARE CONSIDERED A PART OF THE ELECTRICAL DOCUMENTS SO FAR AS ANY ELECTRICAL ITEMS THEY MAY CONTAIN. THE ELECTRICAL CONTRACTOR SHALL REFER TO AND COORDINATE WITH THEM. NO EXTRA COST SHALL BE ALLOWED FOR FAILURE TO COORDINATE THE CONTRACT DOCUMENTS WITH OTHER TRADES AND/OR IF EQUIPMENT DIMENSIONS ARE GREATER THAN SPECIFIED AND/OR DIMENSIONED ON THE PLANS.
- THE ELECTRICAL CONTRACTOR SHALL PROVIDE EQUIPMENT, MATERIALS, AND LABOR FOR THE CONNECTIONS OF ALL EQUIPMENT SHOWN ON THE PLANS - ARCHITECTURAL, MECHANICAL, ETC.
- THIS PROJECT IS TO BE INSTALLED IN STRICT ACCORDANCE WITH THE MOST RECENT LOCAL, STATE, AND NATIONAL CODES. IF AT ANY TIME DURING OR AFTER CONSTRUCTION SOMETHING IS FOUND TO BE INSTALLED IN VIOLATION OF THESE CODES LISTED ABOVE, IT SHALL BE CORRECTED BY THE CONTRACTOR.
- WHERE A RACEWAY ENTERS A BUILDING OR STRUCTURE FROM THE OUTSIDE, IT SHALL BE SEALED AS PER NEC 225.27.
- ALL ELECTRICAL EQUIPMENT THAT IS LIKELY TO REQUIRE EXAMINATION, ADJUSTMENT, SERVICING OR MAINTENANCE WHILE ENERGIZED SHALL BE FIELD OR FACTORY LABELED TO WARN QUALIFIED PERSONS OF POTENTIAL ELECTRIC ARC FLASH HAZARDS PER NEC 110.16. THE LABEL SHALL ALSO CONTAIN THE MAXIMUM AVAILABLE FAULT CURRENT AND THE DATE THE FAULT CURRENT CALCULATIONS WERE PERFORMED AS PER NEC 110.24.
- ALL PANELBOARDS AND SWITCHBOARDS SHALL BE PERMANENTLY MARKED TO INDICATED EACH DEVICE OR EQUIPMENT WHERE THEIR POWER ORIGINATES AS PER NEC 408.4B.
- ALL EQUIPMENT PROVIDED BY THE EC SHALL BE LISTED AND LABELED BY A NATIONALLY RECOGNIZED TESTING AGENCY, ACCEPTABLE TO THE AUTHORITY HAVING JURISDICTION, AND BE PROPERLY INSTALLED FOR THE CONDITIONS AND SPACE THAT EQUIPMENT IS BEING INSTALLED WITHIN.
- THE EC SHALL INSTALL A SEPARATE EQUIPMENT GROUNDING CONDUCTOR IN EACH CONDUIT RUN. CONDUIT SHALL NOT BE USED AS AN EQUIPMENT GROUNDING CONDUCTOR. THE EC SHALL GROUND THE ELECTRICAL SYSTEM IN ACCORDANCE WITH LOCAL AND NATIONAL CODES. GROUNDING IN PATIENT CARE AREAS TO MEET NEC 517.13 REQUIREMENTS.
- CONDUIT LAYOUTS SHOWN ON THE PLANS ARE DIAGRAMMATIC, NOT INDICATING THE ROUTING REQUIRED. THE EC SHALL ROUTE THE CONDUITS AS REQUIRED BY THE CONDITIONS OF THE INSTALLATION AND SHALL COORDINATE WITH DUCTWORK, PIPING, EQUIPMENT, BUILDING STRUCTURE, AND OTHER POTENTIAL OBSTRUCTIONS.
- THE CONTRACTOR SHALL ALLOW THE MOVEMENT, BEFORE ROUGH-IN, OF ANY ELECTRICAL PANEL, DEVICE, LUMINAIRE, ETC. A DISTANCE OF 10 FEET WITHOUT REQUIRING ADDITIONAL COST TO THE PROJECT.
- THE EC SHALL SECURE ALL CONDUIT TO THE STRUCTURE AS IT IS SET IN PLACE USING INDUSTRY STANDARD METHODS AND PRACTICES. TO ASSURE ALL DEVICES ARE RIGIDLY SET, THE ELECTRICAL CONTRACTOR SHALL SECURE ALL DEVICE BOXES WITH BRACKETS, HANGERS, ETC. DESIGNED FOR THE APPLICATION.
- MINIMUM SIZE CONDUIT SHALL BE 3/4" UNO. CONDUIT INSTALLED WITHIN THE BUILDING IN DRY LOCATIONS WITHIN WALL, CEILINGS, OR EXPOSED NOT SUBJECT TO PHYSICAL DAMAGE SHALL BE EMT WITH STEEL SET SCREW FITTINGS. IN EXTERIOR LOCATIONS THE CONDUIT SHALL BE EMT WITH COMPRESSION GLAND TYPE FITTINGS.
- FLEXIBLE CONDUIT SHALL BE LIMITED TO CONNECTIONS TO LIGHT FIXTURES AND FINAL CONNECTIONS TO MOTORS OR OTHER EQUIPMENT SUBJECT TO VIBRATION. LENGTHS OF FLEXIBLE OR SEAL-TITE CONDUIT SHALL NOT BE GREATER THAN 72 INCHES.
- 15. ELECTRICAL CONTRACTOR SHALL PROVIDE ALL EMPTY CONDUITS WITH 200LB RATED NYLON PULL CORD.
- BEFORE ANY ELECTRICAL CONDUIT, BOXES, ETC. ARE COVERED (FLOOR, CEILINGS, WALLS, ETC.), THEY SHALL BE APPROVED BY THE INSPECTING OFFICER (INSPECTOR).
- WHERE WIRE SIZE IS NOT SHOWN ON THE DRAWINGS FOR 20A, 120VAC BRANCH CIRCUITS, THE CIRCUIT SHALL CONSIST OF 2#12 (CU.THHN) + 1#12 (CU.THHN) GND IN 3/4" EMT CONDUIT. THIS WIRE SIZE SHALL BE INCREASED TO #10 (CU,THHN) FOR BRANCH CIRCUITS WITH OVERALL LENGTHS EXCEEDING 125' TO ACCOMMODATE FOR VOLTAGE DROP. REFER TO EQUIPMENT SCHEDULES, FEEDER SCHEDULES, AND NOTES ON DRAWINGS FOR ALL OTHER BRANCH CIRCUIT AND FEEDER WIRE/CONDUIT SIZING. ALL WIRING SHALL BE
- CONDUCTORS SHALL BE COPPER, 600VAC RATED, TYPE THHN/THWN-2 UNO. CONDUCTORS UP TO #10AWG SHALL BE SOLID AND CONDUCTORS #8AWG OR LARGER SHALL BE STRANDED.
- METAL CLAD CABLING MAY BE USED BETWEEN DEVICES SUCH AS LIGHTING, RECEPTACLES, SWITCHES, ETC. UNLESS OTHERWISE REQUIRED BY THE NEC. HOME RUNS SHALL BE INSTALLED IN CONDUIT. MC CABLE SHALL NOT BE INSTALLED EXPOSED. HOSPITAL GRADE MC CABLE SHALL BE USED AS REQUIRED BY NEC ART 517.
- EC SHALL CLEAN THE ENTIRE ELECTRICAL SYSTEM AFTER COMPLETION OF THE INSTALLATION. REMOVE ALL FINGER PRINTS, FOREIGN MATTER, PAINT, DIRT, GREASE, AND UN-NEEDED LABELS OR STICKERS FROM FIXTURES AND EQUIPMENT. REMOVE ALL RUBBISH AND DEBRIS ACCUMULATED DURING INSTALLATION FROM THE PREMISES.
- 21. IT IS THE INTENT OF THE CONSTRUCTION DOCUMENTS FOR ALL DEVICES TO BE FLUSH MOUNTED AND CONDUIT/CABLING INSTALLED CONCEALED WITHIN WALLS/CEILINGS. IN AREAS WHERE CONDUIT MUST BE INSTALLED EXPOSED IT SHALL BE COORDINATED WITH THE ARCHITECT AND/OR ENGINEER. ALL EFFORTS SHALL BE MADE TO CONCEAL WIRING METHODS.
- ALL PENETRATIONS THROUGH FIRE RATED ASSEMBLIES SHALL BE SEALED WITH FIRE STOPPING, IE. 3M BRAND CAULK, PUTTY, STRIP AND SHEET FORMS, DOW CORNING 3-6548 SILICONE RTV FOAM.
- COORDINATE LOCATION OF WALL MOUNTED DEVICES WITH CABINETRY AND OTHER WALL OBSTRUCTIONS. COORDINATE CEILING MOUNTED DEVICES WITH CEILING OBSTRUCTIONS. ANY DEVICES THAT NEED TO BE RELOCATED MUST BE BROUGHT TO THE ATTENTION OF THE ELECTRICAL ENGINEER PRIOR TO ROUGH-IN FOR NEW LOCATION.

IT IS THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO COORDINATE PLACEMENT OF ALL DEVICES INSTALLED WITHIN THE CEILING SUCH AS LIGHTING, SPEAKERS, FIRE SPRINKLERS, SMOKE/HEAT DETECTORS, ETC. ANY EXISTING DEVICES THAT NEED TO BE RELOCATED IN ORDER TO ACCOMMODATE NEW CONSTRUCTION/REMODEL MUST BE BROUGHT TO THE ATTENTION OF THE ELECTRICAL ENGINEER PRIOR TO ROUGH-IN FOR RESOLUTION AND FURTHER DIRECTION.

REMODEL NOTES:

- 25. THE EC SHALL COORDINATE AND CONFIRM THE EXACT LOCATION OF THE EXISTING POWER PANELS FROM WHICH NEW CIRCUITS ARE BEING FED. VERIFY EXISTING BRANCH CIRCUIT BREAKERS AND PROVIDE NEW BRANCH CIRCUIT BREAKERS AS NECESSARY FOR A COMPLETE AND OPERABLE SYSTEM. THE EC SHALL COORDINATE AND CONFIRM THE EXACT LOCATION OF THE TELECOM ROOM FROM WHICH NEW TELE/DATA OUTLETS WILL BE FED. VERIFY EXISTING PATCH PANEL SPACES AND PROVIDE NEW PATCH PANELS AS NECESSARY TO LAND/TERMINATE NEW TELECOM CABLING.
- ALL DEVICES NOT SHOWN ON PLANS ARE EXISTING TO REMAIN IN PLACE AND FUNCTIONAL. IN THE EVENT THAT WIRING TO AN EXISTING DEVICE IS DAMAGED, WIRING MUST BE REPLACED AND DEVICE BROUGHT BACK TO FULL OPERATION.

LIGHTING NOTES:

- ALL BATTERY POWERED OR CONTINUOUS BURN LUMINAIRES SHOWN ON THE PLANS, SUCH AS EXIT LIGHTS, NIGHT LIGHTS, OR EMERGENCY LIGHTS, SHALL BE CONNECTED TO THE UN-SWITCHED LEG OF THE LIGHTING CIRCUIT FEEDING THAT AREA.
- 28. LUMINAIRES INSTALLED IN THE MECHANICAL ROOM SHALL BE PLACED SO THAT ALL EQUIPMENT IS ADEQUATELY ILLUMINATED AFTER THE MECHANICAL EQUIPMENT IS IN PLACE.
- 29. ALL LUMINAIRES SHALL BE SUPPORTED FROM THE BUILDING STRUCTURE AND NOT THE CEILING GRID OR OTHER
- TO MAINTAIN CONSISTENT LIGHT QUALITY, FOR ANY ONE LAMP TYPE SUPPLIED, LAMPS SHALL BE OF THE SAME MANUFACTURER, SURFACE TEMPERATURE, COLOR RENDERING INDEX, LAMP EFFICACY, LUMEN OUTPUT, AND STARTING CHARACTERISTICS FOR ALL INSTALLED.
- LIGHT FIXTURES INSTALLED IN DAMP OR WET LOCATIONS SHALL BE UL LISTED FOR INSTALLATION IN THE PROPER ENVIRONMENT. CARE SHOULD BE TAKEN TO ENSURE THAT DIFFUSERS AND LENSES ARE APPROPRIATE FOR THEIR INSTALLED USE AND PREMATURE DISCOLORATION WILL NOT RESULT DUE TO
- ELECTRICAL CONTRACTOR SHALL PROVIDE LIGHTING CONTROL SHOP DRAWINGS WITH ELECTRICAL SUBMITTAL FOR REVIEW.

POWER NOTES:

NONSTRUCTURAL MEMBERS.

- ELECTRICAL CONTRACTOR SHALL CONFIRM MINIMUM CODE (NEC) WORKING CLEARANCE BEFORE INSTALLING ANY ELECTRICAL PANELS OR CABINETS AND SHALL MOVE THE PANELS IF REJECTED BY AN INSPECTOR. IF CLEARANCE IS NOT POSSIBLE, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY IN WRITING.
- 34. WIRING DEVICES SHALL MATCH EXSTING AND SHALL BE COORDINATED WITH ARCHITECT.

EXPOSURE TO UV LIGHT, CHEMICALS, OR OTHER CONDITIONS.

- THE EC SHALL MAINTAIN ELECTRICAL CONTINUITY TO REMAINING EQUIPMENT WHEN ANY EXISTING ELECTRICAL EQUIPMENT IS REMOVED.
- EC SHALL COORDINATE WITH EQUIPMENT SUPPLIERS ON THE EXACT LOCATIONS OF ALL EQUIPMENT AND ELECTRICAL CONNECTIONS PRIOR TO ROUGH-IN. THE EC SHALL MAKE THE FINAL CONNECTION TO ALL EQUIPMENT UNLESS OTHERWISE DIRECTED BY THE EQUIPMENT SUPPLIER. OBTAIN FROM SUPPLIERS ALL WIRING DIAGRAMS FOR EQUIPMENT PRIOR TO ANY ROUGH-IN. TO ASSURE THAT PROPER CHARACTERISTICS ARE PROVIDED, ANY INCORRECT WIRING OR DEVICES INSTALLED BY THE EC WITHOUT THE WIRING DIAGRAM SHALL BE CORRECTED AT THE EC'S EXPENSE. PROVIDE COPIES OF WIRING DIAGRAMS WITHIN EACH PIECE OF EQUIPMENT AND ADDITIONAL COPIES WITH THE OPERATION AND MAINTENANCE MANUALS.
- EC SHALL COORDINATE WITH THE MECHANICAL CONTRACTOR TO PROVIDE CONDUIT AND DEVICE MOUNTING BOXES FOR THERMOSTATS AND OTHER MECHANICAL CONTROLS. REFER TO MECHANICAL DRAWINGS FOR THE LOCATION OF THERMOSTATS.
- PROVIDE A 20AMP. 120VAC RECEPTACLE INSTALLED AT AN ACCESSIBLE LOCATION FOR THE SERVICING OF HEATING, AIR CONDITIONING, AND REFRIGERATION EQUIPMENT PER NEC 210.63. RECEPTACLE SHALL BE OF THE GROUND FAULT CIRCUIT INTERRUPTING TYPE, INSTALLED WITHIN A CAST METAL BOX, AND WITHIN 25' OF ALL

DATA/TELECOM NOTES:

REQUIRED EQUIPMENT.

THE ELECTRICAL CONTRACTOR SHALL PROVIDE ROUGH-IN ONLY FOR THE TELECOM/CATV SYSTEMS. THIS SHALL CONSIST OF A FOUR SQUARE DEVICE MOUNTING BOX WITH CONDUIT TO ABOVE ACCESSIBLE CEILING SPACE OR TO THE CEILING SPACE ABOVE IF OPEN. CABLING, JACKS, FACEPLATES, TESTING AND TERMINATIONS SHALL BE PROVIDED AND INSTALLED BY OTHERS.

ROOF NOTES:

ELECTRICAL CONTRACTOR TO INSTALL A ROOF JACK (BOOT) FOR ALL CONDUIT PENETRATIONS THROUGH THE ROOF. ALL ROOF PENETRATION SEALS SHALL BE IN ACCORDANCE WITH THE ROOF WARRANTY AND BE COMPLETELY SEALED WITH ROOF ADHESIVE. UTILIZE PROPER CLAMPING METHODS TO SEAL BOOT AROUND

SYMBOL	DESCRIPTION	MOUNTING	NOTES
	LIGHT FIXTURE - SURFACE OR RECESSED	SEE DRAWINGS	1
	EMERGENCY LIGHT FIXTURE - SURFACE OR RECESSED		1, 2
	LIGHT FIXTURE - OPEN STRIP	SEE DRAWINGS	1
	EMERGENCY LIGHT FIXTURE - OPEN STRIP	SEE DRAWINGS	1, 2
H)	LIGHT FIXTURE - WALL MOUNTED	WALL	1, 2
HD	EMERGENCY LIGHT FIXTURE - WALL MOUNTED	WALL	1, 2
	LIGHT FIXTURE - DOWNLIGHT	CEILING	1, 2
	EMERGENCY LIGHT FIXTURE - DOWNLIGHT	CEILING	1, 2
	LIGHT FIXTURE - WALL WASH DOWNLIGHT	CEILING	1, 2
	LIGHT FIXTURE - CEILING MOUNTED	CEILING	<u>'</u> 1
	LIGHT FIXTURE - CEILING MOONTED	CEILING	1
	LIGHT FIXTURE - PENDANT/CHANDELIER LIGHT FIXTURE - WALL BRACKET	WALL	1
	EMERGENCY LIGHT FIXTURE - WALL BRACKET	WALL	1, 2
000	LIGHT TRACK WITH FIXTURES	SURFACE	1
\otimes H	EXIT FIXTURE - WALL MOUNT	WALL	1, 2, 3
\otimes	EXIT FIXTURE - CEILING MOUNT	CEILING	1, 2, 3
0\(\)0	EXIT FIXTURE W/ EMERGENCY HEADS - WALL MOUNT	WALL	1, 2, 3
0\\0	EXIT FIXTURE W/ EMERGENCY HEADS - CEILING MOUNT	CEILING	1, 2, 3
Ø <u>EM</u> Ø	DUAL HEAD EMERGENCY LIGHT FIXTURE	WALL	1, 2
	AREA LIGHT FIXTURE - POLE MOUNTED	POLE	1
<u> </u>	OCCUPANCY SENSOR - CEILING MOUNT	CEILING	1
®	PHOTO-ELECTRIC CELL WITH RELAY	SURFACE	1
PP	LIGHTING RELAY/POWER PACK	SURFACE	1
TC	TIME CLOCK - 7 DAY	5' - 0"	
\$os	WALL OCCUPANCY SENSOR SWITCH	4' - 0"	
\$	SINGLE POLE SWITCH	4' - 0"	
\$2	DOUBLE POLE SWITCH	4' - 0"	
\$ 3	THREE WAY SWITCH	4' - 0"	
\$4	FOUR WAY SWITCH	4' - 0"	
\$D	DIMMER SWITCH	4' - 0"	
\$LV	LOW VOLTAGE SWITCH	4' - 0"	
\$тн	THERMAL OVERLOAD SWITCH	4' - 0" UNO	
\$P	PILOT LIGHT SWITCH	4' - 0"	
\ominus	DUPLEX OUTLET, 20A, 120VAC	1' - 6" UNO	
•	DUPLEX OUTLET, 20A, 120VAC - GFCI	1' - 6" UNO	
$\overline{}$	DUPLEX OUTLET - SPLIT WIRED	1' - 6" UNO	
	DUPLEX OUTLET - ISOLATED GROUND	1' - 6" UNO	
<u> </u>	DUPLEX OUTLET WITH USB PORTS	1' - 6" UNO	
os⊜	DUPLEX OUTLET - OCCUPANCY SENSOR CONTROLLED	1' - 6" UNO	
\bigcirc	DUPLEX OUTLET, 20A, 120VAC - CEILING	CEILING	
	DUPLEX OUTLET, 20A, 120VAC - FLOOR	- FLOOR	
<u> </u>	FOURPLEX OUTLET, 20A, 120VAC	1' - 6" UNO	
•	FOURPLEX OUTLET, 20A, 120VAC - GFCI	1' - 6" UNO	
•	FOURPLEX OUTLET - ISOLATED GROUND	1' - 6" UNO	
	FOURPLEX OUTLET - ISOLATED GROUND FOURPLEX OUTLET, 20A, 120VAC - CEILING	CEILING	
	· · ·		
	FOURPLEX OUTLET, 20A, 120VAC - FLOOR	FLOOR	
<u> </u>	APPLIANCE OUTLET - 208/240V SINGLE PHASE	18" OR 48"	
<u> </u>	APPLIANCE OUTLET - 208/480V 3-PHASE	18" OR 48"	
$\overline{\nabla}$	DATA OUTLET	1' - 6" UNO	
▼	TELEPHONE OUTLET	1' - 6" UNO	
<u></u>	DUAL TELEPHONE/DATA OUTLET	1' - 6" UNO	
\Box	DATA OUTLET - FLOOR	FLOOR	
T	DUAL TELEPHONE/DATA OUTLET - FLOOR	FLOOR	
\bigcirc	CEILING DATA OUTLET/ WIRELESS ACCESS POINT	CEILING	
		1' - 6" UNO	

	ELECTRICAL SYMBOL SCHEI	DULF		J	JUNCTION BOX		SURFACE	
				HJ	WALL JUNCTION BOX		1' - 6" UNO	
)L	DESCRIPTION	MOUNTING	NOTES		FLOOR JUNCTION BOX		FLOOR	
	LIGHT FIXTURE - SURFACE OR RECESSED	SEE DRAWINGS	1	4	DISCONNECT SWITCH - NON-FUSE	D	5' - 0" UNO	4
	EMERGENCY LIGHT FIXTURE - SURFACE OR RECESSED		1, 2	\F	DISCONNECT SWITCH - FUSED		5' - 0" UNO	4
-	LIGHT FIXTURE - OPEN STRIP	SEE DRAWINGS	1	4/2	DISCONNECT SWITCH - SHUNT TRI	Р	5' - 0" UNO	4
7	EMERGENCY LIGHT FIXTURE - OPEN STRIP	SEE DRAWINGS	1, 2	4	COMBINATION MAGNETIC STARTER	R/DISCONNECT	5' - 0" UNO	
	LIGHT FIXTURE - WALL MOUNTED	WALL	1		MOTOR STARTER		5' - 0" UNO	
	EMERGENCY LIGHT FIXTURE - WALL MOUNTED	WALL	1, 2		CONTACTOR		5' - 0" UNO	
	LIGHT FIXTURE - DOWNLIGHT	CEILING	1	0	MOTOR		SURFACE	
	EMERGENCY LIGHT FIXTURE - DOWNLIGHT	CEILING	1, 2		METER - PLAN VIEW		WALL	
	LIGHT FIXTURE - WALL WASH DOWNLIGHT	CEILING	1	•	PUSH BUTTON SWITCH		4' - 0"	
	LIGHT FIXTURE - CEILING MOUNTED	CEILING	1		EMERGENCY POWER SHUTOFF SV	VITCH	4' - 0"	
	LIGHT FIXTURE - PENDANT/CHANDELIER	CEILING	1		PANELBOARD - SURFACE MOUNTE	D	6' - 6" TO TOP	
	LIGHT FIXTURE - WALL BRACKET	WALL	1		PANELBOARD - RECESSED		6' - 6" TO TOP	
	EMERGENCY LIGHT FIXTURE - WALL BRACKET	WALL	1, 2		TRANSFORMER - PLAN VIEW		PAD/FLOOR	
<u> </u>	LIGHT TRACK WITH FIXTURES	SURFACE	1		TELEPHONE TERMINAL BOARD		WALL	
	EXIT FIXTURE - WALL MOUNT	WALL	1, 2, 3	0)	CIRCUIT BREAKER	MET MET	ER - ONE-LINE	
	EXIT FIXTURE - CEILING MOUNT	CEILING	1, 2, 3	P	(
	EXIT FIXTURE W/ EMERGENCY HEADS - WALL MOUNT	WALL	1, 2, 3		MLO PANEL - ONE-LINE	TRAI	NSFORMER - ONE-LIN	1E
	EXIT FIXTURE W/ EMERGENCY HEADS - CEILING MOUNT	CEILING	1, 2, 3	0)	1			
	DUAL HEAD EMERGENCY LIGHT FIXTURE	WALL	1, 2		MCB PANEL - ONE-LINE	PAD	MOUNT XFMR - ONE-	LINE
	AREA LIGHT FIXTURE - POLE MOUNTED	POLE	1		,			
	OCCUPANCY SENSOR - CEILING MOUNT	CEILING	1	00	AUTOMATIC TRANSFER SWITCH	GRO	OUND SLEEVE - ONE-L	INE
	PHOTO-ELECTRIC CELL WITH RELAY	SURFACE	1	0				
	LIGHTING RELAY/POWER PACK	SURFACE	1			°/ xxxa		
	TIME CLOCK - 7 DAY	5' - 0"			CT ENCLOSURE - ONE-LINE	% XXXA XP XXXA LPNR	ED DISCONNECT - ON	NE-LINE
	WALL OCCUPANCY SENSOR SWITCH	4' - 0"				∘ • FUSI	ED SWITCH	
	SINGLE POLE SWITCH	4' - 0"			CURRENT TRANSFORMER		UND	
	DOUBLE POLE SWITCH	4' - 0"			OH RISER			
	THREE WAY SWITCH	4' - 0"					LE/WIRE SIZE TAG	
	FOUR WAY SWITCH	4' - 0"		<u> </u>	KEYED NOTE TAG	\dashv / x \checkmark \longmapsto	TAIL/VIEW NUMBER	05.740
	DIMMER SWITCH	4' - 0"		XXX	MECH/ELEC. EQUIPMENT TAG	→ \EXXX \(\sum_ \)	TAIL/VIEW REFEREN	CE TAG
	LOW VOLTAGE SWITCH	4' - 0"		X	OTHER EQUIPMENT TAG		HEET NUMBER	
	THERMAL OVERLOAD SWITCH	4' - 0" UNO			WIRING / CONDUIT		INDERGROUND/FLOC	
	PILOT LIGHT SWITCH	4' - 0"			CONDUIT TURNED UP		ONDUIT TURNED DO	WN
	DUPLEX OUTLET, 20A, 120VAC	1' - 6" UNO			CIRCUIT HOME RUN TO PAN (INCLUDES SEPARATE NEUT		GROUND)	
	DUPLEX OUTLET, 20A, 120VAC - GFCI	1' - 6" UNO			NC	OTES	,	
	DUPLEX OUTLET - SPLIT WIRED	1' - 6" UNO		1. SEE	LIGHT FIXTURE SCHEDULE FOR TYP		O OTHER SPECIFICS.	
	DUPLEX OUTLET - ISOLATED GROUND	1' - 6" UNO			NNECT EMERGENCY AND/OR EXIT LICHTING BRANCH CIRCUIT.	GHTS TO THE UNSV	VITCHED SIDE OF TH	E AREA
	DUPLEX OUTLET WITH USB PORTS	1' - 6" UNO		3. ARF	ROW DENOTES EXIT DIRECTION.			
	DUPLEX OUTLET - OCCUPANCY SENSOR CONTROLLED	1' - 6" UNO			EHEAVY DUTY FOR 480 VOLT. JNT SWITCH AT DOOR JAM PER MAN	JUFACTURER'S INS	TRUCTIONS	
	DUPLEX OUTLET, 20A, 120VAC - CEILING	CEILING		6. PRO	OVIDE UL LISTED DEVICE TO BE USEI	O WITH THE FIRE AL	ARM PANEL/SYSTEM	1 OR
	DUPLEX OUTLET, 20A, 120VAC - FLOOR	FLOOR			OVIDE A MONITOR MODULE TO CONN OVIDE RACEWAY WITH OUTLETS 12"		ARM SYSTEM.	
	FOURPLEX OUTLET, 20A, 120VAC	1' - 6" UNO				VIATIONS		
	FOURPLEX OUTLET, 20A, 120VAC - GFCI	1' - 6" UNO		AFCI - AF	RC FAULT CKT INTERRUPTER		R CONTROL CENTER	
	FOURPLEX OUTLET - ISOLATED GROUND	1' - 6" UNO		AFF - AB	OVE FINISHED FLOOR	MDP - MAIN D	ISTRIBUTION PANEL	
	FOURPLEX OUTLET, 20A, 120VAC - CEILING	CEILING			OVE FINISHED GRADE PS INTERRUPTING CAPACITY		OVERCURRENT	
	FOURPLEX OUTLET, 20A, 120VAC - FLOOR	FLOOR		AL - ALUI ATS - AU	MINUM TOMATIC TRANSFER SWITCH	PROTECTION (N) - NEW	I	
	APPLIANCE OUTLET - 208/240V SINGLE PHASE	18" OR 48"		BC - BAR	E COPPER	NIĆ - NOT IN (_
	APPLIANCE OUTLET - 208/480V 3-PHASE	18" OR 48"			LOW FINISHED CEILING LOW FINISHED GRADE		NAL ELECTRICAL COD NAL FIRE PROT. ASS	
	DATA OUTLET	1' - 6" UNO		CKT - CIF	RCUIT	NL - NIGHT LI	GHT	
	TELEPHONE OUTLET	1' - 6" UNO		CLG - INS	C CONDUIT STALLED IN CEILING	NR - NOT REC NTS - NOT TO	SCALE	
	DUAL TELEPHONE/DATA OUTLET	1' - 6" UNO			RD REEL RENT TRANSDUCER	PC - PLUMBIN PH - PHASE	IG CONTRACTOR	
	DATA OUTLET - FLOOR	FLOOR		CU - COF	PPER	PNL - PANEL		
	DUAL TELEPHONE/DATA OUTLET - FLOOR	FLOOR			STING TO REMAIN CTRICAL CONTRACTOR	POC - POINT POS - POINT	OF CONNECTION OF SALE	

EC - ELECTRICAL CONTRACTOR

FÁCP - FIRE ALARM CONTROL PANEL

FVNR - FULL VOLTAGE NON REVERSING

EM - EMERGENCY

FLA - FULL LOAD AMPS

GC - GENERAL CONTRACTOR

LCP - LIGHTING CONTROL PANEL

MC - MECHANICAL CONTRACTOR

MCA - MINIMUM CIRCUIT AMPS

MCB - MAIN CIRCUIT BREAKER

GFCI - GROUND FAULT CKT

(F) - FUTURE

INTERRUPTER

GND - GROUND

KW - KILOWATTS

LTG - LIGHTING

LV - LOW VOLTAGE

HP - HORSEPOWER

IG - ISOLATED GROUND

	SHEET INDEX		
E000	ELECTRICAL GENERAL SHEET		
E101	LIGHTING PLAN		
E201	POWER PLAN		
xx E601	ELECTRICAL SCHEDULES		

POS - POINT OF SALE

RÉC - RECEPTACLES

RMC - RIGID METAL CONDUIT

SES - SERVICE ENTRANCE

TR - TAMPER RESISTANT

VR - VANDAL RESISTANT

XFMR - TRANSFORMER

SCA - SHORT CIRCUIT AMPERES

SPD - SURGE PROTECTIVE DEVICE

TTB - TELEPHONE TERMINAL BOARD

UNO - UNLESS NOTED OTHERWISE

WP - WEATHERPROOF/NEMA 3R

WU - FURNISHED WITH UNIT

(R) - RELOCATED

SWITCHGEAR

TYP - TYPICAL

VA - VOLT/AMPS VIF - VERIFY IN FIELD

TL - TWIST LOCK

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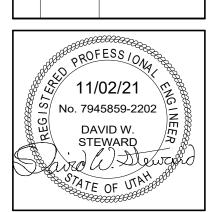
577 South 200 East

SLC, Utah 84111

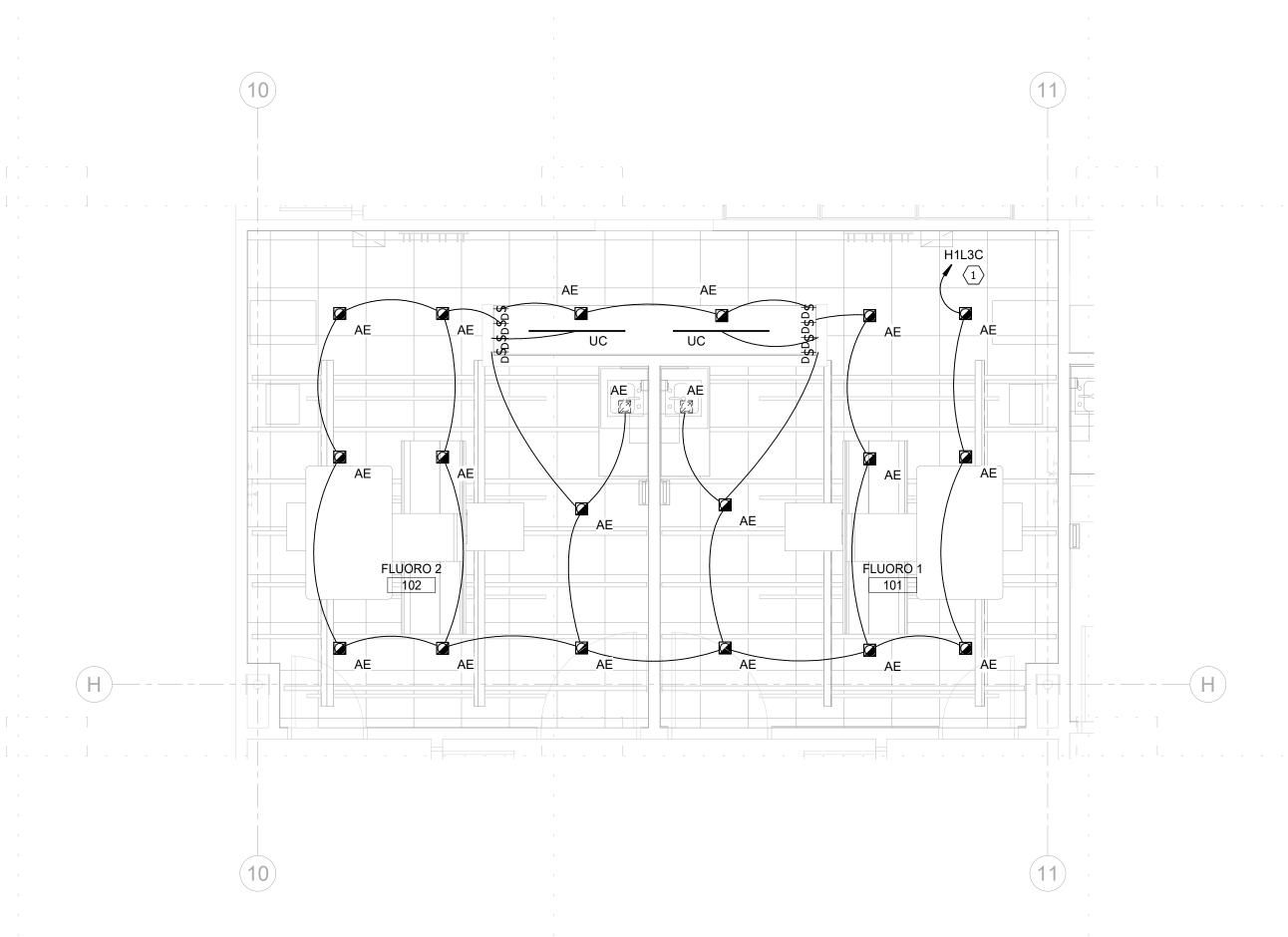
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PROJECT #: 21035 PROJECT STATUS 00/00/2020 DATE REVISION



ELECTRICAL GENERAL SHEET



1

LEVEL 1 LIGHTING PLAN

E101 SCALE: 1/4" = 1'-0"

			LIGHT	FIXTURE SCHE	DULE		1	
TYPE	MANUFACTURER	CATALOG NO.	VOLTAGE	LAMPING	CONTROL	MOUNTING	LOAD(VA)	DESCRIPTION
AE	COOPER	LD6B30D010IEM14 EU6B30509040 6LBW0LI OR PRE-APPROVED EQUAL	- UNV	LED 3000 LUMENS 4000K	0-10V	RECESSED	27.6	6" LED DOWNLIGHT. PROVIDE EMERGENCY TRANSFER DEVICE FOR EMERGENCY LIGHT FIXTURES AS REQUIRED.
UC	COOPER	UCL-4-LD4-40-89AM-EDD1-UNV- SCBA OR PRE-APPROVED EQUAL	UNV	LED 4183 LUMENS 4000K	0-10V	SURFACE	49	4' UNDERCABINET LIGHTING. COORDINATE INSTALLATION WITH ARCHITECTUAL. PROVIDE ALL REQUIRED DRIVERS AND PARTS, INSTALL IN CONCEAL FROM VIEW LOCATION.

NOTES

1. ALL LIGHT FIXTURES SHOWN HALF SHADED SHALL BE PROVIDED WITH AN EMERGENCY BATTERY PACK CAPABLE OF PROVIDING 90 MIN. OF EGRESS ILLUMINATION.

2. ALL LIGHTING VALUE ENGINEERING PROVIDED FOR THIS PROJECT SHALL BE SUBMITTED TO THE ELECTRICAL ENGINEER FOR REVIEW AND APPROVAL AFTER THE PROJECT HAS BEEN BID AND AWARDED. ANY CREDITS FOR VE SHALL INCLUDE TIME TO COMPENSATE OUR OFFICE FOR ENGINEERING REVIEW AND VERIFICATION OF BRANCH CIRCUIT LOADING AND/OR ENERGY CODE COMPLIANCE. NO VE SUBMITTALS WILL BE APPROVED WITHOUT THIS PROCESS IN PLACE. VE SUBMITTALS SHALL INCLUDE PHOTOMETRIC ANALYSIS TO ENSURE NEW LIGHT FIXTURES PROVIDE COMPARABLE LIGHT LEVELS TO THOSE ORIGINALLY DESIGNED.

3. PRIOR APPROVALS SHALL BE SUBMITTED TO OUR OFFICE NO LESS THAN 5 BUSINESS DAYS OF THE PROJECT BID DATE. ANYTHING SUBMITTED AFTER THIS TIME FRAME WILL NOT BE REVIEWED AND WILL BE CONSIDERED NON-APPROVED FOR BIDDING PURPOSES. ALL LIABILITY ASSOCIATED WITH NON-APPROVED FIXTURES THAT DO NOT MEET THE PROJECT REQUIREMENTS WILL REST SOLELY WITH THE CONTRACTOR.

KEYED NOTES

1. REUSE EXISTING AREA EMERGENCY LIGHTING CIRCUIT FOR NEW LIGHT FIXTURES. FIELD VERIFY EXACT LOCATIONS AND PROVIDE CONTROL AS SHOWN. DIMMING SHALL BE PROVIDE THROUGH OUT THE ROOMS.

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GENERAL NOTES

- IT IS THE INTENT OF THE CONSTRUCTION DOCUMENTS
 THAT CONDUIT IS TO BE INSTALLED WITHIN WALLS AND
 ABOVE CEILINGS CONCEALED WHERE POSSIBLE.
- B. COORDINATE MOUNTING HEIGHTS OF ALL PENDANT AND WALL MOUNTED LIGHT FIXTURES WITH ARCHITECTURAL ELEVATIONS.
- C. ELECTRICIAN TO VERIFY FIXTURE DIMMING CONTROLS
 AND TO PROVIDE THE NECESSARY WIRING AND DEVICES
 REQUIRED FOR DIMMING OPERATION.
 D. EC TO COORDINATE ALL FINISHES WITH ARCITECT PRIOR
- D. EC TO COORDINATE ALL FINISHES WITH ARCITECT PRICED PRICES OF A SECOND PRICED PRICES OF A SECOND PRICES OF A SECOND PRICES OF A SECOND PRICED PRICES OF A SECOND PRICES OF A SECOND PRICES OF A SECOND PRICED PRICES OF A SECOND PRICES OF A SECOND PRICES OF A SECOND PRICED PRICES OF A SECOND PRICES OF A SECOND PRICES OF A SECOND PRICED PRICES OF A SECOND PRICES OF A SECOND PRICES OF A SECOND PRICED PRICES OF A SECOND PRICES OF A SECOND PRICES OF A SECOND PRICED PRICES OF A SECOND PRICES OF A SECOND PRICES OF A SECOND PRICED PRICES OF A SECOND PRICES OF A SECOND PRICES OF A SECOND PRICED PRICES OF A SECOND PRICES OF A SECOND PRICES OF A SECOND PRICED PRICES OF A SECOND PRICES OF A SECOND PRICES OF A SECOND PRICED PRICES OF A SECOND PRICES OF A SECOND PRICES OF A SECOND PRICED PR
- E. EC TO FIELD VERIFY AND MATCH EXISTING FOR NEW LIGHT SWITCHES. PROVIDE WITH 0-10V DIMMING.

LTG CTRL SEQUENCE OF OPERATION

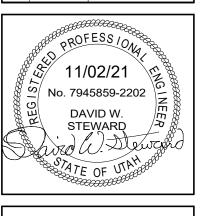
PER IECC 2018 405.2 PATIENT TREATMENT ROOMS ARE EXEMPT FROM OCCUPANCY OR TIME CONTROL. PROVIDE DIMMING FOR ALL ZONES AND OVER RIDE SWITCHES AS SHOWN

RIVERTON HOSPITAL - PCH RAD ROOM REMODEL 1234 STREET ADDRESS SALT LAKE CITY, UTAH 84

PROJECT #: 21035

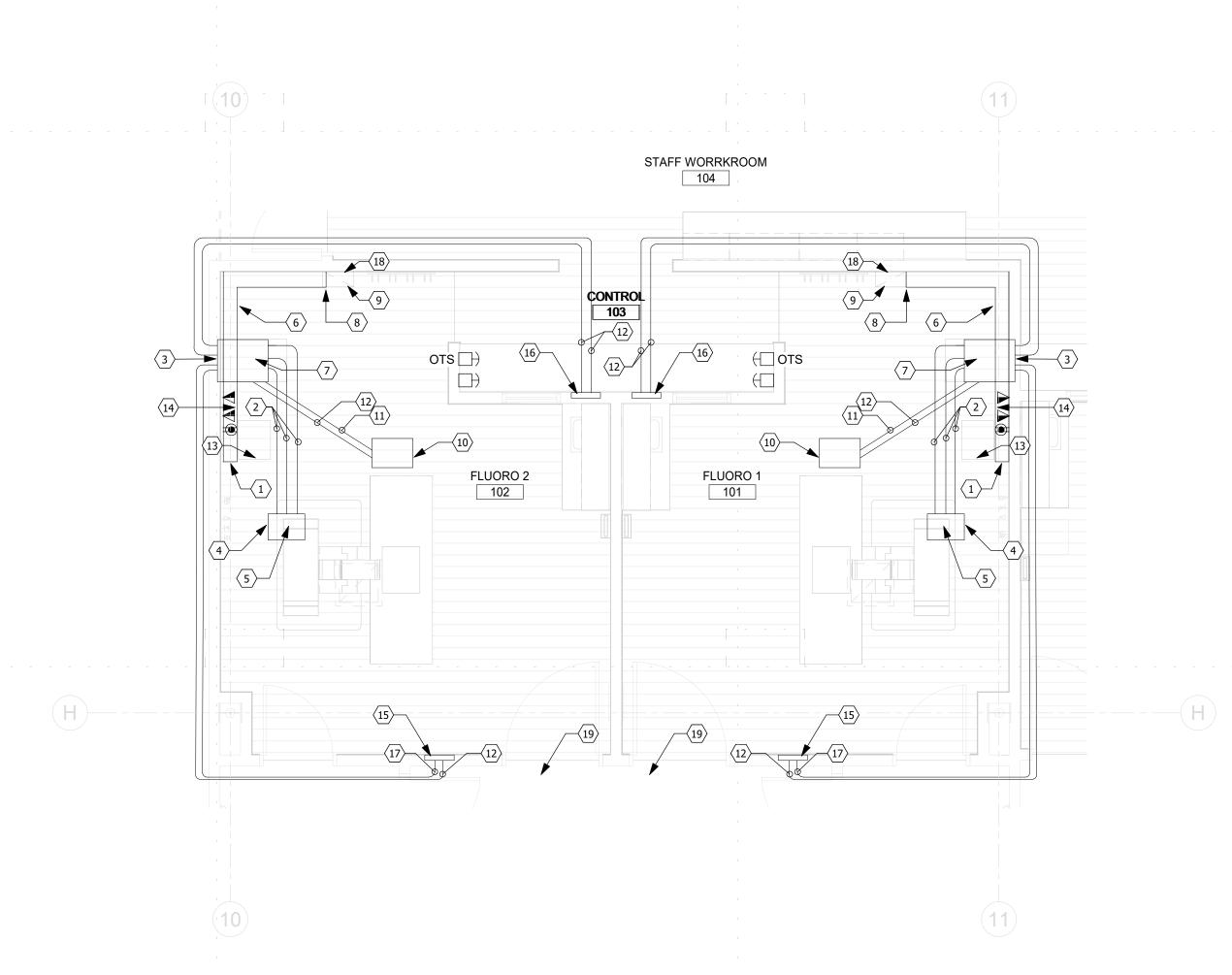
PROJECT STATUS
00/00/2020

DATE REVISION



LIGHTING PLAN

E101



POWER ELECTRICAL PLAN SCALE: 1/4'' = 1'-0''

KEYED NOTES

- 10" X 3.5" SURFACE WALL DUCT WITH MINIMUM 2
- DIVIDERS. 3 1/2" CONDUIT BELOW GRADE FROM TABLE TO
- LOCATION SHOWN. BOX LOCATED ABOVE CEILING.
- BOX FLUSH IN FLOOR FOR TABLE. USE SUITABLE CHASE NIPPLES FOR TABLE. BOX ATTACHED TO DUCT (TIMS READYNESS KIT)
- GROMMETED OPENING IN DUCT COVER FOR GENERATOR CABINET.
 - 10" X 3.5" SURFACE WALL DUCT TO BOTTOM OF PDU WITH MINUMUM 2 DIVIDERS.
- POWER DISTRIBUTION BOX.
 BOX FLUSH IN CEILING FOR OTS.
- 3 1/2" CONDUIT
- 2 1/2" CONDUIT GROMMETED OPENING IN DUCT COVER FOR TRANSFORMER.
- GROMMETED OPENING IN DUCT COVER FOR DIGITAL SYSTEMS CABINET BOX FLUSH MOUNT IN WALL FOR STAND PROVIDE
- GROMMETED OPENING IN BOX COVER FOR WALL
- BOX FLUSH MOUNT IN WALL FOR CONSOLE PROVIDE GROMMETED OPENING IN BOX COVER FOR CONSOLE
- 1.5" CONDUIT EXISTING 100 AMP ELECTRICAL DISCONNECT. EXTEND
- NEW STRANDED COPPER CABLING AS REQUIRED TO NEW EQUIPMENT LOCATION.
 LOCATION OF X-RAY WARNING LIGHT CONTROL PANEL
- AND X-RAY ON LAMP.

GENERAL NOTES

- EC TO COORDINATE ALL MATERIALS AND ROUTING FOR EQUIPMENT REQUIREMENTS WITH GE ELECTRICAL DRAWINGS PRIOR TO CONSTRUCTION. PROVIDE
- CONDUITS AND BOXES AS REQUIRED. BOTH ROOMS SCOPE OF WORK IS TO BE PHASED TO OFFER ONE COMPLETED ROOM FOR USE PRIOR TO CONSTRUCTION OF THE SECOND ROOM. SEE
- ARCHITECTURAL PLANS FOR PHASING INFORMATION. REUSE EXISTING 100A FEED AND BREAKER THAT IS EXISTING IN THE SPACE. EXTEND NEW STRANDED CONDUCTOR AS REQUIRED. SEE MEDICAL EQUIPMENT
- EC TO PROTECT AND MAINTAIN EXISTING ELECTRICAL DEVICES.
- EC TO COORDINATE ALL FINISHES WITH ARCHITECT PRIOR TO PURCHASING.

ĀRCHITECTS

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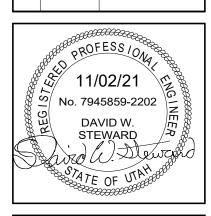
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Healthcare TAL - PCH DEL

PROJECT #: 21035

PROJECT STATUS 00/00/2020



POWER PLAN

E201



A	06/Aug/2021	Final drawing based on DC-309388
REV	DATE	MODIFICATIONS

01 - C1 - Cover Sheet

02 - C2 - Disclaimer - Site Readiness

03 - A1 - General Notes

04 - A2 - Equipment Layout 05 - A3 - Section Views

06 - A4 - Equipment Details

07 - A5 - Equipment Details & Delivery (2)

08 - S1 - Structural Notes

09 - S2 - Structural Layout

10 - S3 - Structural Details (1)

11 - M1 - HVAC

12 - E1 - Electrical Notes

13 - E2 - Electrical Layout

14 - E3 - Electrical Elevations

15 - E4 - Details-Interconnections

16 - E5 - Power Requirements

Riverton Hospital Riverton, Utah **USA**



GE Healthcare

Wendel Larson 801-891-9934

Wendel.larson@ge.com

DISCOVERY RF180 FINAL STUDY

A mandatory component of this drawing set is the GE Healthcare Pre Installation manual. Failure to reference the Pre Installation manual will result in incomplete documentation required for site design and preparation.

Pre Installation documents for GE Healthcare products can be accessed on the web at: www.gehealthcare.com/siteplanning

GE does not take responsibility for any damages resulting from changes on drawings made by others. Errors may occur by not referring to the complete set of final issue drawing. GE cannot accept responsibility for any damage due to the partial use of GE final issue drawings, however caused. All dimensions are in millimeters unless otherwise specified. Do not scale from printed pdf files. GE accepts no responsibility or liability for defective work due to scaling from these drawings.

Dra	wn by	Verified by	Verified by Concession		PIM Manual	Rev
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A3	1/4"=1'-0"	RF-M246605-FIN-00-A.DWG			06/Aug/2021	01/16

DISCLAIMER

GENERAL SPECIFICATIONS

- GE is not responsible for the installation of developers and associated equipment, lighting, cassette trays and protective screens or derivatives not mentioned in the order.
- The final study contains recommendations for the location of GE equipment and associated devices, electrical
 wiring and room arrangements. When preparing the study, every effort has been made to consider every
 aspect of the actual equipment expected to be installed.
- The layout of the equipment offered by GE, the dimensions given for the premises, the details provided for the pre-installation work and electrical power supply are given according to the information noted during on-site study and the wishes expressed by the customer.
- The room dimensions used to create the equipment layout may originate from a previous layout and may not be accurate as they may not have been verified on site. GE cannot take any responsibility for errors due to lack of information.
- Dimensions apply to finished surfaces of the room.
- Actual configuration may differ from options presented in some typical views or tables.
- If this set of final drawings has been approved by the customer, any subsequent modification of the site must be subject to further investigation by GE about the feasibility of installing the equipment. Any reservations must be noted.
- The equipment layout indicates the placement and interconnection of the indicated equipment components. There may be local requirements that could impact the placement of these components. It remains the customer's responsibility to ensure that the site and final equipment placement complies with all applicable local requirements.
- All work required to install GE equipment must be carried out in compliance with the building regulations and the safety standards of legal force in the country concerned.
- These drawings are not to be used for actual construction purposes. The company cannot take responsibility for any damage resulting therefrom.

CUSTOMER RESPONSIBILITIES

- It is the responsibility of the customer to prepare the site in accordance with the specifications stated in the final study. A detailed site readiness checklist is provided by GE. It is the responsibility of the customer to ensure all requirements are fulfilled and that the site conforms to all specifications defined in the checklist and final study. The GE Project Manager of Installation (PMI) will work in cooperation with the customer to follow up and ensure that actions in the checklist are complete, and if necessary, will aid in the rescheduling of the delivery and installation date.
- Prior to installation, a structrual engineer of record must ensure that the floor and ceiling is designed in such a way that the loads of the installed system can be securely borne and transferred. The layout of additional structural elements, dimensioning and the selection of appropriate installation methods are the sole responsibility of the structural engineer. Execution of load bearing structures supporting equipment on the ceiling, floor or walls are the customer's responsibility.

RADIO-PROTECTION

• Suitable radiological protection must be determined by a qualified radiological physicist in conformation with local regulations. GE does not take responsibility for the specification or provision of radio-protection.

THE UNDERSIGNED, HEREBY CERTIFIES THAT I HAVE READ AND APPROVED THE PLANS IN THIS DOCUMENT.				
DATE	NAME	SIGNATURE		

GLOBAL SITE READINESS CHECKLIST (DI)

DOC1809666 Rev. 7

Site Ready Checks at Installation

EHS Site Requirements

Overall access route to the scan room free from obstruction / high hazards.

Enough space to store tools, equipment, parts, install waste and the general area free from obstruction and trip hazards.

Enough necessary facilities for the GE employees available.

No 3rd parties working in the area that may affect the safety of the installation activity.

Area free from any chemical, gas, dust, welding fume exposure and has painting been completed and dry.

All emergency routes identified, signed and clear from obstruction.

Accessible single source lockable panel that LOTO can be applied to for GE equipment installation (MDP and/or PDU).

There are no other conditions or hazards that you have observed or have been made aware of by the customer or contractors on site.

Required for Mechanical Install start

Room dimensions, including ceiling height, for all Exam, Equipment/Technical & Control rooms meets GE specifications.

Ceiling support structure, if indicated on the GE drawing, is in the correct location and at the correct height according to the Original Equipment Manufacturer specifications.

Levelness and spacing has been measured, and is ready for the installation of any GE supplied components.

Overhead support Structure (unistrut) has been confirmed with customer/contractor to meet required GE provided criteria.

Finished ceiling is installed. If applicable ceiling tiles installed per PMI discretion.

Floor levelness/flatness is measured and within tolerance, and there are no visible defects per GEHC specifications.

Entry door threshold meets PIM requirement.

Rooms that will contain equipment, including staging areas if applicable, are construction debris free. Precautions must be taken to prevent debris from entering rooms containing equipment.

Cable ways (floor/wall/ceiling/Access Flooring) are available for installation of GE cables are of correct length and diameter.

Cable ways routes per GE Final drawings and cable access openings areas installed at a time determined by GEHC PM. Surface floor duct can be installed at time of system installation.

Adequate room illumination installed and working.

Customer supplied countertops where GE equipment will be installed are in place.

Required for Calibration Start

HVAC systems Installed, and the site meets minimum environmental operational system requirements.

System power & grounding (PDB/MDP) is available as per GE specifications.

System power & grounding (PDB/MDP) is installed at point of final connection and ready to use. Lock Out Tag Out is available.

PMI to confirm all feeder wires and breaker are size appropriately. EPO installed if needed.

PMI to confirm with electrician all power and signal cables are well terminated ensuring there are no loose connections.

Network outlets installed.

Computer network available and working.

Lead doors and windows complete or scheduled to be installed. If applicable, radiation protection (shielding) finished & radioprotection regulatory approval for installation obtained.

Note: The details shown here are only an extract from DOC1809666. For the complete document please contact your PMI.

Riverton Hospital DISCOVERY RF180 | RF-M246605-FIN-00-A.DWG | - |Rev A|Date | 06/Aug/2021 | C2 - Disclaimer - Site Readiness | 02/16

CUSTOMER SITE READINESS REQUIREMENTS

- Any deviation from these drawings must be communicated in writing to and reviewed by your local GE healthcare installation project manager prior to making changes.
- Make arrangements for any rigging, special handling, or facility modifications that must be made to deliver the equipment to the installation site. If desired, your local GE healthcare installation project manager can supply a reference list of rigging contractors.
- New construction requires the following;
 - Secure area for equipment,
 - Power for drills and other test equipment,
 - Capability for image analysis, 3.
 - Restrooms.
- Provide for refuse removal and disposal (e.g. crates, cartons, packing)
- It is the customer's responsibility to contract a vibration consultant/engineer to implement site design modifications to meet the GE vibration specification. Refer to the system preinstallation manual for the vibration specification.

ENVIRONMENTAL SPECIFICATIONS

MAGNETIC INTERFERENCE

To guarantee specified imaging performance : X-ray tubes and control console equipment must be located in ambient static field of less than 10 gauss.

LIGHT REQUIREMENTS

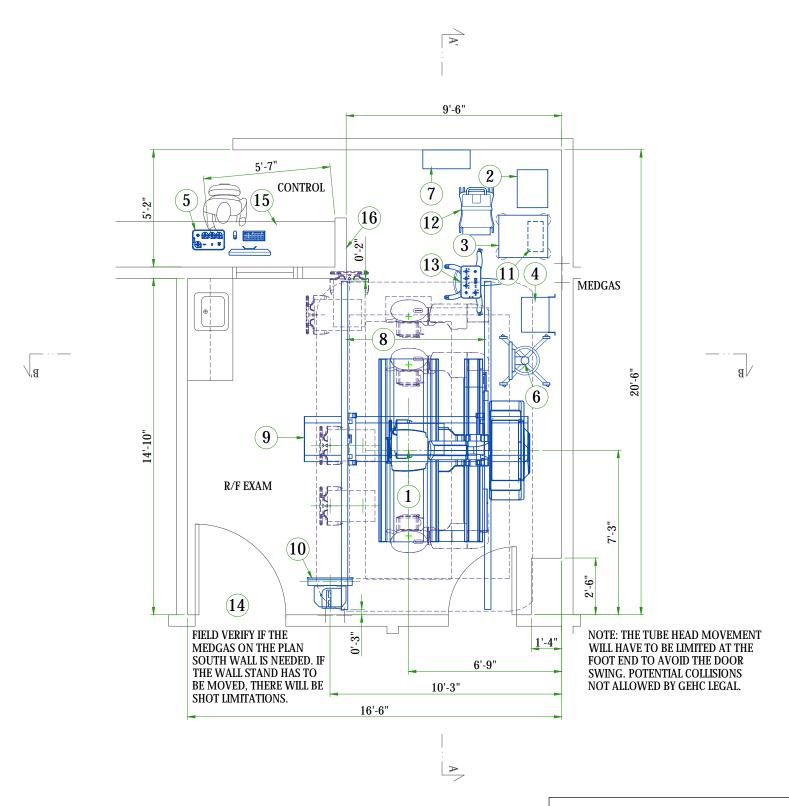
For the electronic ballast of fluorescent lamp in exam room, the operating frequency should be above 42KHz.

ACOUSTIC OUTPUT

Measured 1 m from any point in system.

less than 65 dBA Stand-by: less than 45 dBA

RF-M246605-FIN-00-A.DWG **Riverton Hospital** DISCOVERY RF180 |Rev A|Date 06/Aug/2021 A1 - General Notes 03/16



THE FOLLOWING SHOTS ARE NOT AVAILABLE IN THIS LAYOUT

FRONT TO REAR CROSS TABLE SHOT TO TABLE CENTERLINE

72" TO VERTICAL TABLE TILTED TOWARDS FOOT END (SHOT AVAILABLE IN OTHER DIRECTION)

		LEGENI)				
A	GE Su	pplied	D	Availa	Available from GE		
В	GE Su	pplied/contractor installed	E	Equip	Equipment existing in room		
С	Custo	mer/contractor supplied and installed	*	Item t	o be reinsta	lled from ar	other site
ВУ	ITEM	A DESCRIPTION		HEAT TPUT otu)	WEIGHT (lbs)	MAX HEAT OUTPUT (W)	WEIGHT (kg)
A	1	Table (with over-floor plate)	23	388	3060	700	1388
A	2	Generator	35	500	200	1026	91
Α	3	Digital Systems Cabinet	gital Systems Cabinet 1092 242 320				110
В	4	15 kVA Transformer	- 210 -			95	
A	5	Operators Console	149		17	57	8
A	6	Single Monitor Cart	149		42	57	19
В	7	Power Distribution Box (PDB) - 175 -		80			
Α	8	4410m Kalos Rails			-		
Α	9	OTS with 3m Bridge	11	190	833	350	378
A	10	Non-Tilting Wallstand		-	376	-	171
A	11	Partial UPS		-	77	-	35
D	12	TIMMS 2000 on cart (TPC)	- 200		-	25	
Α	13	Secondary Console - 110 - 50				50	
С	14	Minimum opening for equipment delivery is 47 in. w x 73 in. h, contingent on a 102 in. corridor width					
С	15	Counter top for equipment- provide grommeted openings as required to route cables					
С	16 Control wall, 7'-0" with lead glass viewing window						

Exam room height	
Finished floor to slab height	TBD
Finished ceiling height	9'-6"

Please note that your Discovery RF180 installation in the selected room does not meet the following minimal requirement:

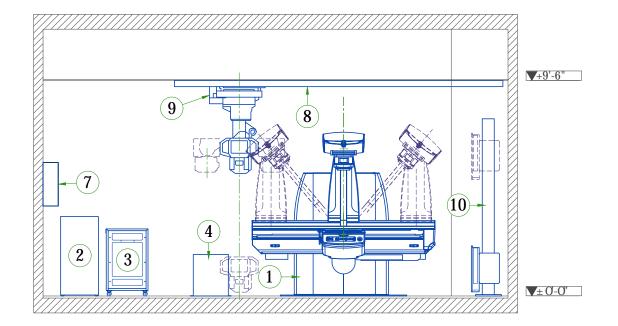
- 530 mm required distance between the Tube Head and any stationary object.

Therefore we must apply a warning label on both Tube Head sides to remind the Operator about entrapment hazard during Gantry motions.

For Accessory Sales: (866) 281-7545 Options 1, 2, 1, 2 or mail to: gehcaccessorysales@ge.com

Riverton Hospital | DISCOVERY RF180 | RF-M246605-FIN-00-A.DWG | 1/4"=1'-0"|Rev A|Date 06/Aug/2021 | A2 - Equipment Layout | 04/16

FRONT VIEW A-A'



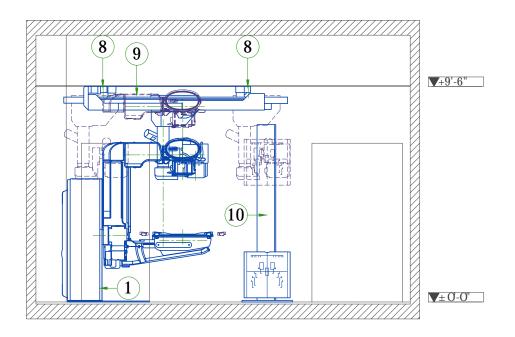
EXAM ROOM CEILING HEIGHTS

RECOMMENDI	ED AND MINIMUM ROOF	M HEIGHTS	
CONFIGURATION	SPECIFICATION	CEILING	HEIGHT
CONFIGURATION	SPECIFICATION	mm	ft
Table	Minimum	2600	8'-6"
	Recommended	3000	9'-10"
Overhead Tube Suspension	Minimum	2600	8'-6"
	Recommended	2920	9'-7"
Monitor Suspension	Minimum	2600	8'-6"
Tilting Wall Stand*	Minimum	2600	8'-6"
	Recommended	2650	8'-8"
Non-tilting Wall Stand	Minimum	2400	7'-8"
	Recommended	2800	9'-2"

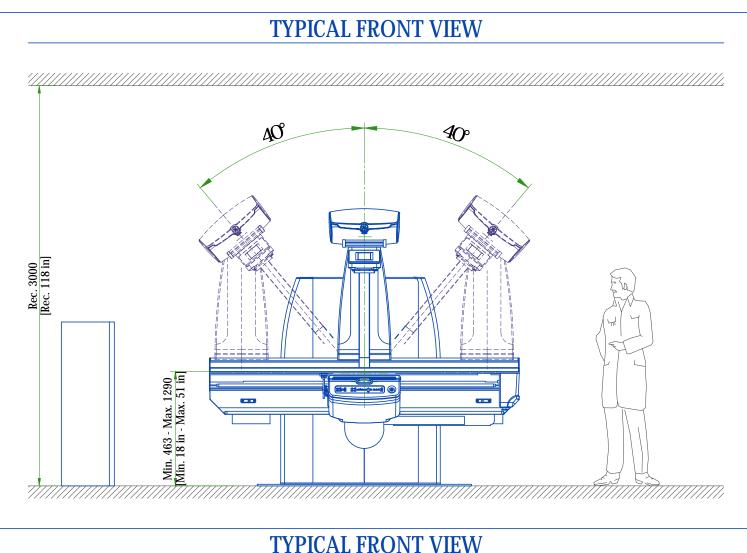
Note: Minimum room height for the table must take into consideration the most protruding object from the ceiling that is in the system area (for example the rails for OTS).

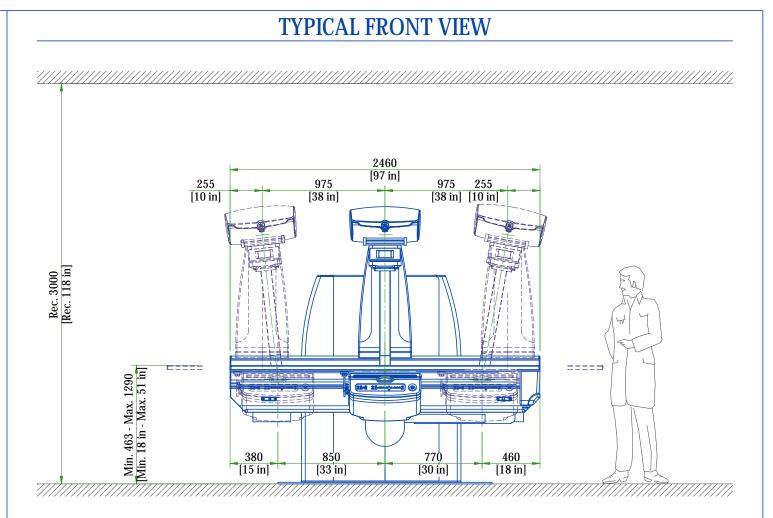
*Not available in USA

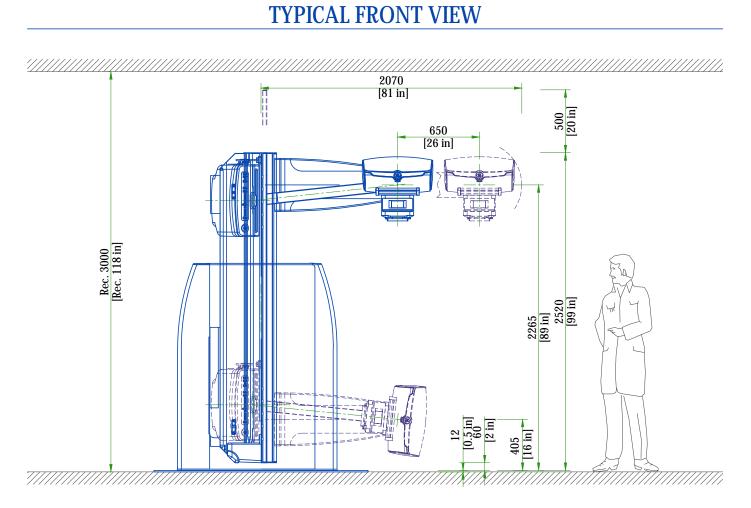
SIDE VIEW B-B'



Riverton Hospital DISCOVERY RF180 | RF-M246605-FIN-00-A.DWG |1/4"=1'-0"|Rev A|Date 06/Aug/2021 | A3 - Section Views | 05/16

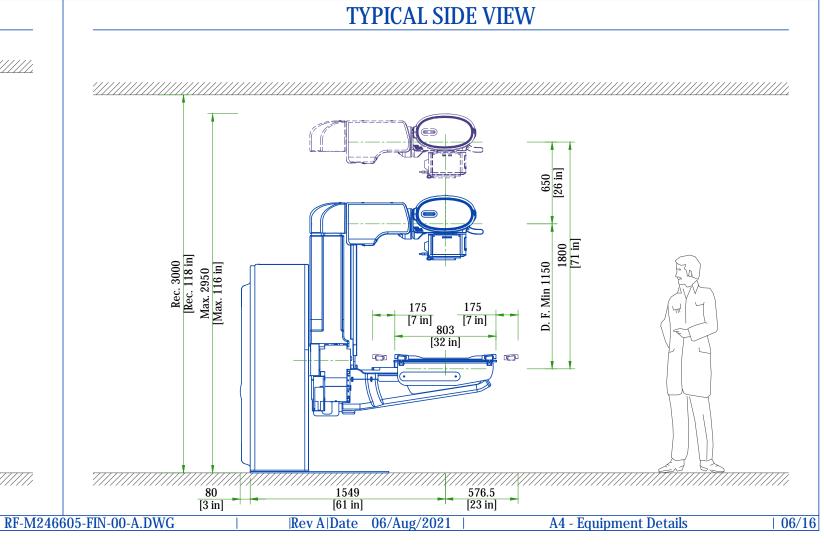






DISCOVERY RF180

Riverton Hospital



At 13mm [0.5 in] Seismic anchor locations. BOTTOM VIEW Seismic mounting plate and anchors are provided by GE. Wiring access High tension cable access AC input and DIN rail access

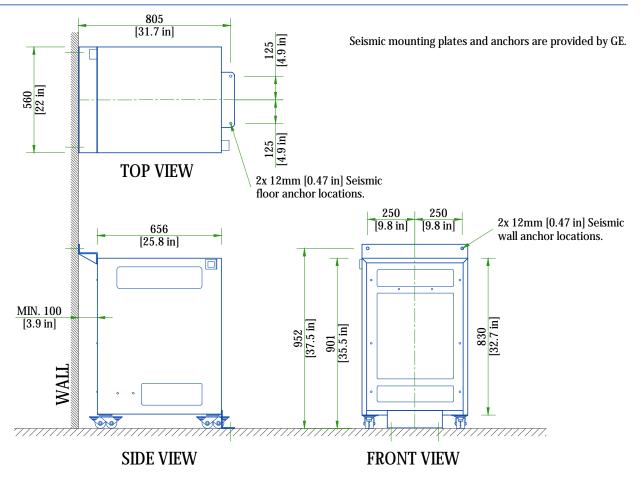
SIDE VIEW

SCALE 1:20

SCALE 1:20

DIGITAL SYSTEM CABINET

FRONT VIEW



DELIVERY

THE CUSTOMER/CONTRACTOR SHOULD:

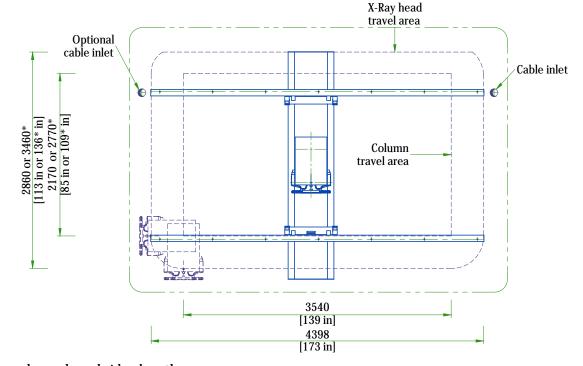
- Provide an area adjacent to the installation site for delivery and unloading of the GE equipment.
- Ensure that the dimensions of all doors, corridors, ceiling heights are sufficient to accommodate the movement of GE equipment from the delivery area into the definitive installation room.
- Ensure that access routes for equipment will accommodate the weights of the equipment and any transportation, lifting and rigging equipment.
- Ensure that all necessary arrangements for stopping and unloading on public or private property not belonging to the customer have been made.

The unit (table main frame and body) can be shipped through a 1200 mm [47 in] door width and 1200 mm [47 in] minimum hallway width. The unit can be divided and the major assemblies can be maneuvered through a 1020 mm [40 in] doorway and 1300 mm [51 in] hallway width (Order has to be placed accordingly, table is shipped in one piece by default). The OTS can be shipped through a 900 mm [35 in] door width and 2600 mm [102.4 in] minimum hallway width or through a 1400 mm [55 in] door width and 1800 mm [71 in] minimum hallway width.

DIMENS	DIMENSIONS OF DELIVERY WITH DOLLY TRANSPORT EQUIPMENT					
MAJOR ASSEMBLIES	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	WEIGHT (kg)		
Table main frame and body	2460 [97 in]	1000 [39 in]	1630 [64 in]	TBD		
Table main frame	2460 [97 in]	680 [27 in]	1535 [60 in]	300 [661 lb]		
Table body	1268 [50 in]	1000 [39 in]	1630 [64 in]	680 [1499 lb]		
OTS (Optional)	3010 [118.5 in]	798.2 [31.5 in]	-	378 [833 lb]		
Monitor Suspension (Optional)	3010 [118.5 in]	798.2 [31.5 in]	-	382 [842 lb]		

FOCAL SPOT TRAVEL

KALOS SUSPENSION



*Distance depends on bridge length

SCALE 1:50

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STRUCTURAL NOTES

- Methods of support for the steelwork that will permit attachment to structural steel or through bolts in concrete construction should be favored. Do not use concrete or masonry anchors in direct tension.
- All units that are wall mounted or wall supported are to be provided with supports where necessary. Wall supports are to be supplied and installed by the customer or his contractors. See plan for suggested locations.
- Control walls shall be constructed to minimum 2130mm (7'-0") high.
- Dimensions are to finished surfaces of room.
- Customers contractor must provide all penetrations in post tension floors.
- Customers contractor must provide and install any non-standard anchoring. Documents for standard anchoring methods are included with GE equipment drawings for geographic areas that require such documentation.
- Customers contractor must provide and install hardware for "through the floor" anchoring and/or any bracing
 under access floors. This contractor must also provide floor drilling that cannot be completed because of an
 obstruction encountered while drilling by the GE installer such as rebar etc.
- It is the customer's responsibility to perform any floor or wall penetrations that may be required. The customer is also responsible for ensuring that no subsurface utilities (e.g., electrical or any other form of wiring, conduits, piping, duct work or structural supports (i.e. post tension cables or rebar)) will interfere or come in contact with subsurface penetration operations (e.g. drilling and installation of anchors/screws) performed during the installation process. To ensure worker safety, GE installers will perform surface penetration operations only after the customer's validation and completion of the "GE surface penetration permit".
- Different anchor types are used to install the components of the system. Refer to Structural Requirements Section(s) of the Pre-Installation Manual for each anchor requirement.
- Refer to the Structural Requirements Section for the required minimum embedment.
- The ground surface must be flat and leveled, maximum tolerance for leveling is ±1.5 mm per 1 m (0.2 in per 10 feet). A grout pad provided by the contractor is required to meet this specification. The maximum pad thickness is 6.3 mm (0.25 in).

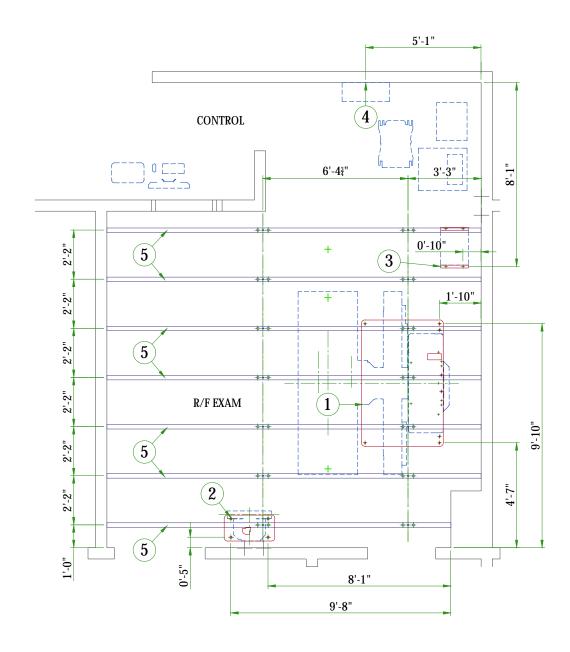
CEILING REQUIREMENTS

To allow installation of the stationary rail cross-members, clearance is required between the ends of the stationary rails and the walls.

It is recommended that sprinkler heads not be placed between the stationary rails. All sprinkler heads should be mounted so they do not extend downward more than 6.35 mm from the ceiling while in the 'resting' position.

In addition, there should not be anything mounted in the ceiling (i.e. lights, A/C returns, etc) between the stationary rails. This is because the OTS longitudinal drive belt assembly is located on the movable bridge, approximately centered between the two stationary rails, and may come into contact with those ceiling-mounted items during normal use.

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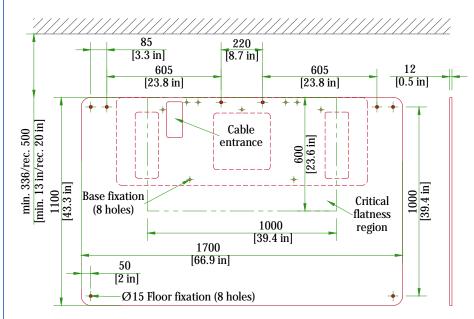


ITEM	DESCRIPTION			
	(GE SUPPLIED / CONTRACTOR INSTALLED)			
1	Area occupied by GE supplied table baseplate			
2	Area occupied by GE supplied wall stand baseplate			
3	Area occupied by GE supplied transformer			
	(CONTRACTOR SUPPLIED & INSTALLED)			
4	Support backing, locate as shown.			
5	Structural support in ceiling for fastening ceiling supported equipment. Supports to run continuous with no fittings extending below face of channel, run wall to wall, be parallel, square, and in the same horizontal plane, flush with the finished ceiling. Rails are mounted to these supports every 26.0" (660mm) and require 452 lbs. (205 kg) per bolt load. Methods of support that permit attachment to structural steel or through bolts in concrete should be favored. Do not use screw anchors in direct tension.			

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TABLE FLOOR MOUNTING

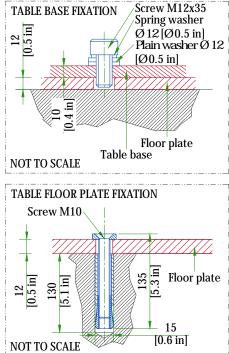
OVERFLOOR PLATE



- -Floor plate, M10 screws and washers are delivered with the system.
- -The floor thickness must be at least 200 mm [7.9 in].
- -Critical flatness region must be flat and level, with deviations of no more than 1.5mm [1/16 in]
- shims may be used along perimeter of baseplate to improve surface contact

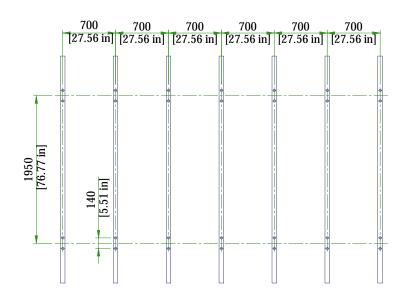
SCALE 1:20

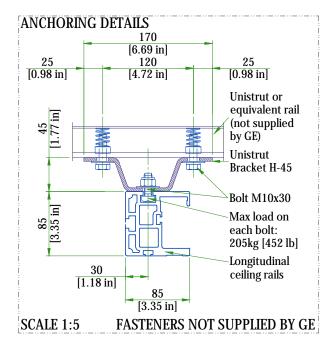
Unit weight: 1025 kg [2260 lb] Plate weight: 180 kg [397 lb] Total load: 1205 kg [2657 lb] Loading area: 1.90 m² [20.5 ft²] Floor loading: 805kg/m² [165 lb/ft²]



SUSPENSION RAILS MOUNTING SPECIFICATIONS

STRUCTURAL RAILS PERPENDICULAR TO SUSPENSION RAILS



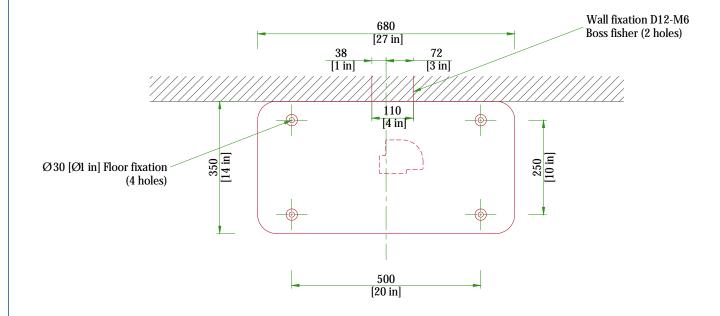


- Rail extremities must be separated from the wall by a 150mm [6in] distance
- Fire sprinklers, lights, air conditioning returns located in the suspension area must not be below the false ceiling
- Unistrut or equivalent structural support must be fixed perfectly parallel and on the same plane
- 660mm [26 in] steps are also possible

SCALE 1:50

WALL STAND FLOOR MOUNTING

WALL STAND BASE PLATE



SCALE 1:10

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TEMPERATURE AND HUMIDITY SPECIFICATIONS

IN-USE CONDITIONS

	EXAM ROOM			CONTROL ROOM			
	Min	Recommended	Max	Min	Recommended	Max	
Temperature	15°C [59°F]	23°C [73°F]	35°C [95°F]	15°C [59°F]	23°C [73°F]	35°C [95°F]	
Relative humidity (1)	75%			75%			
Heat dissipation	max	max 2.5 kW [8490 BTU/hr]			41 kW [1399 BTU/h	ır]	

STORAGE CONDITIONS

Temperature	-10°C [14°F] to 50°C [122°F]
Relative humidity (1)	10% to 80%

Material should not be stored for more than 90 days. (1) non-condensing

AIR RENEWAL

According to local standards.

NOTE

In case of using air conditioning systems that have a risk of water leakage it is recommended not to install it above electric equipment or to take measures to protect the equipment from dropping water.

HEAT DISSIPATION DETAILS

ROOM DESCRIPTION		STANDBY (kW)	IN-USE (kW)	STANDBY (BTU/hr)	IN-USE (BTU/hr)	
	Table	0.700	0.700	2388	2388	
	Generator	0.022	1.026	75	3500	
	Digital Systems Cabinet	0.320	0.320	1092	1092	
Exam Room	Partial UPS	0.050	0.050	N/A	N/A	
	Monitor (single)	0.057	0.057	149	149	
	Advantech Monitor (single)	0.065	0.065	222	222	
	OTS	0.350	0.350	1190	1190	

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CONNECTIVITY REQUIREMENTS

All Digital systems are equipped with Broadband fast Ethernet hardware for Service Diagnostics. The systems equipped with Digital Imaging are capable of placing electronic images on the Hospital image Ethernet Network (DICOM).

The Digital PC (part of the Digital subsystem) is the connectivity point between the system and the hospital. For a Broadband connection, it is the purchaser's responsibility to provide the connection at the Ethernet port on the Digital PC via a Cat 5 Ethernet cable and the hospital Ethernet connection.

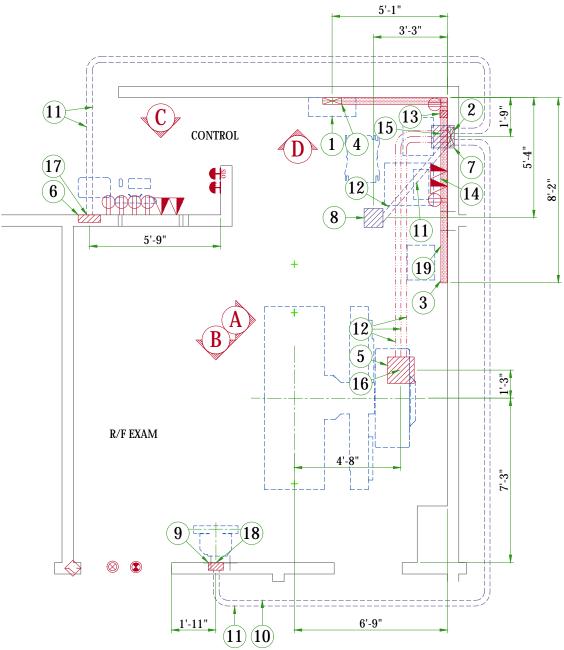
Note: System hardware is rated at 100/1000Mbs transfer rate. Hospital connections must be rated for 100/1000Mbs for optimal performance. One RJ45 Ethernet plus should be present in the room.

ELECTRICAL NOTES

- 1. All wires specified shall be copper stranded, flexible, thermo-plastic, color coded, cut 10 foot long at outlet boxes, duct termination points or stubbed conduit ends. All conductors, power, signal and ground, must be run in a conduit or duct system. Electrical contractor shall ring out and tag all wires at both ends. Wire runs must be continuous copper stranded and free from splices.
- 1.1. Aluminum or solid wires are not allowed.
- 2. Wire sizes given are for use of equipment. Larger sizes may be required by local codes.
- 3. It is recommended that all wires be color coded, as required in accordance with national and local electrical codes.
- 4. Conduit sizes shall be verified by the architect, electrical engineer or contractor, in accordance with local or national codes.
- 5. Convenience outlets are not illustrated. Their number and location are to be specified by others. Locate at least one convenience outlet close to the system control, the power distribution unit and one on each wall of the procedure room. Use hospital approved outlet or equivalent.
- 6. General room illumination is not illustrated. Caution should be taken to avoid excessive heat from overhead spotlights. Damage can occur to ceiling mounting components and wiring if high wattage bulbs are used. Recommend low wattage bulbs no higher than 75 watts and use dimmer controls (except MR). Do not mount lights directly above areas where ceiling mounted accessories will be parked.
- 7. Routing of cable ductwork, conduits, etc., must run direct as possible otherwise may result in the need for greater than standard cable lengths (refer to the interconnection diagram for maximum usable lengths point to point).
- 3. Conduit turns to have large, sweeping bends with minimum radius in accordance with national and local electrical codes.
- 9. A special grounding system is required in all procedure rooms by some national and local codes. It is recommended in areas where patients might be examined or treated under present, future, or emergency conditions. Consult the governing electrical code and confer with appropriate customer administrative personnel to determine the areas requiring this type of grounding system.
- 10. The maximum point to point distances illustrated on this drawing must not be exceeded.
- 11. Physical connection of primary power to GE equipment is to be made by customers electrical contractor with the supervision of a GE representative. The GE representative would be required to identify the physical connection location, and insure proper handling of GE equipment.
- 12. GEHC conducts power audits to verify quality of power being delivered to the system. The customer's electrical contractor is required to be available to support this activity.

- All junction boxes, conduit, duct, duct dividers, switches, circuit breakers, cable tray, etc., are to be supplied and installed by customers electrical contractor.
- Conduit and duct runs shall have sweep radius bends
- Conduits and duct above ceiling or below finished floor must be installed as near to ceiling or floor as possible to reduce run length.
- Ceiling mounted junction boxes illustrated on this plan must be installed flush with finished ceiling.
- All ductwork must meet the following requirements:
- 1. Ductwork shall be metal with dividers and have removable, accessible covers.
- 2.Ductwork shall be certified/rated for electrical power purposes.
- 3. Ductwork shall be electrically and mechanically bonded together in an approved manner.
- 4.PVC as a substitute must be used in accordance with all local and national codes.
- All openings in raceway and access flooring are to be cut out and finished off with grommet material by the customers contractor.
- General contractor to insert pull cords for all cable run conduits between the equipment room and the operators control room.
- 10 foot pigtails at all junction points.
- Grounding is critical to equipment function and patient safety. Site must conform to wiring specifications shown on this plan.

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NOTE: IF DOORWAY LEADS TO AN UNCONTROLLED AREA, A DOOR INTERLOCK SWITCH AND WARNING LIGHT WILL BE REQUIRED.

	ELECTRCAL LAYOUT ITEM LIST
1	Power Distribution Box
2	10" x 3 1/2" [250mm x 100mm] Flush wall duct with minimum 2 dividers
3	10" x 3 1/2" [250mm x 100mm] Surface wall duct with minimum 2 dividers
4	10" x 3 1/2" [250mm x 100mm] Surface wall duct to bottom of PDU with minimum 2 dividers
5	Box flush in floor for Table - size per local code
6	Box flush in wall for Console - size per local code
7	Box above ceiling - size per local code
8	Box flush in ceiling for OTS - size per local code
9	Box flush in wall for Wall Stand - size per local code
10	1 1/2" [39mm] Conduit
11	2 1/2" [64mm] Conduit
12	3 1/2" [89mm] Conduit
13	Box attached to duct (TIMS Readiness Kit)
14	Grommeted opening in duct cover for Digital Systems Cabinet
15	Grommeted opening in duct cover for Generator Cabinet
16	Suitable chase nipples for Table
17	Grommeted opening in box cover for Console
18	Grommeted opening in box cover for Wall Stand
19	Grommeted opening in duct cover for Transformer

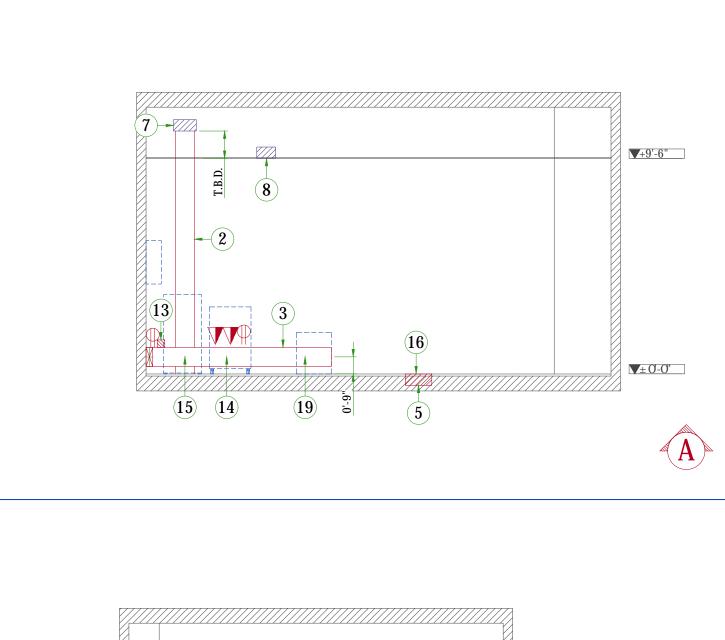
ITEM	QTY	Outlet Legend for GE Equipment
1		System emergency off (SEO), (recommended height 1.2m [48"] above floor)
8		X-Ray room warning light control panel
②		X-Ray ON lamp (L1) - 24V
\Diamond		Door interlock switch (needed only if required by state/local codes)
ф		Duplex hospital grade, dedicated wall outlet 120-v, single phase power
lack		Network outlet
OTS		OTS on/off switch, (recommended height 1.2m [48"] above floor)

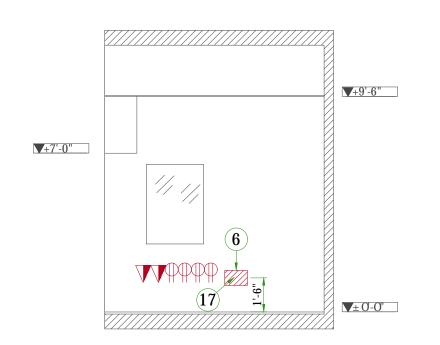
Conduit Legend				
	Above Ceiling			
	Below Floor			

Additional Conduit Runs (Contractor Supplied and Installed)

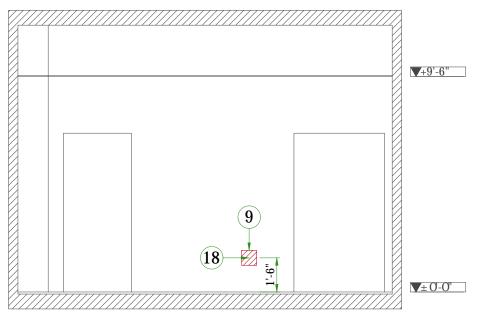
From (Bubble # / Item)		To (Bubble # / Item)		Qty	Size	
				QLY	In.	mm
	3 phase power	1	Power Distribution Box	1	As req'd	As req'd
19	Transformer	1		1	As req'd	As req'd
		Emergency off		1	1/2	16
1	Power Distribution Box		OTS On/off switch	1	1/2	16
		15	Generator	1	As req'd	As req'd
		19	Transformer	1	As req'd	As req'd
Warning light			Warning light control		1/2	16
	1 phase power				As req'd	As req'd
15	0 .			1	1/2	16
	Generator		Door Switch	1	1/2	16
v A I Da	ate 06/Aug/2021	E2 - Electrical Layout				13/16

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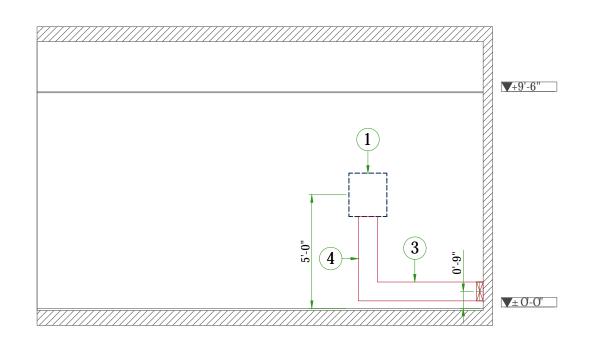






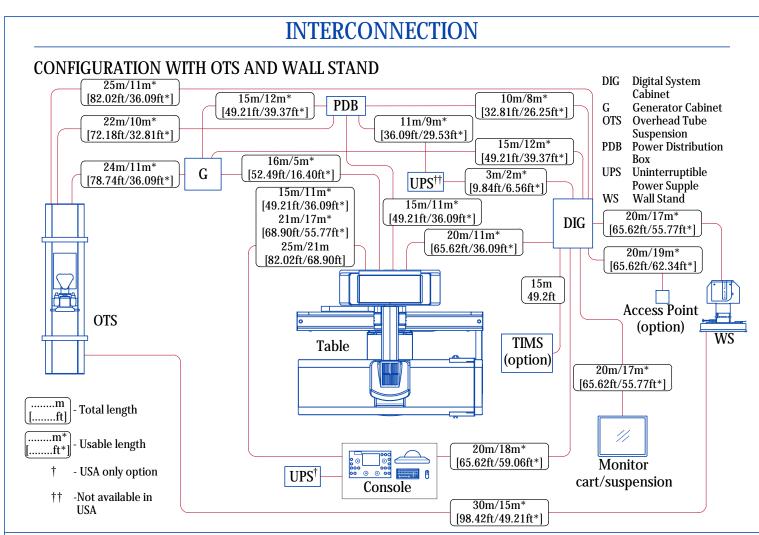








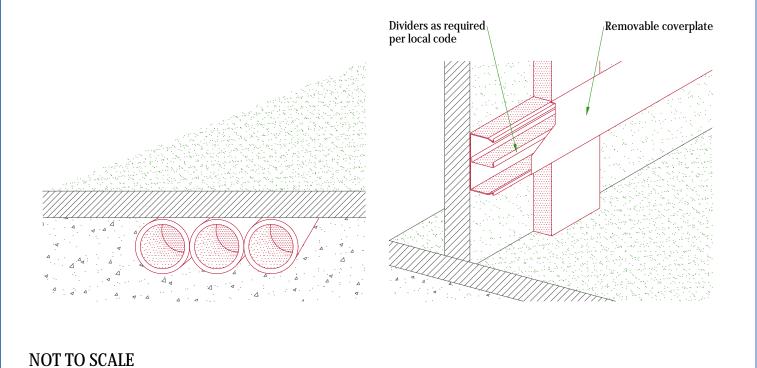
Riverton Hospital DISCOVERY RF180 | RF-M246605-FIN-00-A.DWG |1/4"=1'-0"|Rev A|Date 06/Aug/2021 | E3 - Electrical Elevations | 14/16



TYPICAL CABLE MANAGEMENT

CONDUIT IN THE FLOOR

WALL DUCT



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POWER REQUIREMENTS

GENERATOR TYPE	65 kW	80 kW	
POWER SUPPLY	3 PHASES+N+G 48 †		
MAINS FREQUENCY	<u> </u>		
LINE INPUT REACTIVE POWER (PEAK)	95 kVA	115 kVA	
LINE INPUT ACTIVE POWER	65 kW	80 kW	

- Line supply should come into a power distribution box (PDB) containing the protective units and controls.
- The section of the supply cable should be calculated in accordance with its length and the maximum permissible voltage drops.
- There must be discrimination between supply cable protective device at the beginning of the installation (main low-voltage transformer side) and the protective devices in the PDB.

SUPPLY CHARACTERISTICS

- Power input must be separated from any others which may generate transients (elevators, air conditioning, radiology rooms equipped with high speed film changers...)
- All equipment (lighting, power outlets, etc...) installed with GE system components must be powered separately.

GROUND SYSTEM

• Equipotential: the equipotential link will be by means of an equipotential bar. This equipotential bar should be connected to the protective earth conductors in the ducts of the non GE cableways and to additional equipotential connections linking up all the conducting units in the rooms where GE units are located.

CABLES

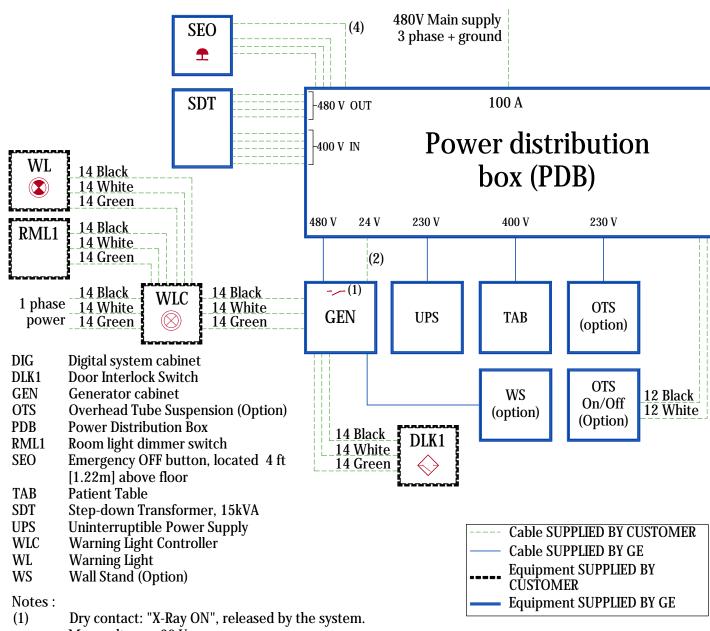
- Power and cable installation must comply with the distribution diagram below.
- All cables must be isolated and flexible, cable color codes must comply with standards for electrical installation.
- Case PDB furnished by GE: The cables for signals and remote control (Y, SEO, L...) will go to PDB with a pigtail length of 1.5m, and will be connected during installation. Each conductor will be identified and isolated (screw connector).

CABLEWAYS

The general rules for laying cableways should meet the conditions laid down in current standards and regulations, with regard to:

- Protecting cables against water (cableways should be waterproof)
- Protecting cables against abnormal temperatures (proximity to heating pipes or ducts)
- Protecting cables against temperature shocks
- Replacing cables (cableways should be large enough for cables to be replaced)
- Metal cableways should be grounded.

POWER DISTRIBUTION



(-)	21) contact. It may on the compact by the system.
	May voltage 20 V
	Max. voltage = 30 V
	0
(0)	1107DN F 1-1

- (2) H07RN-F cable with 6.56 ft (2m) extra length on the floor behind the back of generator cabinet (only if required per local requirements)
- (3) Max lug size 8 AWG
- (4) Fourth wire only needed with UPS option for USA

FEEDER TABLE								
MINIMUM FFEDER WIRE SIZE IN mm² AND (AWG)								
INPUT VOLTAGE	MINIMUM FEEDER WIRE LENGTH							
INPUT VOLTAGE	15m (50')	30m (100')	46m (150')	61m (200')	77m (250')	92m (300')	107m (350')	122m (400')
480 VAC	*35 (3)	*35 (3)	*35 (3)	*35 (3)	35 (2)	50 (1)	70 (1/0)	70 (1/0)
* MINIMUM WIRE SIZE FOR CIRCUIT BREAKER, BASED ON RECOMMENDED OVERCURRENT PROTECTION								
CENERAL NOTES								

In all cases qualified personnel must verify that the feeder (at the point of take-off) and the run to the Radiology system meet all the requirements stated in the PIM.

For a single unit installation, the minimum transformer size is 112.5kva, synthesized power feed is not acceptable. Maximum allowable transient voltage excursions are 2.5% of rated line voltage at a maximum duration of 5 cycles and frequency of 10 times per hour.

Ground wire will be same size as power cable. Ground will run from the equipment back to the power source/main grounding point and always travel in the same conduit with the feeders and neutral. Neutral must be terminated inside the main disconnect panel and not at any GE cabinet.

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