NJRA Architects, Inc.
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ADDENDUM

Date Issued:	September 30, 2025
Project:	Intermountain Health Riverton MRI #2 3741 West 12600 South Riverton, Utah 84065
Addendum Number:	1

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

Item Number	General Items Description
1	Q. Who is the control contractor? A. See attached section 23 09 00 – Instrumentation and Control for HVAC
2	Q. Where is the location of panel EHMDPC and what make of panel is it? A. The panel is located in the electrical room to the north. Existing panels appear to be Square D. Panel EHMDPC has not specifically been verified.
3	Q. What is the manufacture of panel HMDP? A. Existing panelboards/switchgear appear to all be Square D. Panel HMDP has not specifically been verified.
4	Q. What is the manufacture of panel 1HC? A. Existing panelboards/switchgear appear to all be Square D. Panel 1HC has not specifically been verified.
5	Q. Please verify that the disconnects for FC-1 and CH-1 are furnished and installed under another division and connected under division 26. As indicated on Equipment schedule on sheet EG601. A. That is correct, they are to be provided and installed by the equipment manufacturers.
6	Q. What fire alarm system is it and who maintains it? A. Notifier, serviced by Mountain Alarm.
7	Q. What nurse call system is it and who maintains it?

Item Number	General Items Description
	A. Hillrom, serviced by Baxter.
8	Q. What is the deck height on level 1? A. 15'- 5 1/2". The floor to floor height is 16ft. The Level 2 floor is 6.5" thick.
9	Q. On the parent wall infill they are calling for 550s162-54 stud. Can a 6" stud be used in lieu of this? A. The record drawings indicate that the exterior wall is a 550 stud. A 600 stud would be fine structurally but architecturally it would create a bump on the interior side of the wall therefore it is not advisable to use this.
10	Q. For the ceiling joists they are calling for 362s162-43 stud on structural plan but on architectural A506A detail 5 is calling for a 362s162-54 stud. Can we clarify what they want there? A. 43mil is acceptable though I take no exception with 54mil. It's more robust for fastening.
11	Q. Interior walls are called to be 20 GA .033 mil studs but for the furr wall next to parent wall they are calling for 18 GA stud on that. What gauge of studs are we using for ALL interior walls? A. 18ga (43mil) would be better if you're attaching anything significant. 20ga (33mil) it typical of interior walls. Watch out that 20ga could be a 30mil or 33mil stud. 30mil is very thin. I would never go below 33mil unless it's a short height and non-important interior wall.
12	Q. On page A114 note 09.02 is calling for the existing wall to be topped out. What height is the wall currently at? A. This wall appears to be full height.
13	Q. I am not seeing any notes for lead lined boards on this. Can we clarify if we need any in the MRI room or any other rooms as well? A. No lead lining required – only RF shielding by vendor. Coordinate with RF vendor drawings.
14	Q. I'm assuming the flooring or shielding guys will be picking up the plywood on the floor? A. Plywood shall be provided by general contractor. Coordinate with RF vendor drawings.
15	Q. Would it be possible to add the following millwork contractors to the Specs? • Mapleleaf • Precision Cabinets CNC • Advanced Cabinets • Artistic Mill

Item Number	General Items Description
	• Great Basin Cabinetry • Trim Art A. The vendors listed above are acceptable.
16	Q. It appears spec section 08 07 00 is missing from the project manual, can this be provided? A. See attached specification section.
17	See attached Mechanical Addendum 01.
18	See attached sheet G002 for updated deferred submittal items.
19	See attached sheet G111 for updated applicable codes.
20	See attached sheet A113 with updated room numbers.
21	Any or all wood blocking shall be fire retardant pressure treated lumber. See attached sheet A113.
22	Provide 5 lb. max opening force on all new doors. See attached sheet A601A.
23	Repair/add fireproofing as needed for fire rated beams, columns or floor assemblies damaged or affected by this remodel. See attached sheet A113.
24	Any electrical penetrations of conduit cable control wiring, alarm wiring or equipment wiring through fire rated walls or floors shall require UL listed through penetration or membrane penetration fire stop assembly.

Sheet Number	Drawings
Architectural Drawings	
G002	Update deferred submittal items as indicated.
G111	Update applicable codes as indicated.
A113	Update room numbers and keynotes as indicated.
A601A	Update notes for door schedule as indicated.
A603A	Update finishes as indicated.

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Sheet Number	Drawings
Mechanical Drawings	
M001	Edited fire protection general notes. Updated note #5. Added note #7.
M502	Added sheet m502 and detail #1 and #2.
F000	Edited fire protection general notes. Updated note #5. Added note #7.
	Updated sheet index title.
F101	Added system abbreviation tags to fire sprinkler pipes.
	Added keynotes #3 and #4.
F501	Changed details #5 and #6 to "not to scale".

Specification Section	Project Manual
Architectural Sections	
08 71 00	Door Hardware
Mechanical Sections	
23 09 00	Updated section 2.1 acceptable manufactures to include Johnson controls.

Attachments:

G002, G111, A113, A601A, A603A, Mechanical Addendum 01 (M001, M502, F000, F101, F501, section 23 09 00), Specification Section 087100

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Date: 09/09/2025
Project No: 250624
Project: MRI #2
Revision: ADDENDUM #01

Addendum - The following revision, additions, deletions, and/or items of clarification shall hereby be included as an integral part of the Contract Documents for the above-listed project and shall be fully binding. All other requirements shall remain in effect of the original plans and specification.

DIVISION - 22,23

DRAWINGS

Sheet: M001 - MECHANICAL GENERAL NOTES

- EDITED FIRE PROTECTION GENERAL NOTES. UPDATED NOTE #5. ADDED NOTE #7.

Sheet: M502 - MECHANICAL DETAILS

- ADDED SHEET M502 AND DETAIL #1 AND #2.

Sheet: F000 - FIRE PROTECTION TITLE SHEET

- EDITED FIRE PROTECTION GENERAL NOTES. UPDATED NOTE #5. ADDED NOTE #7.
- UPDATED SHEET INDEX TITLE.

Sheet: F101 - LEVEL 1 FIRE PROTECTION PLAN

- ADDED SYSTEM ABBREVIATION TAGS TO FIRE SPRINKLER PIPES.
- ADDED KEYNOTES #3 AND #4.

Sheet: F501 - FIRE PROTECTION DETAILS

- CHANGED DETAILS #5 AND #6 TO "NOT TO SCALE".

SPECIFICATIONS

230900 – INSTRUMENTATION AND CONTROL HVAC

- UPDATED SECTION 2.1 ACCEPTABLE MANUFACTURES TO INCLUDE JOHNSON CONTROLS.

230593 – TESTING, ADJUSTING, AND BALANCING FOR HVAC

- UPDATED SECTION 3.1 TAB SPECIALISTS TO INCLUDE BCS.

End of Addendum.

INTERIM LIFE SAFETY MEASURES

IMPLEMENTATION OF INTERIM LIFE SAFETY MEASURES (ILSM) IS REQUIRED IN OR ADJACENT TO ALL CONSTRUCTION AREAS AND THROUGHOUT BUILDINGS WITH EXISTING LSC DEFICIENCIES. ILSM APPLY TO ALL PERSONNEL, INCLUDING CONSTRUCTION WORKERS, MUST BE IMPLEMENTED UPON PROJECT DEVELOPMENT, AND CONTINUOUSLY ENFORCED THROUGH PROJECT COMPLETION. ILSM ARE INTENDED TO PROVIDE A LEVEL OF LIFE SAFETY COMPARABLE TO THAT DESCRIBED IN CHAPTERS 1 THROUGH 7, 31 AND THE APPLICABLE OCCUPANCY CHAPTERS OF THE LSC. EACH ILSM ACTION MUST BE DOCUMENTED THROUGH WRITTEN POLICIES AND PROCEDURES. EXCEPT AS STATED BELOW, FREQUENCIES FOR INSPECTION, TESTING, TRAINING, AND ILSM CONSIST OF THE FOLLOWING ACTIONS:

1 ENSURING EXITS PROVIDE FREE AND UNOBSTRUCTED EGRESS. PERSONNEL SHALL RECEIVE TRAINING IF ALTERNATIVE EXITS MUST BE DESIGNATED. BUILDINGS OR AREAS UNDER CONSTRUCTION MUST MAINTAIN ESCAPE FACILITIES FOR CONSTRUCTION WORKERS AT ALL TIMES. MEANS OF EGRESS IN CONSTRUCTION AREAS MUST BE INSPECTED DAILY.

2 ENSURING FREE AND UNOBSTRUCTED ACCESS TO EMERGENCY DEPARTMENTS/ SERVICES AND FOR EMERGENCY FORCES.

3 ENSURE FIRE ALARM, DETECTION, AND SUPPRESSION SYSTEMS ARE NOT IMPAIRED. A TEMPORARY, BUT EQUIVALENT, SYSTEM SHALL BE PROVIDED WHEN ANY FIRE SYSTEM IS IMPAIRED. TEMPORARY SYSTEMS MUST BE INSPECTED AND TESTED MONTHLY.

4 ENSURING TEMPORARY CONSTRUCTION PARTITIONS ARE SMOKE TIGHT AND BUILT OF NONCOM OR LIMITED COMBUSTIBLE MATERIALS THAT WILL NOT CONTRIBUTE TO THE DEVELOPMENT OR SPREAD OF FIRE.

5 PROVIDING ADDITIONAL FIRE-FIGHTING EQUIPMENT AND USE TRAINING OF PERSONNEL.

6 PROHIBITING SMOKING IN ACCORDANCE WITH MA.1.3.15 AND IN OR ADJACENT TO ALL CONSTRUCTION AREAS.

7 DEVELOPING AND ENFORCING STORAGE, HOUSEKEEPING, AND DEBRIS REMOVAL PRACTICES THAT REDUCE THE FLAMMABLE AND COMBUSTIBLE FIRE LOAD OF THE BUILDING TO THE LOWEST LEVEL NECESSARY FOR DAILY OPERATIONS.

8 CONDUCTING A MINIMUM OF TWO FIRE DRILLS PER SHIFT PER QUARTER.

9 INCREASING HAZARD SURVEILLANCE OF BUILDINGS, GROUNDS, AND EQUIPMENT WITH SPECIAL ATTENTION TO EXCAVATIONS, CONSTRUCTION AREAS CONSTRUCTION STORAGE, AND FIELD OFFICES.

10 TRAINING PERSONNEL WHEN STRUCTURAL OR COMPARTMENT FEATURES OF FIRE SAFETY ARE COMPROMISED.

11 CONDUCTING ORGANIZATION WIDE SAFETY EDUCATION PROGRAMS TO ENSURE AWARENESS OF ANY LSC DEFICIENCIES, CONSTRUCTION HAZARDS, AND THESE ILSM.

INFECTION CONTROL RISK ASSESSMENT

CONSTRUCTION ACTIVITY TYPE
Type D:
Major demolition or construction that creates major disruption, i.e. noise, dust, vibration, odor, or mechanical systems
includes, but not limited to:
- heavy demolition or removal of a complete cabling system
- new construction or buildout of shelled space

INFECTION CONTROL RISK GROUP
Highest:
- Pharmacy

CONSTRUCTION CLASS
Construction Activity Type:

IC Risk Group	Type A	Type B	Type C	Type D
Lowest	Class I	Class II	Class II	Class III
Medium	Class I	Class II	Class III	Class IV
High	Class I	Class II	Class IV	Class IV
Highest	Class II	Class IV	Class IV	Class IV

INFECTION CONTROL PROTOCOLS
During Construction (Class IV):
- Perform work using methods to minimize raising dust or tracking dust into other areas.
- Immediately replace ceiling tile upon completion of inspection.
- Use active dust control measures.
- Use water mist to control dust while cutting.
- Seal doors, ducts, vents and HVAC units.
- Place dust control mats at entries to work area; keep them clean and effective.
- Remove debris only in tightly covered containers.
- Construct barriers to prevent dust and other contaminant migration prior to beginning work.
- Maintain negative air pressure in work space using HEPA filtration units.
- Seal all pipes, conduits and penetrations.
- Construct and use anteroom for all entry to work area; HEPA vacuum all personnel, or have them change clothing before they leave the work area.
- All personnel wear shoe covers while in the work area and remove then before entering the hospital.

Upon Completion (Class IV):
- Clean work area.
- Wipe all horizontal surfaces with disinfectant.
- Remove final debris only in tightly covered containers.
- Vacuum using HEPA filtered vacuum; mop with disinfectant as appropriate.
- Remove all seals from doors, ducts, vents and HVAC units.
- Remove construction barriers in a manner that minimizes the spread of dust and debris.

PROJECT DESCRIPTION

PROJECT DESCRIPTION:

INSTALLATION OF A NEW MRI SCANNING EQUIPMENT IN A NEW SCAN ROOM WITH SUPPORTING SPACES SUCH AS EQUIPMENT ROOM, PATIENT WAITING AND CHANGING ROOMS AND PATIENT BATHROOM WITHIN AN EXISTING SHELLED SPACE. THE PROJECT ALSO INVOLVES THE INSTALLATION OF A NEW MRI CHILLER ELSEWHERE ON THE HOSPITAL CAMPUS.

PROJECT SCOPE:

ARCHITECTURAL, STRUCTURAL, MECHANICAL AND ELECTRICAL WORK AS OUTLINED IN THE CONSTRUCTION DOCUMENTS.

APPROVALS

Approvers Name, Title	Date
Approvers Name, Title	Date
Approvers Name, Title	Date
Approvers Name, Title	Date

VICINITY MAP

ABBREVIATIONS

&	AND
@	AT
Ø	DIAMETER
(E), EXIST.	EXISTING
(N)	NEW
d	PENNY
#	POUND OR NUMBER
A	
AC	ACOUSTIC
ADD	ADDENDUM
A/C	AIR CONDITIONING
ALT.	ALTERNATE
AL	ALUMINUM
A.B.	ANCHOR BOLT
ARCH	ARCHITECT(URAL)
ASP.	ASPHALT
B	
BSMT.	BASEMENT
B.M.	BENCHMARK
BLKG.	BLOCKING
BD.	BOARD
B.O.	BOTTOM OF
BLDG.	BUILDING
C	
CAB'T	CABINET
C.I.P.	CAST IN PLACE
C.B.	CATCH BASIN
CLG.	CEILING
CL	CENTER LINE
C.T.	CERAMIC TILE
CH	CHANNEL
C.O.	CLEAN OUT
CLR.	CLEAR
CL.	CLOSET
COL.	COLUMN
CONC.	CONCRETE
CMU	CONCRETE MASONRY UNIT
COND.	CONDITION
CONN.	CONNECTION
CONST.	CONSTRUCTION
CONT	CONTINUOUS
C.J	CONTROL JOINT
D	
D.P.	DAMP PROOFING
D.B.	DECK BEARING
DIAG.	DIAGONAL
DIA.	DIAMETER
DIM.	DIMENSION
DISP.	DISPENSER
DWL.	DOWEL
DN.	DOWN
D.S.	DOWN SPOUT
D.W.V.	DRAINAGE WASTE VENT
DWG.	DRAWING
E	
EA.	EACH
E.W.C.	ELEC. WATER COOLER
EL./ELEC.	ELECTRIC
ELEV.	ELEVATION
EQ.	EQUAL
EQUIP.	EQUIPMENT
EXH.	EXHAUST
EXIST.	EXISTING
E.J.	EXPANSION JOINT
EXT.	EXTERIOR
F	
FT.	FEET
FV/F.V.	FIELD VERIFY
FIN.	FINISH(ED)
F.E.	FIRE EXTINGUISHER
F.E.C.	FIRE EXTINGUISHER CABINET
FIXT.	FIXTURE
FL.	FLASHING
G	
GALV.	GALVANIZED
GA.	GAUGE
G.C.	GENERAL CONTRACTOR
G.S.N.	GENERAL STRUCTURAL NOTES
GL.	GLASS
GD.	GRADE
GRL.	GRILLE
GRD.	GROUND
GYP.	GYPSUM
H	
HDW.	HARDWARE
HDWD.	HARDWOOD
HTR.	HEATER
HT.	HEIGHT
H.P.	HIGH POINT
H.M.	HOLLOW METAL
HORIZ.	HORIZONTAL
H.B.	HOSE BIB
H.W.	HOT WATER
HR.	HOUR
I	
IN.	INCH
I.D.	INSIDE DIAMETER
INSUL.	INSULATION
INT.	INTERIOR
INV.	INVERT
J	
JAN.	JANITOR
JT.	JOINT
JST.	JOIST
L	
LAM.	LAMINATED
LDG.	LANDING
LAV.	LAVATORY
LT.	LIGHT
L.W.C.	LIGHT WEIGHT CONCRETE
LVR.	LOUVER
M	
M.B.	MACHINE BOLT
MFR.	MANUFACTURER
M.O.	MASONRY OPENING
MAT'L	MATERIAL
MAX.	MAXIMUM
MECH.	MECHANICAL
MTL.	METAL
MIN.	MINIMUM
MLDG.	MOLDING
MULL.	MULLION
N	
N.G.	NATURAL GRADE
NOM.	NOMINAL
N/A	NOT APPLICABLE
N.I.C.	NOT IN CONTRACT
N.T.S.	NOT TO SCALE
O	
O.C.	ON CENTER
O.D.	OUTSIDE DIAMETER
O.R.D.	OVERFLOW ROOF DRAIN
O.F.S.	OVERFLOW SCUPPER
O.F.C.I.	OWNER FURNISHED, CONTRACTOR INSTALLED
O.F.O.I.	OWNER FURNISHED, OWNER INSTALLED
P	
PT.	PAINT
PTD.	PAINTED
PR.	PAIR
PNL.	PANEL
d	PENNY
P.L.	PLASTIC LAMINATE
PL.	PLATE
PLBG.	PLUMBING
P.S.I.	POUND PER SQUARE INCH
P.S.F.	POUNDS PER SQUARE FOOT
R	
RAD.	RADIUS
REC.	RECOMMENDATION
REG.	REGISTER
REQ'D	REQUIRED
R.A.	RETURN AIR
REV.	REVISION
R.D.	ROOF DRAIN
RFG.	ROOFING
RM.	ROOM
RGH.	ROUGH
RND.	ROUND
S	
SCR.	SCREW
SECT.	SECTION
SEL.	SELECT
SHT.	SHEET
SIM.	SIMILAR
SLDG.	SLIDING
SM.	SMOOTH
SPEC.	SPECIFICATION
SPL.	SPLASH
SQ.	SQUARE
S.S.	STAINLESS STEEL
STD.	STANDARD
STRUC.	STRUCTURE
S.A.	SUPPLY AIR
SUSP.	SUSPENDED
SW.BD.	SWITCHBOARD
T	
TELCO	TELEPHONE COMPANY
T.G.	TEMPERED GLASS
T&G	TONGUE & GROOVE
T&B	TOP & BOTTOM
T.O.	TOP OF
T.O.C.	TOP OF CURB
T.O.D.	TOP OF DECK
T.O.P.	TOP OF PARAPET
TYP.	TYPICAL
U	
U.N.O.	UNLESS NOTED OTHERWISE
V	
V.	VENT
V.T.R.	VENT THROUGH ROOF
VERT.	VERTICAL
V.G.	VERTICAL GRAIN
VEST.	VESTIBULE
V.C.T.	VINYL COMPOSITION TILE
V.C.P.	VITREOUS CLAY PIPE
W	
W.C.	WATER CLOSET
W.H.	WATER HEATER
W.R.	WATER RESISTANT
W.P.	WATERPROOF
W.W.F.	WELDED WIRE FABRIC
W.F.	WIDE FLANGE
WDW.	WINDOW
W/	WITH
W/O	WITHOUT
WD.	WOOD

DEFERRED SUBMITTALS

THE CONTRACTOR SHALL SUBMIT THE FOLLOWING TO THE BUILDING OFFICIAL FOR REVIEW WITH AN ACCOMPANYING LETTER FROM THE ARCHITECT STATING THAT THE CONTENTS OF THE SUBMITTAL ARE IN CONFORMANCE WITH THE DESIGN. WORK RELATED TO THE DEFERRED SUBMITTAL IS NOT TO COMMENCE UNTIL THE BUILDING OFFICIAL HAS APPROVED THE SUBMITTAL.

1. DETAILS AND ENGINEERING CALCULATIONS FOR ALL NONSTRUCTURAL COMPONENTS THAT ARE PERMANENTLY ATTACHED TO STRUCTURES AND THEIR SUPPORTS AND ATTACHMENTS. THESE SHALL BE DESIGNED AND CONSTRUCTED TO RESIST THE EFFECTS OF EARTHQUAKE MOTIONS IN ACCORDANCE WITH ASCE 7-05. REFERENCE IBC SECTION 1613.1. THIS INCLUDES:
- ELECTRICAL SYSTEMS
- MECHANICAL SYSTEMS
- PLUMBING SYSTEMS
- DECORATIVE ARCHITECTURAL COMPONENTS.

2. DETAILS AND ENGINEERING CALCULATIONS FOR THE FIRE SPRINKLER AND FIRE DETECTION SYSTEMS, WHICH ARE TO BE DESIGN-BUILD BY THE CONTRACTOR TO COMPLY WITH NFPA 13 AND SHALL INCLUDE:
- FIRE ALARM PLANS (INCLUDING CO DETECTOR LOCATIONS)
- AUTOMATIC FIRE SPRINKLER PLANS
- HOOD FIRE SUPPRESSION
- CLASS 'K' FIRE EXTINGUISHER LOCATION(S)

3. PULL TEST FOR DOCK ASSEMBLY ANCHOR. SEE VENDOR DRAWINGS (A710) Q150.

SPECIAL INSPECTIONS

SEE STRUCTURAL DRAWINGS FOR SPECIAL INSPECTIONS REQUIRED.

DEFINITIONS

1. GENERAL: BASIC CONTRACT DEFINITIONS ARE INCLUDED IN THE CONDITIONS OF THE CONTRACT.
2. "APPROVED": WHEN USED TO CONVEY ARCHITECT'S ACTION ON CONTRACTOR'S SUBMITTALS, APPLICATIONS, AND REQUESTS, "APPROVED" IS LIMITED TO ARCHITECT'S DUTIES AND RESPONSIBILITIES AS STATED IN THE CONDITIONS OF THE CONTRACT.
3. "DIRECTED": A COMMAND OR INSTRUCTION BY ARCHITECT. OTHER TERMS INCLUDING "REQUESTED," "AUTHORIZED," "SELECTED," "REQUIRED," AND "PERMITTED" HAVE THE SAME MEANING AS "DIRECTED."
4. "INDICATED": REQUIREMENTS EXPRESSED BY GRAPHIC REPRESENTATIONS OR IN WRITTEN FORM ON DRAWINGS, IN SPECIFICATIONS, AND IN OTHER CONTRACT DOCUMENTS. OTHER TERMS INCLUDING "SHOWN," "NOTED," "SCHEDULED," AND "SPECIFIED" HAVE THE SAME MEANING AS "INDICATED."
5. "REGULATIONS": LAWS, ORDINANCES, STATUTES, AND LAWFUL ORDERS ISSUED BY AUTHORITIES HAVING JURISDICTION, AND RULES, CONVENTIONS, AND AGREEMENTS WITHIN THE CONSTRUCTION INDUSTRY THAT CONTROL PERFORMANCE OF THE WORK.
6. "FURNISH": SUPPLY AND DELIVER TO PROJECT SITE, READY FOR UNLOADING, UNPACKING, ASSEMBLY, INSTALLATION, AND SIMILAR OPERATIONS.
7. "INSTALL": UNLOAD, TEMPORARILY STORE, UNPACK, ASSEMBLE, ERECT, PLACE, ANCHOR, APPLY, WORK TO DIMENSION, FINISH, CURE, PROTECT, CLEAN, AND SIMILAR OPERATIONS AT PROJECT SITE.
8. "PROVIDE": FURNISH AND INSTALL, COMPLETE AND READY FOR THE INTENDED USE.
9. "PROJECT SITE": SPACE AVAILABLE FOR PERFORMING CONSTRUCTION ACTIVITIES. THE EXTENT OF PROJECT SITE IS SHOWN ON DRAWINGS AND MAY OR MAY NOT BE IDENTICAL WITH THE DESCRIPTION OF THE LAND ON WHICH PROJECT IS TO BE BUILT.

DRAWING INDEX

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STATE OF UTAH
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267857-0301
8/26/25
LICENSED ARCHITECT

Intermountain Health
Riverton Hospital
MRI #2

3741 West 12600 South
Riverton, Utah 84065

NJRA Project # 25227.00
Construction Documents Aug. 26, 2025

General Information

G002

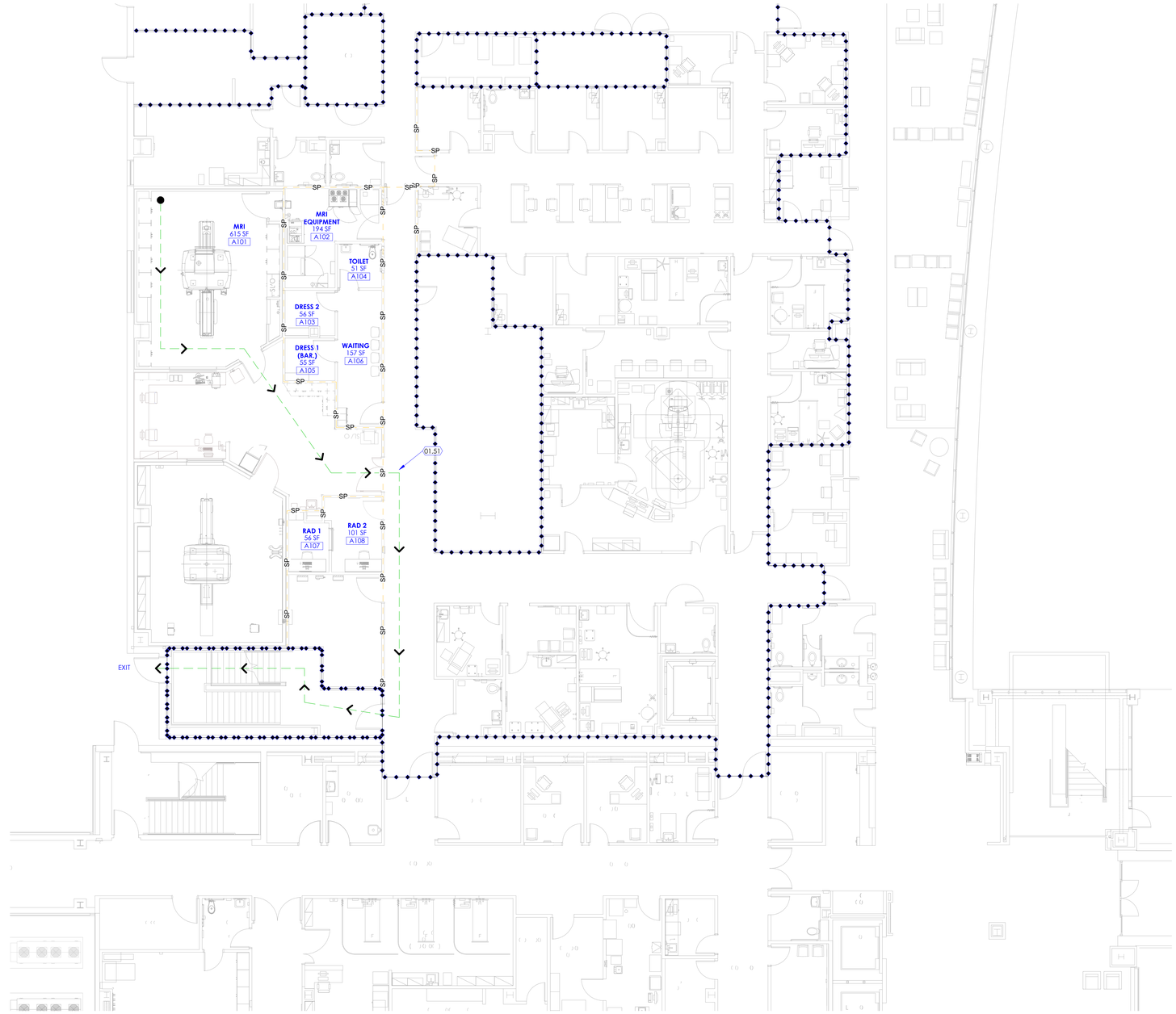
9/30/2025 3:18:53 PM

LEGEND - CODE COMPLIANCE PLAN

SYMBOL	DESCRIPTION	FIRE RESISTANCE RATING	DOOR FIRE RATING	WINDOW FIRE RATING
	COMMON PATH OF TRAVEL	N/A	N/A	N/A
	TRAVEL DISTANCE	N/A	N/A	N/A
ROOM NAME SQ. FT. ROOM # O.L. #	OCCUPANT LOAD	N/A	N/A	N/A
SP	SMOKE PARTITION WALL	0 HOUR	SMOKE	SMOKE
SB	SMOKE BARRIER WALL	1 HOUR	1/3 HOUR	1/3 HOUR
	1 HOUR FIRE RATED WALL	1 HOUR	3/4 HOUR	3/4 HOUR
	2 HOUR FIRE RATED WALL	2 HOUR	1-1/2 HOUR	1-1/2 HOUR

KEYED NOTES

01.51 LINE AND ARROW INDICATES "TRAVEL DISTANCE" OF 157'-6" BETWEEN POINTS T10 AND T1. THIS IS LESS THAN THE MAXIMUM ALLOWED DISTANCE OF 250'-0".



1 Code Compliance Floor Plan Level 1 - Overall
SCALE: 1/8" = 1'-0"

NORTH

CODE REVIEW

APPLICABLE CODES

International Existing Building Code (IEBC)	2021
International Fire Code (IFC)	2021
International Mechanical Code (IMC)	2021
International Plumbing Code (IPC)	2021
ANSI/ASHRAE/IES Standard 90.1	2010
National Electric Code (NEC)	2023
NFPA 101	2018
ANSI 117.1	2009

Project Description
This project includes the following scope of work:

A. Project includes addition of a new MRI room, an equipment room, 2 dress rooms, a waiting area and a toilet for the new MRI room.
B. Installation of a new GE magnet in the MRI room and associated supporting mechanical and electrical equipment.

OCCUPANCY: I-2 (Hospital)

CONSTRUCTION TYPE: Type I-B

OTHER CODE REQUIREMENTS

Travel Distance:	200 Feet (I-2)
Common Path of Travel:	75 Feet (I-2)
Minimum Corridor Width:	8 Feet (I-2)

AUTOMATICALLY SPRINKLED
Building is equipped with an automatic fire extinguishing sprinkler system.

OCCUPANT LOADS:

Business:	150 Sq. Ft. Gross per Occupant
Assembly (Unconcentrated):	15 Sq. Ft. Net per Occupant
Storage / Elec. / Mech.:	300 Sq. Ft. Gross per Occupant
Other Areas:	50 Sq. Ft. Net per Occupant
Total Occupant Load (Per Code):	**13 Occupants**
Level 1 Remodel Area (Total):	**1,395 sf.**

FIRE RESISTANCE RATING FOR BUILDING ELEMENTS (TABLE 601)

	Required	Provided
Structural Frame:	2	2
	(2 hr, where supporting the roof)	
Bearing Walls:		
Exterior	2	2
Interior	2	2
Non-Bearing Walls:		
Exterior	0	0
Interior	0	0
Floor Construction	2	2
Roof Construction	1	1

Note: Contractor is required to maintain fire proofing of the existing structural steel where occurs during construction. Patch and repair to original condition if damaged during construction.

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LICENSED ARCHITECT

Intermountain Health
Riverton Hospital
MRI #2

3741 West 12600 South
Riverton, Utah 84065

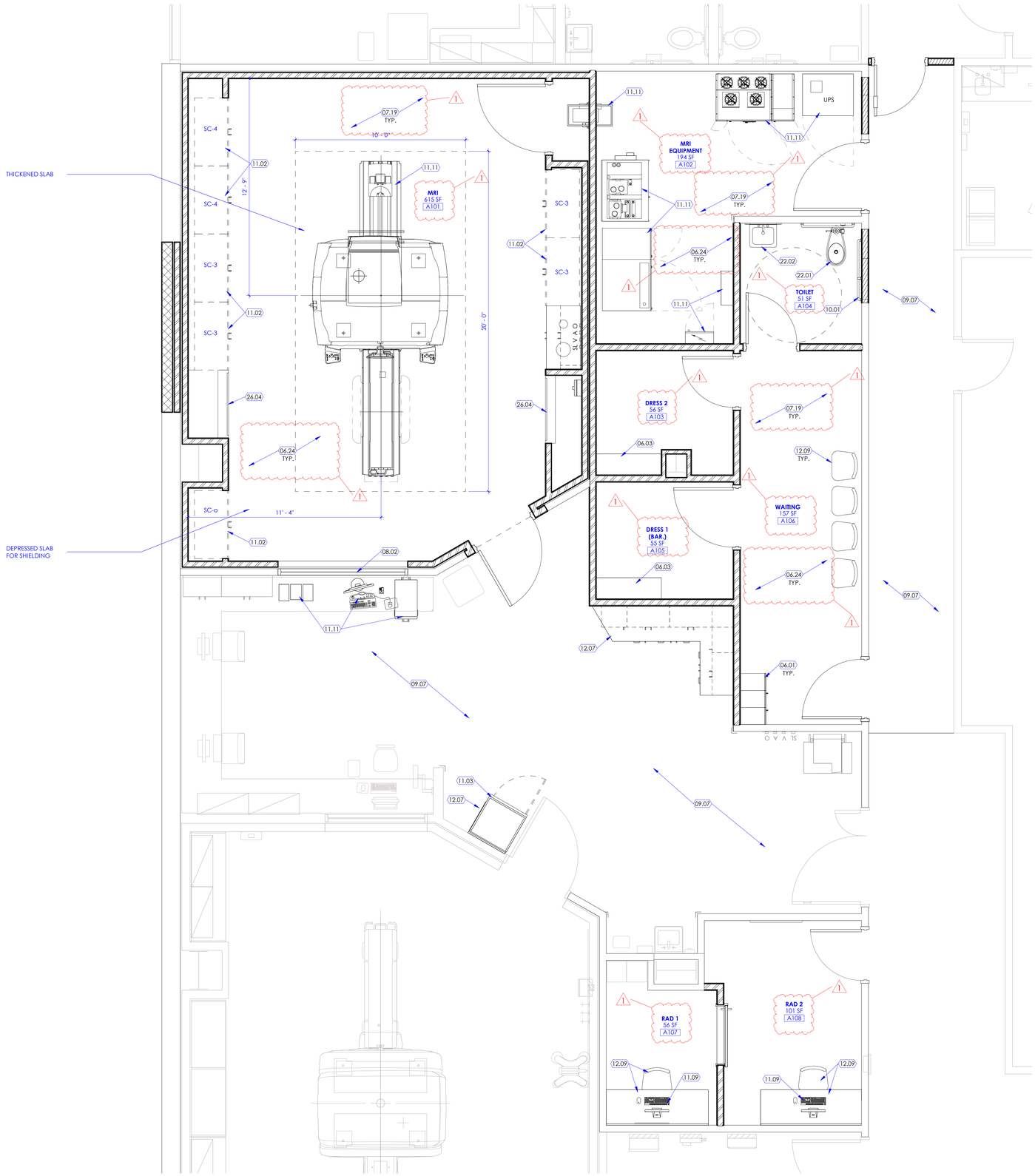
NJRA Project # 25227.00
Construction Documents Aug. 26, 2025

Code Compliance Plan Level 1 - Overall

G111

9/30/2025 3:18:59 PM

VIEW & PRINT THIS SHEET IN COLOR FOR CLARITY



1 Floor Plan Level 1
SCALE: 3/8" = 1'-0"

NORTH

KEYED NOTES

06.01	CABINET, SEE CABINET LEGEND ON SHEET 1/A505A, AND INTERIOR ELEVATIONS, FOR CABINET TYPES SUCH AS BASE CABINETS, WALL CABINETS, TALL CABINETS, ETC.
06.03	SHELF, PLASTIC LAMINATE WRAPPED OVER 3/4" PARTICLE BOARD.
06.24	WOOD BLOCKING AND OR BACKING. PROVIDE BLOCKING/BACKING AS REQUIRED. ALL BLOCKING OR BACKING SHALL BE FIRE RETARDANT, PRESSURE TREATED LUMBER.
07.19	FIRE PROTECTION: EXISTING TO BE ADDED OR PATCHED AS REQUIRED. WHERE EXISTING FIRE PROTECTION MUST BE REMOVED FOR CONSTRUCTION PATCH OR ADD AS REQUIRED TO MAINTAIN FIRE RATING.
08.02	RF WINDOW SUPPLIED AND INSTALLED BY PDC. SEE EQUIPMENT DRAWINGS
09.07	FLOOR COVERING. SEE FINISH FLOOR PLANS FOR FLOOR COVERING INDICATED WITH A FLOOR FINISH TAG (AS F1, F2, F3, ETC.). SEE FINISH SCHEDULE ON SHEET A603A FOR MATERIAL, SIZE, COLOR, ETC. FOR EACH FLOOR FINISH TAG.
10.01	GRAB BAR. PROVIDE GRAB BARS REQUIRED FOR WATER CLOSET, SHOWER, ETC. SEE RELEVANT DETAILS 1/G003 AND 1/G004 FOR MOUNTING HEIGHT, LOCATION, ETC.
11.02	EQUIPMENT CABINET. SEE VENDOR DRAWINGS. CONTRACTOR SHALL SUBMIT ENGINEERED DRAWINGS FOR CABINET ATTACHMENT AND ANCHORAGE FOR REVIEW
11.03	BLANKET WARMER.
11.09	COMPUTER, NOT IN CONTRACT. OWNER FURNISHED OWNER INSTALLED. PROVIDE GROMMET IN COUNTERTOP WHERE COMPUTER OCCURS ON COUNTER WITH KNEE SPACE BELOW.
11.11	EQUIPMENT, NOT IN CONTRACT. OWNER FURNISHED OWNER INSTALLED.
12.07	COUNTERTOP, MONOLITHIC MATERIAL (SOLID SURFACE)
12.09	FURNITURE, NOT IN CONTRACT. OWNER FURNISHED OWNER INSTALLED.
22.01	WATER CLOSET. SEE RELEVANT DETAILS 1/G003 AND 1/G004 FOR MOUNTING HEIGHT, LOCATION, ETC. SEE PLUMBING DRAWINGS.
22.02	LAVATORY (WALL-MOUNTED SINK). SEE RELEVANT DETAILS 1/G003 AND 1/G004 FOR MOUNTING HEIGHT, LOCATION, ETC. SEE PLUMBING DRAWINGS.
26.04	ILLUMINATED WALL FIXTURE. SEE ELECTRICAL DRAWINGS. SEE EQUIPMENT DRAWINGS

GENERAL NOTES

A. SEE SHEET G003 AND G005 FOR SYMBOLS, GENERAL NOTES AND LEGEND.
B. SEE SHEET A505A FOR CABINET LEGEND.
C. SEE SHEET A601A FOR DOOR SCHEDULE.
D. SEE SHEET A602A FOR WINDOW SCHEDULE.
E. SEE SHEET A603A FOR FINISH SCHEDULE AND GENERAL NOTES.

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NJRA Project #	25227.00
Construction Documents	Aug. 26, 2025
1 Addendum 01	Sep 30, 2025

Floor Plan
Level 1

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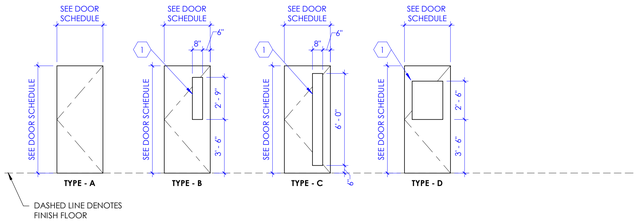
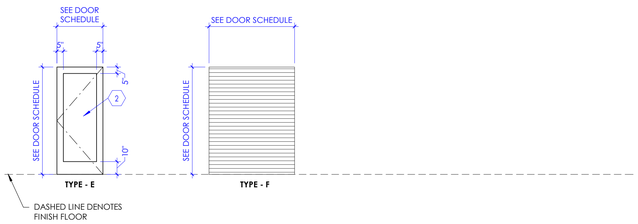




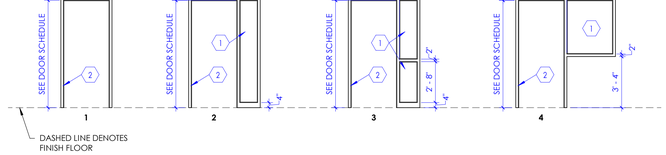
KEYED NOTES

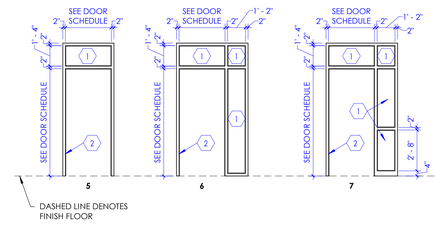
1. VISION PANEL. GLAZING IN VISION PANEL SHALL BE 1/4" THICK, CLEAR, TEMPERED, GLAZING. FOR WOOD DOOR, PROVIDE WOOD TRIM FRAME FLUSH WITH THE FACE OF THE DOOR, AROUND THE VISION PANEL OPENING. STAIN AND SPECIES OF WOOD TRIM SHALL MATCH WOOD DOOR. FOR HOLLOW METAL DOOR, PROVIDE METAL TRIM AROUND VISION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

1 Door Types

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

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





KEYED NOTES

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

2 Frame Types

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

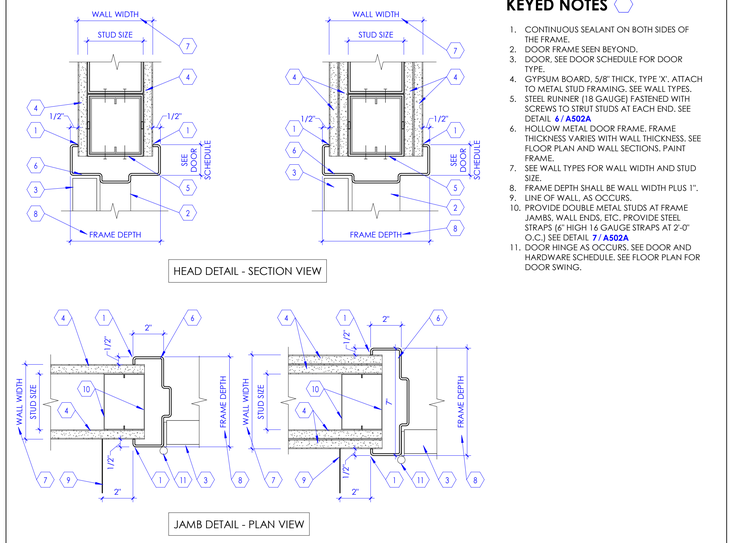
NOTE: REFER TO "DOOR SCHEDULE" FOR FRAME TYPES REQUIRED FOR THIS PROJECT. SOME FRAME TYPE ELEVATIONS INDICATED ABOVE MAY NOT BE APPLICABLE TO THIS PROJECT.

DOOR SCHEDULE

DOOR #	DOOR							FRAME			DETAILS			DOOR #	FIRE RATING (MINUTES)	HARDWARE GROUP	COMMENTS
	# OF PANELS	WIDTH		SIZE				TYPE (2/A601A)	DEPTH	MATERIAL	JAMB	HEAD	THRESHOLD				
		W1	W2	HEIGHT	THICKNESS	MATERIAL	TYPE (1/A601A)										
A101A	1	3' - 9"		7' - 0"	1 3/4"	WD	A	1	5 7/8"	HM				A101A			1, 2, 4
A101B	1	4' - 0"		7' - 0"	1 3/4"	WD	A	1	5 7/8"	HM				A101B			1, 4
A102A	1	4' - 0"		7' - 0"	1 3/4"	WD	A	1	5 7/8"	HM				A102A			1, 4
A103A	1	3' - 0"		7' - 0"	1 3/4"	WD	A	1	5 7/8"	HM				A103A			1, 4
A104A	1	3' - 0"		7' - 0"	1 3/4"	WD	A	1	5 7/8"	HM				A104A			1, 4
A105A	1	3' - 6"		7' - 0"	1 3/4"	WD	A	1	5 7/8"	HM				A105A			1, 4
A106A	1	3' - 6"		7' - 0"	1 3/4"	WD	A	1	5 7/8"	HM				A106A			1, 4
A107A	1	3' - 4 1/2"		7' - 0"	1 3/4"	WD	A	1	5 7/8"	AL				A107A			1, 3, 4
A109A	1	3' - 0"		7' - 0"	1 3/4"	WD	B	1	5 7/8"	HM				A109A			1, 4

COMMENTS

1. 5 LBS MAX OPENING FORCE FOR ALL NEW DOORS.
2. RF SHIELDED DOOR PROVIDED AND INSTALLED BY RF SHIELDING VENDOR (PDC). COORDINATE WITH VENDOR DRAWINGS.
3. ~~AD SYSTEMS SLIDING DOOR AS BASIS OF DESIGN.~~
4. DOOR SHALL HAVE MAX. OPENING FORCE OF 5 LB.



KEYED NOTES

1. CONTINUOUS SEALANT ON BOTH SIDES OF THE FRAME.
2. DOOR FRAME SEEN BEYOND.
3. DOOR, SEE DOOR SCHEDULE FOR DOOR TYPE.
4. GYPSUM BOARD, 5/8" THICK, TYPE 'X'. ATTACH TO METAL STUD FRAMING. SEE WALL TYPES.
5. STEEL RUNNER (18 GAUGE) FASTENED WITH SCREWS TO STRUT STUDS AT EACH END. SEE DETAIL **6 / A502A**
6. HOLLOW METAL DOOR FRAME. FRAME THICKNESS VARIES WITH WALL THICKNESS. SEE FLOOR PLAN AND WALL SECTIONS. PAINT FRAME.
7. SEE WALL TYPES FOR WALL WIDTH AND STUD SIZE.
8. FRAME DEPTH SHALL BE WALL WIDTH PLUS 1".
9. LINE OF WALL, AS OCCURS.
10. PROVIDE DOUBLE METAL STUDS AT FRAME JAMBS, WALL ENDS, ETC.. PROVIDE STEEL STRAPS (6" HIGH 16 GAUGE STRAPS AT 2'-0" O.C.) SEE DETAIL **7 / A502A**
11. DOOR HINGE AS OCCURS. SEE DOOR AND HARDWARE SCHEDULE. SEE FLOOR PLAN FOR DOOR SWING.

3 Door Frame in Stud Wall

SCALE: 3" = 1'-0"

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Door Schedule

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FINISH SCHEDULE

TAG	FINISH TYPE	SIZE	MATERIAL DESCRIPTION	MANUFACTURER	STYLE	MODEL #	COLOR	COMMENTS
F1	FLOOR FINISH		SHEET VINYL	MANNINGTON	BIOSPEC MD	15519	HAYSTACK	-
F2	FLOOR FINISH	12" X 12"	PORCELAIN TILE	CROSSVILLE	NOTORIOUS, UPS	NTR05	LEADING MAN	1
F3	FLOOR FINISH		SHEET VINYL - ACCENT	MANNINGTON	BIOSPEC MD	15203	SANDRIFT	-
F4	FLOOR FINISH	18" X 36"	CARPET TILE	SHAW CONTRACT	HAND DRAWN, STIPPLE TILE	51116 -13585	SLATE	3
F5	FLOOR FINISH		SHEET VINYL - MATCH EXISTING	MANNINGTON	BIOSPEC MD	-	-	11
B1	WALL BASE	4" HIGH	COVED SHEET VINYL	MANNINGTON	BIOSPEC MD	-	-	4
B2	WALL BASE	6" HIGH	PORCELAIN TILE BASE	CROSSVILLE	NOTORIOUS, UPS	NTR05	LEADING MAN	1
B3	WALL BASE	4" HIGH	RUBBER BASE	ROPPE	PINNACLE, STANDARD TOE	178	PEWTER	-
W1	WALL FINISH		PAINT	SHERWIN WILLIAMS	EGGSHELL FINISH	SW 7005	PURE WHITE	-
W2	WALL FINISH	12" X 24"	PORCELAIN TILE	CROSSVILLE	NOTORIOUS, UPS	NTR01	FEMME FATALE	2
W3	WALL FINISH		PAINT - ACCENT	SHERWIN WILLIAMS	EGGSHELL FINISH	SW 6184	AUSTERE GRAY	-
W4	WALL FINISH		PAINT - CORRIDOR	SHERWIN WILLIAMS	EGGSHELL FINISH	SW 7008	ALABASTER	-
C1	CEILING FINISH	24" X 24"	ACOUSTICAL CEILING TILES AND GRID	ARMSTRONG CEILINGS	ULTIMA HEALTH ZONE	1445	WHITE	9
C2	CEILING FINISH		PAINTED GYPSUM CEILING	SHERWIN WILLIAMS	FLAT FINISH	SW 7005	PURE WHITE	9
MS1	MISC. SURFACE FINISH		PAINTED HM DOOR AND WINDOW FRAMES	SHERWIN WILLIAMS	SEMI-GLOSS FINISH	SW 6150	UNIVERSAL KHAKI	5
PL1	PLASTIC LAMINATE FINISH		PLASTIC LAMINATE SHEET OVER SUBSTRATE	WILSONART	GLOSS LINE FINISH	8213K-28	PHANTOM COCOA	-
PL2	PLASTIC LAMINATE FINISH		PLASTIC LAMINATE SHEET OVER SUBSTRATE - MATCH EXISTING	-	-	-	-	10
MM1	MONOLITHIC MATERIAL		SOLID SURFACE	CORIAN SOLID SURFACE	-	-	CONCRETE	-
WP1	WALL PROTECTION	4' X 8'	RIGID SHEET	INPRO ARCHITECTURAL PRODUCTS	PALLADIUM RIGID SHEET	0103	WHITE SAND	6
WP2	WALL PROTECTION	2" WING	CORNER GUARDS	INPRO ARCHITECTURAL PRODUCTS	160 HIGH IMPACT CORNER GUARD	0103	WHITE SAND	7
WP3	WALL PROTECTION		RIGID SHEET, HANDRAIL, AND WALL GUARD - MATCH EXISTING	INPRO ARCHITECTURAL PRODUCTS	PALLADIUM RIGID SHEET, 800 HANDRAIL, AND 1600 WALL GUARD	-	-	8

COMMENTS

1. FLOOR TILE TO BE INSTALLED IN A SQUARE JOINT PATTERN. USE GROUT COLOR MAPEI #11 SAHARA BEIGE.
2. WALL TILE TO BE INSTALLED IN A SQUARE JOINT PATTERN AND EXTEND FROM TOP OF TILE BASE TO CEILING. USE GROUT COLOR MAPEI #93 WARM GRAY.
3. CARPET TILE TO BE INSTALLED IN AN ASHLAR JOINT PATTERN.
4. TOP EDGE OF COVED SHEET VINYL TO BE FINISHED WITH AN ALUMINUM CAP. COVED SHEET VINYL COLOR TO MATCH FLOORING COLOR.
5. MATCH EXISTING PAINT COLOR OF DOOR FRAMES. CONTRACTOR TO FIELD VERIFY.
6. RIGID SHEET WALL PROTECTION TO SPAN FROM TOP OF WALL BASE TO 4'-4" A.F.F. AND ALIGN WITH CORNER GUARDS WHERE OCCURS.
7. CORNER GUARD WALL PROTECTION TO SPAN FROM TOP OF WALL BASE TO 4'-4" A.F.F. AND ALIGN WITH RIGID SHEET WALL PROTECTION WHERE OCCURS.
8. WALL PROTECTION LOCATED IN CORRIDOR TO MATCH ADJACENT EXISITNG STYLE, COLOR AND INSTALLATION. CONTRACTOR TO FIELD VERIFY.
9. CEILING FINISH TAGS ARE LOCATED ON THE RCP.
10. MATCH EXISTING PLASTIC LAMINATE IN CONTROL ROOM. CONTRACTOR TO FIELD VERIFY.
11. MATCH EXISITNG SHEET VINYL IN CORRIDOR. CONTRACTOR TO FIELD VERIFY.

GENERAL NOTES

A. BASIS-OF-DESIGN FOR FINISHES: FINISHES INDICATED ON THE FINISH SCHEDULE ARE BASED ON THE NAMED MANUFACTURER AND THEIR PRODUCTS. SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE THE NAMED PRODUCT OR A COMPARABLE PRODUCT BY ONE OF THE APPROVED MANUFACTURERS LISTED IN THE PROJECT MANUAL. SEE RELEVANT SPECIFICATION SECTION.

B. SEE "SAMPLE LAYOUTS" INDICATED ON FINISH PLANS FOR CLARIFICATION ON HOW DIFFERENT TYPES OF REQUIRED FINISHES ARE INDICATED WITH FINISH TAGS FOR FLOORS, WALLS, MISCELLANEOUS SURFACE, ETC. SEE FINISH FLOOR PLANS FOR REQUIRED FINISHES (INDICATED WITH FINISH TAGS SUCH AS F1, B1, W1, ETC.).

C. LINE OF TRANSITION BETWEEN DIFFERENT TYPES OF FLOOR COVERING IS INDICATED ON THE FINISH FLOOR PLANS. IN PLACES WHERE TWO DIFFERENT FLOOR COVERING ABUTS EACH OTHER, CONTRACTOR SHALL FOLLOW THE RELEVANT APPLICABLE "FLOOR COVERING TRANSITION DETAILS" INDICATED IN THIS CONSTRUCTION DOCUMENTS. WHERE TWO ROOMS ARE REQUIRED TO HAVE DIFFERENT FLOOR COVERINGS, LINE OF TRANSITION SHALL TYPICALLY OCCUR BELOW THE CENTER OF THE DOOR (LOCATED BETWEEN THE TWO ROOMS). AS THESE TRANSITION LINES ARE NOT INDICATED BELOW THE DOOR ON THE FINISH FLOOR PLANS, CONTRACTOR SHALL PROVIDE METAL TRANSITION STRIP (MANUFACTURED BY SCHLUTER OR EQUIVALENT) AS REQUIRED, AT EXTERIOR DOORS, PROVIDE ALUMINUM THRESHOLD MATCHING THE DOORWAY. FOR REMODEL PROJECTS, COORDINATE WITH DEMOLITION FLOOR PLAN AND NEW FLOOR PLAN TO DETERMINE WHERE NEW ABUTS EXISTING FLOOR COVERING THAT IS SCHEDULED TO REMAIN.

D. LINE OF TRANSITION BETWEEN DIFFERENT TYPES OF WALL FINISH IS INDICATED ON THE INTERIOR ELEVATIONS AND FINISH FLOOR PLANS. FOR REQUIRED WALL PROTECTION TYPE (INDICATED WITH TAG WP1, WP2, ETC.), ON WALLS, COORDINATE WITH FINISH FLOOR PLANS AND INTERIOR ELEVATIONS.

E. THERE ARE MISCELLANEOUS SURFACES THAT ARE EXPOSED AND WILL REQUIRE A FINISH, SUCH MISCELLANEOUS SURFACES ARE INDICATED IN THE DRAWINGS WITH FINISH TAGS SUCH AS MS1, MS2, ETC..

F. PAINT ALL EXPOSED VISIBLE ITEMS SUCH AS METAL DECK, STEEL ANGLES, STEEL BEAMS, STEEL TRUSSES, MISC., STEEL ITEMS, PIPES, CONDUITS, ETC., UNLESS SPECIFICALLY NOTED AS A SURFACE NOT TO BE PAINTED, OR IF NATURAL FINISH IS REQUIRED. PAINT SURFACES USING FIELD COLORS AND ACCENT COLORS SPECIFIED BY THE ARCHITECT. DO NOT PAINT CONCEALED SURFACES, FINISHED METAL SURFACES, OPERATING PARTS, AND PRE-FINISHED ITEMS. VERIFY PAINTING SURFACE (SUCH AS STEEL, CONCRETE, MASONRY, GYPSUM BOARD, WOOD, ETC.) AND USE THE APPROPRIATE PAINT AND METHOD INDICATED IN THE PROJECT MANUAL UNDER RELEVANT SPECIFICATION SECTION. ALL HOLLOW METAL DOOR AND WINDOW FRAMES SHALL BE PAINTED. USE SEMI-GLOSS FINISH ON DOOR FRAMES.

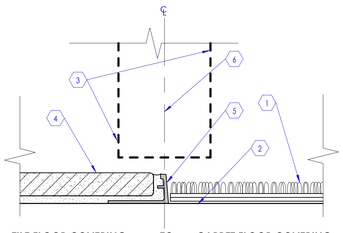
G. IN ROOMS AND AREAS WHERE GYPSUM BOARD CEILING IS INDICATED, PAINT CEILING WITH THE SAME COLOR AND TYPE AS ADJACENT WALLS. IN WET ROOMS (LIKE RESTROOM, KITCHEN, ETC.) WHERE EPOXY PAINT IS INDICATED AS A REQUIREMENT ON WALLS, PAINT CEILINGS AND SOFFITS WITH EPOXY TYPE PAINT. ALL GYPSUM BOARD SOFFITS SHALL BE PAINTED. COORDINATE ACCENT COLOR LOCATIONS WITH ARCHITECT WHEREVER INDICATED.

H. SEE INTERIOR ELEVATIONS FOR PLASTIC LAMINATE FINISHES OVER CABINETS, COUNTERTOPS, WALLS, ETC.. PLASTIC LAMINATE FINISHES ARE INDICATED AS PL1, PL2, ETC. COUNTERTOPS THAT ARE MONOLITHIC MATERIAL (SUCH AS SOLID SURFACE, QUARTZ, ETC. AND NOT PLASTIC LAMINATE WRAPPED), ARE INDICATED AS MM1, MM2, ETC..

I. WHERE PORCELAIN AND/OR CERAMIC TILE FINISHES ARE INDICATED, PROVIDE METAL EDGE STRIPS (MANUFACTURED BY SCHLUTER OR EQUIVALENT) AT ALL OUTSIDE VERTICAL CORNERS AND TOP OF WAINSCOT.

J. IN ROOMS AND AREAS (SUCH AS TOILET ROOMS, SHOWERS, ETC.) WHERE CERAMIC OR PORCELAIN TILES ARE INDICATED FOR WALL AND FLOOR FINISH, INSTALL BOTTOM ROW OF WALL TILE FIRST PER DETAIL 1/A603B. PROVIDE QUARTZ THRESHOLD AT DOORS TO TOILET ROOMS THAT ARE USED BY MULTIPLE USERS. SEE DETAILS 3 & 4 SHEET A603B.

K. WHERE GYPSUM BOARD WALL ABUTS MASONRY WALL, PROVIDE REVEAL AS PER DETAIL 2/A603B.

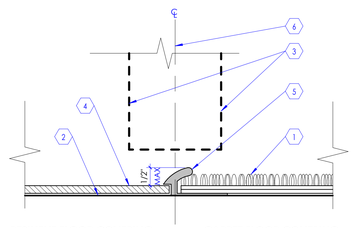


TILE FLOOR COVERING (CERAMIC, PORCELAIN) TO **CARPET FLOOR COVERING (CARPET TILE, BROADLOOM, WALK OFF MAT)**

KEYED NOTES

1. CARPET FLOOR COVERING AS OCCURS. SEE FINISH SCHEDULE.
2. LINE OF FLOOR.
3. DOOR AS OCCURS.
4. CERAMIC, PORCELAIN TILE, ETC. ON THINSET MORTAR BED. SEE FINISH SCHEDULE.
5. METAL TRANSITION STRIP. EDGETEK SERIES IN ALUMINUM BY FUTURA OR EQUIVALENT. ATTACH TRANSITION STRIP TO SUBSTRATE PER MANUFACTURERS RECOMMENDATIONS.
6. CENTER LINE OF DOOR AND TRANSITION STRIP SHALL ALIGN.

1 Floor Covering Transition Detail
SCALE: 12" = 1'-0"

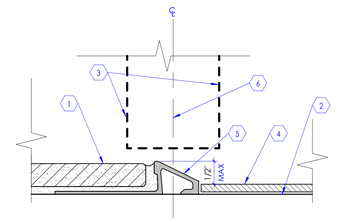


RESILIENT FLOOR COVERING (VCT, LVT) TO **CARPET FLOOR COVERING (CARPET TILE, BROADLOOM, WALK OFF MAT)**

KEYED NOTES

1. CARPET FLOOR COVERING AS OCCURS. SEE FINISH SCHEDULE.
2. LINE OF FLOOR.
3. DOOR AS OCCURS.
4. FLOOR COVERING (VINYL COMPOSITION TILE, LUXURY VINYL TILE, ETC., AS OCCURS). SEE FINISH SCHEDULE.
5. METAL TRANSITION STRIP. MODEL NUMBER LVT 130 IN ETCHED ALUMINUM BY FUTURA OR EQUIVALENT. ATTACH TRANSITION STRIP TO SUBSTRATE PER MANUFACTURERS RECOMMENDATIONS.
6. CENTERLINE OF DOOR AND TRANSITION STRIP SHALL ALIGN.

2 Floor Covering Transition Detail
SCALE: 12" = 1'-0"

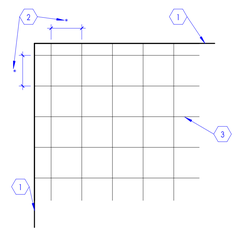


TILE FLOOR COVERING (CERAMIC, PORCELAIN) TO **RESILIENT FLOOR COVERING (VCT, LVT)**

KEYED NOTES

1. CERAMIC, PORCELAIN TILE, ETC. ON THINSET MORTAR BED. SEE FINISH SCHEDULE.
2. LINE OF FLOOR.
3. DOOR AS OCCURS.
4. RESILIENT FLOORING (VINYL COMPOSITION TILE, LUXURY VINYL TILE, AS OCCURS). SEE FINISH SCHEDULE.
5. METAL TRANSITION STRIP. EDGETEK SERIES IN ALUMINUM BY FUTURA OR EQUIVALENT. ATTACH TRANSITION STRIP TO SUBSTRATE PER MANUFACTURERS RECOMMENDATIONS.
6. CENTERLINE OF DOOR AND TRANSITION STRIP SHALL ALIGN.

3 Floor Covering Transition Detail
SCALE: 12" = 1'-0"



KEYED NOTES

1. LINE OF WALL.
2. DIMENSION TO BE 12" OR 24" FOR PORCELAIN TILE, ETC. SEE FINISH SCHEUDLE.
3. SQUARE JOINT PATTERN.

NOTE: FLOORING PIECE NOT TO BE SMALLER THAT 1" X 1".

4 JP-1 (Square) Detail
SCALE: 3/4" = 1'-0"

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Finish Schedule & Details

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FIRE PROTECTION GENERAL NOTES

1. 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 ARE AT THE FIRE PROTECTION CONTRACTOR'S EXPENSE.
2. 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. PROVIDE A COMPLETE PREACTION TYPE SYSTEM INCLUDING NEW MAINS, BRANCHES, HEADS, VALVES, AND ACCESSORIES AS REQUIRED. EXISTING SYSTEM EQUIPMENT IN GOOD CONDITION MAY BE REUSED AT THE CONTRACTORS OWN RISK. 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. **ALL FIRE SUPPRESSION SYSTEM COMPONENTS WITHIN ANY MRI ROOM'S ELECTROMAGNETIC SHIELDING ENVELOPE SHALL BE NON-FERROUS**. PIPES AND FITTINGS SHALL BE COPPER, HANGERS AND HARDWARE SHALL BE STAINLESS STEEL, AND SPRINKLERS SHALL BE UL-LISTED AND FM APPROVED FOR MRI APPLICATIONS.
7. MRI SUITE SHALL BE PROTECTED BY A **PREACTION** TYPE FIRE SPRINKLER SYSTEM.
8. THE BUILDING'S 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.
9. THIS CONTRACTOR SHALL COORDINATE PHASING OF SPRINKLER WORK WITH THE GENERAL CONTRACTOR PRIOR TO STARTING WORK.
10. THE SPRINKLER SYSTEM SHALL BE DESIGNED BASED UPON ACTUAL WATER FLOW TEST DATA OBTAINED AT OR NEAR THE JOB SITE.
11. REFER TO PLANS FOR ADDITIONAL INFORMATION REGARDING SPRINKLER HEAD LOCATION AND PIPE, UNLESS NOTED OTHERWISE.
12. DIVISION 21 CONTRACTOR SHALL COORDINATE WITH THE ELECTRICAL CONTRACTOR FOR PROPER INSTALLATION OF THE FIRE PROTECTION SYSTEMS' ALARM DEVICES INVOLVED WITH FIRE SPRINKLER SYSTEM.
13. 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.
14. THIS CONTRACTOR SHALL PROVIDE ALL ADDITIONAL SPRINKLER HEADS AS REQUIRED TO ENSURE AN APPROVED FIRE PROTECTION SYSTEM AT NO ADDITIONAL COST TO THE OWNER.
15. 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.
16. 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.
17. 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.)
18. SHOW ALL ROOM NUMBERS ON SHOP DRAWING PLANS.
19. FLOW TEST DATA FROM 6/2/2014 INDICATES THE FOLLOWING: STATIC PRESSURE 126 PSI. RESIDUAL PRESSURE: 81 PSI AT 2,668 GPM. THE HYDRANTS TESTED ARE APPROXIMATELY 350 FEET AWAY FROM THE BUILDING'S MAIN FIRE RISER, LOCATED OFF THE 12" PRIVATE FIRE LOOP AT AN ELEVATION OF 4,628 FEET ABOVE SEA LEVEL. SEE CIVIL PLANS FOR HYDRANT LOCATIONS. 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 IMMEDIATELY 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.
20. 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.
21. 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.
22. 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

1. 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.
8. PIPING AND ROUTING SHOWN, INCLUDING ALL BELOW FLOOR DECK PIPING IS APPROXIMATE. IT IS UP TO THE CONTRACTOR TO FIELD VERIFY THE EXACT LOCATION AND SIZE OF ALL PIPING.
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.
16. 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. DRAIN PANS SHALL BE INSTALLED UNDER ANY PIPING THAT MAY CONTAIN WATER INSTALLED IN AN ELECTRICAL, DATA, IT, OR OTHER ROOM WITH SENSITIVE ELECTRICAL EQUIPMENT. THIS INCLUDES, BUT IS NOT LIMITED TO HYDRONIC, WASTE, DOMESTIC, ROOF DRAIN, ETC.
22. FIELD VERIFY LOCATION AND INVERTS OF SITE UTILITIES PRIOR TO INSTALLATION.
23. FIELD VERIFY ALL NEW WATER, WASTE AND VENT PIPING CONNECTIONS AND PROVIDE NEW CONNECTIONS AS REQUIRED FOR PROPERLY OPERATING SYSTEMS.
24. WASTE AND VENT PIPING BELOW FLOOR AND THROUGH FLOOR TO BE 2" MINIMUM.
25. 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

1. 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 SIDE.

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 MANUFACTURERS REQUIRED CLEARANCES ON EACH SIDE, SEE DETAILS, TYPICAL.
8. DUCTWORK SIZES SHOWN ARE INSIDE CLEAR DIMENSIONS. REFER TO MECHANICAL SPECIFICATIONS FOR EXTENT OF DUCT INSULATION AND LINER AND ADJUST SHEET METAL DIMENSION.
9. PROVIDE AND INSTALL REMOTE DAMPER OPERATORS FOR ALL DAMPERS INSTALLED ABOVE INACCESSIBLE CEILING, SEE MECHANICAL SPECIFICATIONS FOR EQUIPMENT REQUIREMENTS, TYPICAL.
10. 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.
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.
21. CONTRACTOR SHALL LOCATE THERMOSTATS AND TEMPERATURE SENSORS AT 4'-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 SENSOR LOCATIONS.
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 PIPING SHALL BE TYPE "L" COPPER UNLESS OTHERWISE NOTED IN THE SPECIFICATIONS.
24. PROVIDE A 4" HOUSEKEEPING PAD FOR EACH PIECE OF MECHANICAL EQUIPMENT THAT IS FLOOR MOUNTED. COORDINATE SIZES WITH MECHANICAL EQUIPMENT SELECTED.
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.

MECHANICAL PIPING GENERAL NOTES

1. 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.
2. 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 SYSTEM.
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 INTERNATIONAL 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, WALLS, AND ROOF.
14. TRANSITION PIPING AND DUCTWORK SIZES TO MATCH THE SIZE OF EQUIPMENT CONNECTION.
15. REFER TO PLUMBING SERIES DRAWINGS FOR GAS PIPING.
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 PROPER SERVICE SPACE FOR COIL PULLS, BAS DEVICES, MAINTENANCE ACCESS, ETC.
20. INSTALL EXPOSED PIPING AND DUCTWORK AS HIGH AS PRACTICAL IN ROOMS WITHOUT CEILINGS.
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 CONTRACT DOCUMENTS.
23. IF CONTRACTOR ENCOUNTERS MATERIAL WHICH MAY CONTAIN ASBESTOS, IMMEDIATELY STOP WORK IN THIS AREA AND NOTIFY THE OWNER.
24. DETAILS REFERENCE ALL SHEETS.
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 WITH ARCHITECT.
29. CONTRACTOR TO PROVIDE VALVE IDENTIFICATION AND LOCATION ON ALL CEILING TILES WHERE VALVES ARE LOCATED.
30. CONTRACTOR TO PROVIDE DELEGATED DESIGN OF SEISMIC BRACING AS A DEFERRED SUBMITTAL. SEE SPECIFICATION 23 0548 - VIBRATION AND SEISMIC CONTROLS FOR HVAC.
31. CONTRACTOR TO PROVIDE BIM COORDINATION AND VIRTUAL DESIGN AND CONSTRUCTION SERVICES TO A xxx LEVEL OF DETAIL. SEE SPECIFICATION 23 0099-BIM COORDINATION.
32. MECHANICAL, PLUMBING, AND FIRE PROTECTION CONTRACTOR SHALL REFER TO THE PROJECT STRUCTURAL DRAWINGS AND NOTES TO DETERMINE HANGER PLACEMENT.

NOTE

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

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PRELIMINARY
NOT FOR
CONSTRUCTION

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Project #: 250624

Intermountain Health
Riverton Hospital
MRI #2

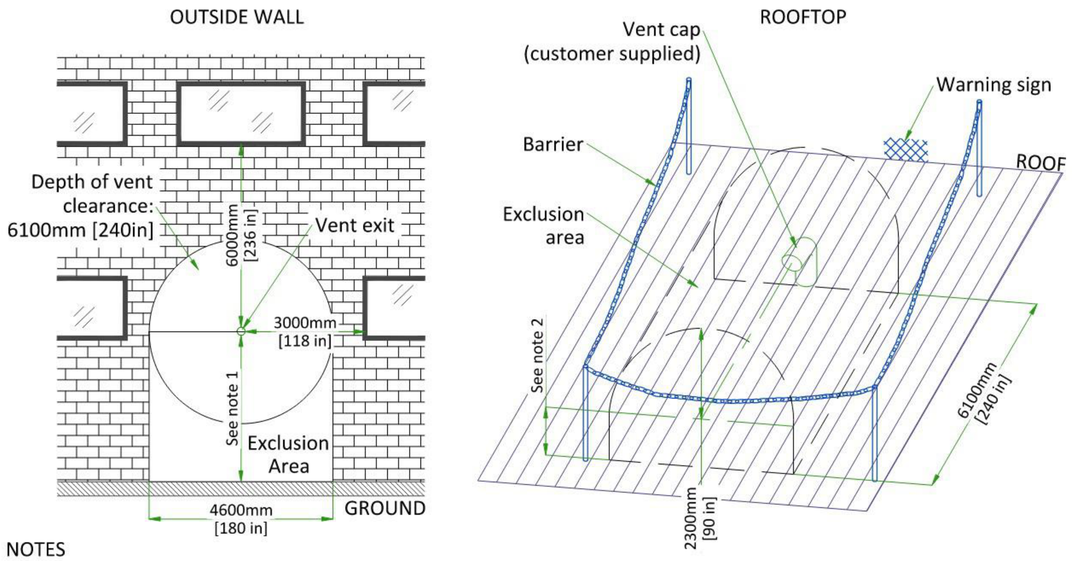
3741 West 12400 South
Riverton, Utah 84065

NJRA Project #	25227.00
Construction Documents	Aug. 12, 2025
1 ADDENDUM #01	09/09/2025

MECHANICAL GENERAL NOTES

M001

9/11/2025 3:56:50 PM

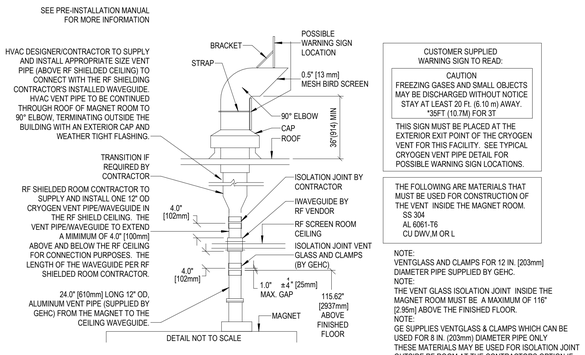


NOTES

(1) Restricted area: minimum distance between vent pipe and ground is 3660mm [144 in]. Barriers are required. Public area: barriers are not required if height is > 5000mm [197 in].

(2) The bottom of the 90° elbow must be at least 914mm [36 in] above the roof deck (or higher if at risk of being blocked by drifting snow, sand, or other potential obstructions.)

1 M502 CRYOGEN VENTING (EXTERIOR)
NOT TO SCALE



2 M502 TYPICAL CRYOGEN VENT PIPE DETAIL
NOT TO SCALE

*FOR REFERENCE ONLY AS CRYOGEN VENT TERMINATION IS EXISTING

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Project #: 250624

Intermountain Health
Riverton Hospital
MRI #2

3741 West 12600 South
Riverton, Utah 84065

NJRA Project #	25227.00
Construction Documents	Aug. 12, 2025
1 ADDENDUM #01	09/09/2025

MECHANICAL DETAILS

M502

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GENERAL MECHANICAL SYMBOLS

- REVISION NUMBER - SHOWN ON PLANS
- POINT WHERE NEW CONNECTS TO EXISTING
- NUMBER OF DETAIL ON SHEET / NUMBER OF SHEET WHERE DETAIL APPEARS
- KEYNOTE
- CONTINUATION SYMBOL
- ROOM NAME AND NUMBER
- ITEM TO BE DEMOLISHED
- AREA NOT IN CONTRACT
- 2" — PIPE SIZE TAG (DIAMETER)
- ABOVE GROUND PIPING
- 1/8" / 12" SLOPE — PIPE SLOPE TAG
- BELOW GROUND PIPING
- INVERT: -105' - 1" — PIPE INVERT ELEVATION TAG
- (E) — EXISTING PIPE TAG
- PIPING BEING DEMOLISHED

ABBREVIATIONS

Ø	ROUND	LVR	LOUVER
ABV	ABOVE	LWT	LEAVING WATER TEMPERATURE
AC	AIR CONDITIONING	M/A	MIXED AIR
AD	AREA DRAIN	MAX	MAXIMUM
ADD	ADDENDUM	MBH	ONE THOUSAND BTU PER HOUR
AFF	ABOVE FINISHED FLOOR	MCF	ONE THOUSAND CUBIC FEET
AFUE	ANNUAL FUEL UTILIZATION EFFICIENCY	MD	MOTORIZED DAMPER
ALT	ALTERNATE	MECH	MECHANICAL
AP	ACCESS PANEL	MFR	MANUFACTURER
ARCH	ARCHITECT/ARCHITECTURAL	MIN	MINIMUM
BFF	BELOW FINISHED FLOOR	MISC	MISCELLANEOUS
BLW	BELOW	MTR	MOTOR
BTU	BRITISH THERMAL UNITS	MU/A	MAKE-UP/AIR
BTUH	BRITISH THERMAL UNITS PER HOUR	NC	NOISE CRITERIA
CAP	CAPACITY	NC	NORMALLY CLOSED
CB	CATCH BASIN	NIC	NOT IN CONTRACT
CFM	CUBIC FEET PER MINUTE	NO	NUMBER
CLG	CEILING	NO	NORMALLY OPEN
CO	CLEAN OUT	NTS	NOT TO SCALE
CW	COLD WATER	O	OXYGEN
D	DEGREE	O/A	OUTSIDE AIR
DB	DRY BULB	ORD	OVERFLOW ROOF DRAIN
DIA	DIAMETER	PD	PRESSURE DROP
DN	DOWN	PIV	POST INDICATOR VALVE
DW	DISTILLED WATER	PLBG	PLUMBING
EA	EACH	PRESS	PRESSURE
EAT	ENTERING AIR TEMPERATURE	PRV	PRESSURE REDUCING VALVE
ELEC	ELECTRICAL	PSI	POUNDS PER SQUARE INCH
EQUIP	EQUIPMENT	PSIG	POUNDS PER SQUARE INCH GAUGE
EWC	ELECTRIC WATER COOLER	PWR	POWER
EWT	ENTERING WATER TEMPERATURE	R	DUCT RISER
E/A	EXHAUST AIR	R/A	RETURN AIR
EXIST	EXISTING	RCP	RADIANT CEILING PANEL
F	DEGREES FAHRENHEIT	RD	ROOF DRAIN
FCO	FLOOR CLEAN OUT	REC	RECESSED
FD	FLOOR DRAIN	RED	REDUCER
FD	FIRE DAMPER	RH	RELATIVE HUMIDITY
FDV	FIRE DEPARTMENT VALVE	RL/A	RELIEF AIR
FL	FLOOR	RM	ROOM
FO	FUEL OIL	RPM	REVOLUTIONS PER MINUTE
FOV	FUEL OIL VENT	RW	RAIN WATER
FOR	FUEL OIL RETURN	SF	SQUARE FOOT
FOS	FUEL OIL SUPPLY	S/A	SUPPLY AIR
FPM	FEET PER MINUTE	SAN	SANITARY
FS	FLOOR SINK	SF	SQUARE FOOT
FT	FOOT/FEET	SD	SMOKE DAMPER
FTR	FIN TUBE RADIATION	SM	SURFACE MOUNT
GAL	GALLON	SP	STANDPIPE
GC	GENERAL CONTRACTOR	SP	STATIC PRESSURE
GPM	GALLONS PER MINUTE	STM	STEAM
GW	GREASE WASTE	T	THERMOSTAT
HB	HOSE BIB	TD	TEMPERATURE DROP
HP	HORSE POWER	TDR	TRENCH DRAIN
HTG	HEATING	TEMP	TEMPERATURE
HTR	HEATER	TYP	TYPICAL
HW	HOT WATER	UG	UNDERGROUND
HYD	HYDRANT	VAC	VACUUM
ID	INDIRECT	V	VENT
IN	INCH	VAV	VARIABLE AIR VOLUME
INV	INVERT	VENT	VENTILATION
LB	POUND	VTR	VENT THROUGH ROOF
LB/HR	POUNDS PER HOUR	W	WASTE
LAT	LEAVING AIR TEMPERATURE	WB	WET BULB
LP	LOW PRESSURE	WCO	WALL CLEAN OUT
LPG	LIQUEFIED PETROLEUM GAS	WH	WALL HYDRANT

FIRE PROTECTION SYMBOLS

- FP-D — FIRE PROTECTION DRY
- FP-O — FIRE PROTECTION OTHER
- FP-PA — FIRE PROTECTION PRE-ACTION
- FP-W — FIRE PROTECTION WET
- FP-DOM-W — COMBINATION FIRE & DOMESTIC
- UPRIGHT SPRINKLER HEAD
- PENDENT SPRINKLER HEAD
- RECESSED SPRINKLER HEAD
- CONCEALED SPRINKLER HEAD
- 'D' REPRESENTS DRY SPRINKLER HEAD
- SIDEWALL SPRINKLER HEAD
- EXTENDED COVERAGE SIDEWALL SPRINKLER HEAD
- 48"x18" SA — OBSTRUCTION FROM DUCTWORK 48" AND GREATER
- PIPE DROP
- PIPE RISE
- PIPE TEE
- REDUCING 45 DEGREE TEE
- 45 DEGREE TEE

PIPE ACCESSORY TAGS

- 2" DOM. WM — DOMESTIC WATER METER
- 2" M-CNTRL — MOTORIZED CONTROL VALVE
- 2" BALANCING — BALANCING VALVE
- 2" 3-WAY CNTRL — 3 WAY MOTORIZED CONTROL VALVE
- 2" SHUTOFF — 1/4 TURN BALL VALVE
- 2" PRV — PRESSURE REDUCING VALVE
- 2" CHECK — CHECK VALVE
- 3/8" SOLENOID — REFRIGERANT SOLENOID VALVE
- 2" TMV — 3-WAY MIXING VALVE
- 2" BUTTERFLY — BUTTERFLY VALVE

* NOTE *

ALL OF GENERAL NOTES ON THIS SHEET ARE TO BE APPLIED TO ALL OTHER DRAWINGS IN THIS SET.THE SYMBOLS AND ABBREVIATIONS SHOWN ON THIS SHEET MAY OR MAY NOT BE USED IN THIS SET OF DRAWINGS.

FIRE PROTECTION GENERAL NOTES

1. 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 ARE AT THE FIRE PROTECTION CONTRACTOR'S EXPENSE.
2. 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. PROVIDE A COMPLETE PREACTION TYPE SYSTEM INCLUDING NEW MAINS, BRANCHES, HEADS, VALVES, AND ACCESSORIES AS REQUIRED. EXISTING SYSTEM EQUIPMENT IN GOOD CONDITION MAY BE REUSED AT THE CONTRACTOR'S OWN RISK. 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. **ALL FIRE SUPPRESSION SYSTEM COMPONENTS WITHIN ANY MRI ROOM'S ELECTROMAGNETIC SHIELDING ENVELOPE SHALL BE NON-FERROUS**. PIPES AND FITTINGS SHALL BE COPPER, HANGERS AND HARDWARE SHALL BE STAINLESS STEEL, AND SPRINKLERS SHALL BE UL-LISTED AND FM APPROVED FOR MRI APPLICATIONS.
7. MRI SUITE SHALL BE PROTECTED BY A **PREACTION** TYPE FIRE SPRINKLER SYSTEM.
8. THE BUILDING'S 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.
9. THIS CONTRACTOR SHALL COORDINATE PHASING OF SPRINKLER WORK WITH THE GENERAL CONTRACTOR PRIOR TO STARTING WORK.
10. THE SPRINKLER SYSTEM SHALL BE DESIGNED BASED UPON ACTUAL WATER FLOW TEST DATA OBTAINED AT OR NEAR THE JOB SITE.
11. REFER TO PLANS FOR ADDITIONAL INFORMATION REGARDING SPRINKLER HEAD LOCATION AND PIPE; UNLESS NOTED OTHERWISE.
12. DIVISION 21 CONTRACTOR SHALL COORDINATE WITH THE ELECTRICAL CONTRACTOR FOR PROPER INSTALLATION OF THE FIRE PROTECTION SYSTEMS' ALARM DEVICES INVOLVED WITH FIRE SPRINKLER SYSTEM.
13. 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.
14. THIS CONTRACTOR SHALL PROVIDE ALL ADDITIONAL SPRINKLER HEADS AS REQUIRED TO ENSURE AN APPROVED FIRE PROTECTION SYSTEM AT NO ADDITIONAL COST TO THE OWNER.
15. 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.
16. 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.
17. 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.)
18. SHOW ALL ROOM NUMBERS ON SHOP DRAWING PLANS.
19. FLOW TEST DATA FROM 6/2/2014 INDICATES THE FOLLOWING: STATIC PRESSURE 126 PSI. RESIDUAL PRESSURE: 81 PSI AT 2,668 GPM. THE HYDRANTS TESTED ARE APPROXIMATELY 350 FEET AWAY FROM THE BUILDING'S MAIN FIRE RISER, LOCATED OFF THE 12" PRIVATE FIRE LOOP AT AN ELEVATION OF 4,628 FEET ABOVE SEA LEVEL. SEE CIVIL PLANS FOR HYDRANT LOCATIONS. 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 IMMEDIATELY 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.
20. 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.
21. 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.
22. THIS CONTRACTOR SHALL PREPARE HYDRAULIC CALCULATIONS BASED UPON THE CONFIGURATION OF THE ACTUAL SYSTEM DESIGN AS SHOWN ON THIS CONTRACTOR'S SHOP DRAWINGS.

FIRE PROTECTION SHEET INDEX

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FIRE PROTECTION TITLE SHEET

F000

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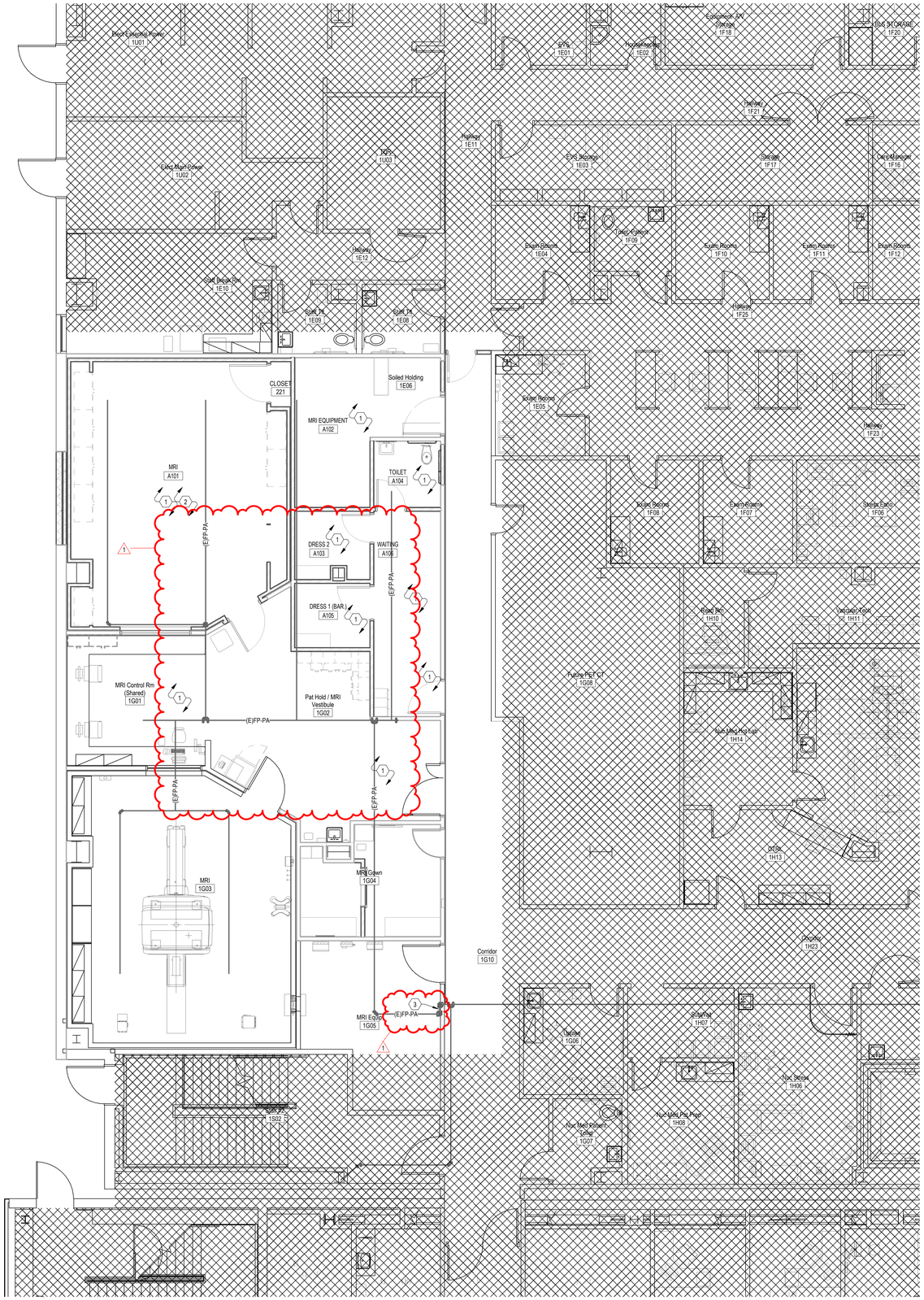

1 F101 LEVEL 1 FIRE PROTECTION PLAN
3/16" = 1'-0"

KEYNOTES

1. ADD/RELOCATE FIRE SPRINKLER HEAD LOCATIONS FOR NEW FLOOR PLAN AND CEILING PLAN, INCLUDING CEILING HEIGHT ADJUSTMENTS.
2. REPLACE ALL FERROUS PIPING, FITTINGS, HANGERS AND BRACES, ETC., WITHIN THE MRI SHIELDING ENVELOPE WITH NON-FERROUS EQUIVALENTS.
3. EXISTING PREACTION SYSTEM AUXILLARY RISER.

DEFERRED SUBMITTAL NOTE

FIRE SPRINKLER DRAWINGS ARE DEFERRED SUBMITTALS. THE CONTRACTOR SHALL SUBMIT FULL INSTALLATION DRAWINGS TO THE CITY AND AHJ FOR APPROVAL PRIOR TO INSTALLATION

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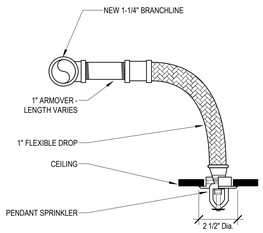
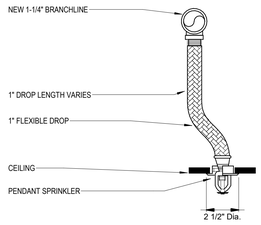
LEVEL 1 FIRE PROTECTION PLAN

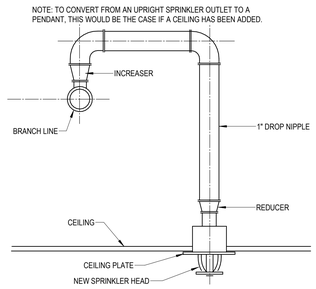
F101



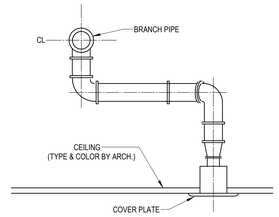
1 / F501 ARMOVER DETAIL
NOT TO SCALE



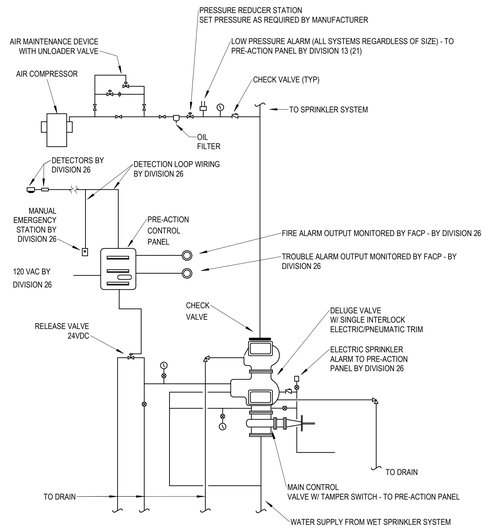
2 / F501 FLEX DROP DETAIL
NOT TO SCALE



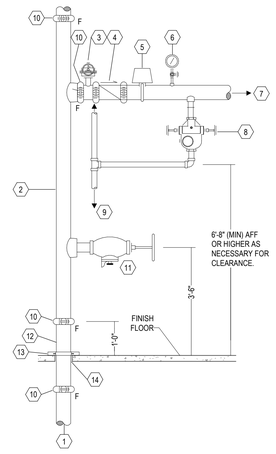
3 / F501 SPRINKLER HEAD DETAIL
NOT TO SCALE



4 / F501 TYPICAL SPRINKLER HEAD LOCATION DETAIL
NOT TO SCALE



5 / F501 SINGLE INTERLOCK PRE-ACTION SYSTEM DETAIL - ADDRESSABLE DETECTION DETAIL
NOT TO SCALE



DETAIL LEGEND

1. FROM SUPPLY
2. VERTICAL RISER
3. INDICATING TYPE FLOOR CONTROL VALVE WITH SUPERVISORY SWITCH
4. CHECK VALVE
5. VANE TYPE WATERFLOW SWITCH WIRING BY DIVISION 16
6. PRESSURE GAUGE, AND 3 WAY VALVE WITH PLUG AND NIPPLES.
7. TO SPRINKLER SYSTEM
8. DRAIN/TEST VALVE WITH ORIFICE, SIZED AS REQUIRED
9. EXPRESS DRAIN
10. FLEXIBLE COUPLINGS AS REQUIRED FOR SEISMIC PROTECTION OF PIPING
11. 2-1/2" HOSE VALVE, WITH 1-1/2" REDUCER AND CAP
12. 2' - 0" LENGTH OF PIPE WITH FLEXIBLE COUPLINGS
13. PIPE CLAMP
14. ANNULAR CLEARANCE NOT REQUIRED DUE TO PRESENCE OF FLEXIBLE COUPLINGS OPENING TO BE FIRE CAULKED

6 / F501 COMBINED STANDPIPE AND FLOOR CONTROL ASSEMBLY DETAIL
NOT TO SCALE

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FIRE PROTECTION DETAILS

F501

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SECTION 087100 – DOOR HARDWARE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. This Section includes commercial door hardware for the following:

1. Swinging doors.
2. Other doors to the extent indicated.

B. Door hardware includes, but is not necessarily limited to, the following:

1. Mechanical door hardware.
2. Electromechanical door hardware.
3. Cylinders specified for doors in other sections.

C. Related Sections:

1. Division 08 Section “Door Hardware Schedule”.
2. Division 08 Section “Hollow Metal Doors and Frames”.
3. Division 08 Section “Interior Aluminum Doors and Frames”.
4. Division 08 Section “Flush Wood Doors”.
5. Division 08 Section “Access Control Hardware”.

D. Codes and References: Comply with the version year adopted by the Authority Having Jurisdiction.

1. ANSI A117.1 - Accessible and Usable Buildings and Facilities.
2. ICC/IBC - International Building Code.
3. NFPA 70 - National Electrical Code.
4. NFPA 80 - Fire Doors and Windows.
5. NFPA 101 - Life Safety Code.
6. NFPA 105 - Installation of Smoke Door Assemblies.
7. State Building Codes, Local Amendments.

E. Standards: All hardware specified herein shall comply with the following industry standards:

1. ANSI/BHMA Certified Product Standards - A156 Series
2. UL10C – Positive Pressure Fire Tests of Door Assemblies

1.3 SUBMITTALS

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

B. Door Hardware Schedule: Prepared by or under the supervision of supplier, detailing fabrication and assembly of door hardware, as well as procedures and diagrams. Coordinate the final Door Hardware Schedule with doors, frames, and related work to ensure proper size, thickness, hand, function, and finish of door hardware.

1. Format: Comply with scheduling sequence and vertical format in DHI's "Sequence and Format for the Hardware Schedule."

2. Organization: Organize the Door Hardware Schedule into door hardware sets indicating complete designations of every item required for each door or opening. Organize door hardware sets in same order as in the Door Hardware Sets at the end of Part 3. Submittals that do not follow the same format and order as the Door Hardware Sets will be rejected and subject to resubmission.

3. Content: Include the following information:

a. Type, style, function, size, label, hand, and finish of each door hardware item.
b. Manufacturer of each item.
c. Fastenings and other pertinent information.
d. Location of door hardware set, cross-referenced to Drawings, both on floor plans and in door and frame schedule.
e. Explanation of abbreviations, symbols, and codes contained in schedule.
f. Mounting locations for door hardware.
g. Door and frame sizes and materials.
h. Warranty information for each product.

4. Submittal Sequence: Submit the final Door Hardware Schedule at earliest possible date, particularly where approval of the Door Hardware Schedule must precede fabrication of other work that is critical in the Project construction schedule. Include Product Data, Samples, Shop Drawings of other work affected by door hardware, and other information essential to the coordinated review of the Door Hardware Schedule.

C. Shop Drawings: Details of electrified access control hardware indicating the following:

1. Wiring Diagrams: Upon receipt of approved schedules, submit detailed system wiring diagrams for power, signaling, monitoring, communication, and control of the access control system electrified hardware. Differentiate between manufacturer-installed and field-installed wiring. Include the following:

a. Elevation diagram of each unique access controlled opening showing location and interconnection of major system components with respect to their placement in the respective door openings.

b. Complete (risers, point-to-point) access control system block wiring diagrams.
c. Wiring instructions for each electronic component scheduled herein.

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

D. Proof of Certification: Provide copy of manufacturer(s) official certification or accreditation document indicating proof of status as a qualified installer of Windstorm assemblies.

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

F. Informational Submittals:

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

G. Operating and Maintenance Manuals: Provide manufacturers operating and maintenance manuals for each item comprising the complete door hardware installation in quantity as required in Division 01, Closeout Submittals.

1.4 QUALITY ASSURANCE

A. Manufacturers Qualifications: Engage qualified manufacturers with a minimum 5 years of documented experience in producing hardware and equipment similar to that indicated for this Project and that have a proven record of successful in-service performance.

B. Installer Qualifications: A minimum 3 years documented experience installing both standard and electrified door hardware similar in material, design, and extent to that indicated for this Project and whose work has resulted in construction with a record of successful in-service performance.

C. Door Hardware Supplier Qualifications: Experienced commercial door hardware distributors with a minimum 5 years documented experience supplying both mechanical and electromechanical hardware installations comparable in material, design, and extent to that indicated for this Project. Supplier recognized as a factory direct distributor by the manufacturers of the primary materials with a warehousing facility in Project's vicinity. Supplier to have on staff a certified Architectural Hardware Consultant (AHC) available during the course of the Work to consult with Contractor, Architect, and Owner concerning both standard and electromechanical door hardware and keying.

D. Source Limitations: Obtain each type and variety of door hardware specified in this section from a single source unless otherwise indicated.

1. Electrified modifications or enhancements made to a source manufacturer's product line by a secondary or third party source will not be accepted.

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

E. Each unit to bear third party permanent label demonstrating compliance with the referenced standards.

F. Keying Conference: Conduct conference to comply with requirements in Division 01 Section "Project Meetings." Keying conference to incorporate the following criteria into the final keying schedule document:

1. Function of building, purpose of each area and degree of security required.
2. Plans for existing and future key system expansion.
3. Requirements for key control storage and software.
4. Installation of permanent keys, cylinder cores and software.
5. Address and requirements for delivery of keys.

G. Pre-Submittal Conference: Conduct coordination conference in compliance with requirements in Division 01 Section "Project Meetings" with attendance by representatives of Supplier(s), Installer(s), and Contractor(s) to review proper methods and the procedures for receiving, handling, and installing door hardware.

1. Prior to installation of door hardware, conduct a project specific training meeting to instruct the installing contractors' personnel on the proper installation and adjustment of their respective products. Product training to be attended by installers of door hardware (including electromechanical hardware) for aluminum, hollow metal and wood doors. Training will include the use of installation manuals, hardware schedules, templates and physical product samples as required.
2. Inspect and discuss electrical roughing-in, power supply connections, and other preparatory work performed by other trades.
3. Review sequence of operation narratives for each unique access controlled opening.
4. Review and finalize construction schedule and verify availability of materials.
5. Review the required inspecting, testing, commissioning, and demonstration procedures

H. At completion of installation, provide written documentation that components were applied to manufacturer's instructions and recommendations and according to approved schedule.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Inventory door hardware on receipt and provide secure lock-up and shelving for door hardware delivered to Project site. Do not store electronic access control hardware, software or accessories at Project site without prior authorization.

B. Tag each item or package separately with identification related to the final Door Hardware Schedule, and include basic installation instructions with each item or package.

C. Deliver, as applicable, permanent keys, cylinders, cores, access control credentials, software and related accessories directly to Owner via registered mail or overnight package service. Instructions for delivery to the Owner shall be established at the "Keying Conference".

1.6 COORDINATION

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

B. Door Hardware and Electrical Connections: Coordinate the layout and installation of scheduled electrified door hardware and related access control equipment with required connections to source power junction boxes, low voltage power supplies, detection and monitoring hardware, and fire and detection alarm systems.

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

1.7 WARRANTY

A. General Warranty: Reference Division 01, General Requirements. Special warranties specified in this Article shall not deprive Owner of other rights Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by Contractor under requirements of the Contract Documents.

B. Warranty Period: Written warranty, executed by manufacturer(s), agreeing to repair or replace components of standard and electrified door hardware that fails in materials or workmanship within specified warranty period after final acceptance by the Owner. Failures include, but are not limited to, the following:

1. Structural failures including excessive deflection, cracking, or breakage.
2. Faulty operation of the hardware.
3. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
4. Electrical component defects and failures within the systems operation.

C. Standard Warranty Period: One year from date of Substantial Completion, unless otherwise indicated.

D. Special Warranty Periods:

1. Ten years for mortise locks and latches.
2. Twenty five years for manual surface door closer bodies.
3. Two years for electromechanical door hardware.

1.8 MAINTENANCE SERVICE

A. Maintenance Tools and Instructions: Furnish a complete set of specialized tools and maintenance instructions as needed for Owner's continued adjustment, maintenance, and removal and replacement of door hardware.

PART 2 - PRODUCTS

2.1 SCHEDULED DOOR HARDWARE

A. General: Provide door hardware for each door to comply with requirements in Door Hardware Sets and each referenced section that products are to be supplied under.

B. Designations: Requirements for quantity, item, size, finish or color, grade, function, and other distinctive qualities of each type of door hardware are indicated in the Door Hardware Sets at the end of Part 3. Products are identified by using door hardware designations, as follows:

C. Named Manufacturer's Products: Product designation and manufacturer are listed for each door hardware type required for the purpose of establishing requirements. Manufacturers' names are abbreviated in the Door Hardware Schedule.

D. Substitutions: Requests for substitution and product approval for inclusive mechanical and electromechanical door hardware in compliance with the specifications must be submitted in writing and in accordance with the procedures and time frames outlined in Division 01, Substitution Procedures. Approval of requests is at the discretion of the architect, owner, and their designated consultants.

2.2 HANGING DEVICES

A. Hinges: ANSI/BHMA A156.1 certified butt hinges with number of hinge knuckles as specified in the Door Hardware Sets.

1. Quantity: Provide the following hinge quantity, unless otherwise indicated:

    a. Two Hinges: For doors with heights up to 60 inches.
    b. Three Hinges: For doors with heights 61 to 90 inches.
    c. Four Hinges: For doors with heights 91 to 120 inches.
    d. For doors with heights more than 120 inches, provide 4 hinges, plus 1 hinge for every 30 inches of door height greater than 120 inches.

2. Hinge Size: Provide the following, unless otherwise indicated, with hinge widths sized for door thickness and clearances required:

    a. Widths up to 3’0”: 4-1/2” standard or heavy weight as specified.
    b. Sizes from 3’1” to 4’0”: 5” standard or heavy weight as specified.

3. Hinge Weight and Base Material: Unless otherwise indicated, provide the following:

a. Exterior Doors: Heavy weight, non-ferrous, ball bearing or oil impregnated bearing hinges unless Hardware Sets indicate standard weight.
b. Interior Doors: Standard weight, steel, ball bearing or oil impregnated bearing hinges unless Hardware Sets indicate heavy weight.

4. Hinge Options: Comply with the following where indicated in the Hardware Sets or on Drawings:

a. Non-removable Pins: Provide set screw in hinge barrel that, when tightened into a groove in hinge pin, prevents removal of pin while door is closed; for the all out-swinging lockable doors.

5. Acceptable Manufacturers:

a. Hager Companies (HA).
b. McKinney Products (MK).

B. Pin and Barrel Continuous Hinges: ANSI/BHMA A156.26 Grade 1-600 certified pin and barrel continuous hinges with minimum 14 gauge Type 304 stainless steel hinge leaves, concealed teflon coated stainless pin, and twin self lubricated nylon bearings at each knuckle separation. Factory trim hinges to suit door height and prepare for electrical cut-outs.

1. Acceptable Manufacturers:

a. Markar Products (MR).
b. McKinney Products (MK).

2.3 CYLINDERS AND KEYING

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

B. Cylinders: Original manufacturer cylinders complying with the following:

1. Mortise Type: Threaded cylinders with rings and cams to suit hardware application.
2. Rim Type: Cylinders with back plate, flat-type vertical or horizontal tailpiece, and raised trim ring.
3. Bored-Lock Type: Cylinders with tailpieces to suit locks.
4. Mortise and rim cylinder collars to be solid and recessed to allow the cylinder face to be flush and be free spinning with matching finishes.
5. Keyway: Match Facility Restricted Keyway.

C. High Security Cylinders: ANSI/BHMA A156.5, Grade 1 High security cylinder conforming to UL437, including both pick and drill resistance. Pick resistance incorporates two or more independent locking mechanisms including a pin tumbler device with six top pin chambers, mushroom-shaped driver pins, and coded sidebar locking mechanism operated independently from the six top pin tumbler device. Drill resistance incorporates cylinder housing with fixed case-hardened inserts protecting the pin tumbler shear line, cylinder plugs with case-hardened

inserts protecting both the pin tumbler shear line and the side bar, mushroom-shaped stainless steel driver pins, and stainless steel sidepins. Cylinders to be factory keyed.

1. Acceptable Manufacturers:

    a. ASSA (AA) – Owner’s existing system.

D. Keying System: Each type of lock and cylinders to be factory keyed.

1. Conduct specified "Keying Conference" to define and document keying system instructions and requirements.
2. Furnish factory cut, nickel-silver large bow permanently inscribed with a visual key control number as directed by Owner.
3. Existing System: Key locks to Owner's existing system.

E. Key Quantity: Provide the following minimum number of keys:

1. Change Keys per Cylinder: Two (2)

2.4 MECHANICAL LOCKS AND LATCHING DEVICES

A. Mortise Locksets, Grade 1 (Heavy Duty): ANSI/BHMA A156.13, Series 1000, Operational Grade 1 certified. Locksets are to be manufactured with a corrosion resistant steel case and be field-reversible for handing without disassembly of the lock body.

1. Acceptable Manufacturers:

    a. Accentra Locks and Hardware (YA) – 8800FL Series.

2.5 LOCK AND LATCH STRIKES

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

1. Flat-Lip Strikes: For locks with three-piece antifriction latchbolts, as recommended by manufacturer.
2. Extra-Long-Lip Strikes: For locks used on frames with applied wood casing trim.
3. Aluminum-Frame Strike Box: Provide manufacturer's special strike box fabricated for aluminum framing.
4. Double-lipped strikes: For locks at double acting doors. Furnish with retractable stop for rescue hardware applications.

B. Standards: Comply with the following:

1. Strikes for Mortise Locks and Latches: BHMA A156.13.
2. Strikes for Bored Locks and Latches: BHMA A156.2.
3. Strikes for Auxiliary Deadlocks: BHMA A156.36.

4. Dustproof Strikes: BHMA A156.16.

2.6 ELECTRIC STRIKES

A. Standard Electric Strikes: Heavy duty, cylindrical and mortise lock electric strikes conforming to ANSI/BHMA A156.31, Grade 1, UL listed for both Burglary Resistance and for use on fire rated door assemblies. Stainless steel construction with dual interlocking plunger design tested to exceed 3000 lbs. of static strength and 350 ft-lbs. of dynamic strength. Strikes tested for a minimum 1 million operating cycles. Provide strikes with 12 or 24 VDC capability and supplied standard as fail-secure unless otherwise specified. Option available for latchbolt and latchbolt strike monitoring indicating both the position of the latchbolt and locked condition of the strike.

1. Acceptable Manufacturers:

    a. HES (HS).

2.7 DOOR CLOSERS

A. All door closers specified herein shall meet or exceed the following criteria:

1. General: Door closers to be from one manufacturer, matching in design and style, with the same type door preparations and templates regardless of application or spring size. Closers to be non-handed with full sized covers including installation and adjusting information on inside of cover.

2. Standards: Closers to comply with UL-10C for Positive Pressure Fire Test and be U.L. listed for use of fire rated doors.

3. Cycle Testing: Provide closers which have surpassed 15 million cycles in a test witnessed and verified by UL.

4. Size of Units: Comply with manufacturer's written recommendations for sizing of door closers depending on size of door, exposure to weather, and anticipated frequency of use. Where closers are indicated for doors required to be accessible to the physically handicapped, provide units complying with ANSI ICC/A117.1.

5. Closer Arms: Provide heavy duty, forged steel closer arms unless otherwise indicated in Hardware Sets.

6. Closers shall not be installed on exterior or corridor side of doors; where possible install closers on door for optimum aesthetics.

7. Closer Accessories: Provide door closer accessories including custom templates, special mounting brackets, spacers and drop plates as required for proper installation. Provide through-bolt and security type fasteners as specified in the hardware sets.

B. Door Closers, Surface Mounted (Heavy Duty): ANSI/BHMA A156.4, Grade 1 surface mounted, heavy duty door closers with complete spring power adjustment, sizes 1 thru 6; and

fully operational adjustable according to door size, frequency of use, and opening force. Closers to be rack and pinion type, one piece cast iron or aluminum alloy body construction, with adjustable backcheck and separate non-critical valves for closing sweep and latch speed control. Provide non-handed units standard.

1. Acceptable Manufacturers:

    a. Norton Door Controls (NO) - 7500 Series.

2.8 SURFACE MOUNTED CLOSER HOLDERS

A. Multi-Point Closer Holders with Motion Sensor: ANSI A156.15, Grade 1 certified multi-point, closer holder devices designed to keep doors in a held-open position if presence is detected within the opening. Push side or pull side mounting applications having a maximum opening of 180° (hold open to 175°) and dual voltage input (24V /120V). Voltage to be 24VDC unless otherwise specified. Units are fail safe, closing the door in the event of fire alarm system or electrical power interruption.

1. Safe Zone Detection: Closer holders units to have an integral motion sensor device monitoring a "zone of safety" at the door opening. Safe zone detection prevents the door from closing in event of movement within the adjustable sensing field. Movement is detectable in both directions with selectable closer hold open time and senor sensitivity. Provide optional handheld device for programming safe zone sensor settings.

2. Acceptable Manufacturers:

    a. Norton Door Controls (NO) - 7100SZ Series.

2.9 ARCHITECTURAL TRIM

A. Door Protective Trim

1. General: Door protective trim units to be of type and design as specified below or in the Hardware Sets.

2. Size: Fabricate protection plates (kick, armor, or mop) not more than 2" less than door width (LDW) on stop side of single doors and 1” LDW on stop side of pairs of doors, and not more than 1" less than door width on pull side. Coordinate and provide proper width and height as required where conflicting hardware dictates. Height to be as specified in the Hardware Sets.

3. Protection Plates: ANSI/BHMA A156.6 certified protection plates (kick, armor, or mop), fabricated from the following:

    a. Stainless Steel: 300 grade, 050-inch thick.

4. Options and fasteners: Provide manufacturer's designated fastener type as specified in the Hardware Sets. Provide countersunk screw holes.

5. Acceptable Manufacturers:

    a. Rockwood Manufacturing (RO).

2.10 DOOR STOPS AND HOLDERS

A. General: Door stops and holders to be of type and design as specified below or in the Hardware Sets.

B. Door Stops and Bumpers: ANSI/BHMA A156.16, Grade 1 certified door stops and wall bumpers. Provide wall bumpers, either convex or concave types with anchorage as indicated, unless floor or other types of door stops are specified in Hardware Sets. Do not mount floor stops where they will impede traffic. Where floor or wall bumpers are not appropriate, provide overhead type stops and holders.

1. Acceptable Manufacturers:

    a. Rockwood Manufacturing (RO).

2.11 ARCHITECTURAL SEALS

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

B. Smoke Labeled Gasketing: Assemblies complying with NFPA 105 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for smoke control ratings indicated, based on testing according to UL 1784.

1. Provide smoke labeled perimeter gasketing at all smoke labeled openings.

C. Fire Labeled Gasketing: Assemblies complying with NFPA 80 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire ratings indicated, based on testing according to UL-10C.

1. Provide intumescent seals as indicated to meet UL10C Standard for Positive Pressure Fire Tests of Door Assemblies, and NPFA 252, Standard Methods of Fire Tests of Door Assemblies.

D. Sound-Rated Gasketing: Assemblies that are listed and labeled by a testing and inspecting agency, for sound ratings indicated.

E. Replaceable Seal Strips: Provide only those units where resilient or flexible seal strips are easily replaceable and readily available from stocks maintained by manufacturer.

F. Acceptable Manufacturers:

1. National Guard Products (NG).
2. Pemko Manufacturing (PE).

2.12 ELECTRONIC ACCESSORIES

A. Request-to-Exit Motion Sensor: Request-to-Exit Sensors motion detectors specifically designed for detecting exiting through a door from the secure area to a non-secure area. Include built-in timers (up to 60 second adjustable timing), door monitor with sounder alert, internal vertical pointability coverage, 12VDC or 24VDC power and selectable relay trigger with fail safe/fail secure modes.

1. Acceptable Manufacturers:

a. Securitron (SU) - XMS Series.

2.13 FABRICATION

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

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine scheduled openings, with Installer present, for compliance with requirements for installation tolerances, labeled fire door assembly construction, wall and floor construction, and other conditions affecting performance.

B. Notify architect of any discrepancies or conflicts between the door schedule, door types, drawings and scheduled hardware. Proceed only after such discrepancies or conflicts have been resolved in writing.

3.2 PREPARATION

A. Hollow Metal Doors and Frames: Comply with ANSI/DHI A115 series.

B. Wood Doors: Comply with ANSI/DHI A115-W series.

3.3 INSTALLATION

A. Install each item of mechanical and electromechanical hardware and access control equipment to comply with manufacturer's written instructions and according to specifications.

1. Installers are to be trained and certified by the manufacturer on the proper installation and adjustment of fire, life safety, and security products including: hanging devices; locking devices; closing devices; and seals.

B. Mounting Heights: Mount door hardware units at heights indicated in following applicable publications, unless specifically indicated or required to comply with governing regulations:

1. Standard Steel Doors and Frames: DHI's "Recommended Locations for Architectural Hardware for Standard Steel Doors and Frames."
2. Wood Doors: DHI WDHS.3, "Recommended Locations for Architectural Hardware for Wood Flush Doors."
3. Where indicated to comply with accessibility requirements, comply with ANSI A117.1 "Accessibility Guidelines for Buildings and Facilities."
4. Provide blocking in drywall partitions where wall stops or other wall mounted hardware is located.

C. Retrofitting: Install door hardware to comply with manufacturer's published templates and written instructions. Where cutting and fitting are required to install door hardware onto or into surfaces that are later to be painted or finished in another way, coordinate removal, storage, and reinstallation of surface protective trim units with finishing work specified in Division 9 Sections. Do not install surface-mounted items until finishes have been completed on substrates involved.

D. Thresholds: Set thresholds for exterior and acoustical doors in full bed of sealant complying with requirements specified in Division 7 Section "Joint Sealants."

E. Storage: Provide a secure lock up for hardware delivered to the project but not yet installed. Control the handling and installation of hardware items so that the completion of the work will not be delayed by hardware losses before and after installation.

3.4 FIELD QUALITY CONTROL

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

3.5 ADJUSTING

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

3.6 CLEANING AND PROTECTION

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

B. Clean adjacent surfaces soiled by door hardware installation.

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

3.7 DEMONSTRATION

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

3.8 DOOR HARDWARE SETS

1. MK - McKinney
2. RO - Rockwood
3. YA - Accentra
4. HS - HES
5. NO - Norton
6. PE - Pemko
7. SU - Securitron

Hardware Schedule

Set: 1.0
Doors: A101A, A101B

ALL HARDWARE BY MRI ROOM MANUFACTURER

Set: 2.0
Doors: A102A

1	Continuous Hinge	MCK-FM300	US26D	MK
1	Mortise Lock (storeroom)	PBR 8805FL LC	626	YA
1	Cylinder	Assa as required	626	AA
1	Door Closer	(P) 7500	689	NO
1	Armor Plate	K1050 34"	US32D	RO
1	Stop	406/409/441H (as required)	US32D	RO
3	Silencer	608		RO

Set: 3.0
Doors: A109A

3	Hinge	T4A3786	US26D	MK
1	Mortise Lock (classroom)	PBR 8808FL LC	626	YA
1	Cylinder	Assa as required	626	AA
1	Door Closer	(P) 7500	689	NO
1	Kick Plate	K1050 10"	US32D	RO
1	Stop	406/409/441H (as required)	US32D	RO
3	Silencer	608		RO

Set: 4.0
Doors: A103A, A104A, A105A

3	Hinge	TA2714	US26D	MK
1	Mortise Lock (privacy)	PBR 8802FL IND	626	YA
1	Stop	406/409/441H (as required)	US32D	RO
3	Silencer	608		RO

Set: 5.0
Doors: A107A

1	Cylinder	Assa as required	626	AA

BALANCE OF HARDWARE BY DOOR MANUFACTURER

Set: 6.0
Doors: A106A

1	Continuous Hinge	MCK-FM300	US26D	MK
1	Mortise Lock (storeroom)	PBR 8808FL LC	626	YA
1	Cylinder	Assa as required	626	AA
1	Door Closer	(P) 7500	689	NO
1	Kick Plate	K1050 10"	US32D	RO
1	Stop	406/409/441H (as required)	US32D	RO
3	Silencer	608		RO

END OF SECTION 087100

1. Index sheet, listing contents in alphabetical order
2. Manufacturer's equipment parts list of all functional components of the system, disk of system schematics, including wiring diagrams
3. Description of sequence of operations
4. As-Built interconnection wiring diagrams
5. User's documentation containing product, system architectural and programming information.
6. Trunk cable schematic showing remote electronic panel locations, and all trunk data
7. List of connected data points, including panels to which they are connected and input device (ionization detector, sensors, etc.)
8. Conduit routing diagrams
9. Copy of the warranty/guarantee
10. Operating and maintenance cautions and instructions
11. Recommended spare parts list

PART 2 - PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

JCI added to acceptable manufactures.

1. Siemens
2. Johnson Controls

2.2 The Facility Management Control System (FMCS) shall be comprised of a network of interoperable, stand-alone digital controllers. The FMCS shall incorporate BACnet technology. The system shall include:

A. Programmable Equipment Controllers (PEC's) for control of primary mechanical systems and distributed system applications. Controllers shall be fully programmable to create custom control solutions.

B. Network Area Controllers (NAC's) for distributed system applications, databases and networking functions.

C. Application Specific Controllers (ASC's) for control of VAV terminal units, fan coil terminal units, unit vent terminal units, heat pump units and other terminal equipment.

E. ASHRAE Compliance: Applicable requirements in ASHRAE 62.1, Section 7.2.2 - "Air Balancing."

F. ASHRAE/IESNA Compliance: Applicable requirements in ASHRAE/IESNA 90.1, Section 6.7.2.3 - "System Balancing."

1.7 PROJECT CONDITIONS

A. Full Owner Occupancy: Owner will occupy the site and existing building during entire TAB period. Cooperate with Owner during TAB operations to minimize conflicts with Owner's operations.

1.8 COORDINATION

A. Notice: Provide seven days' advance notice for each test. Include scheduled test dates and times.

B. Perform TAB after leakage and pressure tests on the following distribution systems have been satisfactorily completed:
   1. Air and water.

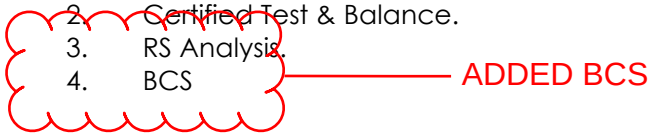
PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION

3.1 TAB SPECIALISTS

A. Subject to compliance with requirements, engage one of the following:

   1. BTC Service.
   2. Certified Test & Balance.
   3. RS Analysis.
   4. BCS



3.2 EXAMINATION

A. Examine the Contract Documents to become familiar with Project requirements and to discover conditions in systems' designs that may preclude proper TAB of systems and equipment.

B. Examine systems for installed balancing devices, such as test ports, gage cocks, thermometer wells, flow-control devices, balancing valves and fittings, and manual volume dampers. Verify that locations of these balancing devices are accessible.

C. Examine the approved submittals for HVAC systems and equipment.