U.S. DEPARTMENT OF VETERANS AFFAIRS
Owner
MRI SITE PREP FOR FT. MEADE / HOT SPRINGS VAMC
BUILDING #165 & 12
FORT MEADE AND HOT SPRINGS, SOUTH DAKOTA
VA #568-CSI-301
11/04/2020 - FINAL CONSTRUCTION DOCUMENTS

Black Hills Health Care System
Department of Veterans Affairs

COMMON ABBREVIATIONS

SYMBOLS USED AS ABBREVIATIONS:

&	AND
L	ANGLE
LL	DOUBLE ANGLE
@	AT
¢	PENNEY
#	POUND OR NUMBER
Ø	ROUND OR DIAMETER

ABBREVIATIONS:

A/E	ARCHITECT/ENGINEER
AB	ANCHOR BOLT/ROD
ABV	ABOVE
AC	ASPHALTIC CONCRETE/AIR CONDITIONER
ACC	ACCESSIBLE
ACM	ALUMINUM COMPOSITE MATERIAL
ACOUS	ACOUSTICAL
ACT	ACOUSTICAL CEILING TILE
ADA	AMERICANS WITH DISABILITIES ACT
ADD	ADDENDUM
ADH	ADHESIVE
ADJ	ADJUSTABLE, ADJACENT, ADJOINING
AFF	ABOVE FINISH FLOOR
AFG	ABOVE FINISH GRADE
AHJ	AUTHORITY HAVING JURISDICTION
ALT	ALTERNATE
ALUM	ALUMINUM
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
APC	ACOUSTICAL PANEL CEILING
APPROX	APPROXIMATE
ARCH	ARCHITECT (URAL)
ASI	ARCHITECTURAL SUPPLEMENTAL INFORMATION
BD	BOARD
BEV	BEVELED
BFF	BELOW FINISH FLOOR
BL	BRICK LEDGE
BLDG	BUILDING
BLKG	BLOCK (ING)
BM	BEAM
BOT	BOTTOM
BO	BOTTOM OF
BOC	BOTTOM OF CONCRETE
BOF	BOTTOM OF FOOTING
BRG	BEARING
BRK	BRICK
BSMT	BASEMENT
BTWN	BETWEEN
BUR	BUILT-UP ROOFING
C	CHANNEL/CELSIUS
CAB	CABINET
CB	CERAMIC BASE
CC	CONTRACTOR
	FURNISHED/CONTRACTOR INSTALLED
CD	CONSTRUCTION DOCUMENTS
CEM	CEMENT
CF	CUBIC FEET OR FOOT
CG	CORNER GUARD
CIPC	CAST-IN-PLACE CONCRETE
CJ	CONTROL/CONSTRUCTION JOINT
CL	CENTER LINE
CLG	CEILING
CLKG	CAULKING
CLR	CLEAR, CLEARANCE
CMU	CONCRETE MASONRY UNIT
CO	CHANGE ORDER/CLEAN OUT
COL	COLUMN
COMB	COMBINATION
COMP	COMPOSITE/COMPOSITION
CONC	CONCRETE
CONN	CONNECT (ION)
CONST	CONSTRUCTION
CONT	CONTINUOUS, CONTINUE
CONTR	CONTRACT (OR)
COORD	COORDINATE
CORR	CORRUGATED/CORRIDOR
CPT	CARPET
CPPT	CARPET TILE
CSMT	CASEMENT
CT	CERAMIC TILE
CTB	CARPET TILE BASE
CTR	CENTER
D	DEPTH
DBL	DOUBLE
DEMO	DEMOLITION, DEMOLISH
DEPT	DEPARTMENT
DET	DETAIL
DF	DRINKING FOUNTAIN
DIA	DIAMETER
DIAG	DIAGONAL
DIM	DIMENSION
DIV	DIVIDE, DIVISION
DISP	DISPENSER
DN	DOWN
DR	DOOR
DS	DOWNSPOUT
DW	DISHWASHER
DWG	DRAWING (S)
DWR	DRAWER
DWTR	DUMBWAITER
(E)	EXISTING
E	EAST
EA	EACH
EF	EACH FACE
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRICAL
ELEV	ELEVATOR
ENL	ENLARGED
EMER	EMERGENCY
ENGR	ENGINEER
EOP	EDGE OF PAVEMENT
EPDM	ETHYLENE PROPYLENE DIENE MONOMER
EPS	EXPANDED POLYSTYRENE BOARD
EPT	EPOXY PAINT
EQ	EQUAL
EQUIP	EQUIPMENT
ES	EACH SIDE
EST	ESTIMATE
ETC	ETCETERA
ETR	EXISTING TO REMAIN
EW	EACH WAY
EXIST	EXISTING
EXC	EXCAVATE/EXCAVATION
EXH	EXHAUST
EXP	EXPANSION/EXPOSED
EXT	EXTERIOR
EWC	ELECTRIC WATER COOLER
FA	FIRE ALARM
FAB	FABRICATE/FABRICATION
FD	FLOOR DRAIN
FDC	FIRE DEPARTMENT CONNECTION
FDTN	FOUNDATION
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FF	FINISHED FLOOR
FFE	FINISH FLOOR ELEVATION
FIN	FINISH (ED)
FLOUR	FLUORESCENT
FLR	FLOOR (ING)
FO	FACE OF
FOC	FACE OF CONCRETE
FOM	FACE OF MASONRY
FOS	FACE OF STUD
FOF	FACE OF FINISH
FR	FIRE RESISTANT/FRAME
FRP	FIBERGLASS REINFORCED PANEL
FS	FLOOR SINK
FT	FOOT, FEET/FIRE TREATED
FTG	FOOTING
FURG	FURRING
FUT	FUTURE
GA	GAGE, GAUGE
GB	GRAB BAR
GC	GENERAL CONTRACTOR
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GI	GALVANIZED IRON
GL	GLASS
GLU LAM	GLUE LAMINATED (BEAM)
GWB	GYPSUM WALL BOARD
GYP	GYPSUM
HB	HOSE BIB
HC	HANDICAP / HOLLOW CORE
HD	HEAVY DUTY
HDBD	HARDBOARD
HDR	HEADER
HDWD	HARDWOOD
HDWR	HARDWARE
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HR	HOUR
HT	HEIGHT
HVAC	HEATING, VENTILATION, AIR-CONDITIONING
IBC	INTERNATIONAL BUILDING CODE
ICC	INTERNATIONAL CODE COUNCIL
ID	INSIDE DIAMETER/DIMENSION
IFC	INTERNATIONAL FIRE CODE
IN	INCH(ES)
INCL	INCLUDE (D), INCLUDING
INFO	INFORMATION
INSP	INSPECTION
INSTR	INSTRUCTION(S)
INSUL	INSULATE (D), INSULATION
INT	INTERIOR
JAN	JANITOR
JST	JOIST
JT	JOINT
KCJ	KEYED CONSTRUCTION JOINT
KO	KNOCK OUT
L	LENGTH / ANGLE
LAB	LABORATORY
LAM	LAMINATE (ED)
LAV	LAVATORY
LB	POUND
LF	LINEAR FEET
LH	LEFT HAND
LKR	LOCKER
LOC	LOCATION
LONG	LONGITUDINAL
LT	LIGHT
LVR	LOUVER
LVT	LUXURY VINYL TILE
MAS	MASONRY
MATL	MATERIAL
MAX	MAXIMUM
MC	MEDICINE CABINET
MECH	MECHANICAL
MEMB	MEMBRANE
MEZZ	MEZZANINE
MFR	MANUFACTURE (R)
MIN	MINIMUM
MISC	MISCELLANEOUS
MO	MASONRY OPENING
MR	MIRROR
MTL	METAL
(N)	NEW
N	NORTH
NA	NOT APPLICABLE
NIC	NOT IN CONTRACT
NO	NUMBER
NOM	NOMINAL
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OFOI	OWNER FURNISHED/OWNER INSTALLED
OFCI	OWNER FURNISHED/ CONTRACTOR INSTALLED
OH	OVERHEAD
OPP	OPPOSITE
OPG	OPENING
ORIG	ORIGINAL
ORD	OVERFLOW ROOF DRAIN
OZ	OUNCE
PAR	PARALLEL
PCF	POUNDS PER CUBIC FOOT
PED	PEDESTAL
PERF	PERFORATED
PERP	PERPENDICULAR
PL	PLATE
PLAM	PLASTIC LAMINATE
PLMB	PLUMBING
PLYWD	PLYWOOD
PNL	PANEL
PR	PAIR/PROPOSAL REQUEST
PRCST	PRECAST CONCRETE
PREFAB	PREFABRICATE
PSI	POUNDS PER SQUARE INCH
PSF	POUNDS PER SQUARE FOOT
PT	PAINT / PRESSURE TREATED
PTD	PAPER TOWEL DISPENSER
PTN	PARTITION
PTR	PAPER TOWEL RECEPTACLE
PVC	POLYVINYL CHLORIDE
QT	QUARRY TILE
R	RADIUS/RISER
RB	RUBBER BASE
RBR	RUBBER
RCP	REFLECTED CEILING PLAN
RD	ROOF DRAIN
REBAR	REINFORCING BAR
REC	RECESSED
REF	REFERENCE/REFRIGERATOR
REINF	REINFORCE (D), (ING), (MENT)
REQ	REQUIRE
REQD	REQUIRED
RES	RESILIENT FLOORING
RET	RETURN
REV	REVISION (S), REVISED
RFI	REQUEST FOR INFORMATION
RFP	REQUEST FOR PROPOSAL
RH	RIGHT HAND
RL	RIDGE LINE
RM	ROOM
RO	ROUGH OPENING
ROW	RIGHT OF WAY
RVS	REVERSE (SIDE)
RWL	RAIN WATER LEADER
S	SOUTH
SB	SPLASH BLOCK
SC	SOLID CORE
SCHED	SCHEDULE
SCR	SHOWER CURTAIN ROD
SCT	SECTION
SD	SOAP DISPENSER
SF	SQUARE FOOT
SHT	SHEET
SHTHG	SHEATHING
SIM	SIMILAR
SLDG	SLIDING
SLNT	SEALANT
SND	SANITARY NAPKIN DISPENSER
SNX	SANITARY NAPKIN DISPOSAL
SOG	SLAB ON GRADE
SPEC	SPECIFICATION (S)
SQ	SQUARE
SSM	SOLID SURFACE MATERIAL
SST	STAINLESS STEEL
ST	STREET
STC	SOUND TRANSMISSION CLASS
STD	STANDARD
STL	STEEL
STOR	STORAGE
STRUCT	STRUCTURAL
SUSP	SUSPENDED
SV	SHEET VINYL
SW	SHEARWALL
SYM	SYMMETRICAL
T	TREAD
T&B	TOP AND BOTTOM
T&G	TONGUE AND GROOVE
TB	TOWEL BAR
TBD	TO BE DETERMINED
TEMP	TEMPORARY/TEMPERED
TER	TERRAZZO
TFE	TOP FOOTING ELEVATION
THD	THREAD (ED) (S)
THK	THICKNESS
THRU	THROUGH
TKBD	TACKBOARD
TL	TILE
TO	TOP OF
TOB	TOP OF BEAM
TOC	TOP OF CONCRETE/CURB
TOD	TOP OF DECK
TOF	TOP OF FOOTING (FOUNDATION)
TOM	TOP OF MASONRY
TOP	TOP OF PIER
TOJ	TOP OF JOIST
TOS	TOP OF SLAB/STEEL
TOW	TOP OF WALL
TPD	TOILET PAPER DISPENSER
TPO	THERMOPLASTIC POLYOLEFIN
TPTN	TOILET PARTITION
TRANS	TRANSVERSE
TS	TUBE STEEL
TYP	TYPICAL
UG	UNDERGROUND
UH	UNIT HEATER
UNFIN	UNFINISHED
UNO	UNLESS NOTED OTHERWISE
UON	UNLESS OTHERWISE NOTED
UTIL	UTILITY
V	SHEAR
VAR	VARIES
VB	VAPOR BARRIER
VC	VA FURNISHED / CONTRACTOR INSTALLED
VCT	VINYL COMPOSITION TILE
VERT	VERTICAL
VEST	VESTIBULE
VIF	VERIFY IN FIELD
VR	VAPOR RETARDER
VV	VA FURNISHED / VA INSTALLED
VWC	VINYL WALL COVERING
W	WEST/WIDTH
W/	WITH
W/O	WITHOUT
WA	WEDGE ANCHOR
WB	WOOD BASE
WC	WATER CLOSET
WD	WOOD/WOODWORK
WDW	WINDOW
WF (W)	WIDE FLANGE
WG	WALL GUARD
WH	WATER HEATER
WI	WROUGHT IRON
WL	WIND LOAD
WP	WATERPROOF (ING)
WR	WATER RESISTANT
WSCT	WAINSCOT
WT	WEIGHT/WINDOW TREATMENT
WWF	WELDED WIRE FABRIC

MEDICAL ABBREVIATIONS

ACPH	AIR CHANGES PER HOUR
BSC	BIOLOGICAL SAFETY CABINET
CACI	COMPUNDING ASEPTIC CONTAINER ISOLATOR
C-PEC	CONTAINMENT PRIMARY ENGINEERING CONTROL
C-SEC	CONTAINMENT SECONDARY ENGINEERING CONTROL
EPA	ENVIRONMENTAL PROTECTION AGENCY
HD	HAZARDOUS DRUG
HEPA	HIGH-EFFICIENCY PARTICULATE AIR
IV	INTRAVENEOUS
LAFW	LAMINAR AIRFLOW WORKBENCH
OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINSTRATION
PPE	PERSONAL PROTECTIVE EQUIPMENT
SOP	STANDARD OPERATING PROCEDURE
UPS	UNINTERUPTED POWER SOURCE

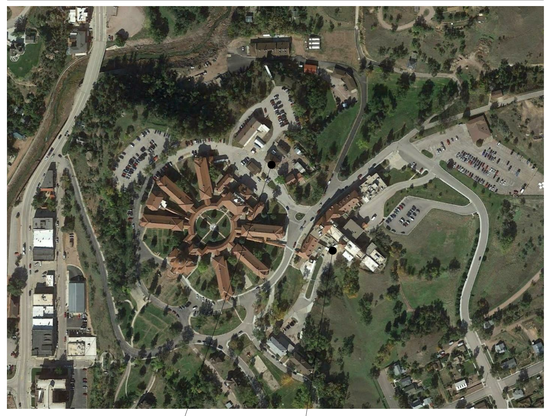
LOCATION MAPS

FORT MEADE

NORTH

VA BLACK HILLS HEALTH CARE SYSTEM
OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT
FORT MEADE
113 COMANCHE RD
FORT MEADE, SD 57741

HOT SPRINGS



NORTH

VA BLACK HILLS HEALTH CARE SYSTEM
OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT
HOT SPRINGS
500 N 5TH ST
HOT SPRINGS, SD 57747

VICINITY MAPS

FORT MEADE

HOT SPRINGS

SYMBOLS LEGEND

- BATT INSULATION
- GYPSUM BOARD
- EARTH
- CONCRETE
- RIGID INSULATION
- EXISTING CONSTRUCTION TO BE REMOVED
- NEW CONSTRUCTION
- WOOD ROUGH (CONTINUOUS)
- WOOD ROUGH (SPACED)
- PLYWOOD
- BLOCK WALL/VENEER
- DIMENSION LINE
- BREAK LINE
- DETAIL INDICATOR (X / X-XX)
- DETAIL INDICATOR (X / X-XX)
- BUILDING SECTION INDICATOR (X / X-XX)
- ELEVATION INDICATOR, EXTERIOR (X / X-XX)
- ELEVATION INDICATOR
- CENTER LINE
- ELEVATION INDICATOR, INTERIOR, SINGLE VIEW (X / X-XX)
- ELEVATION INDICATOR, INTERIOR MULTIPLE VIEW (X / X-XX)
- V V ITEM - VA SUPPLIED & INSTALLED
- VC ITEM - VA SUPPLIED & CONTRACTOR INSTALLED
- CC ITEM - CONTRACTOR SUPPLIED & INSTALLED
- NORTH ARROW

- CENTER LINE INDICATOR
- CONTRACT LIMIT LINE
- DEMOLITION LINE
- EXISTING TO REMAIN
- FEATURE ABOVE LINE INDICATOR
- FIRE RESISTIVE RATED LINE, 1 HOUR
- FIRE RESISTIVE RATED LINE, 2 HOUR
- FIRE RATED, FIRE BARRIER LINE, 1 HOUR VERT. OPENING
- FIRE RATED, FIRE/SMOKE BARRIER LINE, 1 HOUR
- FIRE RATED, FIRE/SMOKE BARRIER LINE, 2 HOUR
- FIRE RATED, SMOKE BARRIER LINE, 1 HOUR
- FIRE RATED, SMOKE BARRIER LINE, 2 HOUR
- HIDDEN LINE FEATURES
- NEW LINE
- PROPERTY LINE
- STUD SIZE / PARTITION MODIFIER (OPTIONAL) (4 / A / H)
- OR FIRE RATING (OPTIONAL)

STUD SIZE OR CMU NOMINAL THICKNESS
A = 3 5/8" MTL STUD, (1) LAYER GYP BD BOTH SIDES
B = 6" MTL STUD, (1) LAYER GYP BD BOTH SIDES
C = 2 1/2" MTL STUD, (1) LAYE GYP BD BOTH SIDES
F = FURRING

PARTITION MODIFERS
A = ONE SIDED G.W.B.
B = 42" HIGH WALL
C = 48" HIGH WALL

OTHER POSSIBLE MODIFIERS
- SMOKE BARRIER
- SOUND RATINGS

RATINGS
1 = 1 HOUR
2 = 2 HOUR
3 = 3 HOUR
4 = 4 HOUR

- DRAWING BLOCK TITLE, TYPICAL (XX / XX-XX / DRAWING TITLE)
- DETAIL INDICATOR FOR SMALL CONDITIONS (XX / X-XX)
- CORNER GUARD (CG)
- FIRE EXTINGUISHER CABINET (FEC)
- WALL OR PARTION TYPE (XX)
- KEYNOTE (XX)
- COLUMN GRID (1 / A)
- ROOM NAME AND NUMBER (ROOM / XX)
- FURNITURE, FIXTURE, & EQUIPMENT INDICATOR (XX)
- DOOR OPENING/BORROWED LIGHT IDENTIFIER (XX)

SHEET INDEX

Revision#	Description	Date:

CONSULTANTS

MECHANICAL / ELECTRICAL / PLUMBING:
West Plains Engineering, Inc.
1750 Rand Road
Rapid City, South Dakota 57702
Phone: 605-348-7455

STRUCTURAL:
Albertson Engineering Inc.
3202 W. Main St. #C
Rapid City, South Dakota 57702
Phone: 605-343-9606

ARCHITECT OF RECORD

A/E:
STONE GROUP ARCHITECTS
600 E 7TH STREET
SIOUX FALLS, SD 57103
605-271-1144
TODD STONE

STONE GROUP ARCHITECTS

STAMP

REGISTERED ARCHITECT — REG. NO. 9727 — TODD DAVID STONE — SOUTH DAKOTA — 10-26-20

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	COVER SHEET
Phase	FINAL CONSTRUCTION DOCUMENTS
Project Title	MRI SITE PREP FOR FT. MEADE / HOT SPRINGS VAMC
Project Number	VA #568-CSI-301 SGA #201910
Building Number	165 & 12
Approved:	
Location	FORT MEADE & HOT SPRINGS, SD
Issue Date	11/04/2020
Checked	TRS
Drawn	JHK
Drawing Number	G000

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VA FORM 08 - 6231

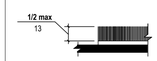


Figure 302.2
Carpet Pile Height

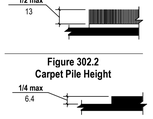


Figure 303.2
Vertical Change in Level

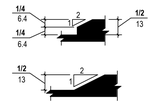


Figure 303.3
Beveled Change in Level

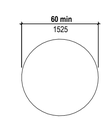


Figure 304.3.1
Circular Turning Space

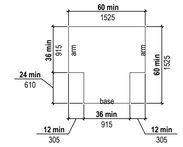


Figure 304.3.2
T-Shaped Turning Space

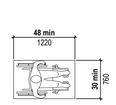


Figure 305.3
Clear Floor or Ground Space

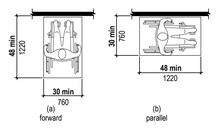


Figure 305.5
Position of Clear Floor or Ground Space

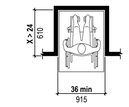


Figure 305.7.1
Maneuvering Clearance in an Alcove, Forward Approach

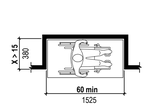


Figure 305.7.2
Maneuvering Clearance in an Alcove, Parallel Approach

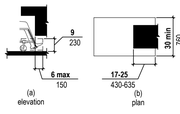


Figure 306.2
Toe Clearance

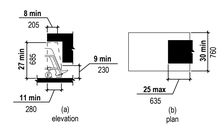


Figure 306.3
Knee Clearance

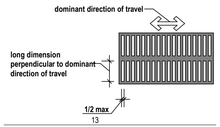


Figure 302.3
Elongated Openings in Floor or Ground Surfaces

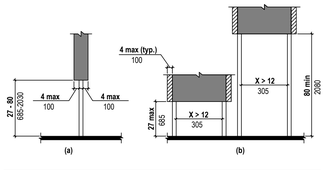


Figure 307.3
Post-Mounted Protruding Objects

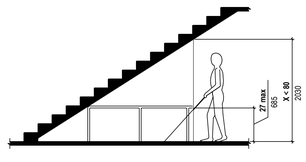


Figure 307.4
Vertical Clearance

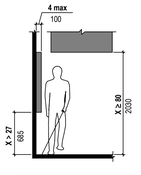


Figure 307.2
Limits of Protruding Objects

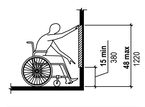


Figure 308.2.1
Unobstructed Forward Reach

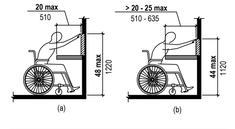


Figure 308.2.2
Obstructed High Forward Reach

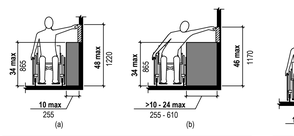


Figure 308.3.2
Unobstructed High Side Reach

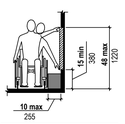
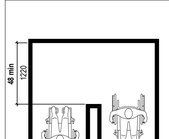


Figure 308.3.1
Unobstructed Side Reach



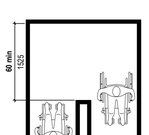


Figure 403.5.2
Clear Width at Turn

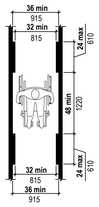


Figure 403.5.1
Clear Width of an Accessible Route

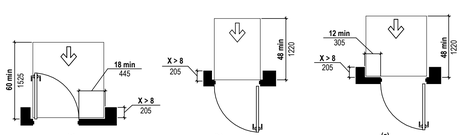


Figure 404.2.4.3
Maneuvering Clearance at Recessed Doors and Gates

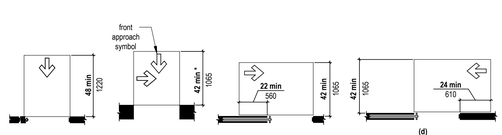
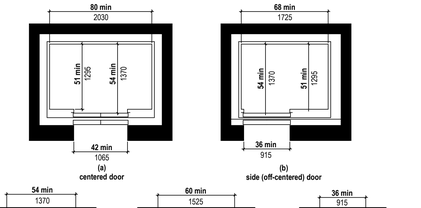


Figure 404.2.4.2
Maneuvering Clearance at Sliding and Folding Doors



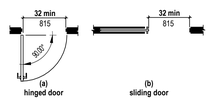
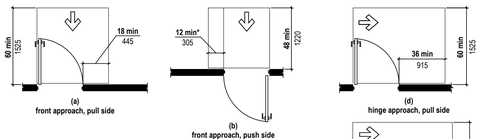


Figure 404.2.3
Clear Width of Doorways



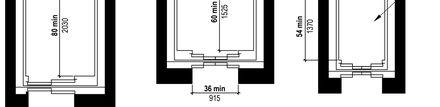


Figure 407.4.1
Elevator Car Door Sizes

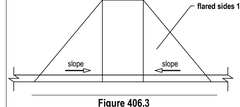


Figure 406.3
Sides of Curb Ramps

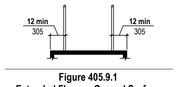


Figure 405.9.1
Extended Floor or Ground Surface Edge Protection

Figure 405.9.2
Curb or Barrier Edge Protection

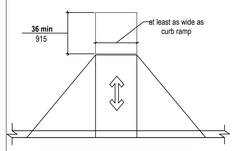


Figure 406.4
Landings at the Top of Curb Ramps

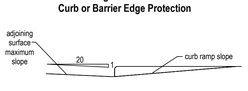


Figure 406.2
Counter Slope of Surfaces Adjacent to Curb Ramps

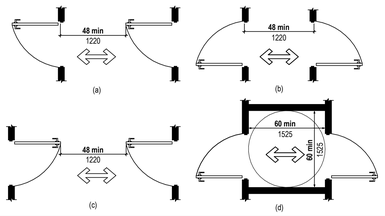


Figure 404.2.6
Doors in Series and Gates in Series

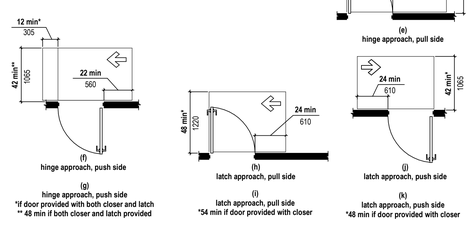


Figure 404.2.4.1
Maneuvering Clearance at Manual Swinging Doors and Gates

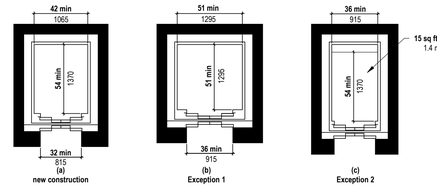


Figure 408.4.1
Limited Use/Limited Application (LULA) Elevator Car and Door Sizes

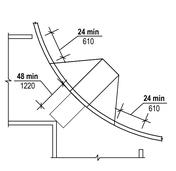


Figure 406.6
Diagonal or Corner Type Curb Ramps

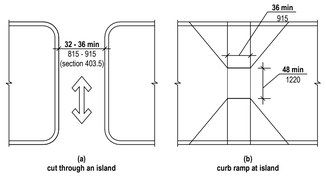


Figure 406.7
Islands in Crossings

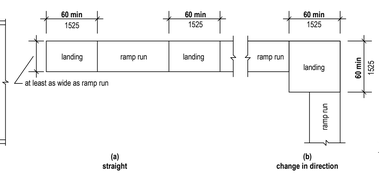


Figure 405.7
Ramp Landings

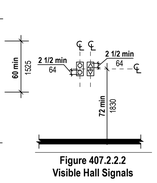


Figure 407.2.2.2
Visible Hall Signals

Figure 407.2.3.1
Floor Designations on Jambs of Elevator Hoistway Entrances

Figure 407.2.3.2
Car Designations on Jambs of Destination-Oriented Elevator Hoistway Entrances

Figure 407.2.1.1
Height of Elevator Call Buttons

Figure 409.4.6.2
Location of Private Residence Elevator Control Panels

Figure 410.6
Platform Lift Doors and Gates

ALL BOLD DIMENSIONS ARE SHOWN IN INCHES.
ALL LIGHT DIMENSIONS ARE SHOWN IN MILIMETERS.

BUILDING BLOCKS

ACCESSIBLE ROUTES

Revision#	Description	Date:

CONSULTANTS

MECHANICAL / ELECTRICAL / PLUMBING:
West Plains Engineering, Inc.
1750 Rand Road
Rapid City, South Dakota 57702
Phone: 605-348-7455

STRUCTURAL:
Albertson Engineering Inc.
Albertson Engineering, Inc.
3202 W. Main St. #C
Rapid City, South Dakota 57702
Phone: 605-343-9606

ARCHITECT OF RECORD
A/E:
STONE GROUP ARCHITECTS
600 E 7TH STREET
SIOUX FALLS, SD 57103
605-271-1144
TODD STONE
STONE GROUP ARCHITECTS

STAMP
REGISTERED ARCHITECT
9727
TODD SHORTELL STONE
SOUTH DAKOTA
10-26-22

Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title: ACCESSIBILITY DETAILS	Phase: FINAL CONSTRUCTION DOCUMENTS	Project Title: MRI SITE PREP FOR FT. MEADE / HOT SPRINGS VAMC	Project Number: VA #568-CSI-301 SGA #201910
			Building Number: 165 & 12
Approved:		Location: FORT MEADE & HOT SPRINGS, SD	Drawing Number: G001
		Issue Date: 11/04/2020 / Checked: TRS / Drawn: JHK	

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11/4/2020 3:39:58 PM
VA FORM 08 - 6231

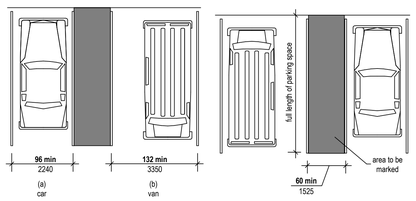


Figure 502.2
Vehicle Parking Spaces

Figure 502.3
Parking Space Access Aisle

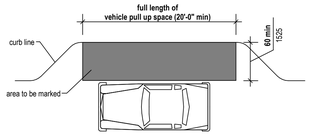


Figure 503.3
Passenger Loading Zone Access Aisle

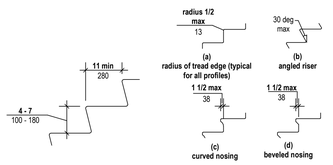


Figure 504.2
Treads and Risers

Figure 504.5
Stair Nosings

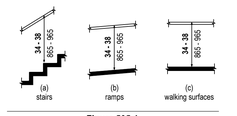


Figure 505.4
Handrail Height

Figure 505.5
Handrail Clearance

Figure 505.6
Horizontal Projections Below Gripping Surface

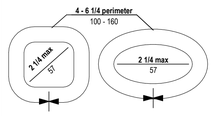


Figure 505.7.2
Handrail Non-Circular Cross Section

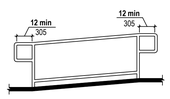


Figure 505.10.1
Top and Bottom Handrail Extensions at Ramps

Figure 505.10.2
Top Handrail Extension at Stairs

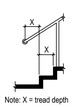


Figure 505.10.3
Bottom Handrail Extension at Stairs

GENERAL SITE AND BUILDING ELEMENTS

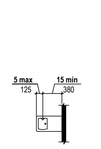


Figure 602.5
Drinking Fountain Spout Location

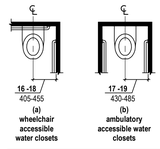


Figure 604.2
Water Closet Location

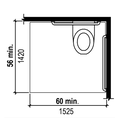


Figure 604.3.1
Size of Clearance at Water Closets

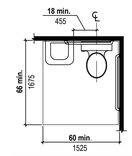


Figure 604.3.2 (exception)
Overlap of Water Closet Clearance in Residential Dwelling Units

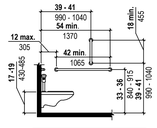


Figure 604.5.1
Side Wall Grab Bar at Water Closets

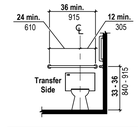


Figure 604.5.2
Rear Wall Grab Bar at Water Closets

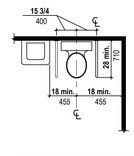


Figure 604.5.3
Swing-up Grab Bar for Water Closet

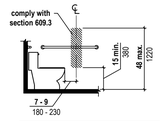


Figure 604.7
Dispenser Outlet Location

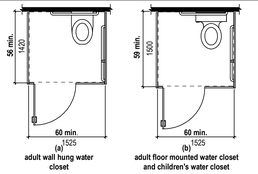


Figure 604.8.1.1
Size of Wheelchair Accessible Toilet Compartment

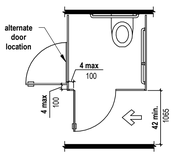


Figure 604.8.1.2
Wheelchair Accessible Toilet Compartment Doors

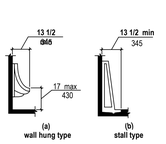


Figure 605.2
Height and Depth of Urinals

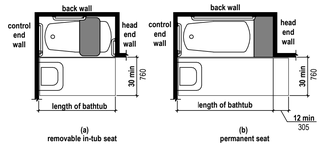


Figure 607.2
Clearance for Bathtubs

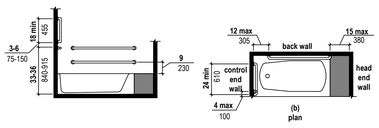


Figure 607.4.1
Grab Bars for Bathtubs with Permanent Seats

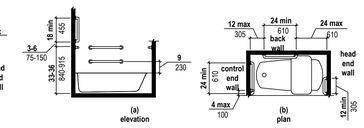


Figure 607.4.2
Grab Bars for Bathtubs with Removable In-Tub Seats

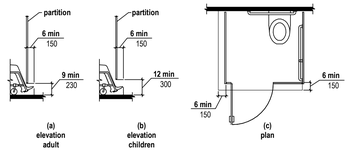


Figure 604.8.1.4
Wheelchair Accessible Toilet Compartment Toe Clearance

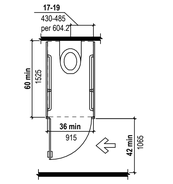


Figure 604.8.2
Ambulatory Accessible Toilet Compartment

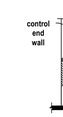


Figure 607.5
Bathtub Control Location

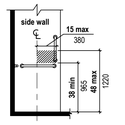


Figure 608.5.1
Transfer-Type Shower Compartment Control Location

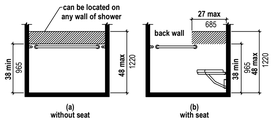


Figure 608.5.2
Standard Roll-In Type Shower Compartment Control Location

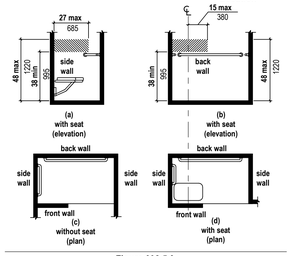


Figure 608.5.3
Alternate Roll-In Type Shower Compartment Control Location

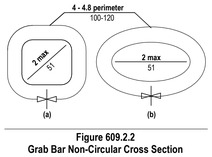


Figure 609.2.2
Grab Bar Non-Circular Cross Section

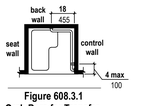


Figure 608.3.1
Grab Bars for Transfer-Type Showers

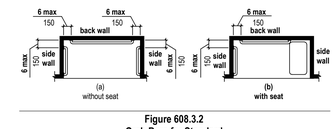


Figure 608.3.2
Grab Bars for Standard Roll-In Type Showers

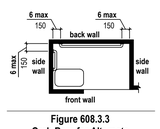
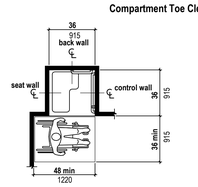
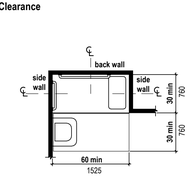


Figure 608.3.3
Grab Bars for Alternate Roll-In Type Showers



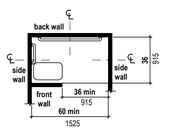
Note: inside finished dimensions measured at the center points of opposing sides

Figure 608.2.1
Transfer Type Shower Compartment Size and Clearance



Note: inside finished dimensions measured at the center points of opposing sides

Figure 608.2.2
Standard Roll-In Type Shower Compartment Size and Clearance



Note: inside finished dimensions measured at the center points of opposing sides

Figure 608.2.3
Alternate Roll-In Type Shower Compartment Size and Clearance

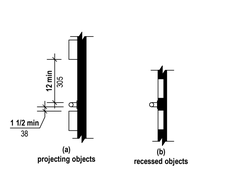


Figure 609.3
Spacing of Grab Bars

Figure 610.2
Bathtub Seats

Figure 610.3
Extent of Seat

Figure 610.3.1
Rectangular Shower Seat

Figure 610.3.2
L-Shaped Shower Seat

Figure 611.4
Height of Laundry Compartment Opening

PLUMBING ELEMENTS AND FACILITIES

Figure 703.6.1
Pictogram Field

Figure 705.1
Size and Spacing of Truncated Domes

Figure 707.6.2
Numeric Key Layout

Figure 703.7.2.1
International Symbol of Accessibility

Figure 703.7.2.2
International TTY Symbol

Figure 703.7.2.3
Volume-Controlled Telephone

Figure 703.7.2.4
International Symbol of Access for Hearing Loss

COMMUNICATION ELEMENTS AND FEATURES

Figure 703.2.5
Height of Raised Characters

Figure 703.3.1
Braille Measurement

Figure 703.3.2
Position of Braille

Figure 704.2.1.1
Parallel Approach to Telephone

Figure 704.2.1.2
Forward Approach to Telephone

Figure 703.4.1
Height of Tactile Characters Above Floor or Ground

Figure 703.4.2
Location of Tactile Signs at Doors

ALL BOLD DIMENSIONS ARE SHOWN IN INCHES.
ALL LIGHT DIMENSIONS ARE SHOWN IN MILIMETERS.

Revision#	Description	Date:

CONSULTANTS

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Rapid City, South Dakota 57702
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STONE GROUP ARCHITECTS

STAMP

REGISTERED ARCHITECT
REG. NO. 9123
TODD HANDLEY STONE
SOUTH DAKOTA
10 - 21 - 20

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ACCESSIBILITY DETAILS	Phase: FINAL CONSTRUCTION DOCUMENTS
Approved:	

Project Title: MRI SITE PREP FOR FT. MEADE / HOT SPRINGS VAMC	Project Number: VA #568-CSI-301 SGA #201910
	Building Number: 165 & 12
Location: FORT MEADE & HOT SPRINGS, SD	Drawing Number: G002
Issue Date: 11/04/2020 / Checked: TRS / Drawn: JHK	

C:_SGA Revit Local\201910 MRI Prep FM-HS_R20_jessekUPWVE.rvt
11/4/2020 3:40:03 PM

VA FORM 08 - 6231

1 1ST LEVEL CODE PLAN

1/4" = 1'-0"

CODE PLAN LEGEND

- 0 — OCCUPANTS
- 0.0" — REQUIRED WIDTH
- 0.0" — PROVIDED WIDTH
- EX — EXIT
- 1 — OCCUPANT LOAD
- CONSTRUCTION LIMITS
- 1-HOUR WALL
- 2-HOUR WALL
- EGRESS PATH
- 1-HOUR VERT. OPENING

CODE INFORMATION

PROJECT INFORMATION:

1. CONSTRUCTION PURPOSE: RENOVATION
2. REASON FOR SUBMITTAL: RENOVATION
3. I CERTIFY THAT TO THE BEST OF OUR KNOWLEDGE THE SUBMITTED PLANS FOR THE ABOVE-REFERENCED PROJECT COMPLY WITH THE REQUIREMENTS OF THE FOLLOWING:
   NFPA 101-18 (AND ALL REFERENCED DOCUMENTS)
   2018 INTERNATIONAL MECHANICAL CODE (IMC)
   2015 UNIFORM PLUMBING CODE (UPC)
   2017 NATIONAL ELECTRICAL CODE (NFPA-70)
   2018 LIFE SAFETY CODE (NFPA-101)
   2015 ABA ACCESSIBILITY STANDARDS
   BARRIER FREE DESIGN
   2018 IBC WITH LOCAL AMENDMENTS
   ASHRAE STANDARD 90.1 (2007)
   ASHRAE 62.1 (2007)
4. LOCATION OF ANY ANTICIPATED FUTURE ADDITIONS: UNKNOWN
5. OWNER:
   DEPARTMENT OF VETERANS AFFAIRS
   OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT

FORT MEADE	HOT SPRINGS
113 COMANCHE RD, BLDG 89	500 NORTH 5TH STREET
FORT MEADE, SD 57741	HOT SPRINGS, SD 57747

6. DESIGN TEAM:

   ARCHITECT:
   STONE GROUP ARCHITECTS
   600 E 7TH STREET
   SIOUX FALLS, SD 57103
   605-271-1144
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   ALBERTSON ENGINEERDING
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   651-343-9606
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   MICHAEL HEINRICH (MECHANICAL)
   MICHAEL.HEINRICH@WESTPLAINSENGINEERING.COM
7. ARCHITECTS SEAL: SEE STAMP AT BOTTOM
8. FIRE SERVICE: FORT MEADE FIRE DEPARTMENT
   HOT SPRINGS FIRE DEPARTMENT
9. INSPECTION: VISN SAFETY OFFICER
10. OCCUPANCY GROUP TYPE: HEALTHCARE
11. CONSTRUCTION TYPE: TYPE I (111)

    A. ALLOWABLE FLOOR AREA FROM NFPA-101
    PROJECT AREA: 11,335 SF

    B. ALLOWABLE HEIGHT CALCULATIONS
    OCCUPANCY - HEALTHCARE
    TYPE OF CONSTRUCTION: TYPE I (111)
    ALLOWABLE STORIES: 4
    ALLOWABLE HEIGHT: 160'
    ACTUAL STORIES: 2 STORIES W/ BASEMENT
    ACTUAL HEIGHT: 31'-4" (EXISTING)
    NO HEIGHT MODIFICATIONS REQUIRED

    C. FIRE-RESISTANCE RATING FOR BUILDING ELEMENTS:
    TYPE I (111)
    BEARING WALLS (EXTERIOR): 1 HR
    BEARING WALLS INTERIOR: 1 HR
    NON-BEARING WALLS (EXTERIOR): 0 HR
    PARTITIONS: 0 HR
    SMOKE BARRIERS BTWN SMOKE COMPARTMENTS: 1 HR
    STRUCTURAL FRAME:
    FLOOR AND FLOOR/CEILING: 1 HR
    ROOF AND ROOF/CEILING: 1 HR
    SHAFT ENCLOSURES: 2 HR
    STAIRWAY CONSTRUCTION: 1 HR
12. ACTIVE FIRE SAFETY SYSTEMS
    (a) SMOKE DETECTORS THROUGHOUT
    (b) GENERATOR POWERED EMERGENCY LIGHTING
    (c) BATTERY POWERED EXIT LIGHTING
    (d) HOOD SUPPRESSION SYSTEM
    (e) PORTABLE EXTINGUISHERS
    (f) AUTOMATIC AIR-HANDLING SHUT-DOWN
    (g) FIRE ALARM SYSTEM
13. WATER SUPPLY: CITY OF FORT MEADE
    CITY OF HOT SPRINGS
14. SEWAGE TREATMENT: CITY OF FORT MEADE
    CITY OF HOT SPRINGS
15. HANDICAP PROVISIONS: ACCESSIBLE ROUTE
    LAVATORIES AND SIGNAGE
16. OCCUPATIONAL LOAD:
    OUTPATIENT INSTITUTIONAL: 150 SF/PERSON GROSS

    EGRESS CAPACITY:
    STAIRWAY: .3 IN./PERSON
    DOOR: .2 IN./PERSON

    DEAD END CORRIDORS: NOT TO EXCEED 50 FT

    TRAVEL DISTANCE TO EXIT: 200 FT

    SMOKE COMPARTMENTS: (USING HEALTHCARE OCCUPANCY BASIS)
    (18.3.7.1(2)) AT LEAST 2 PER FLOOR
    (18.3.7.1(3)) NOT TO EXCEED 22,500 SF EACH

BUILDING CODES, GUIDES, MANUALS

NOTE: ALL WORK IS TO BE PERFORMED TO THE LATEST EDITION OF THE FOLLOWING CODES, ORDINANCES, AND LAWS WHICH INCLUDE, BUT ARE NOT LIMITED TO:

- VA DIRECTIVES, DESIGN MANUALS, MASTER SPECIFICATIONS, VA NATIONAL CAD STANDARD APPLICATION GUIDE, AND OTHER GUIDANCE INFORMATION ON THE TECHNICAL INFORMATION LIBRARY (TIL)
- INTERNATIONAL BUILDING CODE (IBC) (ONLY WHEN SPECIFICALLY REFERENCED IN VA DESIGN DOCUMENTS)
- NFPA 101 LIFE SAFETY CODE
- NFPA NATIONAL FIRE CODES WITH THE EXCEPTION OF NFPA 5000 AND NFPA 900
- OCCUPATIONAL, SAFETY AND HEALTH ADMINISTRATION (OSHA) STANDARDS
- VA SEISMIC DESIGN REQUIREMENTS, H-18-8
- NATIONAL ELECTRICAL CODE (NEC)
- INTERNATIONAL PLUMBING CODE (IPC)
- ASME BOILER AND PRESSURE VESSEL CODE
- ASME CODE FOR PRESSURE PIPING
- ARCHITECTURAL BARRIER ACT ACCESSIBILITY STANDARDS (ABAAS) INCLUDING VA SUPPLEMENT, BARRIER FREE DESIGN GUIDE (PG-18-13)
- BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE, AMERICAN CONCRETE INSTITUTE AND COMMENTARY (ACI 318)
- MANUAL OF STEEL CONSTRUCTION, LOAD AND RESISTANCE FACTOR DESIGN SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS, AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC)
- ENERGY POLICY ACT OF 2005 (EPACT)
- DOE INTERIM FINAL RULE: ENERGY CONSERVATION STANDARDS FOR NEW FEDERAL, COMMERCIAL AND MULTI-FAMILY HIGH-RISE RESIDENTIAL BUILDINGS AND NEW LOW-RISE RESIDENTIAL BUILDINGS, 10 CFR PARTS 433, 434, AND 435.
- FEDERAL LEADERSHIP IN HIGH PERFORMANCE AND SUSTAINABLE BUILDINGS: MEMORANDUM OF UNDERSTANDING (MOU)
- EXECUTIVE ORDER 13423: STRENGTHENING FEDERAL ENVIRONMENT, ENERGY, AND TRANSPORTATION MANAGEMENT.
- THE PROVISIONS FOR CONSTRUCTION AND SAFETY SIGNS. STATED IN THE GENERAL REQUIRMENTS SECTION 01010 IF THE VA MASTER CONSTRUCTION SPECIFICATION.
- VENTILATION FOR THE ACCEPTABLE INDOOR AIR QUALITY – ASHRAE STANDARD 62.1 – 2004.
- SAFETY STANDARD FOR REFRIGERATION SYSTEMS – ASHRAE STANDARD 15 – 2007.

PROJECT GENERAL NOTES

1. CONTRACTOR IS NOT AUTHORIZED TO SCALE CONSTRUCTION DOCUMENTS. ARCHITECT IS TO BE NOTIFIED IN THE EVENT A DISCREPANCY IS FOUND IN EITHER SPECIFICATIONS OR CONTRACT DOCUMENTS AT THE EARLIEST PRACTICAL OPPORTUNITY.
2. GENERAL CONTRACTOR SHALL OBSERVE ALL REGULATIONS IMPOSED BY GOVERNING BODIES.
3. CONSTRUCTION SHALL PROCEED IN AN ORDERLY AND CONTINUOUS FASHION IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODES AND ALL OTHER APPLICABLE CODES.
4. THE CONTRACTOR SHALL CONTAIN ALL CONSTRUCTION ACTIVITY, INCLUDING STORAGE OF MATERIAL AND EQUIPMENT, WITHIN THE CONSTRUCTION LIMITS, AT ALL TIMES BEING RESPONSIBLE FOR AND ABIDING BY RULES AND REGULATIONS OF THE OWNER.
5. GENERAL CONTRACTOR TO BE RESPONSIBLE FOR REPAIRING ANY AND ALL SURFACES DAMAGED BY HIMSELF OR SUBCONTRACTORS UNDER HIS CONTROL. REPAIRS ARE TO MATCH EXISTING MATERIALS AND MUST BE ACCEPTABLE TO OWNER.
6. ADEQUATELY PATCH/REPAIR TO MATCH ADJACENT CONSTRUCTION, ALL BUILDING STRUCTURES, COMPONENTS, AND UTILITIES WHICH ARE DISTURBED AND REQUIRE REPAIR AS A RESULT OF WORK PERFORMED UNDER THIS CONTRACT.
7. ALL FLOOR TRANSITIONS BETWEEN DIFFERENT MATERIALS SHALL BE SMOOTH AND FLUSH (MAXIMUM SLOPE = 1/8" PER FOOT).
8. GENERAL CONTRACTOR SHALL REMOVE ALL CONSTRUCTION DEBRIS FROM JOBSITE. ALL CONSTRUCTION DEBRIS SHALL BE CONTAINED INSIDE CONSTRUCTION LIMITS.
9. ALL WALLS WITH ITEMS SUCH AS GRAB BARS, TOILET ACCESSORIES, WOOD TRIM, SHELVING, CASEWORK, ETC. SHALL BE REINFORCED WITH CONCEALED, FIRE TREATED WOOD BLOCKING OR METAL STUD BLOCKING. (GENERAL CONTRACTOR TO INSTALL BLOCKING TYP.)
10. BUILDING 5 WILL REMAIN OCCUPIED THROUGHOUT THE CONSTRUCTION PERIOD. THE CONTRACTOR SHALL TAKE EVERY NECESSARY PRECAUTION TO ENSURE THE UNINTERRUPTED OPERATION OF THE FACILITY, STAFF, PATIENTS AND VISITORS. DISRUPTION TO ADJACENT DEPARTMENTS AS WELL AS DEPARTMENTS ON FLOORS ABOVE OR BELOW SHALL BE COORDINATED WITH THE FACILITY CONTRACT OFFICER. THE CONTRACTOR SHALL COORDINATE ALL WORK, CONSTRUCTION, PATHWAYS, ELEVATOR USAGE, AND UTILITY INTERRUPTION WITH THE OWNER.
11. CONTRACTOR TO EXERCISE ALL PRECAUTIONS TO PROVIDE FOR STAFF, PATIENTS, VISITORS, AND WORKMEN'S SAFETY DURING THE PERFORMANCE OF THIS CONTRACT PER EPA, OSHA, AND OTHER APPLICABLE CODES, STANDARDS, AND REGULATIONS.
12. THE CONTRACTOR SHALL MAINTAIN & KEEP BARRIER FREE THE EXISTING MEANS OF EGRESS.
13. ALL GYPSUM BOARD TO BE MOISTURE/MOLD RESISTANT TYPE X.
14. THE CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTION OF TEMPORARY PARTITIONS AND TEMPORARY VENTILATION SYSTEMS AS REQUIRED TO PREVENT THE SPREAD OF DUST FROM THE CONSTRUCTION AREA TO OCCUPIED AREAS OF THE BUILDING. OCCUPIED AREAS SHALL REMAIN DUST FREE THROUGHOUT THE CONSTRUCTION. THE CONTRACTOR SHALL MAINTAIN THE AFFECTED AREAS OF THE BUILDING (INCLUDING MATERIAL TRANSPORT ROUTES) CLEAN AND DUST FREE.
15. ALL WOOD USED IN WALL CONSTRUCTION SHALL BE FIRE-RETARDANT-TREATED LUMBER.
16. ALL WRITTEN CORRESPONDENCE WILL BE TRANSMITTED FROM SUBCONTRACTOR THROUGH GENERAL CONTRACTOR THROUGH ARCHITECT TO OWNER. ALL PARTIES CORRESPONDENCE ARE TO RECEIVE WRITTEN AND SIGNED COPIES OF SUCH. NO VERBAL AGREEMENTS AFFECTING COST OR ALTERNATIVE CONSTRUCTION METHODS AND ARRANGEMENTS WILL BE CONSIDERED VALID OR BINDING, AND ARE THEREFORE, DISALLOWED.
17. GENERAL CONTRACTOR SHALL COMPLY WITH ALL DIRECTIVES OF THE OWNER. IF CONFLICTS BETWEEN DRAWINGS, SPECIFICATIONS AND REQUIREMENTS OF BUILDING OWNER AND/OR OPERATORS ARISE, THEY SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT IMMEDIATELY.
18. THE HVAC, PLUMBING AND ELECTRICAL CONTRACTORS SHALL COORDINATE THEIR WORK WITH THE WORK OF OTHER TRADES TO ASSURE THAT THE WORK CAN BE INSTALLED IN A WORKMAN-LIKE MANNER. EACH CONTRACTOR SHALL BE EXPECTED TO COOPERATE WITH OTHER CONTRACTORS IN THE PLACEMENT OF WORK TO AVOID CONFLICTS AND MAINTAIN JOB PROGRESS.
19. IT IS THE INTENT OF THESE DRAWINGS THAT A COMPLETE JOB IS TO BE ACCOMPLISHED IN PREPARING THE BID. THE BIDDER SHALL MAKE ALLOWANCES FOR DETAILS WHICH MIGHT HAVE BEEN INADVERTENTLY OMITTED FROM THE DRAWINGS.
20. ALL EXISTING DUCTWORK, ELECTRICAL OR PIPING IS NOT NECESSARILY SHOWN ON THE DRAWINGS.
21. BEFORE CONTRACTOR(S) BID THE JOB, IT IS IMPERATIVE THEY VISIT THE JOBSITE AND FIELD VERIFY THE EXACT LOCATION OF ALL EXISTING EQUIPMENT, DUCTWORK, ETC. IT WILL BE PART OF THE CONTRACTOR'S RESPONSIBILITY TO DESIGN AND RELOCATE ANY EXISTING OBSTACLES WHICH WILL INTERFERE WITH THE CONTRACTOR'S ABILITY TO INSTALL ALL NEW OR RELOCATED WORK ON HIS CONTRACT.

CONTRACTOR GENERAL NOTES

1. ALL EXISTING DUCTWORK, ELECTRICAL OR PIPING IS NOT NECESSARILY SHOWN ON THE DRAWINGS.
2. BEFORE CONTRACTOR(S) BID THE JOB, IT IS IMPERATIVE THEY VISIT THE JOBSITE AND FIELD VERIFY THE EXACT LOCATION OF ALL EXISTING EQUIPMENT, DUCTWORK, ETC. IT WILL BE PART OF THE CONTRACTOR'S RESPONSIBILITY AND COST TO ENGINEER AND RELOCATE ANY EXISTING OBSTACLES WHICH WILL INTERFERE WITH THE CONTRACTOR'S ABILITY TO INSTALL ALL NEW OR RELOCATED WORK ON HIS CONTRACT.
3. CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN FIELD AND NOTIFY PROJECT ENGINEER OF ALL DISCREPANCIES IF ANY, FOUND PRIOR TO PLACEMENT OF ANY COMPONENTS
4. THE CONTRACTOR WILL TAKE ALL NECESSARY PRECAUTIONS INCLUDING THE BUILDING AND MAINTENANCE OF DUST TIGHT PARTITIONS, DAILY VACUUMING, SWEEPING, AND PROVISION OF CLEAN FLOOR MATS AT THE PROJECT ENTRANCES, TO PREVENT THE INFILTRATION OF DIRT AND DUST FROM THE CONSTRUCTION AREAS INTO THE OWNER OCCUPIED AREAS.
5. PATCH ALL FINISHES WHERE DISTURBED BY THE WORK AND WHERE UNFINISHED SURFACES HAVE BEEN EXPOSED BY DEMOLITION. PATCHING MUST MATCH ADJACENT MATERIALS, COLORS, AND FINISHES. WALL SURFACES THAT ARE PATCHED SHALL HAVE THE FINISHES (PAINT, VINYL WALL COVERING, ETC.) REPLACED FROM CORNER TO CORNER AND FLOOR TO CEILING.
6. UNLESS OTHERWISE INDICATED FINISH ALL NEW FRAMES AND PARTITIONS TO MATCH SURROUNDING. NEW HOLLOW METAL DOORS SHALL BE PAINTED SAME COLOR AS FRAMES. EXISTING PARTITIONS RECEIVING NEW DOOR FRAMES THAT HAVE VINYL WALL COVERING (VWC) SHALL HAVE THE VWC COMPLETELY REMOVED AND REPLACED WITH NEW VWC OF MATCHING TEXTURE AND COLOR
7. PAINT ALL EXPOSED NEW AND EXISTING PIPING, CONDUIT, WIRE MOLD, ELECTRICAL PANELS, ACCESS PANELS, ETC.,TO MATCH WALL FINISH UNLESS OTHERWISE NOTED.
8. CORRIDOR WALLS AND PLUMBING PARTITIONS SHALL BE CONSIDERED 1 HOUR FIRE RATED WALLS AND NEW OR EXISTING PENETRATIONS MUST BE SEALED ACCORDINGLY WITH APPROVED FIRESTOPPING MATERIAL THE SAME DAY THE PENETRATION IS MADE OR DISCOVERED. ALL FLOOR SLABS, VERTICAL SHAFTS AND STAIRWELLS SHALL BE CONSIDERED 2 HOUR RATED PARTITIONS AND BE SEALED ACCORDINGLY IN THE MANNER LISTED HEREIN. PENETRATIONS THROUGH THE EXTERIOR WALLS SHALL BE SEALED WATERTIGHT.
9. ALL NEW VERTICAL AND HORIZONTAL DUCTS, PIPES, CONDUITS, ETC.,IN FINISHED ROOMS OR AREAS THROUGHOUT BUILDING, NOT ENCASED IN MASONRY OR CONCRETE CONSTRUCTION, SHALL BE FURRED IN, THE FURRING FINISHED TO MATCH THE ROOM FINISH.
10. WHENEVER EXISTING EQUIPMENT, PIPING, DUCTS, ETC., ARE REQUIRED TO BE REMOVED, SUCH REMOVAL SHALL INCLUDE ALL ANCHORS, HANGERS, FOUNDATIONS, ETC., UNLESS NOTED OTHERWISE. AFTER REMOVAL; FLOORS, WALLS, AND CEILINGS SHALL BE FINISHED TO MATCH ADJOINING SURFACES.
11. UTILITY WORK THAT WILL REQUIRE A SHUTDOWN OF EXISTING SERVICE(S) WILL BE DONE AFTER NORMAL WORKING HOURS (NIGHTS, WEEKENDS, HOLIDAYS, ETC.) AT NO ADDITIONAL COST TO THE GOVERNMENT. WORK MUST BE SCHEDULED WITH THE COR.
12. WORK THAT MUST OCCUR IN OCCUPIED AREAS, SUCH AS PUBLIC CORRIDORS, OF THE MEDICAL CENTER OR DISRUPT A MEDICAL CENTER FUNCTION WILL BE DONE AT TIMES OTHER THAN NORMAL WORKING HOURS (NIGHTS, WEEKENDS, HOLIDAYS, ETC.) AT NO ADDITIONAL COST TO THE GOVERNMENT. WORK MUST BE SCHEDULED WITH THE V.A. PROJECT ENGINEER.
13. ALL ELECTRICAL CIRCUITRY TO BE CONCEALED UNLESS OTHERWISE SPECIFIED. CIRCUITING FOR ELECTRIC DOOR HOLD OPENS IN MASONRY WALLS SHALL BE SURFACE RACEWAY.
14. COORDINATE ALL WORK WITH OTHER TRADES AND EXISTING CONDITIONS TO ELIMINATE CONFLICTS AND/OR INTERFERENCES. THE CONTRACTOR SHALL PROVIDE ALL OFFSETS, FITTINGS, TRANSITIONS, EXTENSIONS, ETC., REQUIRED FOR A COMPLETE AND FUNCTIONAL SYSTEM.
15. DRAWINGS ARE DIAGRAMMATIC AND SHOW ONLY THE GENERAL ARRANGEMENT OF EACH SYSTEM. BECAUSE OF SMALL SCALE OF DRAWINGS IT IS NOT POSSIBLE TO SHOW OR INDICATE ALL BRANCHES, OFFSETS, FITTINGS, BOXES, AND ACCESSORIES WHICH MAY BE REQUIRED. CONTRACTOR MUST CAREFULLY INVESTIGATE STRUCTURAL AND FINISH CONDITIONS AFFECTING ALL WORK, FURNISHING SUCH FITTINGS, TRAPS, VALVES, BOXES, ACCESSORIES, ETC., AS MAY BE REQUIRED.
16. LOCATIONS OF NEW EQUIPMENT, PIPING, AND ASSOCIATED ITEMS SHOWN ON THE DRAWINGS ARE SCHEMATIC ONLY. THE CONTRACTOR SHALL FIELD VERIFY EXACT LOCATION AND ELEVATION FOR ALL WORK, INCLUDING CONNECTIONS TO EXISTING WORK. ALL OFFSETS, FITTINGS, TRANSITIONS, EXTENSIONS, ETC., REQUIRED FOR A COMPLETE AND FUNCTIONAL SYSTEM SHALL BE PROVIDED AT NO ADDITIONAL COST.
17. ALL EXISTING DUCTWORK, ELECTRICAL OR MECHANICAL PIPING, CABLE TRAYS, ETC., IS NOT NECESSARILY SHOWN ON THE DRAWINGS. BEFORE CONTRACTOR PLACES A BID IT IS IMPERATIVE THEY VISIT THE JOBSITE AND FIELD VERIFY THE EXACT LOCATION OF ALL EXISTING EQUIPMENT, DUCTWORK, PIPING, ETC. IT WILL BE PART OF THE CONTRACTOR'S RESPONSIBILITY AND THE CONTRACTOR WILL BEAR THE COST TO ENGINEER AND RELOCATE ANY EXISTING OBSTACLES WHICH WILL INTERFERE WITH THE CONTRACTOR'S ABILITY TO INSTALL ALL NEW OR RELOCATED WORK IN THIS PROJECT.
18. CONTRACTOR SHALL NOT INSTALL CONDUIT, PIPING, LIGHTING, OR OTHER OBSTRUCTIONS UNDER OR ADJACENT TO HVAC EQUIPMENT THAT WILL ELIMINATE OR OBSTRUCT ACCESS TO COILS, MOTORS, VALVES, SWITCHES, PANELS, ETC.
19. BEFORE THE CONTRACTOR BEGINS WORK HE SHALL RECORD ANY EXISTING SYSTEM INFORMATION SUCH AS TEMPERATURE, FLOW RATE, PRESSURE, CURRENT, VOLATAGE, OR ANY OTHER INFORMATION NECESSARY FOR HIM TO RETURN THE AFFECTED SYSTEM TO ORIGINAL OPERATING CONDITION. UNLESS NOTED OTHERWISE IT IS ASSUMED THAT ALL SYSTEMS (HVAC, ELECTRICAL, PLUMBING, ETC.) ARE WORKING PROPERLY IN EVERY MANNER AT THE BEGINNING OF THE PROJECT. THE CONTRACTOR'S RECORDED MEASUREMENTS MUST BE SUBMITTED TO THE PROJECT ENGINEER FOR REVIEW AND ACCEPTANCE BEFORE ANY DEMOLITION OR OTHER RELATED WORK CAN PROCEED.
20. FOR DOORS BEING REPLACED: IF THE EXISTING DOOR HAS SIGNAGE APPLIED TO IT, THIS SIGNAGE SHOULD BE CAREFULLY REMOVED AND REAPPLIED TO THE NEW DOOR. IF THE SIGNAGE IS DAMAGED DURING REMOVAL OR CANNOT OTHERWISE BE REAPPLIED IT SHOULD BE REPLACED WITH NEW SIGNAGE OF IDENTICAL TYPE.
21. THE CONTRACTOR WILL BE RESPONSIBLE FOR MAINTAINING ALL EXISTING ACCESS DOORS TO CONSTRUCTION AREAS, EXISTING MECHANICAL AND ELECTRICAL AREAS, ASSIGNED STORAGE AREAS, EQUIPMENT ACCESS AREAS, ETC. DOORS MUST BE RESTORED TO THE CONDITION ENCOUNTERED AT BEGINNING OF PROJECT. THIS INCLUDES DOOR REPLACEMENT, HARDWARE REPLACEMENT, HARDWARE REPAIR, DOOR REPAIR, ETC.
22. IT IS IMPORTANT THAT ALL REPLACEMENT DOORS HAVE A GAP OF LESS THAN 3/4" BETWEEN THE BOTTOM OF THE DOOR AND THE FLOOR AT ALL POINTS. CONTRACTOR MUST COORDINATE INSTALLED DOOR FRAME HEIGHT OR MAKE OTHER NECESSARY MODIFICATIONS0 TO MEET THIS REQUIREMENT AND KEEP FIRE RATING OF DOOR AND FRAME. BOTTOM SWEEPS ARE NOT ACCEPTABLE UNLESS SPECIFICALLY STATED ON DRAWING.
23. IF THERE IS ANY WORK TO BE DONE ON EXISTING ROOFS, SUCH AS ROOF PENETRATIONS OR STANDS, OR ANYTHING THAT DAMAGES THE INTEGRITY OF THE ROOF, THIS WORK MUST BE DONE BY A CONTRACTOR LICENSED BY THE ROOFING MEMBRANE MANUFACTURER. HE MUST BE APPROVED BY THE MEMBRANE MANUFACTURER SO AS TO NOT VOID OR INTERRUPT EXISTING SINGLE PLY MEMBRANE ROOF WARRANTIES.
24. EXISTING CIRCUITRY (CONDUIT, BOXES, WIRE, ETC.) MAY BE REUSED AT THE CONTRACTOR'S OPTION AS LONG AS IT MEETS THE SAME SPECIFICATIONS REQUIRED FOR NEW CIRCUITRY. ALL WORK, NEW AND EXISTING, SHALL COMPLY WITH THE LATEST NEC CODE.
25. WHERE DOOR AND HARDWARE ARE SHOWN TO BE REMOVED, THE DOOR STOPS ARE TO REMAIN AND BE REUSED UNLESS NOTED OTHERWISE.

Attachment A

Pre-Construction Risk Assessment

Project Title: **MRI Site Prep FM**
Project Location: **Building 165**
Project Coordinator: **Trenton Seidel**
Assessment Date: 8/18/2020 — Planned Start Date: Winter/ Spring 2021

Safety/Life Safety Risk Assessment-Safety officer should be involved in the design/planning of all projects

Y	N	CONSTRUCTION ACTIVITY	If NO, indicate ILSM from below list or describe other intervention
x		Will exit egress routes from occupied areas remain unchanged?	
x		Will exit stairs remain unobstructed & fire separated?	
x		Will fire & smoke compartments remain intact & unchanged?	
x		Will fire alarm detection systems remain functional & unimpaired?	
	x	Will fire suppression systems remain functional & unimpaired?	B, C, D, F, J,
x		Will construction area be separated by non-combustible smoke tight partitions?	Must be in place before construction begins
x		Will access to emergency department remain unobstructed?	
x		Will emergency access by fire department remain unobstructed?	
x		Will the construction area have two remote exits?	Temp barrier
Y	**N**	**CONSTRUCTION ACTIVITY**	**If YES, indicate ILSM from below list or describe other intervention**
	x	Will there be excessive distance to exit?	
	x	Will there be impacts to the environment (GEMS concerns)? hazardous areas unprotected, hazardous waste generated, etc.	
x		Will there be any anticipated utility shutdowns? (Communications, electrical, heating/cooling, HVAC, medical gases, vacuum, water, server)	Area will be vacated by staff
	x	Will there be unusual noise levels for adjacent areas?	
	x	Will vibration levels be excessive for hospital machinery to operate properly?	
	x	Will there be conflicts with emergency disaster plan?	
	x	Will the construction compromise security?	

Safety/Life Safety Additional Requirements and Comments:
Fire/Safety Officer Signature:

Interim Life Safety Measures (ILSM)

A. Ensure Egress
B. Emergency Forces Access
C. Fire Department Notification
D. Ensuring Operational Life Safety Systems
E. Temporary Construction
F. Additional Fire Fighting Equipment
G. Control Combustible Loading
H. Conduct 2 Fire Drills Per Shift in All Areas
I. Conduct 2 Fire Drills Per Shift in Local Area
J. Increase Hazard Surveillance
K. Compartmentation Training of Personnel
L. Conduct Organization Training on Life Safety
M. Conduct Additional Training on Incident Response
N. Institute a Fire Watch for Sprinkler Shutdown

Patient Safety Risk Assessment

Y	N	CONSTRUCTION ACTIVITY
x		Does this project involve a patient care area?
x		Is this project adjacent to a patient care area?
	x	Will this project alter patient access/egress to/from the building/patient care area, either temporarily or permanently?

If any are YES, **involve of the patient safety manager in design/planning**, especially with regard to the following items:

Access/ Egress	1. The new/temporary access/egress path should be intuitive, i.e. easy to follow. 2. Signage should be adequate for decreased visual acuity and at appropriate viewing levels for both ambulating and w/c bound patients/visitors. 3. The access/egress path should be smooth, without tripping hazards. 4. The access/egress path should be handicap accessible. 5. For applicable clinical areas, the construction barriers prevent unauthorized patient egress.
Hazardous Areas/ Materials	1. Hazardous areas should not be accessible by patients/visitors. 2. Signage for hazardous areas should be visually adequate (see above). 3. Hazardous chemicals and tools should be stored appropriately to preclude patient/visitor access?
Critical Alarms	**Critical clinical alarms should be functional and audible within and adjacent to the construction zone? Including but not limited to:** a. Emergency Code Systems b. Medical Gas alarms (Oxygen, Air, Suction) c. Wander guard technology d. Cardiac and other vital sign Monitoring Systems e. Medication/Nutrition Delivery Systems f. Nurse Call Systems

Patient Safety Additional Requirements/Comments:

Patient Safety Officer Signature:

1

Attachment A

Infection Control Risk Assessment (match construction activity to patient risk group to determine project class)

Y	N	CONSTRUCTION ACTIVITY TYPE	Y	N	PATIENT RISK GROUP (may modify as required)
		A: Inspection, non-invasive activity-includes, not limited to removal of ceiling tiles for inspection (1/50 sq ft), painting (not sanding), wall covering, electrical trim work, minor plumbing, activities which do not generate dust or require cutting of walls or access to ceilings other than for visual inspection.			Low Risk- (ex Office Areas)
		B: Small scale, short duration, moderate to high levels-includes but not limited to installation of telephone/computer cabling, access to chase spaces, cutting of walls or ceiling where dust migration can be controlled.	x		Medium Risk-(ex Cardiology, ECHO, Endoscopy, Nuclear Medicine, Physical Therapy, Radiology/MRI, Respiratory Therapy)
		C: Work that generates a moderate to high level of dust or requires demolition or removal of any fixed building components or assemblies. Includes but not limited to sanding of walls for painting or wall covering; removal of floor coverings, ceiling tiles, and casework; new wall construction; minor duct work or electrical work above the ceilings; major cabling activity; any activity which cannot be completed in a single work shift.			High Risk-(ex CCU, ER, Labor & Delivery, Laboratories (specimen), Newborn Nursery, Outpatient Surgery, Pediatrics, Pharmacy, Post Anesthesia care, Surgical Units)
x		D: Major duration and construction activities-Includes, but not limited to: activities that require consecutive work shifts; requires heavy demolition or removal of a complete cabling system; new construction.			Highest Risk-(ex Any area caring for Immunocompromised patients, Burn Unit, Cardiac Cath Lab, Central Sterile Supply, ICU, Medical Unit, Negative pressure isolation rooms, Oncology, Operating rooms including C-section)

Project Class

Patient Risk Group	TYPE A	TYPE B	TYPE C	TYPE D
LOW Risk	I	II	II	III/IV
MEDIUM Risk	I	II	III	IV
HIGH Risk	I	II	III/IV	IV
HIGHEST Risk	II	III/IV	III/IV	IV

	During Construction Project	Upon Completion of Project
CLASS I	1. Execute work by methods to minimize raising dust from construction operations. 2. Immediately replace any ceiling tile displaced for visual inspection.	
CLASS II	1. Include all items from Class I above 2. Provides active means to prevent air-borne dust from dispersing into atmosphere 3. Water mist work surfaces to control dust while cutting. 4. Seal unused doors with duct tape. 5. Block off and seal air vents. 6. Place dust mat at access points of work area. 7. Contain construction waste before transport in tightly covered containers. 8. Isolate HVAC system in areas where work is being performed to prevent contamination of duct system.	1. Wipe surfaces with disinfectant. 2. Contain construction waste before transport in tightly covered containers. 3. Wet mop and/or vacuum with HEPA filtered vacuum before leaving work area. 4. Remove isolation of HVAC system in areas where work is being performed.
CLASS III	1. Include all items from Class I/II above 2. **Involve infection control in design/planning before construction begins.** 3. Complete all critical barriers i.e. sheetrock, plywood, plastic, to seal area from non-work area or implement control cube method (cart with plastic covering and sealed connection to work site with HEPA vacuum for vacuuming prior to exit) before construction begins. 4. Maintain negative air pressure within work site utilizing HEPA equipped air filtration units. 5. Cover transport receptacles or carts. Tape covering unless solid lid.	1. Include all items from Class I/II above 2. Do not remove barriers from work area until completed project is thoroughly cleaned as required by the owner's Safety Department and/or Infection Control Department. 3. Remove barrier materials carefully to minimize spreading of dirt and debris associated with construction. 4. Vacuum work area with HEPA filtered vacuums. 5. Wet mop area with disinfectant
CLASS IV	1. Include all items from Class I/II/III above 2. **Involve infection control in design/planning before construction begins.** 3. Seal holes, pipes, conduits, and punctures appropriately. 4. If exiting to a patient care area, construct anteroom and require all personnel to pass through this room so they can be vacuumed using a HEPA vacuum cleaner before leaving work site or they can wear cloth or paper coveralls that are removed each time they leave the work site. 5. Walk-off mats are recommended to minimize tracking of heavy dirt and dust from construction areas. Shoe covers may be considered in certain areas.	1. Include all items from Class I/II/III above

Is there a risk to the Contractor of T.B. exposure (yes/no): No

Infection Control Additional Requirements/Comments:
Exit door to corridor shall be for emergency use only by the contractor
Infection Control Officer Signature:

2

Revision#	Description	Date:

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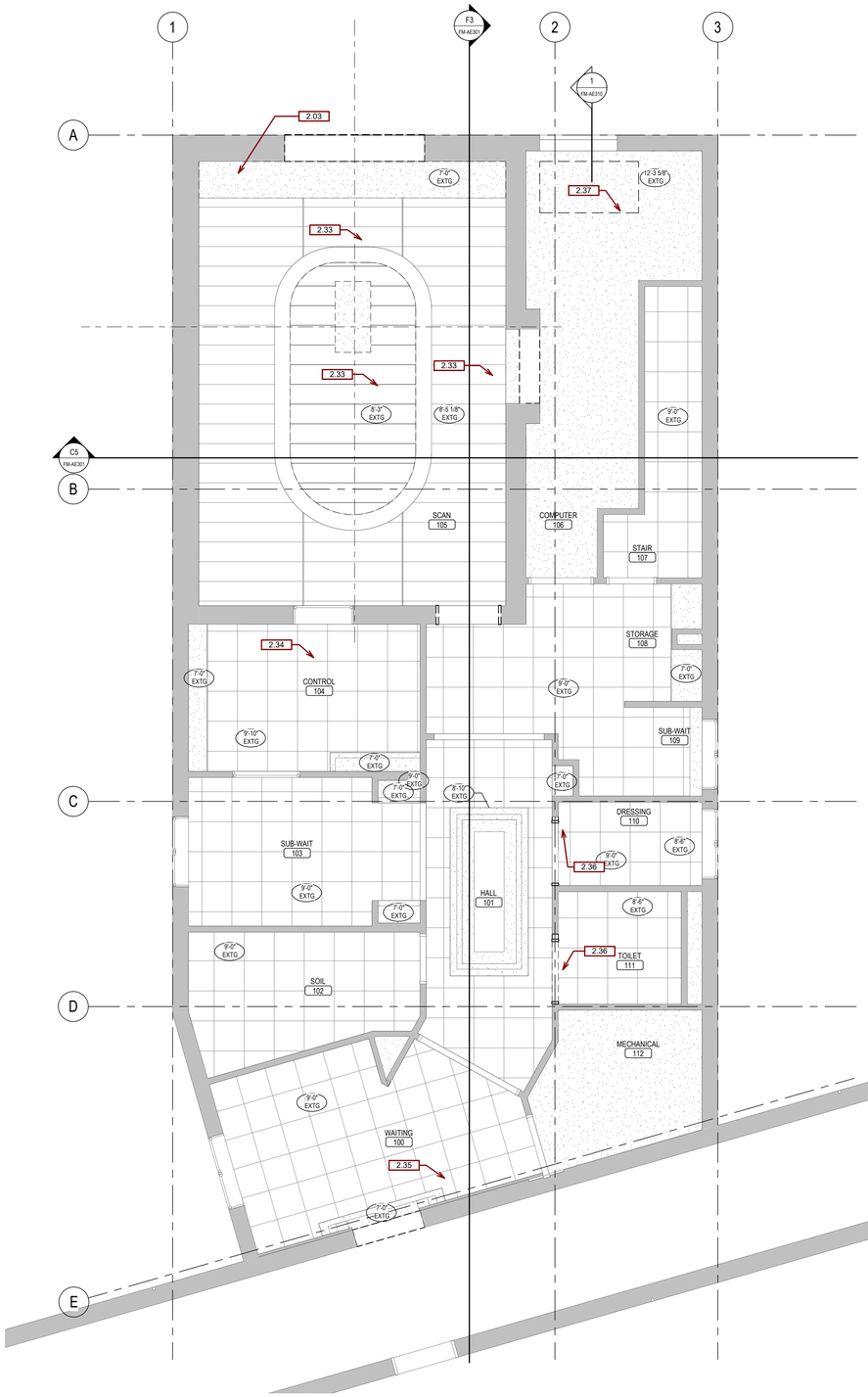
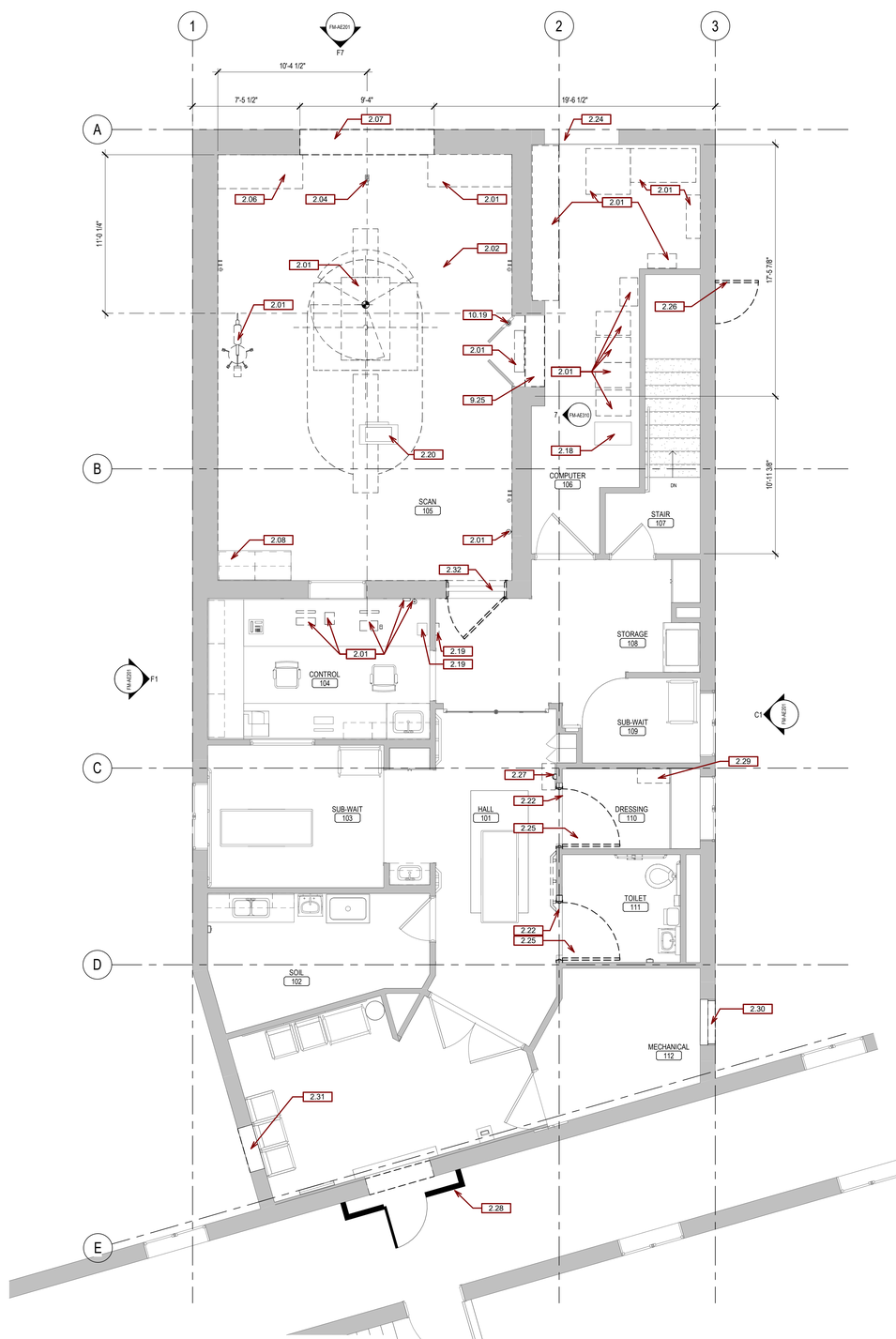
Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title: LIFE SAFETY CODE REVIEW, GENERAL NOTES, PCRA & ICRA
Approved:
Phase: FINAL CONSTRUCTION DOCUMENTS
Project Title: MRI SITE PREP FOR FT. MEADE / HOT SPRINGS VAMC
Location: FORT MEADE & HOT SPRINGS, SD
Issue Date: 11/04/2020
Checked: TRS
Drawn: JHK
Project Number: VA #568-CSI-301 SGA #201910
Building Number: 165 & 12
Drawing Number: G003



F1 **1ST LEVEL RCP DEMOLITION PLAN**
1/4" = 1'-0"



F6 **1ST LEVEL DEMOLITION PLAN**
1/4" = 1'-0"

GENERAL DEMOLITION NOTES:

A. REFER TO MECHANICAL DRAWINGS FOR RELATED DEMOLITION OF MECHANICAL/PLUMBING CONSTRUCTION.

B. REFER TO ELECTRICAL DRAWINGS FOR RELATED DEMOLITION OF ELECTRICAL CONSTRUCTION.

C. PATCH TO MATCH SPRAY-ON FIREPROOFING DAMAGED OR REMOVED FROM STRUCTURAL MEMBERS DURING DEMOLITION.

D. PATCH ABANDONED OPENINGS AND PENETRATIONS RELATED TO MECHANICAL AND ELECTRICAL DEMOLITION.

E. PROTECT SURROUNDING ROOMS NOT UNDER CONSTRUCTION FROM DUST AND DEBRIS. THESE ROOMS ARE NOT TO BE USED BY ANY CONTRACTOR FOR ANY PURPOSE.

F. FURNISHINGS OR EQUIPMENT IN AREA OF WORK ARE TO BE REMOVED AND TURNED OVER TO OWNER, UNLESS NOTED OTHERWISE. DISPOSE OF ALL ITEMS NOT WANTED BY OWNER.

G. MAINTAIN ACCESS TO ALL EXITS DURING CONSTRUCTION.

H. WORK TIME RESTRICTIONS:

1. WORK WILL BE SHUT DOWN AS REQUIRED FOR STAFF/PATIENT NEEDS OR NOISE ISSUES.
2. CORRIDORS AND CORRIDOR ACCESS TO ROOMS MUST BE MAINTAINED AT ALL TIMES (EXCEPT POSSIBLY OUTSIDE BUSINESS HOURS WHEN WORK COULD BE COORDINATED AND COMPLETED).
3. WORK MUST BE COORDINATED WITH THE IMMEDIATE REINSTALLATION OF FINISHES SO CORRIDORS DO NOT REMAIN IN AN UNFINISHED STATE.
4. REINSTALL CEILING TILE AT END OF EACH SHIFT WHERE CEILING WORK OCCURS OUTSIDE OF 1-HOUR CONSTRUCTION BARRIERS.

I. MAINTAIN NEGATIVE AIR PRESSURE IN AREAS OF WORK.

J. EXISITNG CONDITIONS ARE BASED ON INFORMATION OBTAINED FROM EXISITNG DRAWINGS AND FIELD SURVEY, AND SHALL NOT BE CONSTRUED "AS BUILT". CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS PRIOR TO ONSET OF CONSTRUCTION.

K. COORDINATE DEMOLITION WORK WITH PHASING PLANS AND OWNER FOR SCHEDULE OF OCCUPANCY.

L. CONTRACTOR SHALL COORDINATE WITH OWNER FOR ALL EXISTING EQUIPMENT AND FURNITURE ITEMS THAT ARE TO BE SALVAGED OR REINSTALLED PRIOR TO THE COMMENCEMENT OF DEMOLITION.

M. ALL SURFACES AFFECTED BY DEMOLITION TO BE CLEANED AND PREPARED FOR APPLICATION OF NEW FINISHES OR PATCHED TO MATCH EXISITNG.

N. REMOVE ALL FLOORING FINISHES AND BASE. PREPARE SLAB AND EXISTING WALLS TO REMAIN TO RECIEVE NEW FINISHES.

O. CONTRACTOR BUILDING ACCESS DURING EACH PHASE IS TO BE COORINDATED WITH VA COR.

P. ALL CONSTRUCTION BARRIER WALLS MUST BE 2-HOUR RATED W/ 90 MINUTE RATED DOORS. VERIFY RATING OF EXISTING WALLS USED AS CONSTRUCTION BARRIERS. ALL PENETRATIONS TO BE FIRESTOPPED.

SGA KEYNOTES

KEY VALUE	KEYNOTE TEXT
2.01	EXISTING MRI EQUIPMENT TO BE REMOVED BY OTHERS. SYSTEM FILTER BOX TO REMAIN.
2.02	DEMO FLOORING. PREP FOR NEW FINISHES.
2.03	DEMO SOFFIT.
2.04	REMOVE CAMERA. COORDINATE W/ ELEC.
2.06	REMOVE MILLWORK AND REINSTALL.
2.07	DEMO EXISTING KNOCK-OUT PANEL.
2.08	EXISTING CABINETRY TO REMAIN.
2.18	EXISTING AEC CABINET (CEILING LIGHTING) TO REMAIN.
2.19	EXISTING DCU CONTROL (CEILING LIGHTING) TO REMAIN.
2.20	EXISTING AEP PROJECTOR (CEILING LIGHTING) TO REMAIN
2.22	DEMO EXISTING WALL AS REQUIRED FOR NEW DOOR.
2.24	DEMO EXTERIOR WALL FOR UPS INSTALLATION. PREP WALL OPENING FOR FUTURE KNOCKOUT PANEL.
2.25	DEMO WOOD DOOR AND HOLLOW METAL FRAME.
2.26	DEMO METAL DOOR AND HOLLOW METAL FRAME.
2.27	DEMO EXISTING FLOOR MOUNTEED FERRO SCANNER. RETURN TO THE VA.
2.28	2 HOURS CONTRACTOR CONSTRUCTION BARRIER WITH 90-MINUTE EXIT DOOR. CONSTRUCT BARRIER WITH 3 5/8" STUD PLUS 2 LAYERS 5/8" FIRECODE GYP EA. SIDE.
2.29	SALVAGE EXISTING WALL CABINET FOR RELOCATION OVER BENCH, REF FLOOR PLAN.
2.30	DEMO EXISTING MECHANICAL LOUVER, REF MECHANICAL.
2.31	DEMO EXTERIOR WALL AS REQUIRED FOR NEW MECHANICAL LOUVER, REF MECHANICAL.
2.32	DEMO EXISTING RF SHIELDED DOOR TO SCAN ROOM. RETAIN CONTACT SWITCHES AND OTHER ELECTRICAL.
2.33	REMOVE EXISTING PANEL CEILING AS NECESSARY TO CONDUCT WORK ABOVE FOR DISMANTLING EXISTING AND INSTALLING NEW MRI CABLING AND EQUIPMENT. COORDINATE W/ VENDORS.REINSTALL AND REPLACE DAMAGED TO MATCH.
2.34	REMOVE EXISTING ACT CEILING AS NECESSARY TO CONDUCT WORK ABOVE FOR DISMANTLING EXISTING AND INSTALLING NEW MRI CABLING. COORDINATE W/ VENDORS. REINSTALL AND REPLACE DAMAGED TO MATCH.
2.35	REMOVE EXISTING ACT CEILING AS NECESSARY TO ROUTE NEW DUCTWORK TO EXTERIOR WALL. SEE MECHANICAL.
2.36	REMOVE EXISTING ACT CEILING AS NECESSARY TO COMPLETE WORKS TO ENLARGE DOOR OPENINGS.
2.37	DEMO EXISTING CEILING MOUNTED CRAC UNIT AND REMOVE SUPPORTS AND PLUMBING PER MECHANICAL DRAWINGS.
9.25	MODIFY OPENING FOR RF FILTER PLATE. SEE MRI VENDOR DRAWINGS FOR VENDOR SUPPPLIED MRI-CABLING FILTER PANEL .
10.19	EXISTING QUENCH VENT RF FILTER ABOVE ACCOUSTIC CEILING. LOCATION TO REMAIN, COORDINATED CONNECTIONS WITH NEW MRI.

Revision#	Description	Date:

C:_SGA Revit Local\201910 MRI Prep FM-HS_R20_jessekl.PWVE.rvt

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: FORT MEADE-1ST LEVEL DEMOLITION PLAN & RCP	Phase: FINAL CONSTRUCTION DOCUMENTS	Project Title: MRI SITE PREP FOR FT. MEADE / HOT SPRINGS VAMC	Project Number: VA #568-CSI-301 SGA #201910
			Building Number: 165 & 12
Approved:		Location: FORT MEADE & HOT SPRINGS, SD	Drawing Number: FM-AD101
		Issue Date: 11/04/2020 / Checked: TRS / Drawn: JHK	

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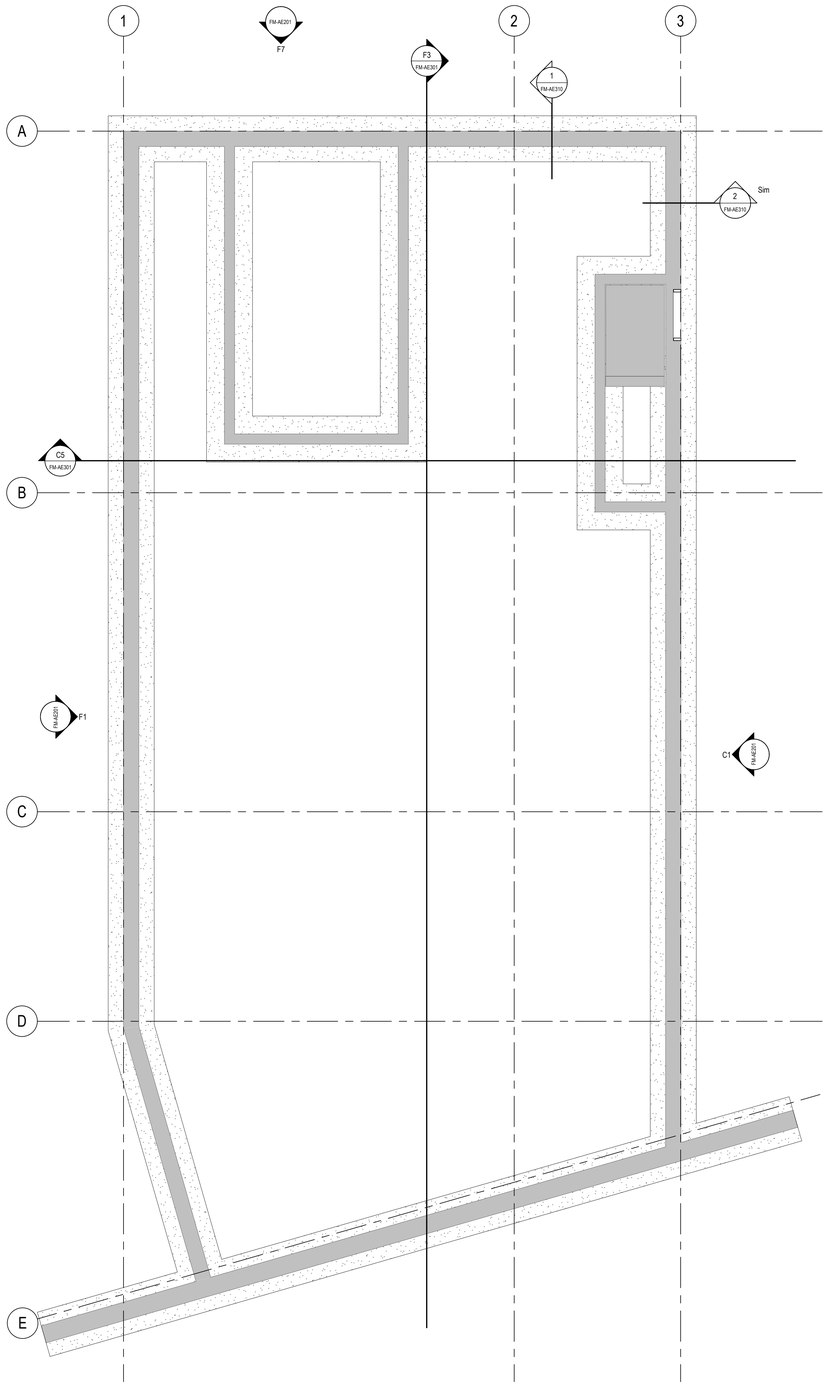
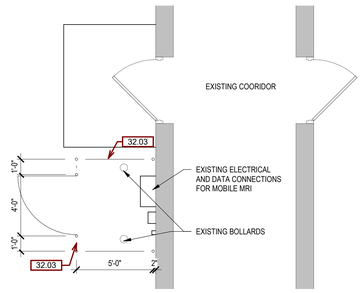


F3 **1ST LEVEL FLOOR PLAN - MOBILE MRI ELECTRICAL CONNECTION**
1/4" = 1'-0"



NORTH

F6 **FOUNDATION FLOOR PLAN**
1/4" = 1'-0"

GENERAL FLOOR PLAN NOTES:

A. ANY DISCREPANCIES OR CONFLICTS FOUND IN THE VARIOUS PARTS OF THE CONSTRUCTION DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND THE OWNER BEFORE PROCEEDING WITH THE WORK.
B. FURNITURE IS PROVIDED AND INSTALLED BY OTHERS.
C. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS. DO NOT SCALE THE DRAWINGS.
D. CONTRACTOR & SUBCONTRACTORS TO VERIFY ALL EXISTING CONDITIONS AT THE PROJECT SITE.
E. ALL MATERIALS & EQUIPMENT SHALL BE INSTALLED PER MANUFACTURERS INSTRUCTIONS.
F. DETAILS SHOWN ARE TYPICAL UNLESS OTHERWISE NOTED. SIMILAR DETAILS APPLY IN SIMILAR CONDITIONS.
G. PROVIDE WOOD BACKING FOR ALL BATH ACCESSORIES, HANDRAILS, OR OTHER ITEMS ATTACHED TO BUILDING WALLS.
H. GYPSUM USED IN RESTROOMS SHALL BE WATER RESISTANT GYPSUM BOARD. USE CEMENT BACKER BOARD AT ALL PORCELAIN & CERAMIC TILE LOCATIONS.
I. PROVIDE ABA COMPLIANT SIGNAGE FOR ALL REQUIRED AREAS, ROOMS, & ACCESSIBLE PATHS.
J. HEIGHT OF OPERATIONAL OR DISPENSING PORTION OF ACCESSORIES & FIXTURES NOT TO EXCEED 48" A.F.F. SEE SHEET G-002.
K. WINDOWS TYPES, SEE SCHED.
L. ALL WALLS ARE WALL TYPE A2 U.N.O.
M. SEE ENLARGED FLOOR PLANS FOR UNIT WALL TYPES.
N. PROVIDE CONTROL JOINTS IN DRYWALL EVERY 30'-0".
O. ALL DIMENSIONS ARE TO OUTSIDE OF WALL FRAMING.
P. FOR TILE FLOOR INSTALLATION: CONTRACTOR TO USE MANUFACTURERS DETAILS.
Q. SEE MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.
R. FOUNDATION INSULATION AND WATERPROOFING TO BE STEPPED TO MATCH GRADE, PER CIVIL DRAWINGS.
S. RF SHEILDING TO BE PROVIDED BY RF SHEILDING VENDOR.

SGA KEYNOTES

KEY VALUE	KEYNOTE TEXT
32.03	**INSTALL NEW 6 FOOT TALL CHAIN LINK FENCE AROUND EXISTING POWER CONNECTIONS FOR MOBILE MRI. INCLUDE 4'-0" WIDE OUTSWINGING GATE. COORDINATE WITH ELECTRICAL FOR GROUNDING OF FENCE.**

Revision#	Description	Date:

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title FORT MEADE-FOUNDATION PLAN	**Phase** FINAL CONSTRUCTION DOCUMENTS	**Project Title** MRI SITE PREP FOR FT. MEADE / HOT SPRINGS VAMC	**Project Number** VA #568-CSI-301 SGA #201910
			Building Number 165 & 12
Approved:		**Location** FORT MEADE & HOT SPRINGS, SD	**Drawing Number** FM-AE001
		Issue Date 11/04/2020 / **Checked** TRS / **Drawn** JHK	

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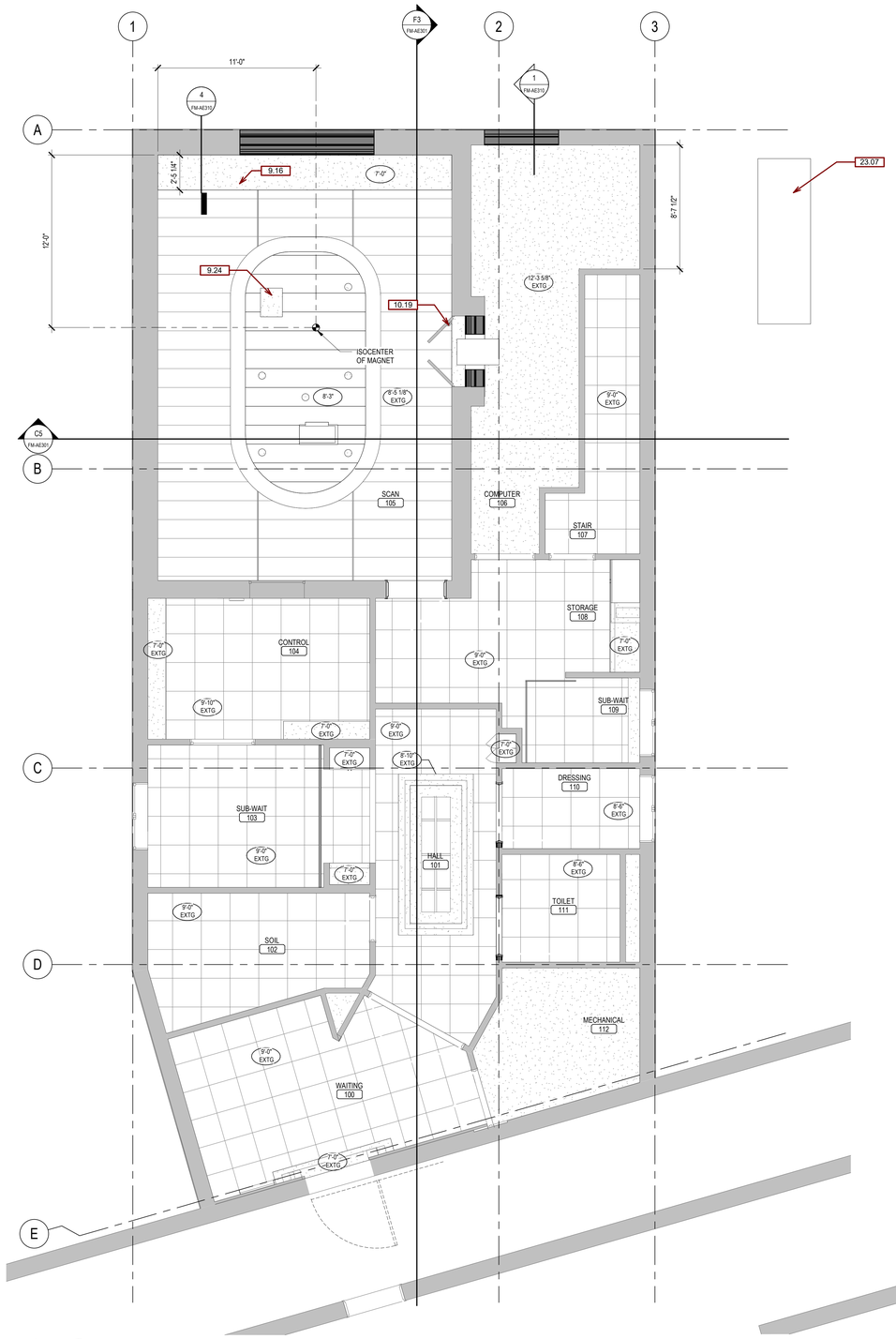
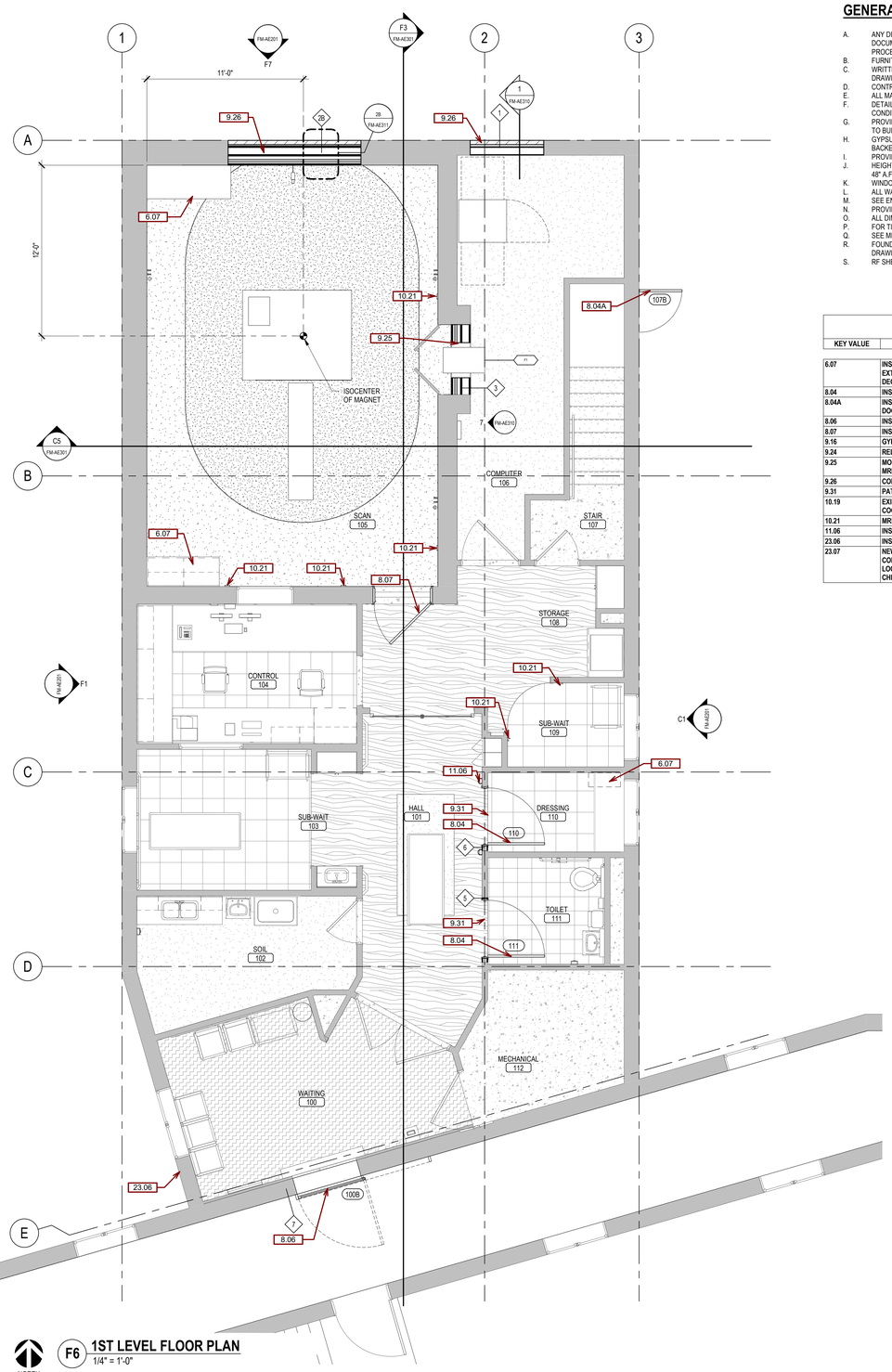


NORTH

F1 1ST LEVEL RCP
1/4" = 1'-0"



NORTH

F6 1ST LEVEL FLOOR PLAN
1/4" = 1'-0"

GENERAL FLOOR PLAN NOTES:

A. ANY DISCREPANCIES OR CONFLICTS FOUND IN THE VARIOUS PARTS OF THE CONSTRUCTION DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND THE OWNER BEFORE PROCEEDING WITH THE WORK.
B. FURNITURE IS PROVIDED AND INSTALLED BY OTHERS.
C. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS. DO NOT SCALE THE DRAWINGS.
D. CONTRACTOR & SUBCONTRACTORS TO VERIFY ALL EXISTING CONDITIONS AT THE PROJECT SITE.
E. ALL MATERIALS & EQUIPMENT SHALL BE INSTALLED PER MANUFACTURERS INSTRUCTIONS.
F. DETAILS SHOWN ARE TYPICAL UNLESS OTHERWISE NOTED. SIMILAR DETAILS APPLY IN SIMILAR CONDITIONS.
G. PROVIDE WOOD BACKING FOR ALL BATH ACCESSORIES, HANDRAILS, OR OTHER ITEMS ATTACHED TO BUILDING WALLS.
H. GYPSUM USED IN RESTROOMS SHALL BE WATER RESISTANT GYPSUM BOARD. USE CEMENT BACKER BOARD AT ALL PORCELAIN & CERAMIC TILE LOCATIONS.
I. PROVIDE ABA COMPLIANT SIGNAGE FOR ALL REQUIRED AREAS, ROOMS, & ACCESSIBLE PATHS.
J. HEIGHT OF OPERATIONAL OR DISPENSING PORTION OF ACCESSORIES & FIXTURES NOT TO EXCEED 48" A.F.F. SEE SHEET G-002.
K. WINDOWS TYPES, SEE SCHED.
L. ALL WALLS ARE WALL TYPE A2 U.N.O.
M. SEE ENLARGED FLOOR PLANS FOR UNIT WALL TYPES.
N. PROVIDE CONTROL JOINTS IN DRYWALL EVERY 30'-0".
O. ALL DIMENSIONS ARE TO OUTSIDE OF WALL FRAMING.
P. FOR TILE FLOOR INSTALLATION: CONTRACTOR TO USE MANUFACTURERS DETAILS.
Q. SEE MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.
R. FOUNDATION INSULATION AND WATERPROOFING TO BE STEPPED TO MATCH GRADE, PER CIVIL DRAWINGS.
S. RF SHEILDING TO BE PROVIDED BY RF SHEILDING VENDOR.

SGA KEYNOTES

KEY VALUE	KEYNOTE TEXT
6.07	INSTALL SALVAGED WALL CABINET, MATCH PREVIOUS HEIGHT A.F.F. LOCATED AS CLOSE TO EXTERIOR WALL AS POSSIBLE WHILE LEAVING ROOM FOR RIGHT SIDE DOOR TO OPEN FULL 90 DEGREES.
8.04	INSTALL NEW HOLLOW METAL FRAME AND WOOD DOOR. SEE DOOR SCHEDULE.
8.04A	INSTALL NEW HOLLOW METAL FRAME AND HOLLOW METAL DOOR, COORD. W/ELECTRICAL. SEE DOOR SCHEDULE.
8.06	INSTALL NEW ALUMINUM SURFACE MOUNTED SLIDING DOOR, COORD. W/ELECTRICAL.
8.07	INSTALL NEW RF SHIELDED DOOR, DESIGN BY RF CONTRACTOR. COORDINATE W/ ELECTRICAL.
9.16	GYP SOFFIT. SEE RCP.
9.24	RELOCATE OPENING IN SUSPENDED CEILING.
9.25	MODIFY OPENING FOR RF FILTER PLATE. SEE MRI VENDOR DRAWINGS FOR VENDOR SUPPPLIED MRI-CABLING FILTER PANEL .
9.26	CONSTRUCT WALL AS FUTURE KNOCK OUT PANEL.
9.31	PATCH FLOORING TO MATCH EXISTING WOOD PLANK FLOORING - WF-1.
10.19	EXISTING QUENCH VENT RF FILTER ABOVE ACCOUSTIC CEILING. LOCATION TO REMAIN, COORDINATED CONNECTIONS WITH NEW MRI.
10.21	MRI EQUIPMENT TETHER, NON-FERROUS WALL ANCHOR POINTS, SEE DETAIL.
11.06	INSTALL NEW FERRO SCANNER.
23.06	INSTALL NEW MECHANICAL LOUVER. SEE MECH TO COORDINATE.
23.07	NEW MRI CHILLER - SUPPLIED AND DELIVERED TO A LOADING DOCK BY SIEMENS. CONSTRUCTION CONTRACTOR IS RESPONSIBLE FOR MOVING FROM LOADING DOCK TO FINAL LOCATION AND COMPLETING ALL CONNECTIONS. SIEMENS PROJECT MANAGER WILL SCHEDULE CHILLER STARTUP TO COINCIDE WITH MRI STARTUP.

Revision#	Description	Date:

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10-26-20

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	FORT MEADE-1ST LEVEL FLOOR PLAN & RCP
Phase	FINAL CONSTRUCTION DOCUMENTS
Project Title	MRI SITE PREP FOR FT. MEADE / HOT SPRINGS VAMC
Project Number	VA #568-CSI-301 SGA #201910
Building Number	165 & 12
Location	FORT MEADE & HOT SPRINGS, SD
Drawing Number	FM-AE101
Approved:	
Issue Date	11/04/2020
Checked	TRS
Drawn	JHK

VA FORM 08 - 6231

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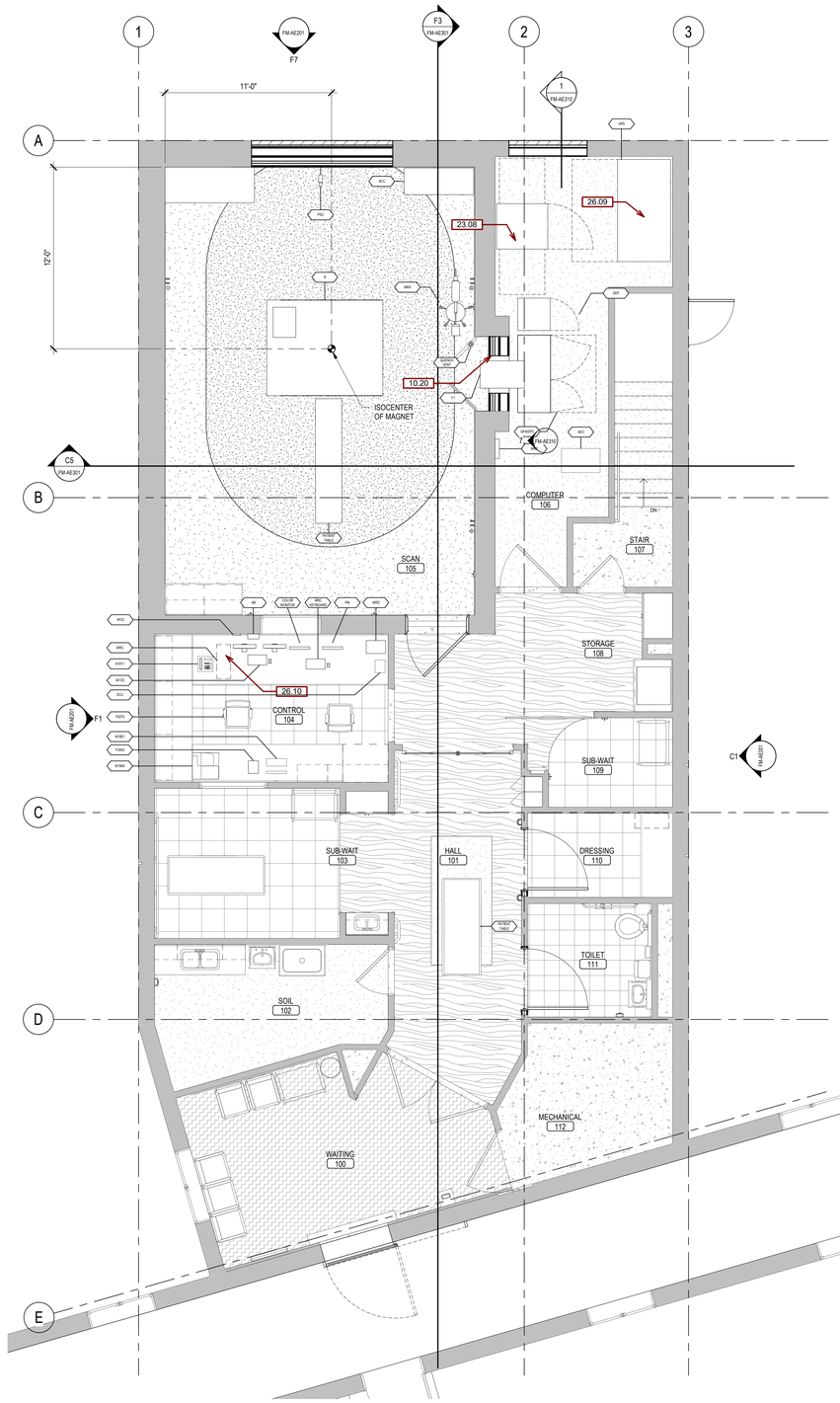
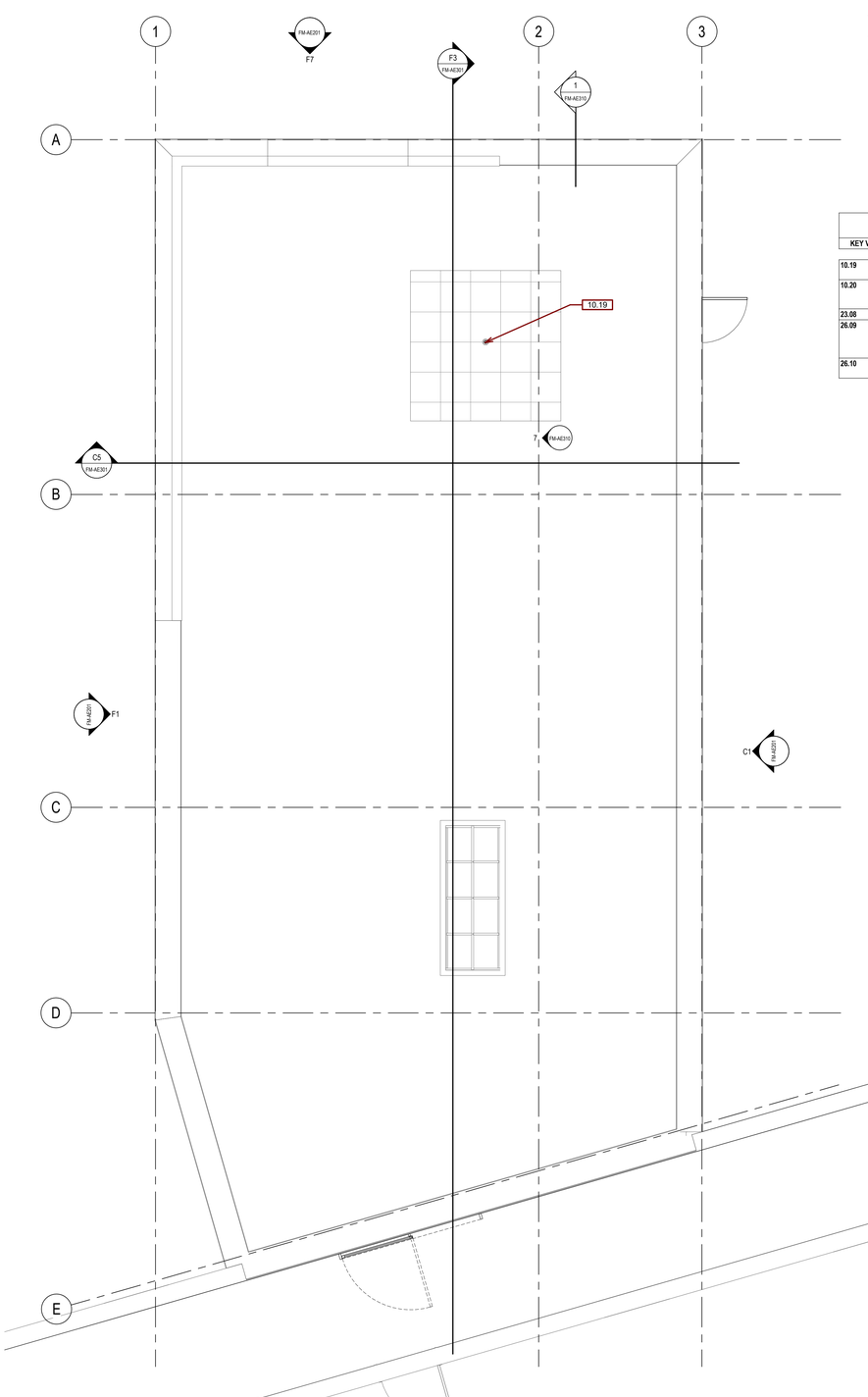


F1 1ST LEVEL EQUIPMENT PLAN
1/4" = 1'-0"

NORTH



F6 ROOF PLAN
1/4" = 1'-0"

NORTH

GENERAL ROOF AND EQUIPMENT NOTES:

A. PROVIDE SEALANT AT ALL INTERIOR AND EXTERIOR JOINTS BETWEEN DIFFERENT MATERIALS, TRANSITIONS, AND ACCORDING TO INDUSTRY STANDARDS AND MANUFACTURER'S SPECIFICATIONS.
B. VENT STACKS AS REQUIRED. SEE MANUFACTURER.
C. THERE SHALL BE A SEPERATE RF ROOM PENETRATION PANEL FOR NON-SIEMENS EQUIPMENT. THE OUTSIDE EQUIPMENT MANUFACTURERE (OEM) WILL SPECIFY ANY AND ALL FILTER AND PENETRATION REQUIREMENTS.

SGA KEYNOTES

KEY VALUE	KEYNOTE TEXT
10.19	EXISTING QUENCH VENT RF FILTER ABOVE ACCOUSTIC CEILING. LOCATION TO REMAIN, COORDINATED CONNECTIONS WITH NEW MRI.
10.20	INSTALL CLOSET DOORS TO CONCEAL THE FILTER PLATE AND CABLE CONNECTIONS. A 30 1/4" CLEARANCE IN FRONT OF PANEL IS REQ'D FOR SERVICE AND CABLING. DOORS THAT OPEN TO PROVIDE THE ACCESS ARE ACCEPTABLE.
23.08	NEW FLOOR MOUNTED CRAC UNIT. SEE MECHANICAL.
26.09	UPS IS SUPPLIED AND DELIVERED TO CUSTOMER'S LOADING DOCK BY SIEMENS. CONSTRUCTION CONTRACTOR IS RESPONSIBLE FOR MOVING FROM LOADING DOCK TO FINAL LOCATION AND COMPLETING ALL CONNETIONS. SIEMENS PROJECT MANAGER WILL SCHEDULE UPS STARTUP PRIOR TO DELIVERY OF SIEMENS IMAGING EQUIPMENT.
26.10	CONTRACTOR TO PROVIDE UNDER COUNTER CPU SUPPORT FOR MRI COMPUTER; COORDINATE WITH SIEMENS REPRESENTATIVE.

Revision#	Description	Date:

CONSULTANTS

MECHANICAL / ELECTRICAL / PLUMBING:
WPE WEST PLAINS ENGINEERING, INC.
West Plains Engineering, Inc.
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605-271-1144
TODD STONE

STONE GROUP ARCHITECTS

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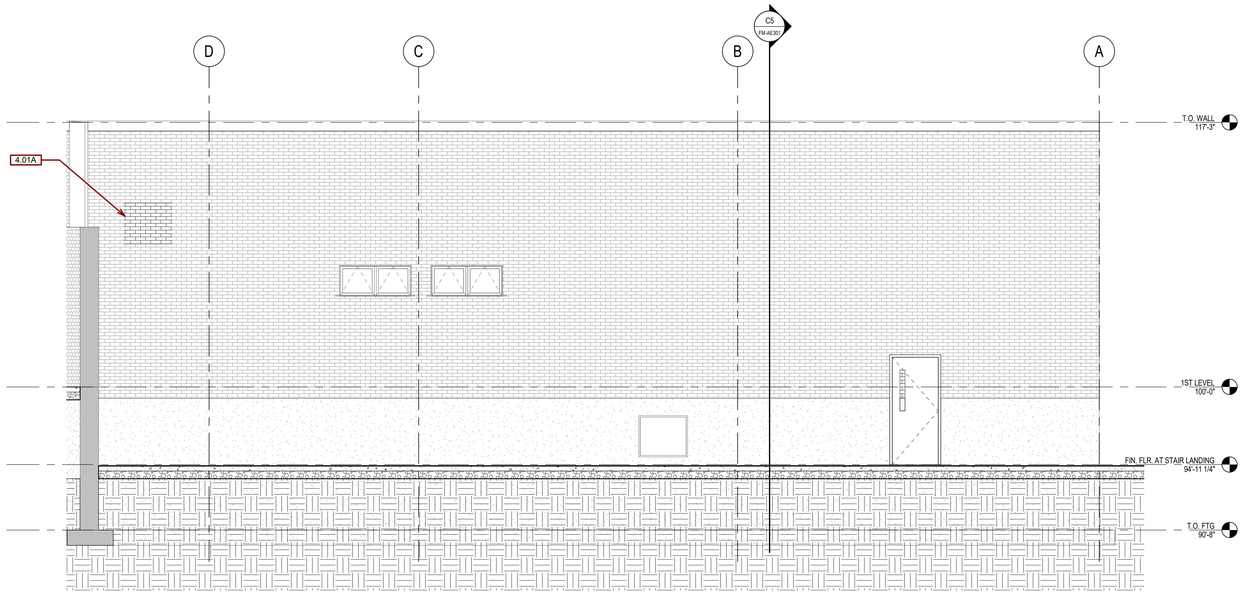
REGISTERED ARCHITECT 9774 TODD RANDALL STONE SOUTH DAKOTA 10-26-20

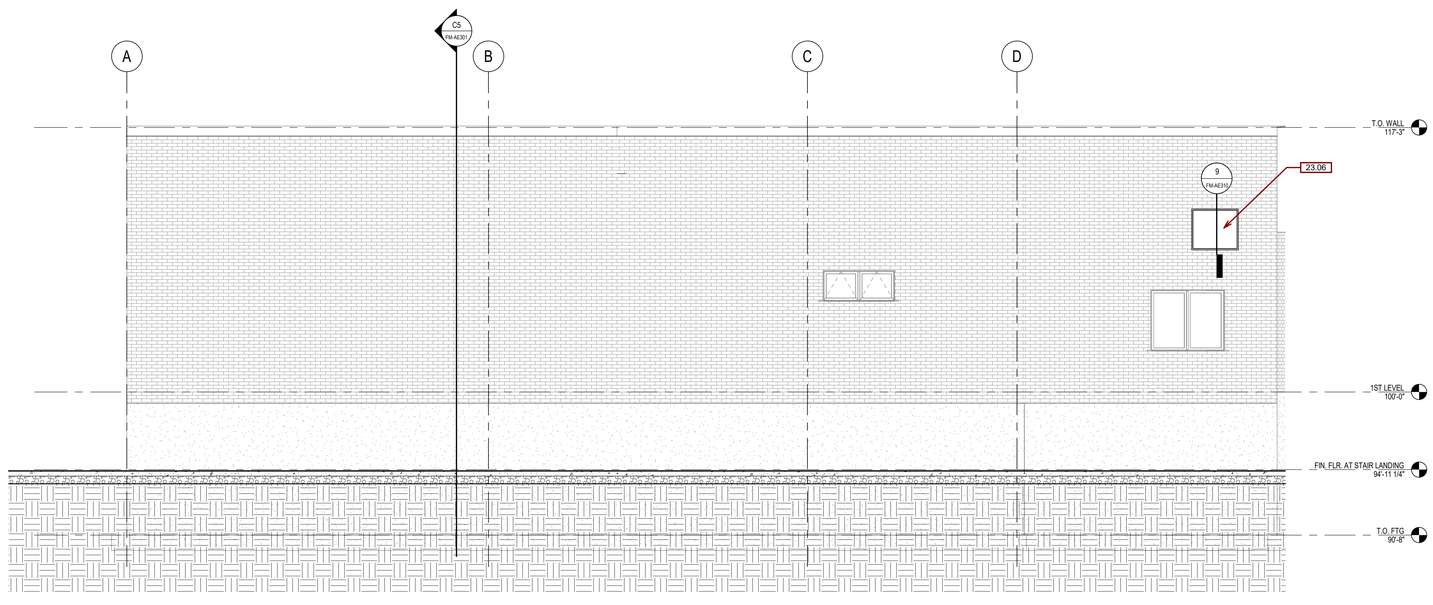
Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

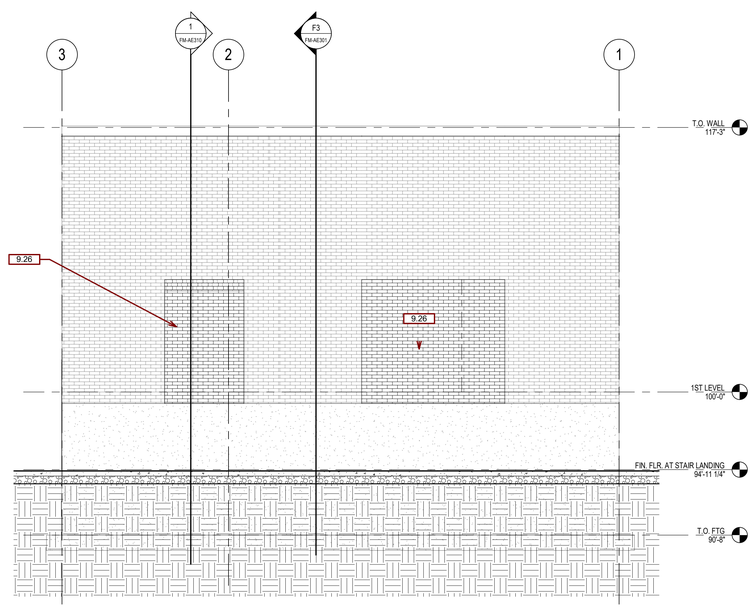
Drawing Title: FORT MEADE-ROOF PLAN & EQUIPMENT PLAN	Phase: FINAL CONSTRUCTION DOCUMENTS	Project Title: MRI SITE PREP FOR FT. MEADE / HOT SPRINGS VAMC	Project Number: VA #568-CSI-301 SGA #201910
			Building Number: 165 & 12
Approved:		Location: FORT MEADE & HOT SPRINGS, SD	Drawing Number: FM-AE120
		Issue Date: 11/04/2020 / Checked: TRS / Drawn: JHK	



C1 **EAST ELEVATION**
1/4" = 1'-0"



F1 **WEST ELEVATION**
1/4" = 1'-0"



F7 **NORTH ELEVATION**
1/4" = 1'-0"

GENERAL ELEVATION NOTES:

A. ANY DISCREPANCIES OR CONFLICTS FOUND IN THE VARIOUS PARTS OF THE CONSTRUCTION DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND THE OWNER BEFORE PROCEEDING WITH THE WORK.
B. FURNITURE IS PROVIDED AND INSTALLED BY OTHERS.
C. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS. DO NOT SCALE THE DRAWINGS.
D. CONTRACTOR & SUBCONTRACTORS TO VERIFY ALL EXISTING CONDITIONS AT THE PROJECT SITE.
E. ALL MATERIALS & EQUIPMENT SHALL BE INSTALLED PER MANUFACTURERS INSTRUCTIONS.
F. DETAILS SHOWN ARE TYPICAL UNLESS OTHERWISE NOTED. SIMILAR DETAILS APPLY IN SIMILAR CONDITIONS.
G. PROVIDE WOOD BACKING FOR ALL BATH ACCESSORIES, HANDRAILS, OR OTHER ITEMS ATTACHED TO BUILDING WALLS.
H. GYPSUM USED IN RESTROOMS SHALL BE WATER RESISTANT GYPSUM BOARD. USE DURAROCK @ ALL PORCELAIN & CERAMIC TILE LOCATIONS.
I. PROVIDE ADA COMPLIANT SIGNAGE FOR ALL REQUIRED AREAS, ROOMS, & ACCESSIBLE PATHS.
J. HEIGHT OF OPERATIONAL OR DISPENSING PORTION OF ACCESSORIES & FIXTURES NOT TO EXCEED 48" A.F.F.

SGA KEYNOTES

KEY VALUE	KEYNOTE TEXT
4.01A	INFILL AT DEMOLISHED LOUVER LOCATION W/LIKE CONSTUCTION, BRICK TO MATCH EXISTING WALL.
9.26	CONSTRUCT WALL AS FUTURE KNOCK OUT PANEL.
23.06	INSTALL NEW MECHANICAL LOUVER. SEE MECH TO COORDINATE.

Revision#	Description	Date:

CONSULTANTS

MECHANICAL / ELECTRICAL / PLUMBING:
West Plains Engineering, Inc.
1750 Rand Road
Rapid City, South Dakota 57702
Phone: 605-348-7455

STRUCTURAL:
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Albertson Engineering, Inc.
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Phone: 605-343-9606

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605-271-1144
TODD STONE

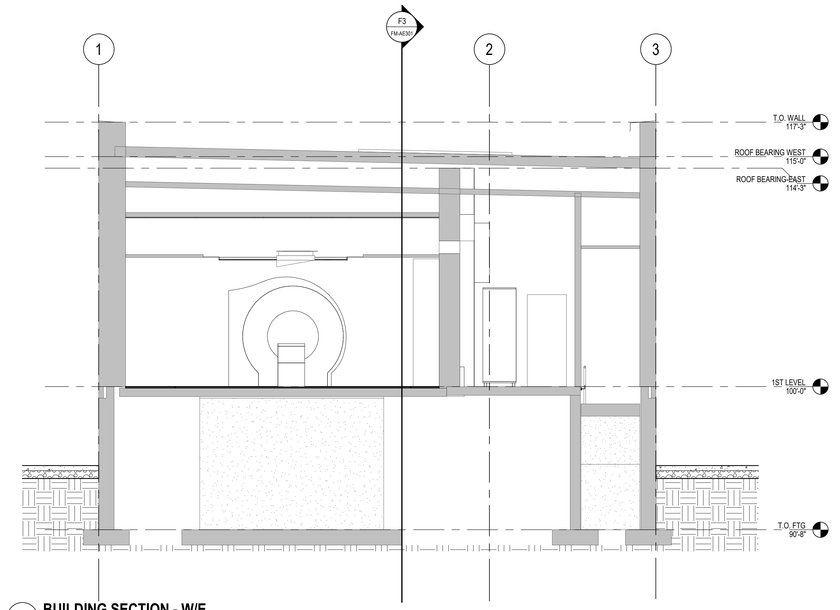
STONE GROUP ARCHITECTS

STAMP
REGISTERED ARCHITECT
TODD RAMON STONE
SOUTH DAKOTA
10 - 21 - 20

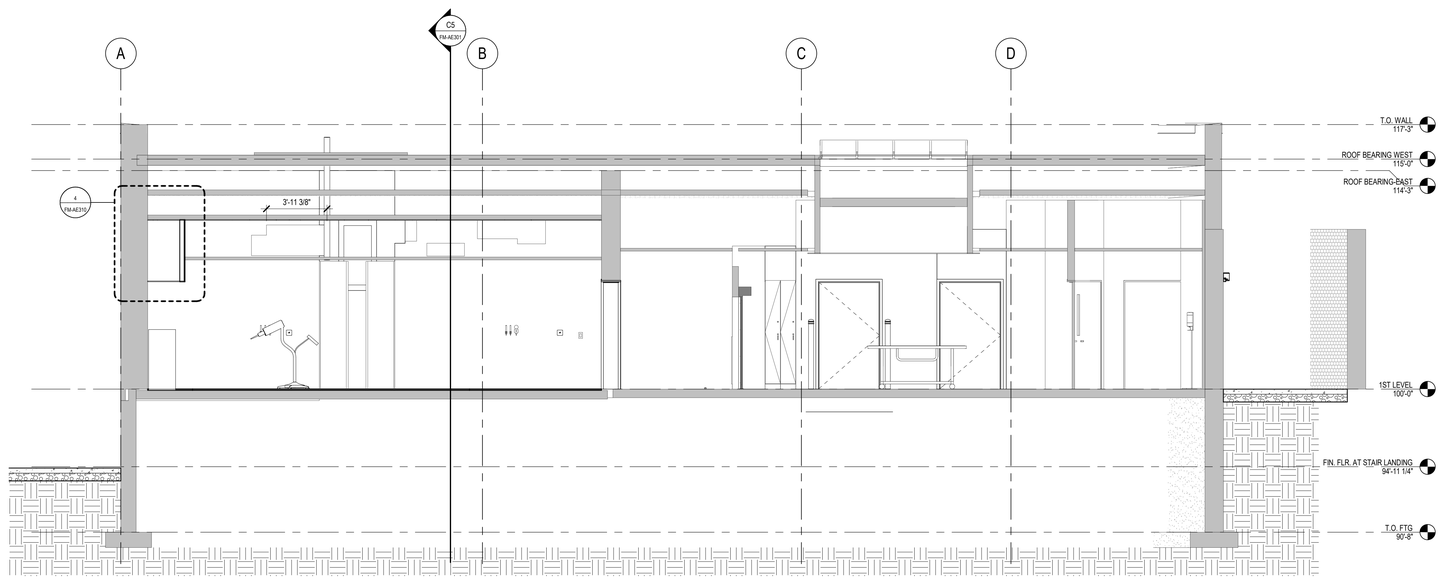
Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	FORT MEADE-ELEVATIONS
Phase	FINAL CONSTRUCTION DOCUMENTS
Approved:	
Project Title	MRI SITE PREP FOR FT. MEADE / HOT SPRINGS VAMC
Location	FORT MEADE & HOT SPRINGS, SD
Issue Date	11/04/2020
Checked	TRS
Drawn	JHK
Project Number	VA #568-CSI-301 SGA #201910
Building Number	165 & 12
Drawing Number	FM-AE201



C5 **BUILDING SECTION - W/E**
1/4" = 1'-0"



F3 **BUILDING SECTION - N/S**
1/4" = 1'-0"

GENERAL WALL TYPE NOTES:

A. SEE WALL NOTES ON SHEET FM-AE101.
B. PROVIDE NON FERROUS METAL FASTENERS AT ALL WALL COMPONENTS AT SCAN ROOM. MUST MEET MRI/SIEMENS STANDARDS.
C. RF ENCLOSURE SUPPLIER WILL PROVIDE AND INSTALL THE RF ENCLOSURE.
D. RF SHIELDING PROVIDER WILL PROVIDE AND INSTALL THE 2X2 WOOD STUD WALL.
E. CONTRACTOR WILL PROVIDE AND INSTALL THE PARENT WALL.
F. PARENT WALL (INTERIOR SIDE) 2 LAYERS OF SOUND DAMPING WALL PANELS SHALL BE FINISHED TO A LEVEL 2 FINISH (TAPE AND JOINT COMPOUND UNSANDED).
G. SEE SPECIFICATION FOR INSTALLATION OF SOUND DAMPING PANELS AND FIRE RATED PANELS.
H. ANY DISCREPANCIES OR CONFLICTS FOUND IN THE VARIOUS PARTS OF THE CONSTRUCTION DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND THE OWNER BEFORE PROCEEDING WITH THE WORK.
I. FURNITURE IS PROVIDED AND INSTALLED BY OTHERS.
J. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS. DO NOT SCALE THE DRAWINGS.
K. CONTRACTOR & SUBCONTRACTORS TO VERIFY ALL EXISTING CONDITIONS AT THE PROJECT SITE.
L. ALL MATERIALS & EQUIPMENT SHALL BE INSTALLED PER MANUFACTURERS INSTRUCTIONS.
M. DETAILS SHOWN ARE TYPICAL UNLESS OTHERWISE NOTED. SIMILAR DETAILS APPLY IN SIMILAR CONDITIONS.
N. PROVIDE WOOD BACKING FOR ALL BATH ACCESSORIES, HANDRAILS, OR OTHER ITEMS ATTACHED TO BUILDING WALLS.
O. GYPSUM USED IN RESTROOMS SHALL BE WATER RESISTANT GYPSUM BOARD. USE USE CEMENT BACKER BOARD AT ALL PORCELAIN & CERAMIC TILE LOCATIONS
P. PROVIDE ADA COMPLIANT SIGNAGE FOR ALL REQUIRED AREAS, ROOMS, & ACCESSIBLE PATHS.
Q. K. HEIGHT OF OPERATIONAL OR DISPENSING PORTION OF ACCESSORIES & FIXTURES NOT TO EXCEED 48" A.F.F.
R. ANY DISCREPANCIES OR CONFLICTS FOUND IN THE VARIOUS PARTS OF THE CONSTRUCTION DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND THE OWNER BEFORE PROCEEDING WITH THE WORK.
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SGA KEYNOTES

KEY VALUE	KEYNOTE TEXT

Revision#	Description	Date:

CONSULTANTS

MECHANICAL / ELECTRICAL / PLUMBING:
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STONE GROUP ARCHITECTS

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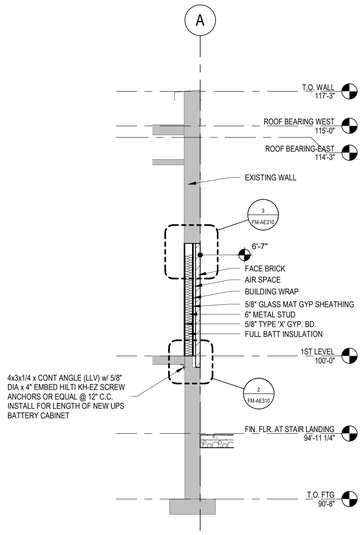
RICHARD
9774
TODD RICHARD
STONE
NORTH DAKOTA
10-21-20

Office of Construction and Facilities Management

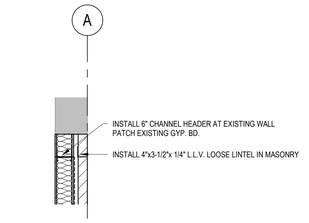
VA U.S. Department of Veterans Affairs

Drawing Title: FORT MEADE-BUILDING SECTIONS	Phase: FINAL CONSTRUCTION DOCUMENTS	Project Title: MRI SITE PREP FOR FT. MEADE / HOT SPRINGS VAMC	Project Number: VA #568-CSI-301 SGA #201910
Approved:		Location: FORT MEADE & HOT SPRINGS, SD	Building Number: 165 & 12
		Issue Date: 11/04/2020 / Checked: TRS / Drawn: JHK	Drawing Number: FM-AE301

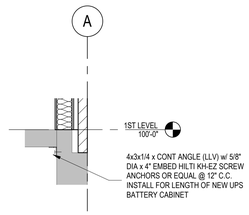
VA FORM 08 - 6231



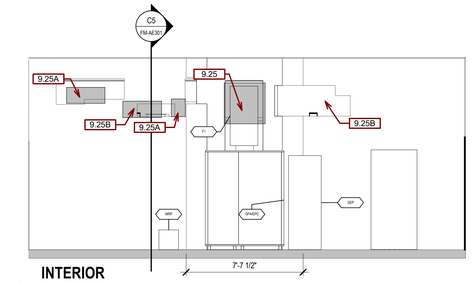
1 COMPUTER ROOM KNOCKOUT WALL
1/4" = 1'-0"



3 COMP ROOM KNOCKOUT HEAD
1/2" = 1'-0"



2 COMP ROOM FLOOR REINFORCEMENT
1/2" = 1'-0"



7 INTERIOR ELEVATION-COMPUTER-WEST WALL
1/4" = 1'-0"

GENERAL WALL TYPE NOTES:

A. SEE WALL NOTES ON SHEET FM-AE101.
B. PROVIDE NON FERROUS METAL FASTENERS AT ALL WALL COMPONENTS AT SCAN ROOM. MUST MEET MRI/SIEMENS STANDARDS.
C. RF ENCLOSURE SUPPLIER WILL PROVIDE AND INSTALL THE RF ENCLOSURE.
D. RF SHIELDING PROVIDER WILL PROVIDE AND INSTALL THE 2X2 WOOD STUD WALL.
E. CONTRACTOR WILL PROVIDE AND INSTALL THE PARENT WALL.
F. PARENT WALL (INTERIOR SIDE) 2 LAYERS OF SOUND DAMPING WALL PANELS SHALL BE FINISHED TO A LEVEL 2 FINISH (TAPE AND JOINT COMPOUND UNSANDED).
G. SEE SPECIFICATION FOR INSTALLATION OF SOUND DAMPING PANELS AND FIRE RATED PANELS.
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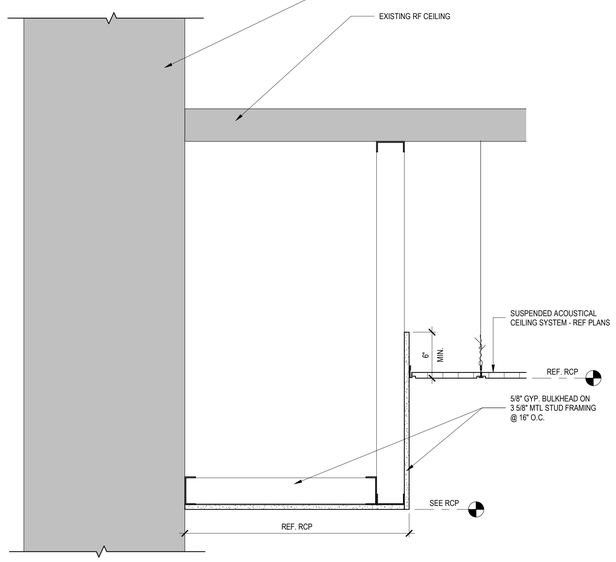
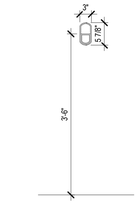
S. FURNITURE IS PROVIDED AND INSTALLED BY OTHERS.

SGA KEYNOTES

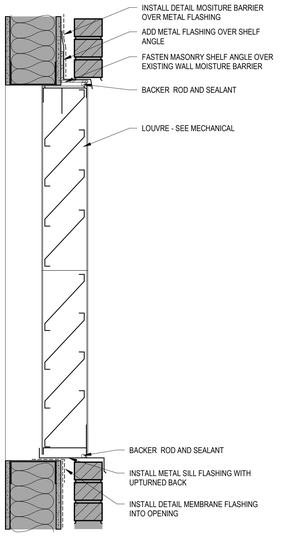
KEY VALUE	KEYNOTE TEXT
9.25	MODIFY OPENING FOR RF FILTER PLATE. SEE MRI VENDOR DRAWINGS FOR VENDOR SUPPPLIED MRI-CABLING FILTER PANEL.
9.25A	EXISITNG MECHANICAL RF FILTER/WAVE GUIDE TO REMAIN.
9.25B	EXISITNG ELECTRICAL RF FILTER/WAVE GUIDE TO REMAIN.



4 DETAIL @ GYP SOFFIT & ACT TRANSITION
1 1/2" = 1'-0"



8 MRI EQUIPMENT TETHER
3/4" = 1'-0"



9 MECHANICAL LOUVRE
1 1/2" = 1'-0"

Revision#	Description	Date:

CONSULTANTS

MECHANICAL / ELECTRICAL / PLUMBING:
West Plains Engineering, Inc.
1750 Rand Road
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STONE GROUP ARCHITECTS

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REGISTERED ARCHITECT
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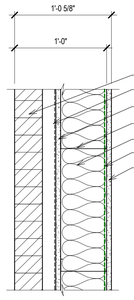
SOUTH DAKOTA
10-24-20

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: FORT MEADE-WALL SECTIONS & DETAILS	Phase: FINAL CONSTRUCTION DOCUMENTS
Approved:	

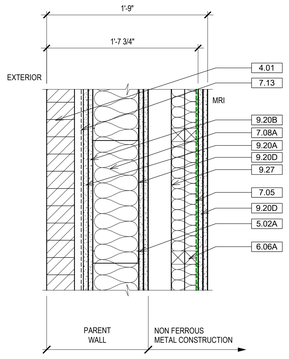
Project Title: MRI SITE PREP FOR FT. MEADE / HOT SPRINGS VAMC			Project Number: VA #568-CSI-301 SGA #201910
			Building Number: 165 & 12
Location: FORT MEADE & HOT SPRINGS, SD			Drawing Number: FM-AE310
Issue Date: 11/04/2020	Checked: TRS	Drawn: JHK	



WALL PREFORMANCE:
ONE HOUR RATED.

NOTES:
1. PROVIDE CONTINUOUS ACOUSTICAL SEALANT IN MATERIALS AND ON BOTH SIDES OF WALL PENETRATIONS.
2. PROVIDE ACOUSTICAL SEALANT AT THE TOP AND BOTTOM OF WALL - BOTH SIDES.

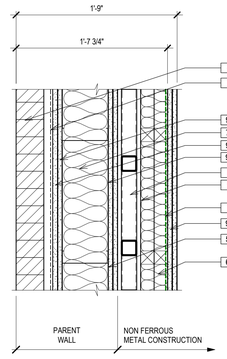
1 EXTERIOR WALL - METAL STUD AND BRICK VENEER
1 1/2" = 1'-0"



WALL PREFORMANCE:
ONE HOUR RATED.

NOTES:
1. PROVIDE CONTINUOUS ACOUSTICAL SEALANT IN MATERIALS AND ON BOTH SIDES OF WALL PENETRATIONS.
2. PROVIDE ACOUSTICAL SEALANT AT THE TOP AND BOTTOM OF WALL - BOTH SIDES.
3. AT THE PARENT WALL- ELIMINATE ALL CRACKS AND GAPS IN THE WALL CONSTRUCTION. SEAL ALL WALL JUNCTIONS WITH ACOUSTICAL SEALANT. OFFSET GYPSUM BOARD SEAMS A MINIMUM OF 6" WITH BEADS OF ACOUSTICAL SEALANT (NON-HARDENING) AROUND THE ENTIRE PERIMITER OF THE DRYWALL/JOINTS. THE PARENT WALL MUST JOIN THE CEILING AND FLOOR STRUCTURE SO THAT THERE ARE NOT CRACKS OR GAPS. PROVIDE LEVEL 2 FINISH WITH TAPE SEAMS.

2 EXTERIOR WALL - MRI WALL AND BRICK
1 1/2" = 1'-0"



WALL PREFORMANCE:
ONE HOUR RATED.

NOTES:
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2. PROVIDE ACOUSTICAL SEALANT AT THE TOP AND BOTTOM OF WALL - BOTH SIDES.
3. AT THE PARENT WALL- ELIMINATE ALL CRACKS AND GAPS IN THE WALL CONSTRUCTION. SEAL ALL WALL JUNCTIONS WITH ACOUSTICAL SEALANT. OFFSET GYPSUM BOARD SEAMS A MINIMUM OF 6" WITH BEADS OF ACOUSTICAL SEALANT (NON-HARDENING) AROUND THE ENTIRE PERIMITER OF THE DRYWALL/JOINTS. THE PARENT WALL MUST JOIN THE CEILING AND FLOOR STRUCTURE SO THAT THERE ARE NOT CRACKS OR GAPS. PROVIDE LEVEL 2 FINISH WITH TAPE SEAMS.

2B EXTERIOR WALL - MRI WALL AND BRICK W/ MAGNETIC SHIELDING
1 1/2" = 1'-0"

GENERAL WALL TYPE NOTES:

A. SEE WALL NOTES ON SHEET FM-AE101.
B. PROVIDE NON FERROUS METAL FASTENERS AT ALL WALL COMPONENTS AT SCAN ROOM. MUST MEET MRI/SIEMENS STANDARDS.
C. RF ENCLOSURE SUPPLIER WILL PROVIDE AND INSTALL THE RF ENCLOSURE.
D. RF SHIELDING PROVIDER WILL PROVIDE AND INSTALL THE 2X2 WOOD STUD WALL.
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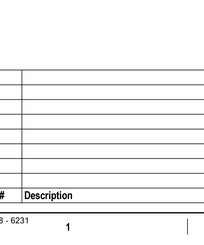
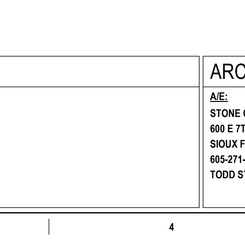


WALL PREFORMANCE:

NOTES:
1. SEE WALL SECTION FOR WALL HEIGHTS.
2. NO BACK TO BACK ELECTRICAL BOXES OR SIMILAR DEVICES.
3. PROVIDE CONTINUOUS ACOUSTICAL SEALANT IN MATERIALS AND ON BOTH SIDES OF WALL PENETRATIONS.
4. PROVIDE ACOUSTICAL SEALANT AT THE TOP AND BOTTOM OF WALL - BOTH SIDES.
5. AT THE PARENT WALL- ELIMINATE ALL CRACKS AND GAPS IN THE WALL CONSTRUCTION. SEAL ALL WALL JUNCTIONS WITH ACOUSTICAL SEALANT. OFFSET GYPSUM BOARD SEAMS A MINIMUM OF 6" WITH BEADS OF ACOUSTICAL SEALANT (NON-HARDENING) AROUND THE ENTIRE PERIMITER OF THE DRYWALL/JOINTS. THE PARENT WALL MUST JOIN THE CEILING AND FLOOR STRUCTURE SO THAT THERE ARE NOT CRACKS OR GAPS. PROVIDE LEVEL 2 FINISH WITH TAPE SEAMS.



WALL PREFORMANCE:

NOTES:
1. SEE WALL SECTION FOR WALL HEIGHTS.
2. NO BACK TO BACK ELECTRICAL BOXES OR SIMILAR DEVICES.
3. PROVIDE CONTINUOUS ACOUSTICAL SEALANT IN MATERIALS AND ON BOTH SIDES OF WALL PENETRATIONS.
4. PROVIDE ACOUSTICAL SEALANT AT THE TOP AND BOTTOM OF WALL - BOTH SIDES.
5. AT THE PARENT WALL- ELIMINATE ALL CRACKS AND GAPS IN THE WALL CONSTRUCTION. SEAL ALL WALL JUNCTIONS WITH ACOUSTICAL SEALANT. OFFSET GYPSUM BOARD SEAMS A MINIMUM OF 6" WITH BEADS OF ACOUSTICAL SEALANT (NON-HARDENING) AROUND THE ENTIRE PERIMITER OF THE DRYWALL/JOINTS. THE PARENT WALL MUST JOIN THE CEILING AND FLOOR STRUCTURE SO THAT THERE ARE NOT CRACKS OR GAPS. PROVIDE LEVEL 2 FINISH WITH TAPE SEAMS.

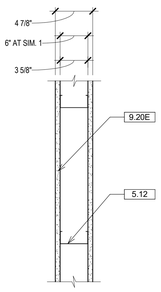
WALL PREFORMANCE:
STC RATING. 44

NOTES:
1. USE 5/8" CEMENT BACKER BOARD AT TALL WALL TILE LOCATIONS.
2. PROVIDE VERTICAL CONTROL JOINTS AT CHANGES IN HEIGHT, CORNERS AND AT 30' MAX.
3. NO BACK TO BACK ELECTRICAL BOXES OR SIMILAR DEVICES.
4. PROVIDE CONTINUOUS ACUSTICAL SEALANT IN MATERIALS AND ON BOTH SIDES OF WALL PENETRATIONS.
5. PROVIDE ACOUSTICAL SEALANT AT THE TOP AND BOTTOM OF WALL - BOTH SIDES.
6. SEE WALL SECTIONS FOR WALLS THAT EXTEND TO ROOF STRUCTURE.

SGA KEYNOTES

KEY VALUE	KEYNOTE TEXT
4.01	BRICK TO MATCH EXISTING WALL.
5.02	3 5/8" STEEL STUDS.
5.02A	6" STEEL STUDS.
5.02B	3 5/8" STEEL STUDS - STAGGER 1".
5.02C	3 5/8" STEEL STUDS - 6" STUD AT SIM.
5.12	3 5/8" METAL STUD - 6" STUD AT SIM. 1.
5.19	STEEL MAGNETIC SHIELDING TO MATCH EXISTING - BY RF VENDOR.
6.06A	2X2 WOOD STUD W/ INSULATION.
7.05	VAPOR BARRIER.
7.08	BATT INSULATION.
7.08A	6" BATT INSULATION.
7.13	BUILDING WRAP.
9.20A	5/8" GLASS MAT GYPSUM BOARD SHEATHING.
9.20B	5/8" SOUND DAMPING WALL PANEL.
9.20C	5/8" TYPE "X" GYPSUM BOARD.
9.20D	2 LAYERS, 5/8" SOUND DAMPING WALL PANEL.
9.20E	5/8" TYPE "X" GYPSUM BOARD, BOTH SIDES - ROOM SIDE ONLY AT SIM. 2.
9.27	1 3/4" RF WALL PANEL - BY SHEILDING SUPLIER.

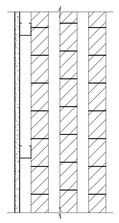
3 INTERIOR WALL - MRI WALL
1 1/2" = 1'-0"



WALL PREFORMANCE:

NOTES:
1. NO BACK TO BACK ELECTRICAL BOXES OR SIMILAR DEVICES.
2. SEE CODE PLAN FOR RATED WALLS.
3. PROVIDE ACOUSTIC FIRE SEALANT AT THE TOP AND BOTTOM OF WALL - BOTH SIDES AT RATED WALLS.
4. SEE WALL SECTIONS FOR WALLS THAT EXTEND TO ROOF STRUCTURE.

4 INTERIOR WALL - MRI
1 1/2" = 1'-0"



WALL PREFORMANCE:
2 HOUR RATED (EXISTING MASONRY/CONCRETE WALL).

NOTES:
1. EXISTING WALL TYPE/CONSTRUCTION SHOWN FOR REFERENCE WHEN ANCHORING NEW FACE MOUNTED DOOR.
2. FIRE CAULK ALL PENETRATIONS

5 INTERIOR METAL STUD
1 1/2" = 1'-0"

6 INTERIOR METAL STUD NO INSUL
1 1/2" = 1'-0"

7 METTAL FURRING WALL AND EXISTING WALL
1 1/2" = 1'-0"

Revision#	Description	Date:

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: FORT MEADE-WALL TYPES	Phase: FINAL CONSTRUCTION DOCUMENTS
Approved:	
Project Title: MRI SITE PREP FOR FT. MEADE / HOT SPRINGS VAMC	Project Number: VA #568-CSI-301 SGA #201910
	Building Number: 165 & 12
Location: FORT MEADE & HOT SPRINGS, SD	Drawing Number: FM-AE311
Issue Date: 11/04/2020	Checked: TRS / Drawn: JHK

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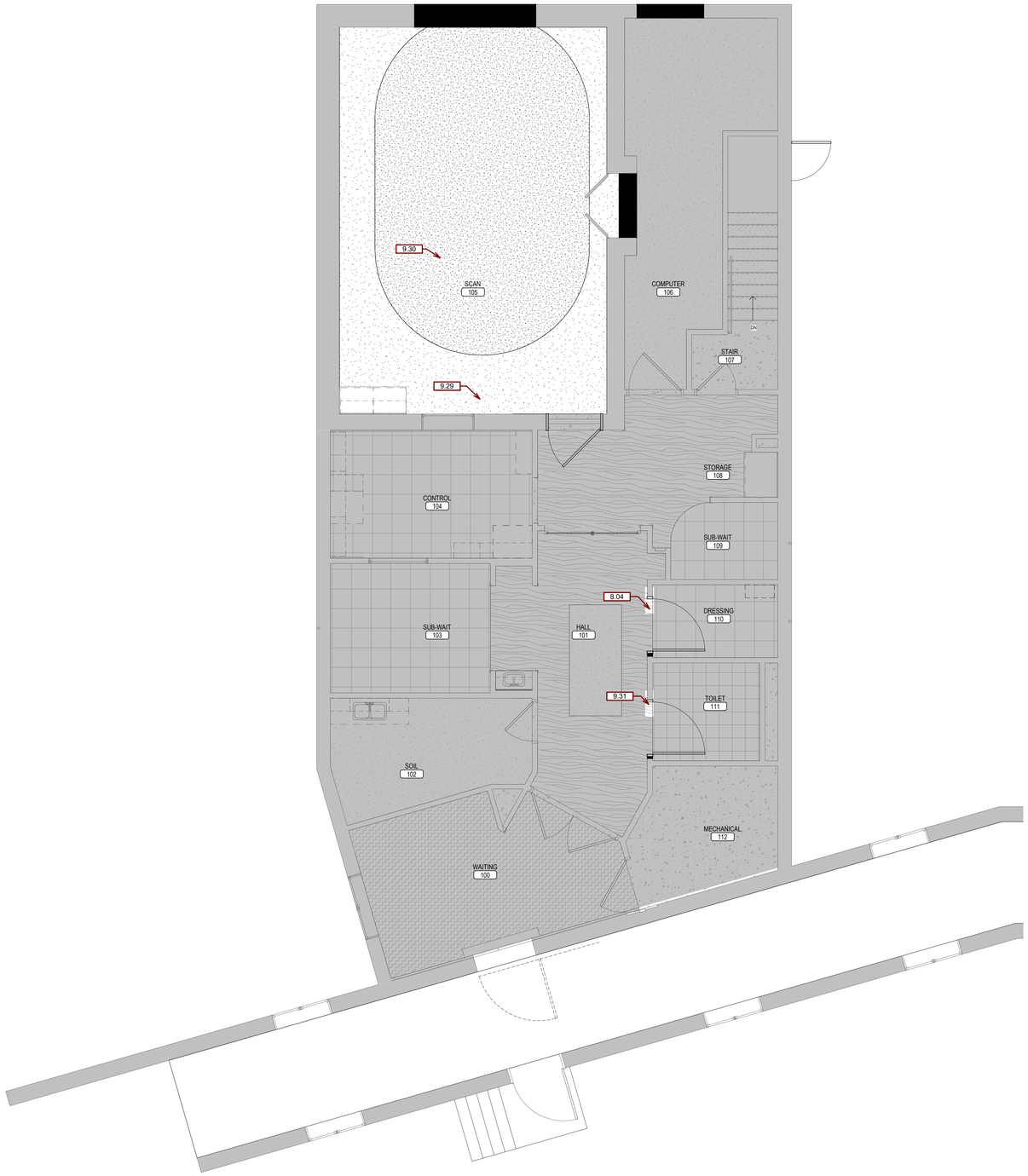
VA FORM 08 - 6231



1 1ST LEVEL FINISH PLAN
1/4" = 1'-0"

ROOM FINISH SCHEDULE

NO	ROOM NAME	FLOOR	BASE	WALLS NORTH	WALLS EAST	WALLS SOUTH	WALLS WEST	CEILING	ID FINISISH REMARKS
101	HALL	WF1, VT1	RB1	PNT2	PNT2	PNT2	PNT2	ACT2	TOUCHUP PAINT
104	CONTROL	VT1	RB1	PNT2	PNT2	PNT2	PNT2	ACT2	TOUCHUP PAINT
105	SCAN	SV1, SV2	4" FLASH COVE	PNT3	PNT3	PNT3	PNT3	SEE RCP ON AE101	PAINT ALL WALLS
106	COMPUTER	SV1	RB1	PNT1	PNT1	PNT1	PNT1	GYP.BD.	PAINT ALL WALLS
110	DRESSING	VT1	RB1	PNT2	PNT2	PNT2	PNT2	ACT2	TOUCHUP PAINT
111	TOILET	PT1, PT2	WT4	WT1	WT1	WT1	WT1	ACT2	TOUCHUP PAINT

FINISH KEY:

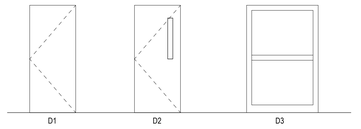
ABV.	DESCRIPTION	PRODUCT	COLOR
VT1*	18"x18" VINYL TILE	AMTICO	STRIA
PT1	6"x6" PORCELAIN TILE	ESQUIRE	CUMBERLAND PLATEAU-WALNUT
PT2	12"x12" PORCELATIN TILE	ESQUIRE	CUMBERLAND PLATEAU-WALNUT
WF1	WOOD PLANK FLOORING	AMTICO	ROSEWOOD-CHERRY
SV1	SHEET VINYL-COLOR 1	FORBO	COLOREX EC, SAHARA
SV2	SHEET VINYL-COLOR 2	FORBO	COLOREX EC, EVEREST
SC	SEALED CONCRETE		
RB1	RUBBER BASE	JOHNSONITE	49 BEIGE
PNT1	PAINT-COLOR 1	DIAMOND VOGEL	MATCH SW-KILIM BEIGE
PNT2	PAINT-COLOR 2	DIAMOND VOGEL	MATCH SW-LATTE
PNT3	PAINT-COLOR 3	DIAMOND VOGEL	MATCH SW-BUNGLEHAWK GREY
WT1	WALL TILE-COLOR 1	ESQUIRE	CUMBERLAND PLATEAU-WALNUT
WT4	WALL TILE-COLOR 2	DALTILE	EGYPTIAN GLASS, EG35
ACT2	ACCOUSTICAL CEILING TILE	USG	RADAR-WHITE

*EXISTING VT1 HAS BEEN DISCONTINUED. IF EXISTING IS DISTURBED OR DAMAGED REPLACE ENTIRE ROOM W/PRODUCT SHOWN ABOVE

DOOR SCHEDULE

DOOR #	DOOR WIDTH	DOOR HEIGHT	DOOR THICK	Door Type	DOOR MATERIAL	FRAME TYPE	FRAME MATERIAL	FRAME DEPTH	RATING	HDWR	REMARKS	DESCRIPTION
100B	4'-8"	7'-0"	1 3/4"	N : D3	ALUM	F3	ALUM				KEYCARD/WAVE SENSOR	SLIDING
105	4'-0"	7'-0"	1 3/4"	F : D1	WD	D1	WD	1'-2 7/8"	-	N/A	COORDINATE WITH SHIELDING CONTRACTOR	Single Swing
107B	3'-0"	7'-0"	1 3/4"	N : D2	HM	F2	HM	5 3/4"	45 MIN.	HW-SH-4	KEYCARD	Single Swing
110	4'-0"	7'-0"	1 3/4"	F : D1	WD	F1	HM	4 7/8"	-	W-2H		Single Swing
111	4'-0"	7'-0"	1 3/4"	F : D1	WD	F1	HM	4 7/8"	-	W-2H		Single Swing

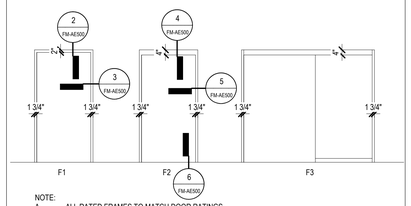
DOOR TYPES



NOTE:
A. ALL RATED DOORS WITH VISION LITES TO HAVE FIRE GLASS.
B. ALL RATED DOORS TO HAVE SMOKE SEALS.

NOTE:
N = NARROW GLASS

FRAME TYPES



NOTE:
A. ALL RATED FRAMES TO MATCH DOOR RATINGS.

GENERAL FLOOR FINISH NOTES:

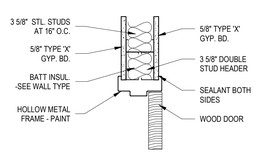
A. ANY DISCREPANCIES OR CONFLICTS FOUND IN THE VARIOUS PARTS OF THE CONSTRUCTION DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND THE OWNER BEFORE PROCEEDING WITH THE WORK.
B. FINISH SCHEDULES DENOTE FINISHES THROUGHOUT THE PROJECT. FOR LOCATIONS REFER TO THE FINISH FLOOR PLAN, ROOM FINISH SCHEDULES, REFLECTED CEILING PLANS, AND INTERIOR ELEVATIONS.
C. SOME SPECIFIED PRODUCTS AND FINISHES MAY HAVE SUBSTANTIAL LEAD TIMES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PLACING ORDERS IN A MANNER TO ENSURE THEIR TIMELY ARRIVAL. THE CONTRACTOR SHALL BE RESPONSIBLE FOR EXPENSES, INCLUDING DESIGN FEES, RELATED TO ANY RESELECTIONS REQUIRED DUE TO FAILURE TO ORDER PRODUCTS IN A TIMELY MANNER.
D. ALL FINISH WORK SHALL BE PERFORMED IN COMPLIANCE WITH DRAWINGS AND SPECIFICATIONS. SHOP DRAWINGS, SAMPLES AND PRODUCT DATA SHALL BE SUBMITTED TO THE ARCHITECT FOR THEIR REVIEW PRIOR TO BEGINNING WORK.
E. WOOD DOORS, FRAME BASE MOLDINGS TO BE FILLED, STAINED, SEALED AND SHOP FINISHED TO MATCH ARCHITECTS SAMPLE. WORK SHOULD BE PREFORMED IN A DUST FREE ENVIRONMENT.
F. ALL HOLLOW METAL DOOR FRAMES TO BE PAINTED PT-2. (UNO)
G. PROVIDE TRANSITION STRIPS AT ALL LOCATIONS THAT HAVE A CHANGE IN FLOORING MATERIALS. REFER TO TYPICAL TRANSITION STRIP DETAILS FOR APPROVED TRANSITION STRIPS. ALL TRANSITIONS TO BE CENTERED UNDER DOORS IN A CLOSED POSITION, (UNO). CONTRACTOR IS RESPONSIBLE FOR VERIFYING APPROPRIATE SIZES OF TRANSITION STRIPS BASED ON MATERIAL TYPES.
H. ALL SCHLUTER TRANSITION STRIPS TO BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.
I. ALL VINYL TRANSITION STRIP COLORS TO MATCH ADJACENT FLOORING. SUBMIT SAMPLE FOR APPROVAL.
J. VERIFY GROUT AND MORTAR THICKNESS PER MANUFACTURER'S RECOMMENDATIONS.
K. FLOOR FINISH LEGEND HATCHES INDICATE FLOORING TYPES, NOT ACTUAL FLOORING PATTERN AND LAYOUT. (UNO)
L. FOR FLOOR PATTERN INSTALL DIRECTION REFER TO THE INSTALLATION SYMBOL.
M. PROVIDE UNDER COUNTER HORIZONTAL METAL SUPPORTS FOR TROUGH LAVATORIES.
N. IF EXISTING CORNER GUARDS ARE DAMAGED DURING CONSTRUCTION, REPLACE WITH NEW CORNER GUARDS.

SGA KEYNOTES

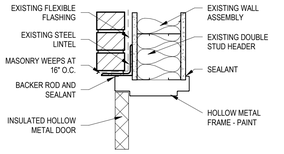
KEY VALUE	KEYNOTE TEXT
8.04	INSTALL NEW HOLLOW METAL FRAME AND WOOD DOOR. SEE DOOR SCHEDULE.
9.29	INSTALL NEW STATIC DISSIPATIVE SHEET VINYL - SV1. COORDINATE WITH RF FLOORING INSTALLATION.
9.30	INSTALL NEW STATIC DISSIPATIVE SHEET VINYL - SV2. COORDINATE WITH RF FLOORING INSTALLATION.
9.31	PATCH FLOORING TO MATCH EXISTING WOOD PLANK FLOORING - WF-1.

GENERAL DOOR AND WINDOW NOTES:

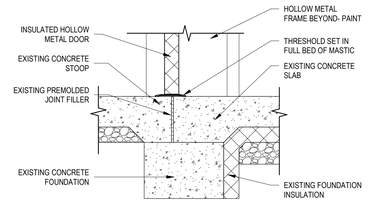
A. PROVIDE GLAZING AS REQUIRED BY 2018 IBC.
B. VERIFY ALL DOOR AND WINDOW OPENINGS WITH MANUFACTURER.
C. PROVIDE ADA APPROVED LEVER TYPE HARDWARE FOR ALL DOORS UNLESS OTHERWISE NOTED (U.O.N.).
D. PROVIDE 1" INSULATED GLASS FOR ALL EXTERIOR GLAZING AND 1/4" GLASS FOR ALL INTERIOR GLAZING.
E. WHERE THRESHOLDS ARE REQUIRED, PROVIDE LOW PROFILE ADA COMPLIANT THRESHOLD.
F. COORDINATE DOOR PROTECTION WITH DOOR SUPPLIER.
G. COORDINATE DOOR HARDWARE STYLE AND FINISH WITH OWNER.
H. SPRING HINGE CLOSER ALLOWED @ DOOR CLOSER LOCATIONS. VERIFY WITH OWNER AND 2015 IBC.



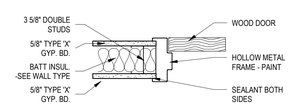
2 INTERIOR HEAD DETAIL
1 1/2" = 1'-0"



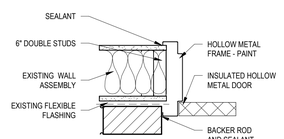
4 EXTERIOR HEAD DETAIL
1 1/2" = 1'-0"



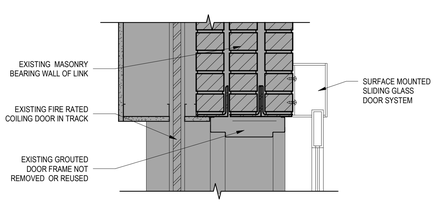
6 EXTERIOR SILL DETAIL
1 1/2" = 1'-0"



3 INTERIOR JAMB DETAIL
1 1/2" = 1'-0"



5 EXTERIOR JAMB DETAIL
1 1/2" = 1'-0"



7 INTERIOR SLIDING HEAD DETAIL
1 1/2" = 1'-0"

Revision#	Description	Date:

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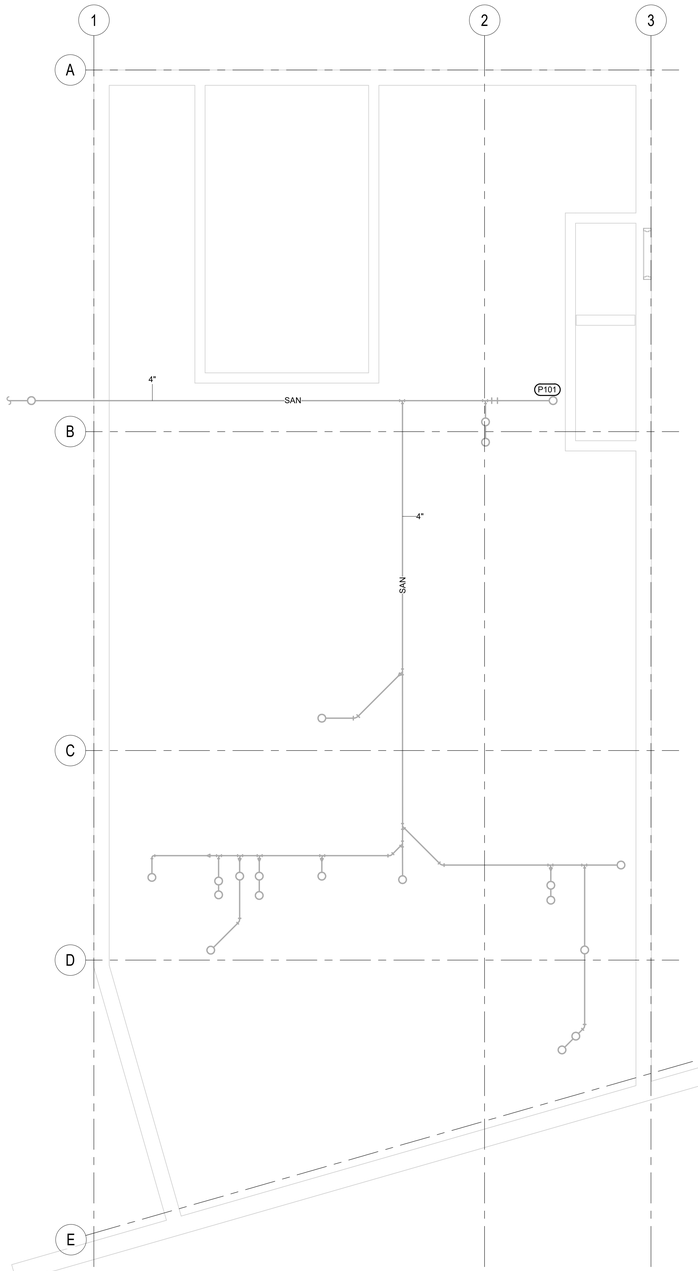
Office of Construction and Facilities Management

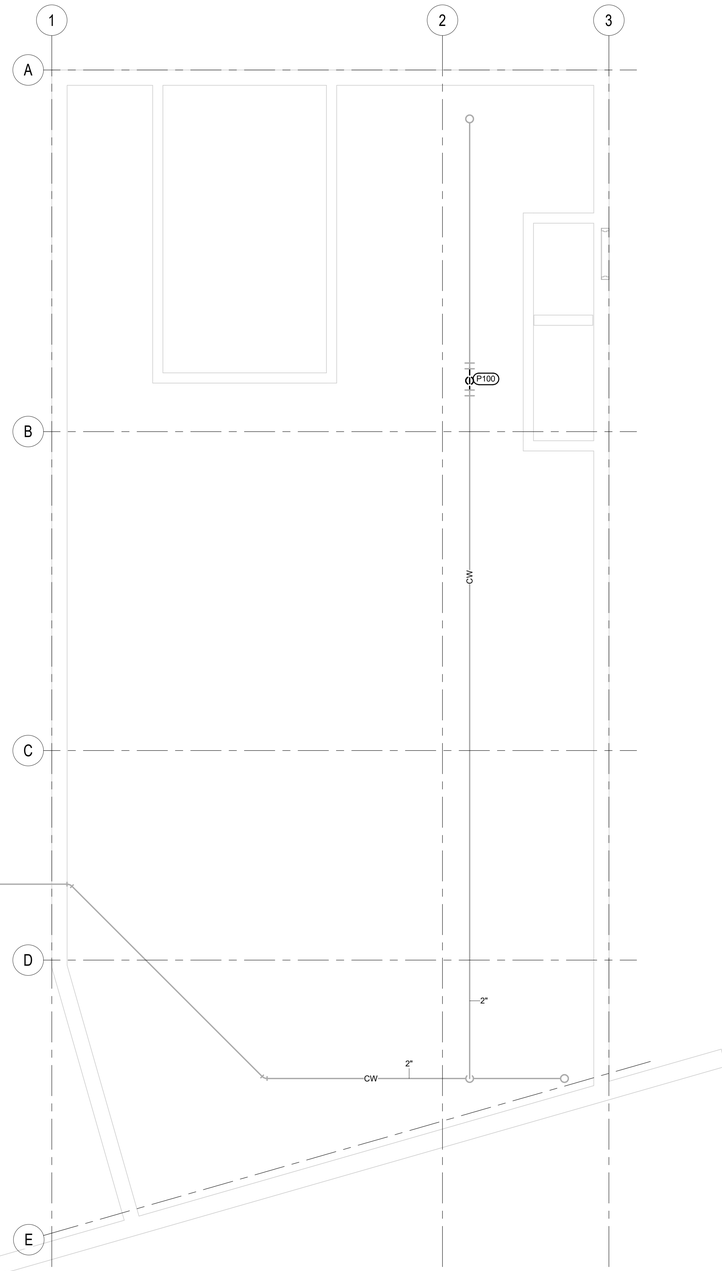
VA U.S. Department of Veterans Affairs

Drawing Title: FORT MEADE-FINISH PLANS & SCHEDULES
Phase: FINAL CONSTRUCTION DOCUMENTS
Approved:
Project Title: MRI SITE PREP FOR FT. MEADE / HOT SPRINGS VAMC
Location: FORT MEADE & HOT SPRINGS, SD
Issue Date: 11/04/2020
Checked: TRS
Drawn: JHK
Project Number: VA #568-CSI-301 SGA #201910
Building Number: 165 & 12
Drawing Number: FM-AE500

VA FORM 08 - 6231



1 CRAWLSPACE - WASTE & VENT DEMOLITION PLAN
1/4" = 1'-0"



2 CRAWLSPACE - DOMESTIC PIPING DEMOLITION PLAN
1/4" = 1'-0"

GENERAL MECHANICAL NOTES

A COORDINATE PHASING AND REMOVAL OF EXISTING PIPING AND EQUIPMENT WITH OWNER.

B REMOVE EXISTING PIPING, EQUIPMENT, ETC. WHERE DASHED. CAP PIPING DURING CONSTRUCTION.

C CONTRACTOR TO CONFIRM LOCATIONS OF EXISTING PIPING.

MECHANICAL SPECIFIC NOTES

(#)

P100 REMOVE EXISTING 2" CW PIPING TO MRI BYPASS PIPING. CAP PIPING DURING CONSTRUCTION.

P101 REMOVE EXISTING SANITARY CONNECTION TO MRI BYPASS PIPING. CAP PIPING DURING CONSTRUCTION.

Revision#	Description	Date:

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VA U.S. Department of Veterans Affairs

Drawing Title CRAWLSPACE PLUMBING DEMOLITION PLANS	**Phase** FINAL CONTRUCTION DOCUMENTS	**Project Title** MRI SITE PREP FOR FT. MEADE / HOT SPRINGS VAMC	**Project Number** VA #568-CSI-301 SGA #201910
Approved:		**Location** FT. MEADE/HOT SPRINGS, SD	**Building Number** 165 & 12
		Issue Date 11/04/2020 / **Checked** MSH / **Drawn** MMM/KJH	**Drawing Number** FM-PD101

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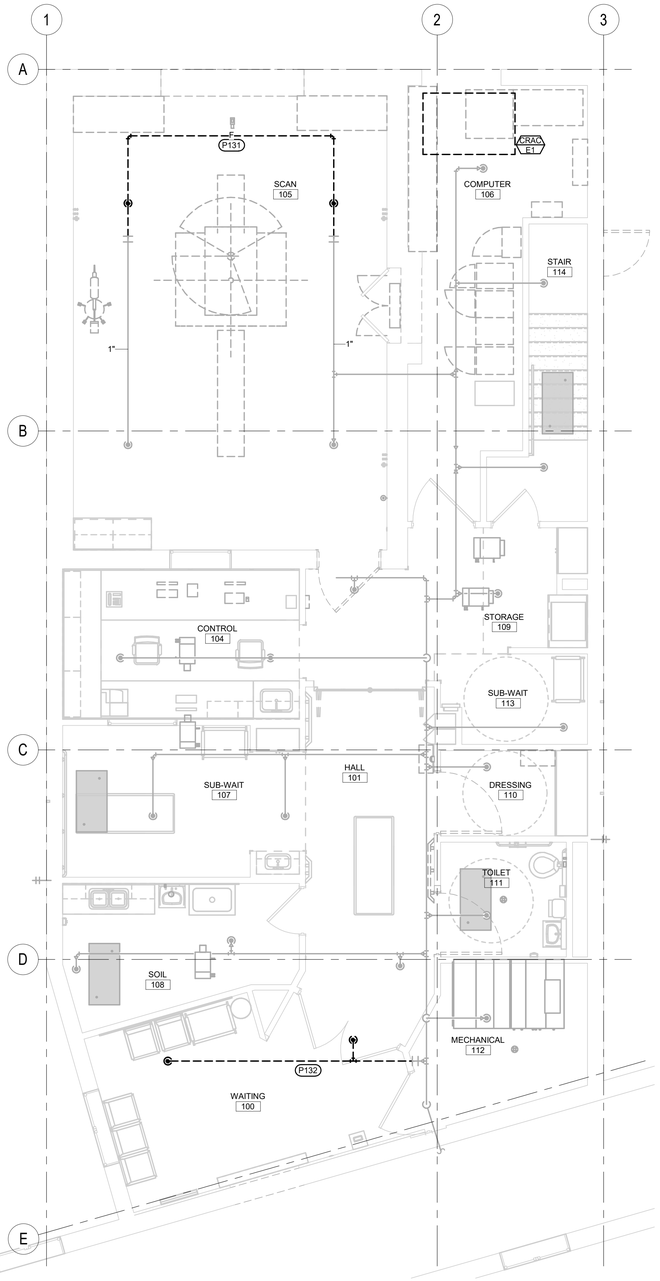
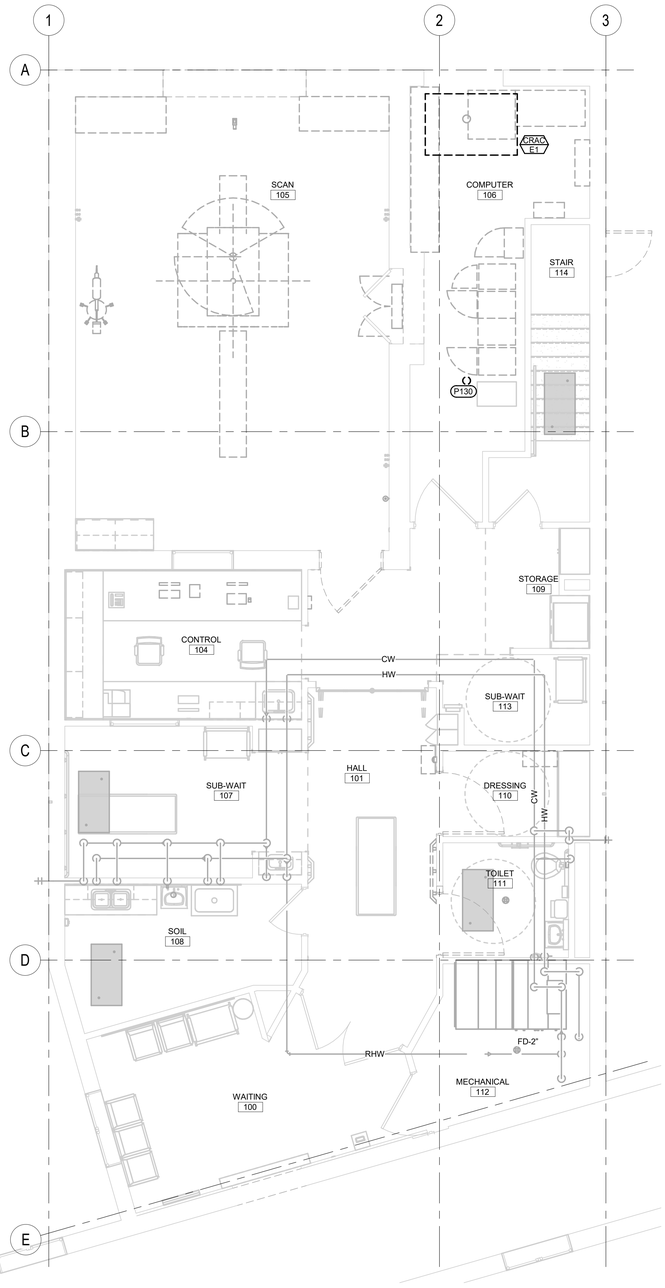


1 1ST LEVEL - FIRE PROTECTION DEMOLITION PLAN
1/4" = 1'-0"



2 LEVEL 1 - DOMESTIC PIPING DEMOLITION PLAN
1/4" = 1'-0"

GENERAL MECHANICAL NOTES

A COORDINATE PHASING AND REMOVAL OF EXISTING PIPING AND EQUIPMENT WITH OWNER.

B REMOVE EXISTING PIPING, EQUIPMENT, ETC. WHERE DASHED. CAP PIPING DURING CONSTRUCTION.

C CONTRACTOR TO CONFIRM LOCATIONS OF EXISTING PIPING.

(#) MECHANICAL SPECIFIC NOTES

P130 REMOVE EXISTING 2" CW PIPING TO MRI BYPASS PIPING. CAP PIPING DURING CONSTRUCTION.

P131 REMOVE EXISTING FIRE SPRINKLER PIPING AND ASSOCIATED FIRE SPRINKLER HEADS AS REQUIRED FOR REMOVAL OF EXISTING AND INSTALLATION OF NEW MRI UNIT.

P132 REMOVE EXISTING FIRE SPRINKLER PIPING AND ASSOCIATED FIRE SPRINKLER HEADS AS REQUIRED INSTALLATION OF NEW OUTSIDE AIR DUCTWORK.

Revision#	Description	Date:

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MICHAEL SEAN HEINRICH
SOUTH DAKOTA
10/16/2020

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	1ST LEVEL PLUMBING/FIRE PROTECTION DEMOLITION PLANS
Phase	FINAL CONTRUCTION DOCUMENTS
Approved:	
Project Title	MRI SITE PREP FOR FT. MEADE / HOT SPRINGS VAMC
Location	FT. MEADE/HOT SPRINGS, SD
Issue Date	11/04/2020
Checked	MSH
Drawn	MMM/KJH
Project Number	VA #568-CSI-301 SGA #201910
Building Number	165 & 12
Drawing Number	FM-PD102

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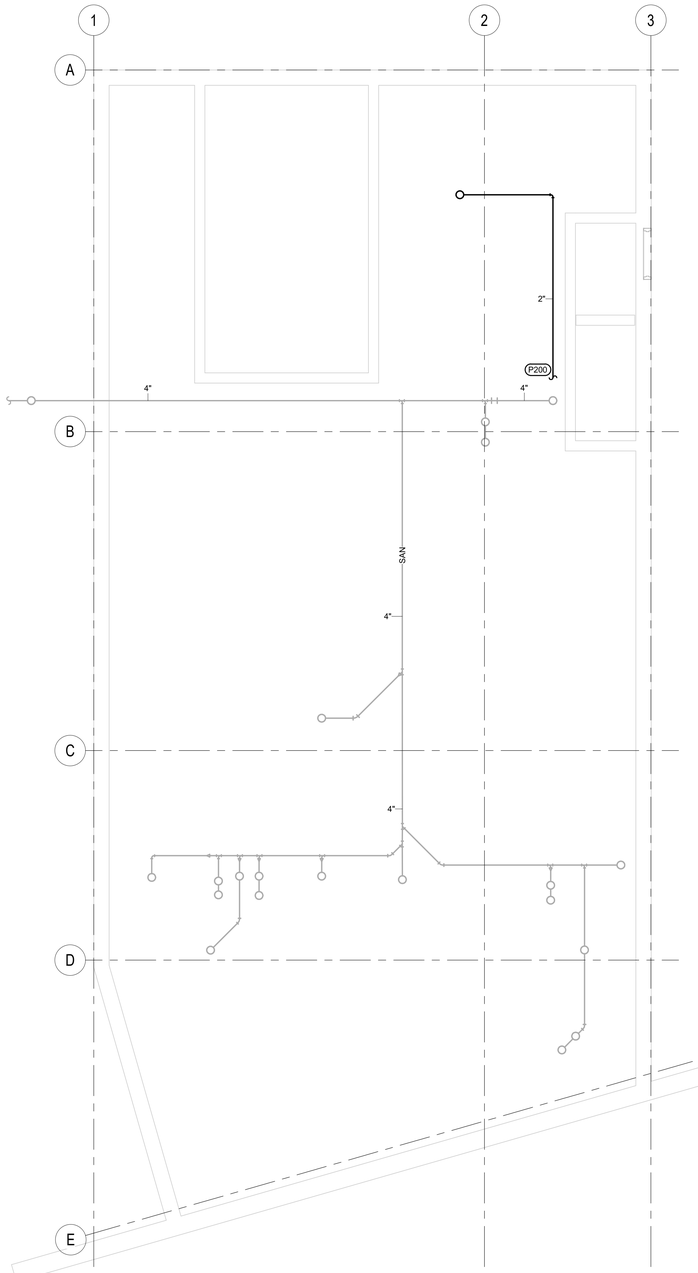
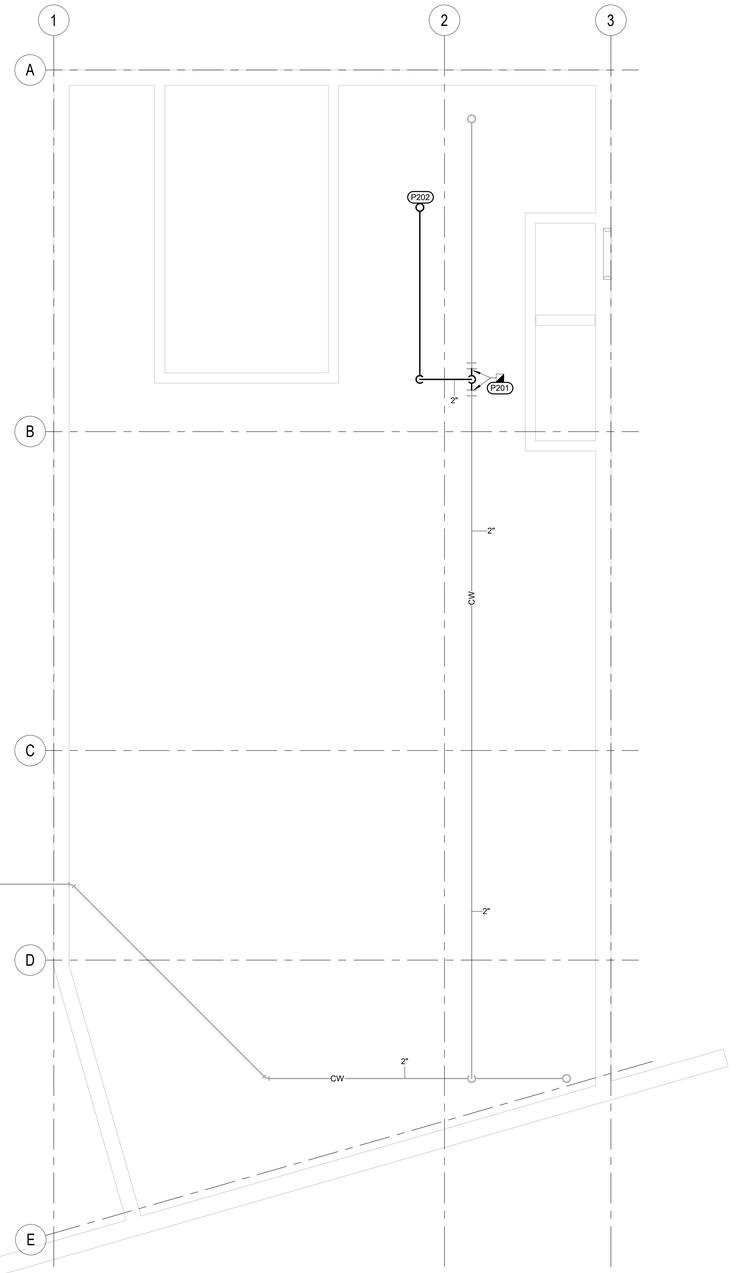
three inches = one foot
one and one half inches = one foot
one inch = one foot
three quarters inch = one foot
one half inch = one foot
three eighths inch = one foot
one quarter inch = one foot
one eighth inch = one foot



1 CRAWLSPACE - WASTE & VENT PLAN
1/4" = 1'-0"



2 CRAWLSPACE - DOMESTIC PIPING PLAN
1/4" = 1'-0"

GENERAL MECHANICAL NOTES

1. COORDINATE LOCATION OF PIPING WITH STRUCTURE, MRI SUPPLIER, SHIELDING SUPPLIER, AND OTHER TRADES.
2. ALL PIPING INSULATION SERVING DOMESTIC COLD WATER PIPING SHALL BE INSTALLED WITH UNBROKEN VAPOR BARRIERS AS PER SPECIFICATIONS. CONTRACTOR TO USE METAL SADDLES AND STRAPS ON EXTERIOR OF INSULATION FOR SUPPORT OF PIPING AT HANGERS, UNISTRUT, ETC.UNBROKEN VAPOR BARRIERS AS PER SPECIFICATIONS. CONTRACTOR TO USE METAL SADDLES AND STRAPS ON EXTERIOR OF INSULATION FOR SUPPORT OF PIPING AT HANGERS, UNISTRUT, ETC.
3. ISOLATE ALL COPPER PIPE FROM BEARING ON FERROUS HANGERS, ETC. WITH ELECTRICALLY INSULATING MATERIALS AS SPECIFIED. USE DIELECTRIC UNIONS IN CONNECTION OF ALL COPPER PIPING TO FERROUS PIPING AS SPECIFIED.
4. REFER TO ARCHITECTURAL AND STRUCTURAL PLANS FOR BUILDING CONSTRUCTION TYPE, OCCUPANCY, BUILDING CROSS SECTIONS, AND CEILING LAYOUT.
5. ALL ITEMS INSTALLED WITHIN THE MRI ROOM SHALL BE NON-FERROUS.
6. ALL DUCTWORK, PIPING, CONDUIT, ETC., ENTERING MRI ROOM MUST BE ROUTED THROUGH AN ELECTRICAL FIELD/WAVEGUIDE FILTER SUPPLIED AND INSTALLED BY THE RF ENCLOSURE CONTRACTOR.

MECHANICAL SPECIFIC NOTES

#	
P200	CONNECT NEW DRAIN PIPE FROM CHILLED WATER BYPASS SYSTEM TO EXISTING DRAIN WITHIN CRAWLSPACE.
P201	CONNECT NEW INJECTION PIPE FROM MRI CHILLED WATER BYPASS TO EXISTING CW PIPING.
P202	2" CW INJECTION FOR MRI SYSTEM UP TO FIRST FLOOR. REFER TO FM-PP102, 1ST LEVEL PLUMBING PLANS, FOR CONTINUATION.

Revision#	Description	Date:

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: CRAWLSPACE PLUMBING PLANS	Phase: FINAL CONTRUCTION DOCUMENTS
Approved:	

Project Title: MRI SITE PREP FOR FT. MEADE / HOT SPRINGS VAMC	Project Number: VA #568-CSI-301 SGA #201910
	Building Number: 165 & 12
Location: FT. MEADE/HOT SPRINGS, SD	Drawing Number: FM-PP101
Issue Date: 11/04/2020 / Checked: MSH / Drawn: MMM/KJH	

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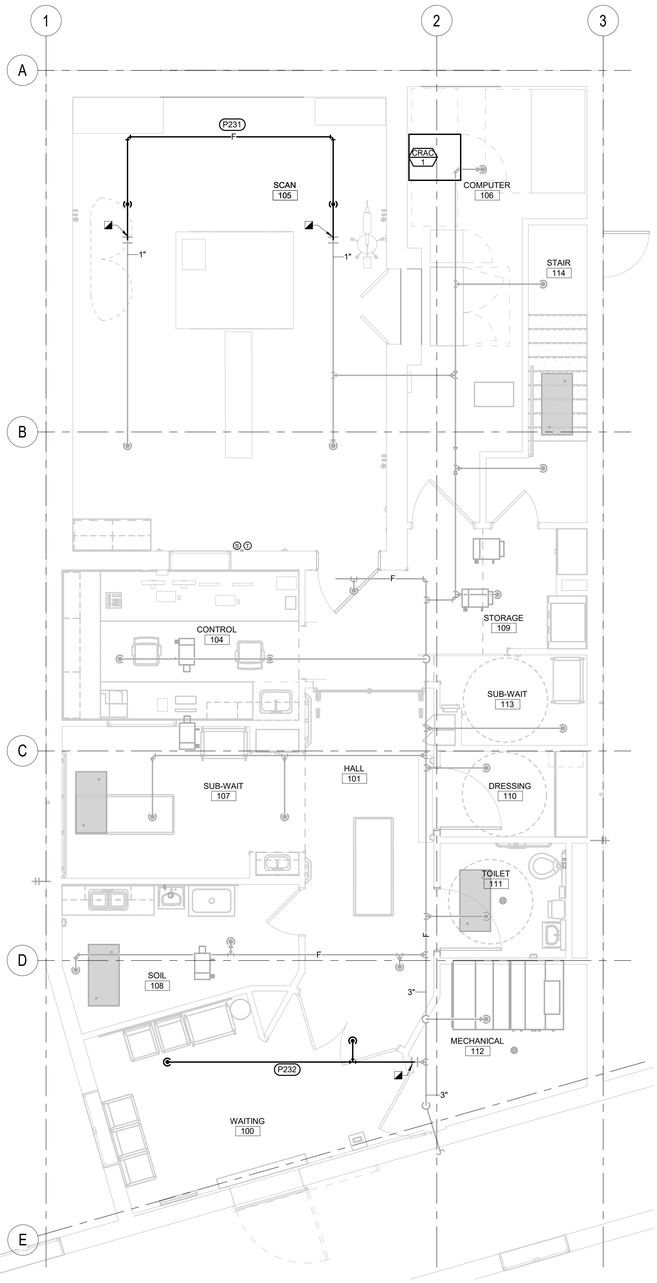
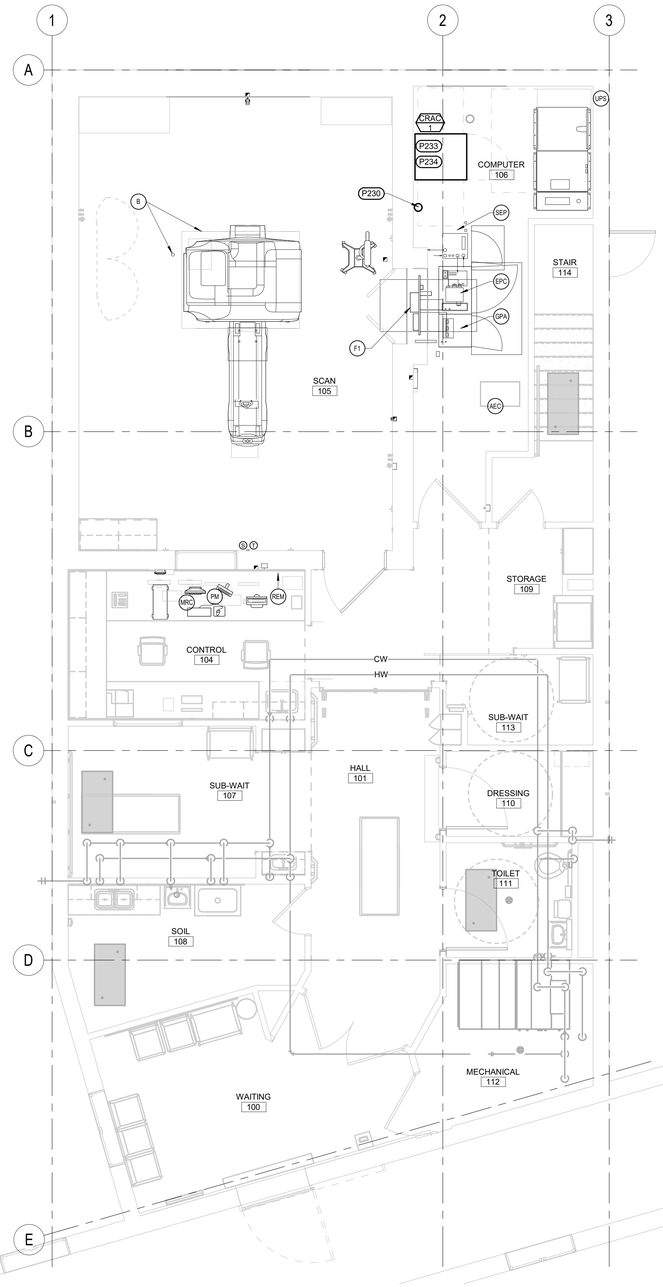


1 1ST LEVEL - FIRE PROTECTION PLAN
1/4" = 1'-0"



2 1ST LEVEL - DOMESTIC AND SANITARY PIPING PLAN
1/4" = 1'-0"

GENERAL MECHANICAL NOTES

1. COORDINATE LOCATION OF PIPING WITH STRUCTURE, MRI SUPPLIER, SHIELDING SUPPLIER, AND OTHER TRADES.
2. ALL PIPING INSULATION SERVING DOMESTIC COLD WATER PIPING SHALL BE INSTALLED WITH UNBROKEN VAPOR BARRIERS AS PER SPECIFICATIONS. CONTRACTOR TO USE METAL SADDLES AND STRAPS ON EXTERIOR OF INSULATION FOR SUPPORT OF PIPING AT HANGERS, UNISTRUT, ETC.UNBROKEN VAPOR BARRIERS AS PER SPECIFICATIONS. CONTRACTOR TO USE METAL SADDLES AND STRAPS ON EXTERIOR OF INSULATION FOR SUPPORT OF PIPING AT HANGERS, UNISTRUT, ETC.
3. ISOLATE ALL COPPER PIPE FROM BEARING ON FERROUS HANGERS, ETC. WITH ELECTRICALLY INSULATING MATERIALS AS SPECIFIED. USE DIELECTRIC UNIONS IN CONNECTION OF ALL COPPER PIPING TO FERROUS PIPING AS SPECIFIED.
4. REFER TO ARCHITECTURAL AND STRUCTURAL PLANS FOR BUILDING CONSTRUCTION TYPE, OCCUPANCY, BUILDING CROSS SECTIONS, AND CEILING LAYOUT.
5. ALL ITEMS INSTALLED WITHIN THE MRI ROOM SHALL BE NON-FERROUS.
6. ALL DUCTWORK, PIPING, CONDUIT, ETC., ENTERING MRI ROOM MUST BE ROUTED THROUGH AN ELECTRICAL FIELD/WAVEGUIDE FILTER SUPPLIED AND INSTALLED BY THE RF ENCLOSURE CONTRACTOR.

MECHANICAL SPECIFIC NOTES

#	
P230	2" CW INJECTION FOR MRI SYSTEM UP FROM CRAWLSPACE. REFER TO FM-PP101, CRAWLSPACE PLUMBING PLANS FOR CONTINUATION. ALSO, REFER TO MRI CHILLER PIPING SCHEMATIC, 2/FM-MJ101. ALSO PROVIDE 2" DRAIN FROM INJECTION SYSTEM DOWN TO TRAP WITHIN CRAWLSPACE.
P231	INSTALL NEW NON-FERROUS FIRE SPRINKLER SYSTEM WITHIN THIS AREA. COORDINATE FIRE SPRINKLER HEAD LOCATION WITH CEILING AND MRI SYSTEM.
P232	INSTALL NEW FIRE SPRINKLER SYSTEM WITHIN THIS AREA. COORDINATE FIRE SPRINKLER PIPING LOCATION WITH NEW DUCTWORK AND FIRE SPRINKLER HEAD LOCATION WITH CEILING.
P233	PROVIDE 3/4" CW CONNECTION FROM CW INJECTION PIPING TO CRAC UNIT HUMIDIFIER. CONNECTION SHALL BE PRIOR TO THE SYSTEM ISOLATIONS SO AS TO PROVIDE A CONTINUOUS AVAILABILITY OF WATER.
P234	PROVIDE 3/4" CONDENSATE DRAIN FROM CRAC UNIT TO TRAP WITHIN CRAWLSPACE.

Revision#	Description	Date:

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VA U.S. Department of Veterans Affairs

Drawing Title	1ST LEVEL PLUMBING PLANS
Phase	FINAL CONTRUCTION DOCUMENTS
Approved:	
Project Title	MRI SITE PREP FOR FT. MEADE / HOT SPRINGS VAMC
Location	FT. MEADE/HOT SPRINGS, SD
Issue Date	11/04/2020
Checked	MSH
Drawn	MMM/KJH
Project Number	VA #568-CSI-301 SGA #201910
Building Number	165 & 12
Drawing Number	FM-PP102

VA FORM 08 - 6231

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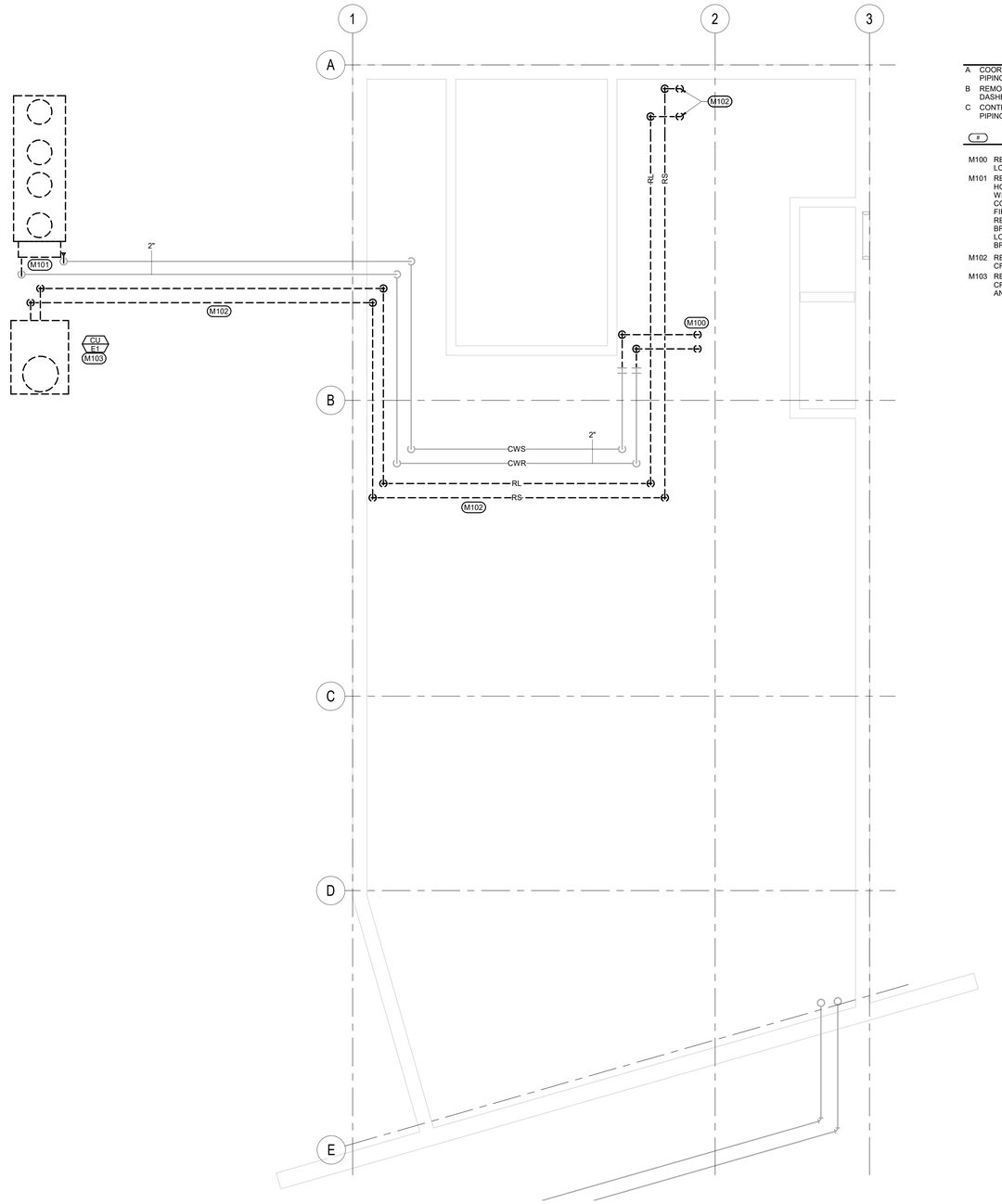

1 CRAWLSPACE - HVAC PIPING DEMOLITION PLAN
1/4" = 1'-0"

GENERAL NOTE

A COORDINATE PHASING AND REMOVAL OF EXISTING PIPING AND EQUIPMENT WITH OWNER

B REMOVE EXISTING PIPING, EQUIPMENT, ETC. WHERE DASHED. CAP PIPING DURING CONSTRUCTION.

C CONTRACTOR TO CONFIRM LOCATIONS OF EXISTING PIPING.

MECHANICAL SPECIFIC NOTES

M100 REMOVE CHILLED WATER PIPING SERVING EXISTING LCCC. CAP PIPING DURING CONSTRUCTION.

M101 REMOVE EXISTING CHILLER, CHILLER HOUSEKEEPING PAD, AND PIPING CONNECTIONS WITHIN THIS LOCATION. CAP PIPING DURING CONSTRUCTION. THE MRI BROKER SHALL HAVE FIRST RIGHT OF REFUSAL FOR ALL COMPONENTS REMOVED. THIS CONTRACTOR SHALL ASSIST THE BROKER IN REMOVAL OF COMPONENTS FROM THIS LOCATION TO A LOCATION AS SET FORTH BY THE BROKER.

M102 REMOVE RS AND RL PIPING SERVING EXISTING CRAC UNIT.

M103 REMOVE EXISTING CRAC UNIT CONDENSING UNIT, CRAC UNIT CONDENSING UNIT HOUSEKEEPING PAD, AND PIPING WITHIN THIS LOCATION.

Revision#	Description	Date:

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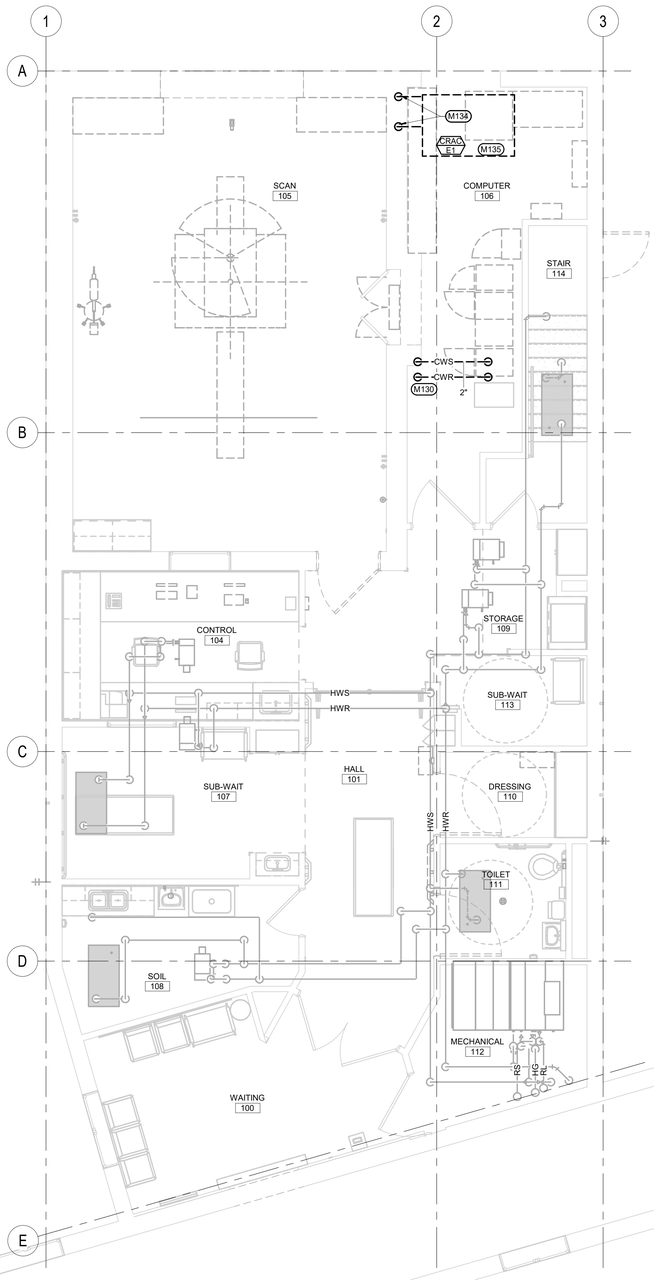
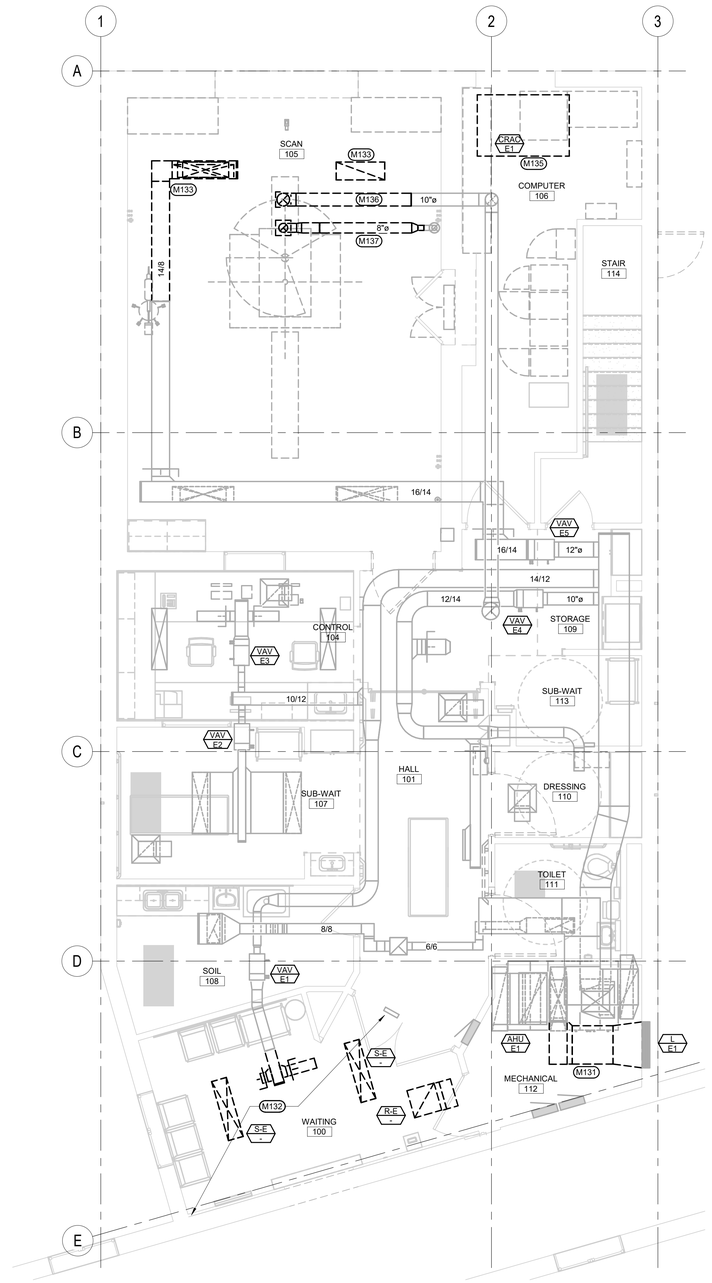
Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: CRAWLSPACE MECHANICAL DEMOLITION PLAN	Phase: FINAL CONTRUCTION DOCUMENTS	Project Title: MRI SITE PREP FOR FT. MEADE / HOT SPRINGS VAMC	Project Number: VA #568-CSI-301 SGA #201910
Approved:		Location: FT. MEADE/HOT SPRINGS, SD	Building Number: 165 & 12
		Issue Date: 11/04/2020 / Checked: MSH / Drawn: MMM/KJH	Drawing Number: FM-MD101



1 1ST LEVEL - HVAC PIPING DEMOLITION PLAN
1/4" = 1'-0"



2 1ST LEVEL - HVAC DEMOLITION PLAN
1/4" = 1'-0"

GENERAL MECHANICAL NOTES

A COORDINATE PHASING AND REMOVAL OF EXISTING DUCTWORK, PIPING, AND EQUIPMENT WITH OWNER.

B REMOVE EXISTING DUCTWORK, PIPING, EQUIPMENT, ETC. WHERE DASHED. CAP DUCTWORK AND PIPING DURING CONSTRUCTION.

C CONTRACTOR TO CONFIRM LOCATIONS OF EXISTING DUCTWORK AND PIPING.

(#) MECHANICAL SPECIFIC NOTES

M130 REMOVE CHILLED WATER PIPING SERVING EXISTING LCCC. CAP PIPING DURING CONSTRUCTION. THE MRI BROKER SHALL HAVE FIRST RIGHT OF REFUSAL FOR ALL COMPONENTS REMOVED. THIS CONTRACTOR SHALL ASSIST THE BROKER IN REMOVAL OF COMPONENTS FROM COMPUTER 106 TO A LOCATION AS SET FORTH BY THE BROKER.

M131 REMOVE EXISTING OUTSIDE AIR DUCTWORK AS REQUIRED FOR INSTALLATION OF NEW DUCTWORK.

M132 REMOVE EXISTING REGISTERS, GRILLES, AND DIFFUSER ALONG WITH ASSOCIATED DUCTWORK WITHIN THIS AREA AS REQUIRED FOR INSTALLATION OF NEW OUTSIDE AIR DUCTWORK WITHIN THIS AREA. RETAIN EXISTING DIFFUSERS FOR REINSTALLATION.

M133 REMOVE EXISTING REGISTERS, GRILLES, AND DIFFUSER ALONG WITH ASSOCIATED DUCTWORK WITHIN THIS AREA AS REQUIRED FOR REMOVAL OF EXISTING AND INSTALLATION OF NEW MRI. RETAIN EXISTING DIFFUSERS FOR REINSTALLATION.

M134 REMOVE RS AND RL PIPING SERVING EXISTING CRAC UNIT. CAP AND ABANDON PIPING ABOVE CEILING AND WITHIN WALLS.

M135 REMOVE EXISTING CRAC UNIT.

M136 REMOVE EXISTING GRADIANT EXHAUST DUCTWORK. CAP DUCTWORK DURING CONSTRUCTION. THE MRI BROKER SHALL HAVE FIRST RIGHT OF REFUSAL FOR ALL COMPONENTS REMOVED. THIS CONTRACTOR SHALL ASSIST THE BROKER IN REMOVAL OF COMPONENTS FROM THIS LOCATION TO A LOCATION AS SET FORTH BY THE BROKER.

M137 REMOVE EXISTING QUENCH DUCTWORK. CAP DUCTWORK DURING CONSTRUCTION. THE MRI BROKER SHALL HAVE FIRST RIGHT OF REFUSAL FOR ALL COMPONENTS REMOVED. THIS CONTRACTOR SHALL ASSIST THE BROKER IN REMOVAL OF COMPONENTS FROM THIS LOCATION TO A LOCATION AS SET FORTH BY THE BROKER.

Revision#	Description	Date:

CONSULTANTS

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: 1ST LEVEL MECHANICAL DEMOLITION PLANS
Phase: FINAL CONTRUCTION DOCUMENTS
Project Title: MRI SITE PREP FOR FT. MEADE / HOT SPRINGS VAMC
Project Number: VA #568-CSI-301 SGA #201910
Building Number: 165 & 12
Approved:
Location: FT. MEADE/HOT SPRINGS, SD
Issue Date: 11/04/2020
Checked: MSH
Drawn: MMM/KJH
Drawing Number: FM-MD102

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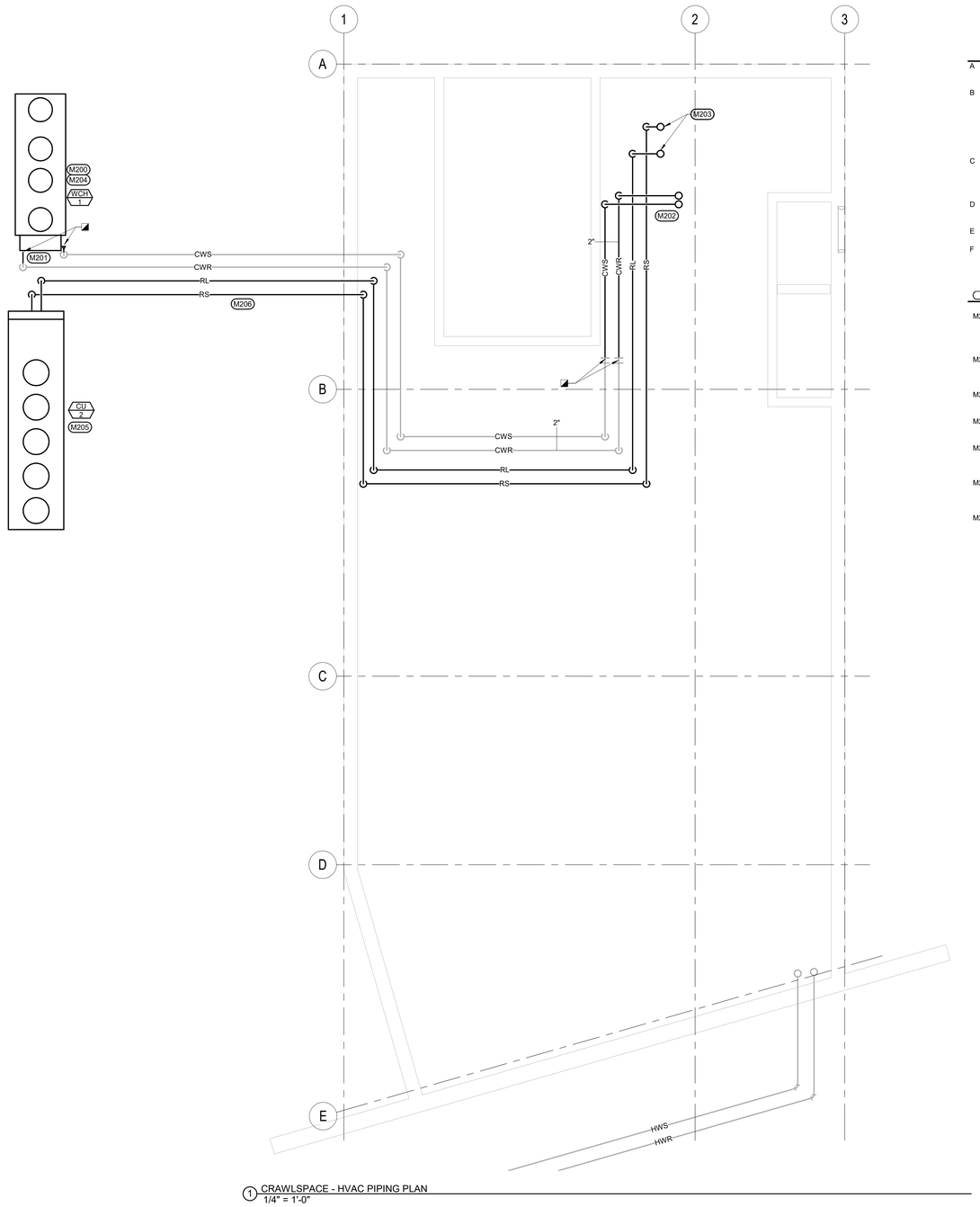

1 CRAWLSPACE - HVAC PIPING PLAN
1/4" = 1'-0"

GENERAL MECHANICAL NOTES

A COORDINATE LOCATION OF DUCTWORK AND PIPING WITH STRUCTURE, MRI SUPPLIER, SHIELDING SUPPLIER, AND OTHER TRADES.

B ALL PIPING INSULATION SERVING CHILLED WATER PIPING SHALL BE INSTALLED WITH UNBROKEN VAPOR BARRIERS AS PER SPECIFICATIONS. CONTRACTOR TO USE METAL SADDLES AND STRAPS ON EXTERIOR OF INSULATION FOR SUPPORT OF PIPING AT HANGERS, UNISTRUT, ETC.UNBROKEN VAPOR BARRIERS AS PER SPECIFICATIONS. CONTRACTOR TO USE METAL SADDLES.

C ISOLATE ALL COPPER PIPE FROM BEARING ON FERROUS HANGERS, ETC. WITH ELECTRICALLY INSULATING MATERIALS AS SPECIFIED. USE DIELECTRIC UNIONS IN CONNECTION OF ALL COPPER PIPING TO FERROUS PIPING AS SPECIFIED.

D REFER TO ARCHITECTURAL AND STRUCTURAL PLANS FOR BUILDING CONSTRUCTION TYPE, OCCUPANCY, BUILDING CROSS SECTIONS, AND CEILING LAYOUT.

E ALL ITEMS INSTALLED WITHIN THE MRI ROOM SHALL BE NON-FERROUS.

F ALL DUCTWORK, PIPING, CONDUIT, ETC., ENTERING MRI ROOM MUST BE ROUTED THROUGH AN ELECTRICAL FIELD/WAVEGUIDE FILTER SUPPLIED AND INSTALLED BY THE RF ENCLOSURE CONTRACTOR.

(#) MECHANICAL SPECIFIC NOTES

M200 INSTALL OWNER SUPPLIED CHILLER ON NEW 6" HIGH, 4500 PSI, 28-DAY STRENGTH CONCRETE HOUSEKEEPING PAD WITH #4 REBAR, 12" O.C. BOTH DIRECTIONS. CHILLER OUTSIDE DIMENSIONS ARE 44"X138".

M201 CONNECT EXISTING 2" CWS AND CWR PIPING TO NEW CHILLER. CONTRACTOR TO EXTEND AND MODIFY PIPING AS REQUIRED FOR NEW CHILLER CONFIGURATION.

M202 NEW 2" CWS AND CWR PIPING UP TO 1ST LEVEL. REFER TO SHEET FM-MH102, 1ST LEVEL MECHANICAL PLANS, FOR CONTINUATION.

M203 NEW RS AND RL PIPING UP TO 1ST LEVEL. REFER TO SHEET FM-MH102, 1ST LEVEL MECHANICAL PLANS, FOR CONTINUATION.

M204 CHILLER SHALL BE FULLY OPERATIONAL A MINIMUM OF 48 HOURS PRIOR TO ARRIVAL OF THE MAGNET. ACTUAL TIME SHALL BE COORDINATED WITH MRI SUPPLIER/INSTALLER.

M205 INSTALL CU-1 ON NEW 6" HIGH, 4500 PSI, 28-DAY STRENGTH CONCRETE HOUSEKEEPING PAD WITH #4 REBAR, 12" O.C. BOTH DIRECTIONS. ALSO, INSTALL CU-1 ON 24" HIGH STAND.

M206 INSTALL NEW RS AND RL PIPING ON EXISTING PIPING RACKS. COORDINATE LOCATION WITH EXISTING CHILLED WATER PIPING SERVING MRI CHILLER.

Revision#	Description	Date:

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title CRAWLSPACE MECHANICAL PLAN	**Phase** FINAL CONTRUCTION DOCUMENTS	**Project Title** MRI SITE PREP FOR FT. MEADE / HOT SPRINGS VAMC	**Project Number** VA #568-CSI-301 SGA #201910
			Building Number 165 & 12
Approved:		**Location** FT. MEADE/HOT SPRINGS, SD	**Drawing Number** FM-MH101
		Issue Date 11/04/2020 / **Checked** MSH / **Drawn** MMM/KJH	

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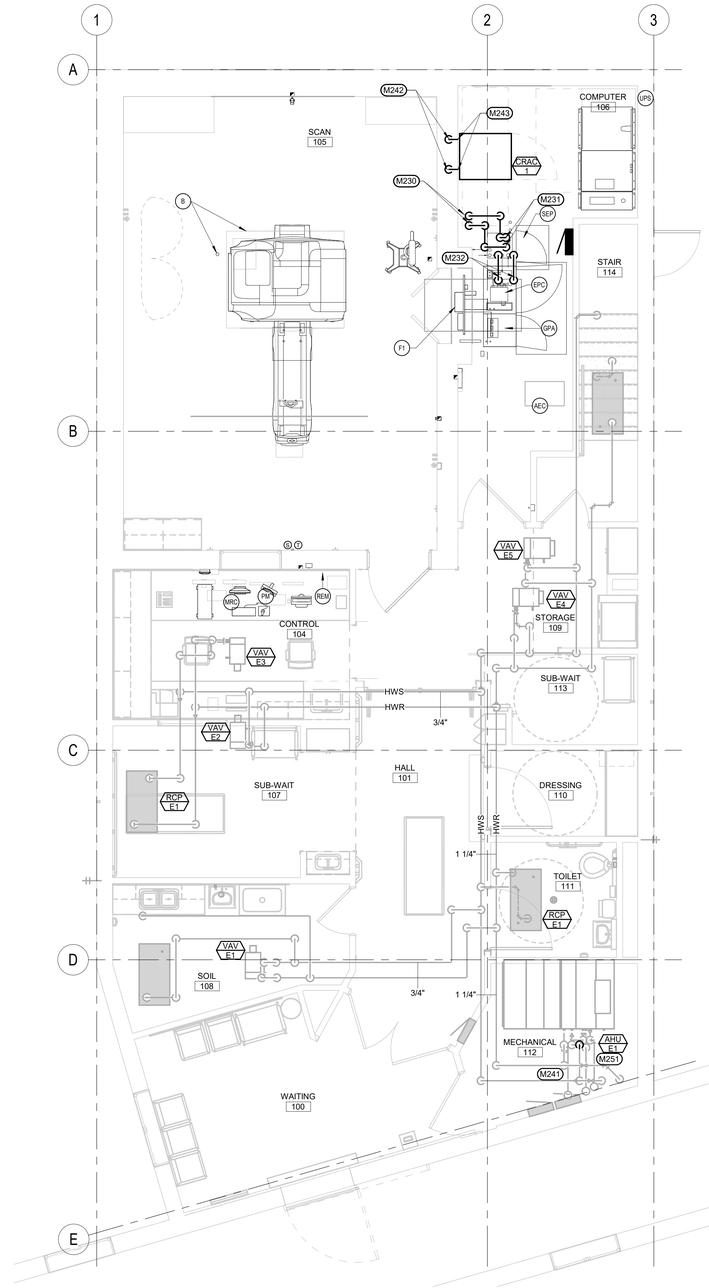
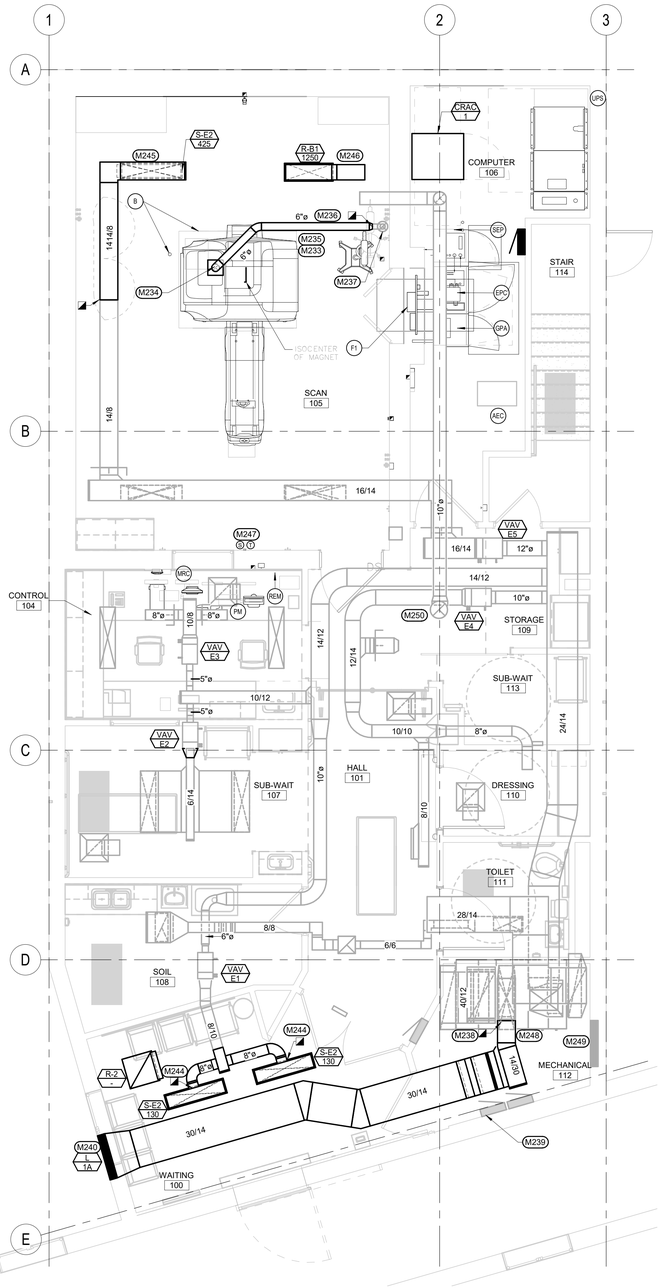


1 1ST LEVEL - HVAC PIPING PLAN
1/4" = 1'-0"



2 1ST LEVEL - HVAC PLAN
1/4" = 1'-0"

GENERAL MECHANICAL NOTES

A COORDINATE LOCATION OF DUCTWORK AND PIPING WITH STRUCTURE, MRI SUPPLIER, SHIELDING SUPPLIER, AND OTHER TRADES.

B ALL PIPING INSULATION SERVING CHILLED WATER PIPING SHALL BE INSTALLED WITH UNBROKEN VAPOR BARRIERS AS PER SPECIFICATIONS. CONTRACTOR TO USE METAL SADDLES AND STRAPS ON EXTERIOR OF INSULATION FOR SUPPORT OF PIPING AT HANGERS, UNISTRUT, ETC.UNBROKEN VAPOR BARRIERS AS PER SPECIFICATIONS. CONTRACTOR TO USE METAL SADDLES.

C ISOLATE ALL COPPER PIPE FROM BEARING ON FERROUS HANGERS, ETC. WITH ELECTRICALLY INSULATING MATERIALS AS SPECIFIED. USE DIELECTRIC UNIONS IN CONNECTION OF ALL COPPER PIPING TO FERROUS PIPING AS SPECIFIED.

D REFER TO ARCHITECTURAL AND STRUCTURAL PLANS FOR BUILDING CONSTRUCTION TYPE, OCCUPANCY, BUILDING CROSS SECTIONS, AND CEILING LAYOUT.

E ALL ITEMS INSTALLED WITHIN THE MRI ROOM SHALL BE NON-FERROUS.

F ALL DUCTWORK, PIPING, CONDUIT, ETC., ENTERING MRI ROOM MUST BE ROUTED THROUGH AN ELECTRICAL FIELD/WAVEGUIDE FILTER SUPPLIED AND INSTALLED BY THE RF ENCLOSURE CONTRACTOR.

MECHANICAL SPECIFIC NOTES

#	MECHANICAL SPECIFIC NOTES
M230	2" CWS AND CWR PIPING UP FROM CRAWL SPACE. REFER TO SHEET FM-MH101, CRAWLSPACE MECHANICAL PLAN, FOR CONTINUATION.
M231	CONNECT NEW 2" CWS AND CWR PIPING TO NEW MRI SEP CABINET. UTILIZE FLEXIBLE HOSES (BY MRI MANUFACTURER) FOR CONNECTION.
M232	CONNECT NEW MRI SEP TO NEW MRI EPC WITH HOSES BY MRI MANUFACTURER. INSTALL PER MRI MANUFACTURER'S REQUIREMENTS.
M233	THE QUENCH TUBE CONSISTS OF STRAIGHT, HYDRAULICALLY SMOOTH SECTIONS, BENDS UP TO 90 DEGREES AND A DIFFUSER. THE END OF THE TUBE MUST BE PROTECTED FROM RAIN, SNOW, AND FOREIGN OBJECTS. ROUND SECTIONS ONLY, NO SQUARE SECTIONS.
M234	PROVIDE AND INSTALL QUENCH VENT TUBE FROM NEW MRI AND CONNECT TO EXISTING WITHIN ROOM. TUBE TO BE NON-MAGNETIC STAINLESS STEEL (L.22 GAUGE), GRADES AISI304, 309, 316, OR 321 ONLY, OR ALUMINUM EXTRUDED TUBE (MINIMUM 14 GAUGE) GRADES 6063 AND 6082. REFER TO MRI INSTALLATION GUIDE BY SIEMENS FOR FURTHER INFORMATION.
M235	THE QUENCH TUBE MUST HAVE MINIMUM 1" INSULATION FOR THE FULL LENGTH. WITHIN THE RF ROOM THERE SHOULD BE A 1" LAYER OF MINERAL FIBER INSULATION WITH A VAPOR BARRIER AND 1" CLASS D OR CLASS AP CELLULAR FOAM INSULATION. OUTDOOR PIPES MUST BE WEATHERPROOF. THE INSULATION MUST NOT TOUCH THE MAGNET COVERS. TO AVOID RF DISTURBANCES THE INSULATION MUST NOT MAKE ELECTRICAL CONTACT WITH THE WAVEGUIDE.
M236	GALVANIC SEPARATION MUST BE PROVIDED BETWEEN THE MAGNET, THE QUENCH VENT, THE RF ROOM, AND THE BUILDING. TWO SEPARATIONS ARE REQUIRED USING STAINLESS STEEL BOLTS, INSULATING BUSHES AND LOCKING NUTS. NO OTHER DESIGNS ARE PERMITTED FOR SAFETY.
M237	QUENCH PIPE DISCHARGE. REFER TO MRI QUENCH PIPE DETAIL, SHEET FM-MJ101.
M238	CONNECT NEW OUTSIDE AIR DUCT TO EXISTING WITHIN THIS LOCATION.
M239	COORDINATE LOCATION OF NEW OUTSIDE AIR DUCT WITH EXISTING ELECTRICAL PANELS IN THIS LOCATION.
M240	COORDINATE NEW LOUVER PENETRATION WITH GENERAL CONTRACTOR.
M241	COORDINATE LOCATION OF HWS AND HWR PIPING WITH NEW OUTSIDE AIR DUCT WITHIN THIS LOCATION. RELOCATE AS REQUIRED (APPROXIMATELY 10' OF PIPING). PROVIDE ISOLATION VALVES IN RELOCATED PIPING.
M242	NEW RS AND RL PIPING UP FROM CRAWLSPACE EXPOSED IN SPACE. REFER TO SHEET FM-MH101, CRAWLSPACE MECHANICAL PLANS, FOR CONTINUATION.
M243	CONNECT NEW RS AND RL PIPING TO CRAC UNIT. PROVIDED ISOLATION VALVES AT CONNECTION TO CRAC UNIT.
M244	INSTALL EXISTING SUPPLY DIFFUSER WITHIN THIS LOCATION. CONNECT NEW 8" DUCTWORK TO EXISTING DIFFUSERS.
M245	INSTALL NEW 14/8 NON-FERROUS DUCTWORK. REINSTALL EXISTING DIFFUSER WITHIN CEILING AND CONNECT TO NEW DUCTWORK.
M246	CLEAN AND REINSTALL EXISTING RETURN DIFFUSER IN CEILING. PROVIDE NEW NON-FERROUS DUCT BOOT FOR DIFFUSER.
M247	PROVIDE NEW THERMOSTAT AND OXYGEN SENSOR WITHIN THIS LOCATION. THE ELECTRICAL CONTRACTOR WILL INSTALL THE CONDUIT INTO THE ROOM AND TO THE SENSOR LOCATIONS. COORDINATE WITH ELECTRICAL CONTRACTOR. THIS CONTRACTOR TO PROVIDE ALL CABLES NECESSARY FOR INSTALLATION OF THERMOSTAT AND OXYGEN SENSOR. CABLE AND EQUIPMENT WITHIN THE MRI ROOM SHALL BE NON-FERROUS. THERMOSTAT SHALL CONTROL VAV-E5 AND OXYGEN SENSOR SHALL ALARM WHEN ROOM LEVELS FALL TO BELOW 19.5% OXYGEN. PROVIDE VISUAL ALARM WITHIN CONTROL 104 INDICATING LOW OXYGEN LEVEL.
M248	PROVIDE NEW AIRFLOW SENSOR FOR AIR HANDLING UNIT. REPROGRAM UNIT TO HAVE RETURN FAN TRACK SUPPLY FAN.
M249	CAP EXISTING LOUVER TO BE AIR AND WATER TIGHT. INSULATE CAP WITH 3" OF BOARD STYLE EXTERIOR DUCT INSULATION.
M250	BALANCE EXISTING GEF-1 FAN TO 300 CFM FOR GENERAL EXHAUST IN SCAN ROOM.
M251	PROVIDE NEW HEAT TRAPS IN 1-1/4" HWS AND HWR PIPING SERVING AHU-E1 AS PER HEAT TRAP DETAIL ON SHEET FM-MJ101.

MRI EQUIPMENT MECHANICAL SCHEDULE

ITEM	DESCRIPTION	CWS	CWR	BTU/HR TO AIR	REMARKS
AEC	AMBIENT EXPERIENCE CABINET			3530	
B	SOLA MAGNET IN OPERATION			7506	
EPC	ELECTRONICS CABINET	2"	2'	2706	THIS CONTRACTOR WILL INTERCONNECT SEP AND EPC CABINETS WITH HOSES PROVIDED BY MRI SUPPLIER
F1	RF-FILTER PLATE (HORIZONTAL)			853	
GPA	ELECTRONICS CABINET			2706	
MRC	HOST PC MRC & MONITOR			2628	
PM	PATIENT MONITOR			342	
REM	REMOTE CHILLER CONTROLLER				
SEP	SEP CABINET	2"	2'	3412	THIS CONTRACTOR WILL INTERCONNECT SEP AND EPC CABINETS WITH HOSES PROVIDED BY MRI SUPPLIER
UPS	EATON 93PM 180 KW UPS WITH BATTERY & MAINTENANCE BYPASS			20525	

Revision#	Description	Date:

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Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title: 1ST LEVEL MECHANICAL PLANS
Phase: FINAL CONTRUCTION DOCUMENTS
Approved:
Project Title: MRI SITE PREP FOR FT. MEADE / HOT SPRINGS VAMC
Project Number: VA #568-CSI-301 SGA #201910
Building Number: 165 & 12
Location: FT. MEADE/HOT SPRINGS, SD
Drawing Number: FM-MH102
Issue Date: 11/04/2020
Checked: MSH
Drawn: MMM/KJH

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LOUVER SCHEDULE

UNIT TYPE	UNIT NUMBER	MANUFACTURER	MODEL	LOCATION	FUNCTION	SIZE WIDTH	SIZE HEIGHT	CFM	S.P.	FREE AIR VELOCITY	COMMENTS
L	1A	RUSKIN	ELF6375DX	WEST WALL	INTAKE	36"	30"	3000	0.00 in-wg	780 FPM	1,2,3,4

COMMENTS:

1 PROVIDE WITH BIRD SCREEN.
2 ARCHITECT TO SELECT COLOR.
3 ALUMINUM CONSTRUCTION WITH BAKED ENAMEL FINISH.
4 LOUVER MANUFACTURER LISTED AS BASIS OF DESIGN. UNIT SHALL BE OF EQUAL OR BETTER CONSTRUCTION.

COMPUTER ROOM A/C UNIT SCHEDULE (DX)

UNIT TYPE	UNIT NUMBER	MANUFACTURER	MODEL	HP	E.S.P.	CFM	DX COOLING COIL CAPACITY	DX COOLING COIL EAT DB	DX COOLING COIL EAT WB	ELECTRIC VOLTAGE	ELECTRIC PHASES	ELECTRIC MCA	COMMENTS
CRAC	1	DATA AIR	GTAU-01834-E	1.3	0.20 in-wg	2500	54420	75 °F	61 °F	480	3	11.3 A	1,2,3,4,5,6,7

COMMENTS:

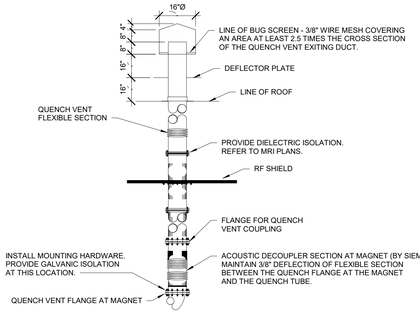
1 PROVIDE WITH 10 LBS/HR, 3.4 KW STEAM GENERATOR HUMIDIFIER.
2 PROVIDE WITH A WALL MOUNTED MICROPROCESSOR.
3 PROVIDE FACTORY START-UP.
4 UNIT MOUNTED ADVANCED MICROPROCESSOR CONTROL (AM).
5 30% FILTERS.
6 UP-FLOW WITH PLENUM AND DISCHARGE GRILLE.
7 PROVIDE WITH BACNET CONTROLLER. PROVIDE DRY CONTACTALARM CONNECTION FROM UNIT CONTROLLER TO BOTH JOHNSON CONTROL SYSTEM AND SECURITY SYSTEM.

CONDENSING UNIT SCHEDULE

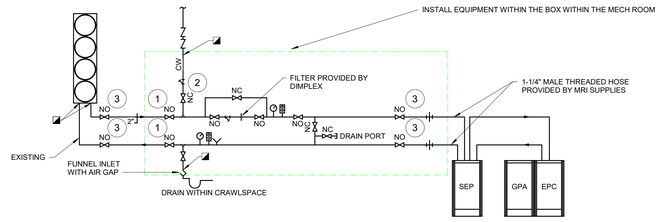
UNIT TYPE	UNIT NUMBER	MANUFACTURER	MODEL	SERVES	CAPACITY BTUH	AMBIENT TEMP.	REF TYPE	SUCTION TEMPERATURE	SCCR	ELECTRICAL V	ELECTRICAL PH	ELECTRICAL MCA	SCOP	COMMENTS
CU	2	DATA AIRE INC.	GHCU-02534	CRAC-1	85303	105 °F	R-410A	45 °F	35	480	3	13.7 A	2.44	1,2,3,4

COMMENTS:

1 PROVIDE 6" THICK CONCRETE PAD MINIMUM OF 6" LARGER THAN UNIT IN ALL DIRECTIONS. INSTALL ON 24" STAND.
2 PROVIDE FACTORY MOUNTED RECEIVER FOR OPERATION DOWN TO -30 DEG F.
3 PROVIDE WITH HAIL GUARD.
4 PROVIDE 5 YR FULL UNIT PARTS AND LABOR WARRANTY.



1 MRI QUENCH PIPE DETAIL
NO SCALE



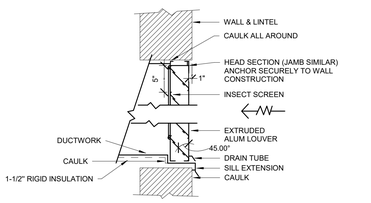
NOTES:
CHILLER,SEP,EPC, AND FILTER PROVIDED BY MRI SUPPLIES, INSTALLED BY THIS CONTRACTOR

PROVIDE A PLASTIC LAMINATED SIGN ADJACENT TO THE VALVES INDICATING THE FOLLOWING:

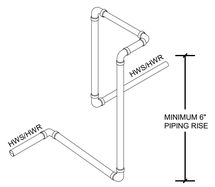
VALVE #1: OPEN DURING NORMAL OPERATION, CLOSED WHEN IN TAP WATER BYPASS
VALVE #2: CLOSED DURING NORMAL OPERATION, OPEN WHEN IN TAP WATER BYPASS.
VALVE #3: SERVICE VALVES. OPEN UNLESS EQUIPMENT IS BEING SERVICED.

* COLOR CODE VALVES FOR EASIER IDENTIFICATION.

2 MRI CHILLER PIPING SCHEMATIC
NO SCALE



3 LOUVER-INTAKE AIR DETAIL
NO SCALE



4 HEAT TRAP DETAIL
NO SCALE

MECHANICAL SYMBOLS

- CW — COLD WATER PIPE
- SAN — UNDERFLOOR WASTE PIPE
- ST — UNDERFLOOR STORM PIPE
- OST — UNDERFLOOR OVERFLOW STORM PIPE
- HWS — HOT WATER HEATING SUPPLY
- CWS — CHILLED WATER SUPPLY PIPE
- CS — CONDENSER WATER SUPPLY PIPE
- RL — REFRIGERANT LIQUID PIPE
- O — OXYGEN PIPE
- NO — NITROUS OXIDE PIPE
- OXYGEN OUTLET
- NITROUS OXIDE OUTLET
- D — EQUIPMENT DRAIN
- F — FIRE SPRINKLER PIPE
- PENDANT TYPE SPRINKLER HEAD
- CONCEALED SPRINKLER HEAD
- PIPE CONNECTION
- ELBOW DOWN
- ELBOW UP
- TEE DOWN
- PIPE PITCH DOWN
- DIRECTION OF FLOW
- PIPE ANCHOR
- REDUCER OR INCREASER
- UNION
- FLEXIBLE PIPE CONNECTION
- WH — WALL HYDRANT
- HB — HOSE BIB
- CO — CLEAN OUT ABOVE FLOOR
- WCO — WALL CLEAN OUT
- CO — CLEAN OUT IN FLOOR
- FD — FLOOR DRAIN
- FS — FLOOR SINK
- HW — HOT WATER PIPE
- SAN — ABOVE FLOOR WASTE PIPE
- ST — ABOVE FLOOR STORM PIPE
- OST — ABOVE FLOOR OVERFLOW STORM PIPE
- HWR — HOT WATER HEATING RETURN
- CWR — CHILLED WATER RETURN PIPE
- CR — CONDENSER WATER RETURN PIPE
- RS — REFRIGERANT SUCTION PIPE
- VAC — CLINICAL AND LAB VACUUM
- N — NITROGEN PIPE
- CLINICAL AND LAB VACUUM OUTLET
- NITROGEN OUTLET
- UPRIGHT SPRINKLER HEAD
- POST INDICATOR VALVE
- AIR VENT
- FM — FLOW MEASURING DEVICE
- EXPANSION JOINT, PIPE GUIDE
- CAPPED OUTLET
- SHUT OFF VALVE
- BALANCING VALVE
- CONTROL VALVE
- 3-WAY CONTROL VALVE
- PRESSURE REDUCING VALVE
- PRESSURE RELIEF VALVE
- DOMESTIC WATER TEMPERING VALVE
- CHECK VALVE
- RD — ROOF DRAIN
- ORD — OVERFLOW ROOF DRAIN
- AD — AREA DRAIN
- CONNECT TO EXIST. SERVICE
- RHW — CIRCULATING HOT WATER PIPE
- V — VENT PIPE
- HG — HOT GAS
- GE — GAS EVACUATION PIPE
- A — CLINICAL AND LAB AIR PIPE
- GAS EVACUATION OUTLET
- CLINICAL AIR OUTLET
- FDH — FIRE DEPT. HOSE VALVE
- RECESSED SPRINKLER HEAD
- FLOW ALARM
- PRESSURE/TEMPERATURE TAP
- PRESSURE GAUGE
- STATIC PRESSURE SENSOR
- THERMOMETER
- STRAINER
- STEAM TRAP
- BACK FLOW PREVENTER
- FLOW CONTROL VALVE
- STRAINER VALVE
- PRESSURE SENSOR DIFFERENTIAL
- T — THERMOSTAT
- H — HUMIDISTAT
- FS — FLOW SWITCH
- DEMOLITION HATCHING

VENTILATION SYMBOLS

- SUPPLY DUCT (UP & DOWN)
- RETURN DUCT (UP & DOWN)
- EXHAUST DUCT (UP & DOWN)
- W — STANDARD RADIUS ELBOW R EQUAL W (MINIMUM)
- DUCT TURN WITH TURN VANES
- FLEXIBLE DUCT CONNECTION
- SPIRAL DUCTWORK
- LOW PRESURE DUCTWORK MAX 2" W.G. PRESSURE
- MEDIUM PRESSURE DUCTWORK 2"-6" W.G. PRESSURE
- [F] [S] [C] [M] [B] — F - FIRE DAMPER M - MOTORIZED DAMPER S - SMOKE DAMPER B - BACKDRAFT DAMPER C - COMBINATION FIRE SMOKE DAMPER
- MANUAL VOLUME DAMPER
- BRANCH DUCT INTO SIDE OF MAIN DUCT (1/2 A)
- R OR D — DUCT RISE OR DROP IN DIRECTION OF AIR FLOW
- 12/8 — DUCT DIMENSION- WIDTH x DEPTH
- DUCT INSULATION (SEE SPECIFICATION)
- DUCT TURN AND AIR SPLIT TYPE TAKEOFF (NON-ADJUSTABLE)
- S-1 / 200 — TYPE OF EQUIP / CFM — GRILLE, REGISTER & DIFFUSER DESIGNATION SUPPLY, RETURN, EXHAUST, & TRANSFER
- EF / 1 — TYPE OF EQUIP / EQUIP. NO. — EQUIPMENT DESIGNATION
- FLEX DUCT (5' MAXIMUM)

Revision#	Description	Date:

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VA U.S. Department of Veterans Affairs

Drawing Title: MECHANICAL DETAILS, SCHEDULES & SYMBOLS
Phase: FINAL CONTRUCTION DOCUMENTS
Project Title: MRI SITE PREP FOR FT. MEADE / HOT SPRINGS VAMC
Project Number: VA #568-CSI-301 SGA #201910
Building Number: 165 & 12
Approved:
Location: FT. MEADE/HOT SPRINGS, SD
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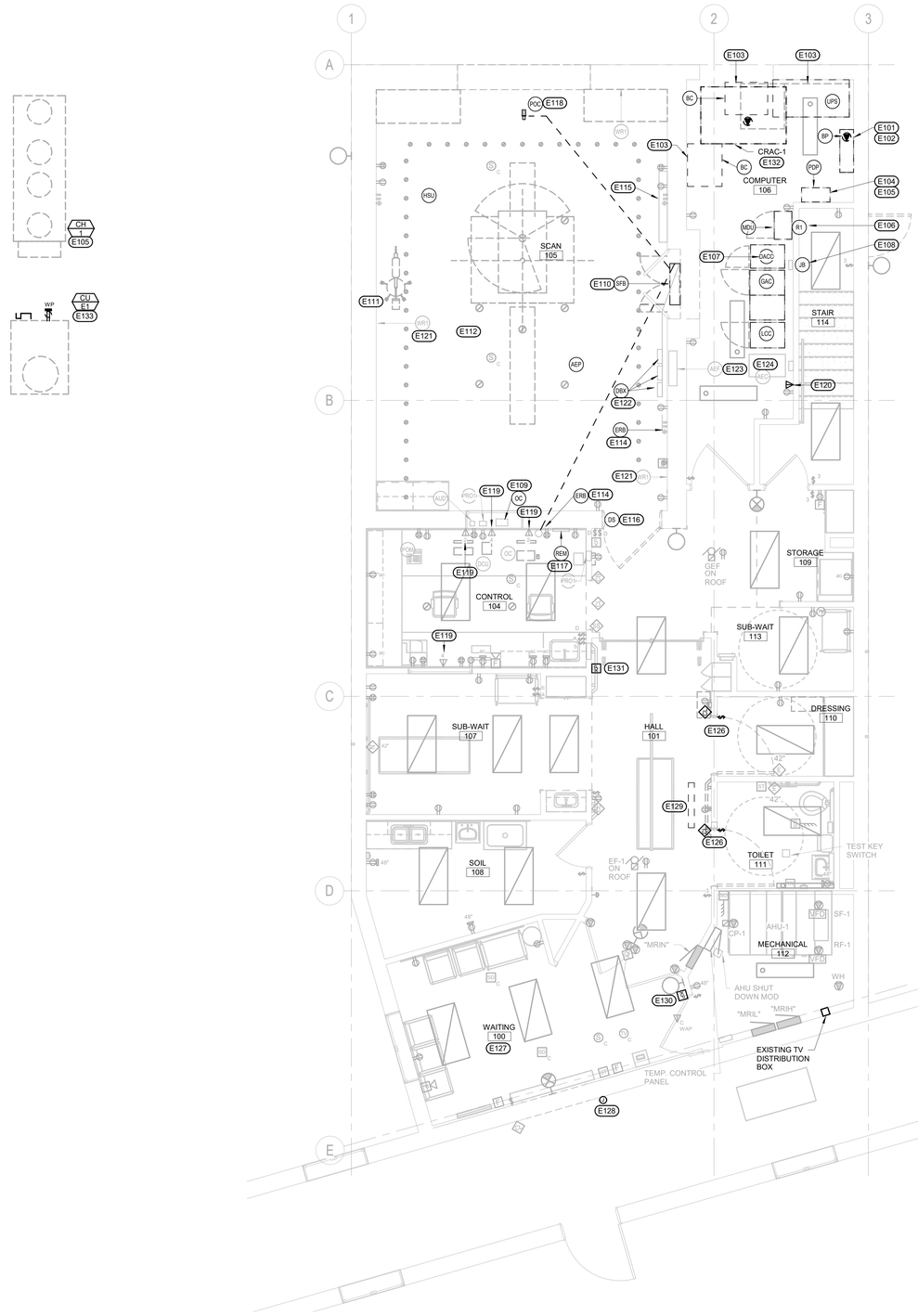
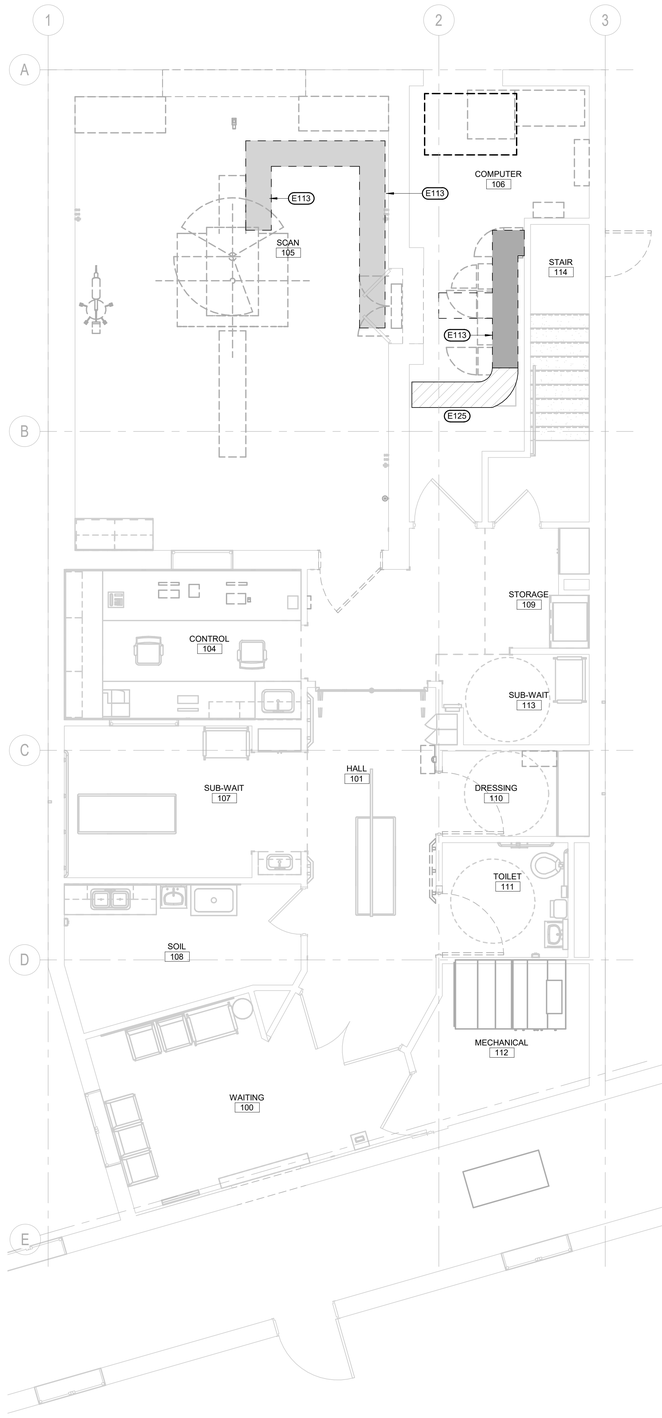
VA FORM 08 - 6231

C:_SGA Revit Local\BR20\12-FT MEADE MRI-MEP20-CENTRAL_detached_detached_jsosek.rvt
11/5/2020 3:22:54 PM
three inches = one foot
one and one half inches = one foot
one inch = one foot
three quarters inch = one foot
one half inch = one foot
three eighths inch = one foot
one quarter inch = one foot
one eighth inch = one foot



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



2 ABOVE CEILING - ELECTRICAL DEMOLITION PLAN
1/4" = 1'-0"

ELECTRICAL MISCELLANEOUS NOTES

A ALL FIXTURES, DEVICES AND EQUIPMENT SHOWN ON THIS PLAN ARE BASED ON OWNER'S EXISTING PLANS AND ON-SITE REVIEW OF THE FACILITY. QUANTITIES, TYPES, AND LOCATIONS OF ITEMS SHOWN ARE BELIEVED TO BE ACCURATE. HOWEVER, THE ELECTRICAL CONTRACTOR NEEDS TO CONDUCT THEIR OWN ON SITE REVIEW OF THE EXISTING CONDITIONS PRIOR TO BIDDING. THE ELECTRICAL CONTRACTOR WILL BE RESPONSIBLE FOR THE REMOVAL AND/OR RELOCATION OF ALL ITEMS TO ACCOMMODATE THE REMODEL PROJECT.

B ALL ITEMS SHOWN IN DARK PEN ARE TO BE REMOVED OR TREATED AS SPECIFICALLY NOTED OR DESCRIBED ELSEWHERE IN THE CONSTRUCTION DOCUMENTS.

C A THIRD-PARTY VENDOR IS TAKING THE EXISTING PHILIPS MRI AND MOST OF THE ASSOCIATED EQUIPMENT. THIS THIRD-PARTY VENDOR HAS THE RIGHT TO TAKE THE FOLLOWING ADDITIONAL ITEMS IF THEY WANT: BY-PASS SWITCH (BP); UPS AND ASSOCIATED BATTERY CABINETS (BC); POWER DISTRIBUTION PANEL (PDP); MAIN DISTRIBUTION UNIT (MDU); DATA ACQUISITION AND CONTROL CABINET (DACC); OPERATOR CONSOLE (OC); INJECTOR HEAD STAND UNIT (HSU); SYSTEM FILTER BOX (SFB); GRADIENT AMPLIFIER CABINET (GAC); AND LIQUID COOLING CABINET (LCC). IF THIS THIRD PARTY DOES NOT WANT ANY OR ALL OF THESE ITEMS THEN THE CONTRACTOR WILL BE RESPONSIBLE FOR DISPOSAL OF THOSE ITEMS. CONTRACTOR IS TO ENSURE THAT AS PART OF DEMOLITION THESE ITEMS WILL NOT BE DAMAGED AND SHOULD BE USABLE BY THE THIRD-PARTY VENDOR SHOULD THEY WANT THEM.

ELECTRICAL SPECIFIC NOTES

(#)

E101 CONTRACTOR TO INTERCEPT EXISTING FEEDER TO BY-PASS SWITCH (BP) IN THE CRAWL SPACE AND REROUTE TO UPS AS SHOWN IN REVISED POWER ONE-LINE DIAGRAM.

E102 CONTRACTOR TO DEMO EXISTING BY-PASS SWITCH (BP) AS WELL AS CONDUITS AND FEEDERS TO UPS AND POWER DISTRIBUTION PANEL (PDP). SEE MISCELLANEOUS NOTE C THIS SHEET.

E103 CONTRACTOR TO DEMO EXISTING UPS AND BOTH BATTERY CABINETS (BC) AS WELL AS CONDUITS AND FEEDERS TO THEM. SEE MISCELLANEOUS NOTE C THIS SHEET.

E104 CONTRACTOR TO DEMO EXISTING POWER DISTRIBUTION PANEL (PDP) AS WELL AS CONDUITS AND FEEDERS TO IT. SEE MISCELLANEOUS NOTE C THIS SHEET. THE EXISTING CONDUIT THAT FEEDS THE EXISTING CHILLER (CH) IS A 1-1/4" CONDUIT THAT EXTENDS FROM PDP INTO THE CRAWL SPACE BELOW AND OUT TO THE CHILLER. THIS RACEWAY MAYBE REUSED TO THE EXTENT POSSIBLE TO FEED THE NEW WATER CHILLER (WCH).

E105 CONTRACTOR TO DISCONNECT POWER TO EXISTING CHILLER (CH) SO IT CAN BE DEMOED AND REMOVED. THE EXISTING FEEDER TO THE EXISTING CHILLER (CH) SHALL BE INTERCEPTED AND MODIFIED/EXTENDED TO FEED THE NEW WATER CHILLER (WCH) AT LOCATION SHOWN ON SITE PLAN.

E106 CONTRACTOR TO DEMO EXISTING POWER TO MAIN DISTRIBUTION UNIT (MDU) AS WELL AS CONDUITS AND FEEDERS TO IT. SEE MISCELLANEOUS NOTE C THIS SHEET. CONTRACTOR TO ALSO DEMO VERTICAL CABLE LADDER TRAY (R1) THAT EXTENDS FROM MDU TO CABLE TRAY (CR3).

E107 CONTRACTOR TO DEMO EXISTING DATA ACQUISITION AND CONTROL CABINET (DACC) AS WELL AS ASSOCIATED CABLES. SEE MISCELLANEOUS NOTE C THIS SHEET.

E108 EXISTING JUNCTION BOX (JB) IS 10" (250MM)W X 10" (250MM)H X 6" (150MM)D WALL BOX WITH REMOVABLE SCREW-TYPE COVERPLATE SURFACE MOUNTED ABOVE EXISTING CABLE TRAY 2 (CR2). THERE IS AN EXISTING 3.5" CONDUIT FROM IT TO OPERATOR CONSOLE (OC) IN THE CONTROL ROOM. THERE IS ALSO AN EXISTING 1" CONDUIT FROM IT TO INJECTOR HEAD STAND UNIT (HSU) FOR A FIBER OPTIC CABLE. CONTRACTOR TO REMOVE ALL CABLES FROM BOTH CONDUITS.

E109 EXISTING OPERATOR CONSOLE (OC) IS A 10" (250MM)W X 10" (250MM)H X 6" (150MM)D WALL BOX WITH REMOVABLE SCREW-TYPE COVERPLATE FLUSH MOUNTED AT 12" AFF TO BOTTOM OF BOX AT OPERATOR'S CONSOLE (OC). THERE IS AN EXISTING 3.5" CONDUIT FROM OC TO JB IN COMPUTER ROOM. CONDUIT IS ROUTED OUTSIDE OF RF ENCLOSURE. CONTRACTOR TO REMOVE ALL CABLES FROM BOTH CONDUITS.

E110 EXISTING SYSTEM FILTER BOX (SFB) FOR PHILIPS SYSTEM TO BE REMOVED AND REPLACED BY SIEMENS F1 FILTER BOX. SEE MISCELLANEOUS NOTE C THIS SHEET. ALL EXISTING WIRES AND CABLES THAT ARE ROUTED THROUGH THIS FILTER BOX ARE TO BE REMOVED.

E111 EXISTING INJECTOR HEAD STAND UNIT (HSU) TO BE REMOVED ALONG WITH EXISTING FIBER OPTIC CABLE. SEE MISCELLANEOUS NOTE C THIS SHEET.

E112 A GOOD SHARE OF THE EXISTING CEILING IN SCAN 105 WILL BE REMOVED AND THEN REINSTALLED TO ASSIST WITH THE INSTALLATION OF THE NEW MRI EQUIPMENT AND NEW CABLE TRAYS. THE ELECTRICAL CONTRACTOR WILL NEED TO REMOVE AND REINSTALL ANY AND ALL ELECTRICAL/SIGNAL ITEMS AS NECESSARY TO ACCOMMODATE THIS WORK.

E113 EXISTING CABLE TRAYS ABOVE THE CEILING IN SCAN 105 AND COMPUTER 106 IS TO BE REMOVED. THERE ARE TWO CABLE TRAYS ONE ABOVE THE OTHER IN COMPUTER 106. NEW CABLE TRAYS WILL BE INSTALLED AS SHOWN IN REVISED PLAN LAYOUT.

E114 EXISTING EMERGENCY RUN DOWN BUTTONS (ERB) CONSIST OF A 2" (50MM)W X 4" (100MM)H X 2" (50MM)D WITH REMOVABLE SCREW-TYPE COVER PLATE FLUSH MOUNTED AT 70" AFF TO BOTTOM OF BOX AT LOCATIONS SHOWN. THERE IS 3/4" ALUMINUM CONDUIT FROM EACH ERB LOCATION TO SYSTEM FILTER BOX (SFB) FOR CABLES. CONDUITS ARE ROUTED UNDER FLOOR IN CRAWL SPACE. THESE BOXES ARE TO BE REUSED FOR THE NEW EMERGENCY POWER OFF (EPO) BUTTONS AS CALLED IN THE REVISED DRAWINGS.

E115 THIS IS THE LOCATION OF THE EXISTING PP-IMEDCO RF FILTER BOX. ALL OF THE WIRES AND CABLES NOT SPECIFICALLY ASSOCIATED WITH THE PHILLIPS EQUIPMENT SUCH AS WIRE AND CABLE FOR RECEPTACLES, DATA, NURSE CALL, FIRE ALARM, ETC ARE RAN THROUGH FILTERS IN THIS BOX. ANY ITEMS TO CALLED OUT TO BE REMOVED OR CHANGED SHALL BE DONE IN A MANNER TO PROTECT EXISTING FILTER BOX AND ENSURE REMAINING ITEMS ARE OPERATIONAL.

E116 EXISTING DOOR SWITCH (DS) WILL REMAIN. THERE IS AN EXISTING 1/2" CONDUIT FROM DS TO DATA ACQUISITION AND CONTROL CABINET (DACC) IN COMPUTER 106. THIS CONDUIT WILL NEED TO BE REROUTED AS NOTED IN THE REVISED DRAWINGS.

E117 EXISTING CABLES FROM REMOTE CHILLER CONTROLLER (REM) TO BE REMOVED FROM EXISTING 1/2" CONDUIT TO EXISTING CHILLER (CH). THIS CONDUIT WILL BE REUSED FOR NEW CABLES CONTROL CABLES FROM NEW CHILLER REMOTE CONTROL/STATUS PANEL (WCS) TO NEW WATER CHILLER (WCH) AS NOTED IN THE REVISED DRAWINGS. THE EXISTING REM ALSO HAS A 3/4" CONDUIT WITH FOUR #16 THHN STRANDED WIRES TO THE SECURITY PANEL IN ROOM B148 OF BUILDING 113. THESE WIRES NEED TO REMAIN AND SEND ALARM CONDITION TO THE SECURITY PANEL. THIS CONDUIT AND THESE WIRES COMBINE IN THE CRAWL SPACE WITH THE WIRES AND CONDUIT NOTED IN NOTE E132 INTO A SINGLE 3/4" CONDUIT TO ROOM B14B.

E118 EXISTING PATIENT OBSERVATION CAMERA (POC) TO BE REMOVED ALONG WITH 1" CONDUIT THAT RUNS TO SYSTEM FILTER BOX (SFB).

E119 CONTRACTOR TO REMOVE ALL EXISTING CAT 5E CABLES AT THESE DATA OUTLETS. THESE CABLE WILL BE REPLACED WITH NEW CAT 6A CABLES AS INDICATED IN THE REVISED DRAWINGS.

E120 CONTRACTOR TO DEMO EXISTING DATA OUTLET AT THIS LOCATION. CONDUIT FROM THIS ROOM TO THE TELECOM CLOSET MAYBE REUSED TO THE EXTENT POSSIBLE FOR THE NEW DATA OUTLET BEING INSTALLED ON WEST WALL OF COMPUTER 106 AS INDICATED IN THE REVISED DRAWING LAYOUT.

E121 EXISTING WALL RACEWAY (WR1) TO REMAIN AS IT SUPPORTS EXISTING LED LIGHTING SYSTEM.

E122 EXISTING DISTRIBUTION BOXES (DBX) ARE TO REMAIN AND ARE PART OF THE LED LIGHTING SYSTEM.

E123 EXISTING AMBIENT EXPERIENCE FILTER BOX (AEF) TO REMAIN.

E124 EXISTING AMBIENT EXPERIENCE CABINET (AEC) TO REMAIN.

E125 THERE ARE TWO CABLE TRAYS ONE ABOVE THE OTHER AT THIS LOCATION. BOTH CABLE TRAYS IN THE HIGHLIGHTED AREA WILL NEED TO REMAIN AND CONTINUE TO HOLD SOME EXISTING CABLE RELATED TO THE AMBIENT EXPERIENCE SYSTEM.

E126 THE DOORS INTO DRESSING 110 AND TOILET 111 ARE BEING DEMOED AND WIDENED AS A RESULT THE LIGHT SWITCH INSIDE OF EACH ROOM WILL NEED TO MOVED AND THE NURSE CALL LIGHT WILL NEED TO BE RELOCATED. A NEW FERROUS DETECTOR WILL ALSO BE ADDED AROUND THE DOOR INTO DRESSING 110. THE NURSE CALL LIGHT WILL ALSO NEED TO BE CLEAR OF THAT DEVICE. CONTRACTOR WILL NEED TO PROVIDE FOR MODIFICATIONS TO CONDUIT, CABLE AND WIRES TO THESE SYSTEMS TO ENSURE PROPER OPERATION AFTER THE PROJECT IS COMPLETE.

E127 THE CEILING WITHIN WAITING 100 WILL NEED TO BE REMOVED AND REINSTALLED AS PART OF THIS PROJECT TO REROUTE SOME DUCT WORK FROM MECHANICAL 112 TO THE WEST WALL OF WAITING 100. THE ELECTRICAL CONTRACTOR WILL NEED TO ASSIST WITH REMOVAL OF POWER AND OTHER CONNECTIONS TO CEILING MOUNTED ITEMS AS WELL AS ASSISTING WITH THE TEMPORARY REMOVAL AND REINSTALLATION OF THESE ITEMS. SOME MODIFICATIONS TO CONDUIT AND CABLING MAYBE NECESSARY TO ASSIST WITH THE REROUTING OF THE DUCT WORK. THE ELECTRICAL CONTRACTOR WILL BE RESPONSIBLE FOR THESE MODIFICATIONS. IT IS LIKELY THAT THREE RUNS OF TV RG-6 COAX THAT TERMINATE IN MECHANICAL 112 WILL NEED TO BE REPULLED WITH NEW CABLE TO TV LOCATIONS WITHIN THE MRI SUITE OF ROOMS.

E128 THERE IS AN EXISTING SURFACE MOUNTED FIRE ALARM JUNCTION BOX INSTALLED ON THE RIGHT SIDE OF THE DOOR GOING INTO WAITING 100. THIS JUNCTION BOX IS FED BY WAY OF TWO SURFACE MOUNTED WIREWAYS. THE JUNCTION BOX WILL NEED TO BE RAISED. THERE IS ALSO A CONDUIT THAT EXTENDS OUT OF THE BACK OF THE JUNCTION BOX THAT FEEDS THE STROBE ON THE OTHER SIDE OF THE WALL INSIDE OF WAITING 100. THE CONTRACTOR WILL NEED TO RELOCATE THIS CONDUIT AS WELL. THE FIRE ALARM CABLE WILL NEED TO REPLACED AND REWIRED TO ASSIST WITH THIS MODIFICATION. THE FIRE ALARM SYSTEM WILL THEN NEED TO BE TESTED IN ACCORDANCE WITH NFPA 72 ONCE WORK IS COMPLETED.

E129 THERE IS AN EXISTING FERROUS DETECTOR MOUNTED BETWEEN THE DOORWAYS. THIS DETECTOR HAS A CONTROL BOX MOUNTED TO THE WALL NEAR THE BOTTOM OF THE DETECTOR. THIS CONTROL BOX PLUGS INTO THE WALL. THE ELECTRICAL CONTACTOR WILL ASSIST WITH REMOVAL OF THIS FERROUS DETECTOR.

E130 EXISTING KEYPAD IS USED TO FOR DOOR OPERATOR FOR DOUBLE DOORS BETWEEN WAITING 100 AND HALL 101. THIS KEYPAD TO BE DEMOED AND REPLACED WITH A CARD READER/KEYPAD COMBINATION AS INDICATED ON REVISED PLANS.

E131 EXISTING KEYPAD IS USED TO FOR DOOR OPERATOR FOR BIFOLD DOORS BETWEEN HALL 101 AND CONTROL 104 AREA. THIS KEYPAD TO BE DEMOED AND REPLACED WITH A CARD READER/KEYPAD COMBINATION AS INDICATED ON REVISED PLANS.

E132 THE EXISTING CRAC-1 UNIT IS BEING DEMOED AND A NEW FLOOR MOUNTED UNIT INSTALLED. CONTRACTOR TO ASSIST WITH DEMOLITION BY REMOVING POWER. THIS UNIT ALSO HAS A 3/4" CONDUIT WITH FOUR #16 THHN STRANDED WIRES TO THE SECURITY PANEL IN ROOM B14B OF BUILDING 113. THESE CONDUCTORS WILL NEED TO DISCONNECTED AND WILL NEED TO TIE TO THE NEW CRAC UNIT. CONTRACTOR WILL NEED TO MODIFY/EXTEND EXISTING CONDUIT AND CONDUCTORS TO MAKE THIS CONNECTION. THIS CONDUIT AND THESE WIRES COMBINE IN THE CRAWL SPACE WITH THE WIRES AND CONDUIT NOTED IN NOTE E117 INTO A SINGLE 3/4" CONDUIT TO ROOM B14B.

E133 CONTRACTOR TO DEMO EXISTING POWER AND DISCONNECT FOR EXISTING CU-2 THAT SERVES CRAC-1. EXISTING POWER IS FROM MRI-MDP PANEL THAT IS LOCATED OUTSIDE THE BUILDING TO THE NORTHWEST OF THE MRI ADDITION. THERE IS ALSO AN EXISTING WEATHER PROOF GFI RECEPTACLE INSTALLED AT CU-2 THAT WILL NEED TO BE DISCONNECTED AND REINSTALLED WITH INSTALLATION OF THE NEW CU-2 UNIT.

Revision#	Description	Date:

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10/26/2020

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: 1ST LEVEL ELECTRICAL DEMOLITION PLAN

Phase: FINAL CONTRUCTION DOCUMENTS

Approved:

Project Title: MRI SITE PREP FOR FT. MEADE / HOT SPRINGS VAMC

Project Number: VA #568-CSI-301 SGA #201910

Building Number: 165 & 12

Location: FT. MEADE/HOT SPRINGS, SD

Issue Date: 11/04/2020

Checked: MRS

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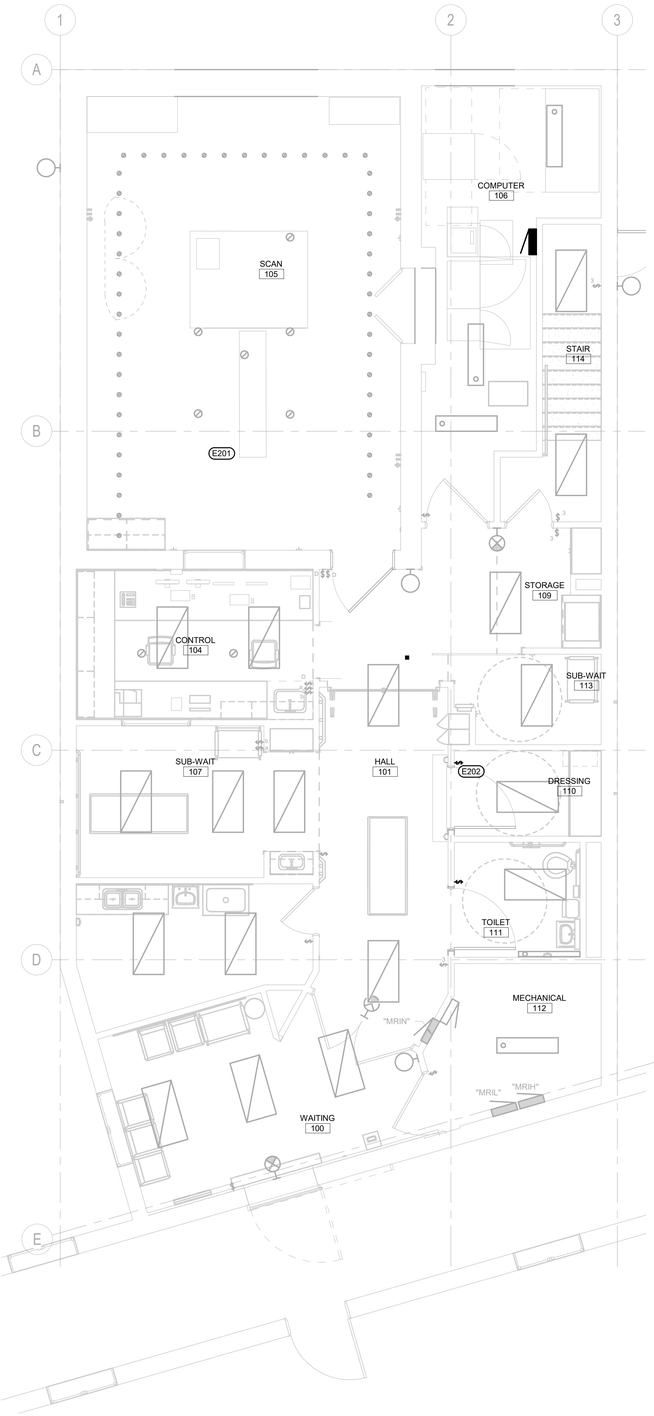

1 1ST LEVEL LIGHTING PLAN
1/4" = 1'-0"

ELECTRICAL MISCELLANEOUS NOTES

A CONTRACTOR SHALL REVIEW SIEMENS MRI INSTALLATION DRAWINGS PRIOR TO BIDING. ALL WORK SHALL BE COORDINATED WITH THESE DRAWINGS. ALL ITEMS CALLED OUT TO BE CUSTOMER/CONTRACTOR OR CONTRACTOR INSTALLED ARE TO BE INSTALLED AS PART OF THIS PROJECT BY THE CONSTRUCTION CONTRACTORS.

B ALL CONDUIT AND JUNCTION BOXES INSTALLED WITHIN THE RF ENCLOSURE SHALL BE ALUMINUM. JUNCTION BOXES SHALL HAVE ALUMINUM OR STAINLESS STEEL COVERS (NON-FERROUS CONTAINING) WITH STAINLESS STEEL SCREW. ELECTRICAL RACEWAY SHALL BE INSTALLED WITH REMOVABLE COVERS. THE RACEWAY SHALL BE ACCESSIBLE FOR THE ENTIRE LENGTH EXCEPT WHERE EXTENDING TO ABOVE ACCESSIBLE CEILING OR TO ACCESSIBLE FLOOR WITHIN WALLS. JUNCTION BOXES SHALL BE INSTALLED IN SUCH A MANNER THAT CABLES WILL NOT FALL OUT OF THE BOX WHEN THE COVERS ARE REMOVED. RACEWAY ABOVE CEILING MUST BE KEPT AS NEAR TO THE FINISHED CEILING AS POSSIBLE BUT STILL ALLOW REMOVAL OF CEILING TILE AND OTHER ITEMS MOUNTED IN CEILING. ALL EMPTY RACEWAYS SHALL HAVE A GREENLEE PULL STRING/MEASURING TAPE (PART NO. 435, OR EQUIVALENT) INSTALLED.

C ALL SECTIONS OF RACEWAY AND CONDUIT ASSOCIATED WITH THE INSTALLATION OF THE NEW MRI UNIT SHALL BE GROUNDED WITH AN INDEPENDENT #6 AWG GREEN WIRE THAT IS TO BE ATTACHED USING SOLDERLESS LUGS. ALL CEILING MOUNTED STRUCTURAL SUPPORT MEMBERS AND CEILING PLATES SHALL ALSO BE GROUNDED. ALL GROUNDING CONNECTIONS, TERMINALS, ETC SHALL BE INSTALLED IN A MANNER TO PROVIDE ACCESSIBILITY FOR INSPECTION, MAINTENANCE, REPAIR, ETC.

D ALL CIRCUITS ENTERING THE MRI ROOM MUST BE ROUTED THROUGH AN ELECTRICAL FILTER SUPPLIED AND INSTALLED BY THE ELECTRICAL CONTRACTOR. ALL CIRCUITS ENTERING THE RF ENCLOSURE FOR LIGHTS AND RECEPTACLES SHALL HAVE A GROUND WIRE SIZED PER NEC FROM THE PANEL TO THE DEVICES AS WELL AS A #8 BOND WIRE INSTALLED FROM THE PROTECTIVE EARTH (PE) GROUND BUS BAR AND TO THE SPECIFIC DEVICES.

(#) ELECTRICAL SPECIFIC NOTES

E201 A GOOD SHARE OF THE EXISTING CEILING IN SCAN 105 WILL BE REMOVED AND THEN REINSTALLED TO ASSIST WITH THE INSTALLATION OF THE NEW MRI EQUIPMENT AND NEW CABLE TRAYS. THE ELECTRICAL CONTRACTOR WILL NEED TO REMOVE AND REINSTALL ANY AND ALL ELECTRICAL/SIGNAL ITEMS AS NECESSARY TO ACCOMMODATE THIS WORK.

E202 WHEN CONTRACTOR RELOCATES THE LIGHT SWITCH IN DRESSING 110 COORDINATE FINAL LOCATION WITH FERRO DETECTOR SYSTEM TO ENSURE THE CONDUIT, WIRING AND SWITCH DO NOT INTERFER WITH THE DETECTOR SYSTEM.

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	1ST LEVEL LIGHTING PLAN
Phase	FINAL CONTRUCTION DOCUMENTS
Approved:	
Project Title	MRI SITE PREP FOR FT. MEADE / HOT SPRINGS VAMC
Project Number	VA #568-CSI-301 SGA #201910
Building Number	165 & 12
Location	FT. MEADE/HOT SPRINGS, SD
Issue Date	11/04/2020
Checked	MRS
Drawn	VLS
Drawing Number	FM-EE102

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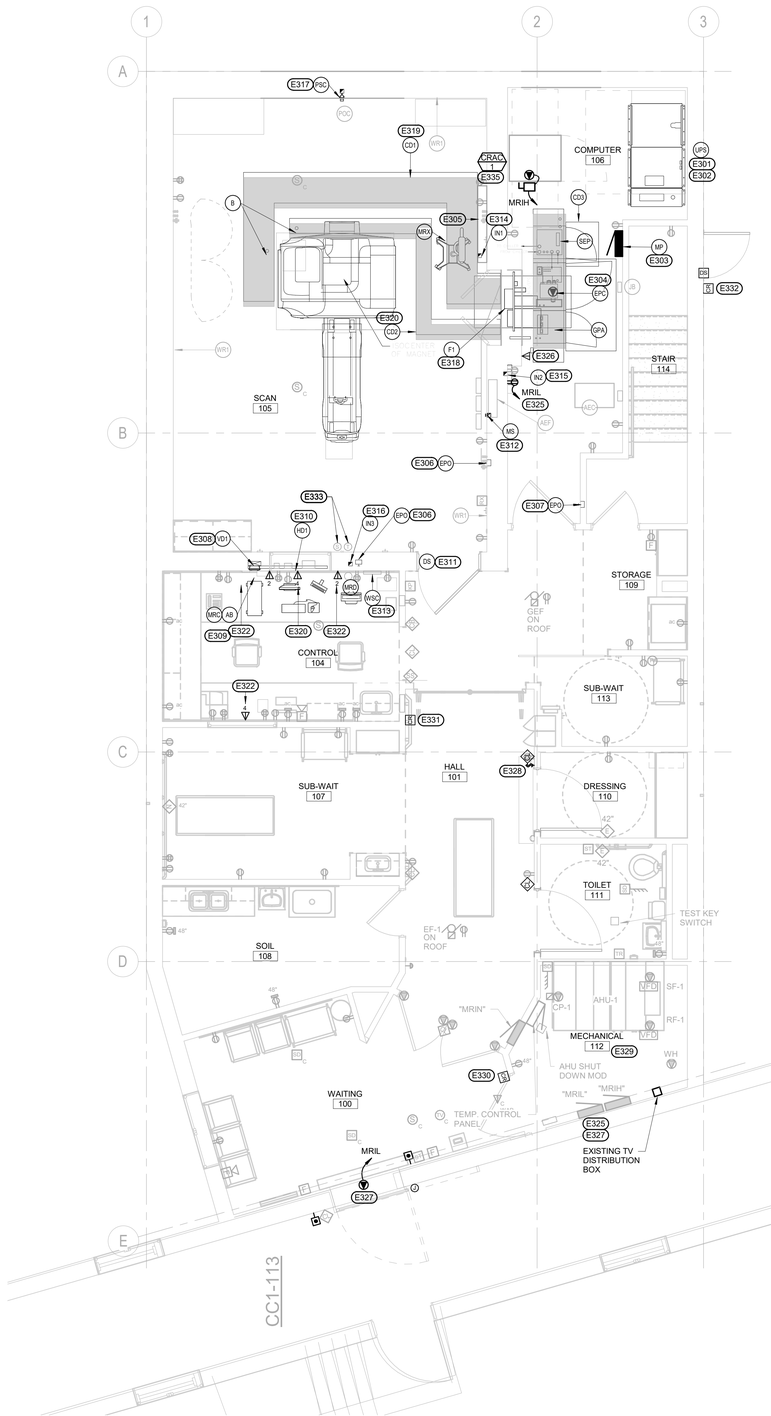

1 1ST LEVEL POWER & SIGNAL PLAN
1/4" = 1'-0"

ELECTRICAL MISCELLANEOUS NOTES

A CONTRACTOR SHALL REVIEW SIEMENS MRI INSTALLATION DRAWINGS PRIOR TO BIDING. ALL WORK SHALL BE COORDINATED WITH THESE DRAWINGS. ALL ITEMS CALLED OUT TO BE CUSTOMER/CONTRACTOR OR CONTRACTOR INSTALLED ARE TO BE INSTALLED AS PART OF THIS PROJECT BY THE CONSTRUCTION CONTRACTORS.

B ALL CONDUIT AND JUNCTION BOXES INSTALLED WITHIN THE RF ENCLOSURE SHALL BE ALUMINUM. JUNCTION BOXES SHALL HAVE ALUMINUM OR STAINLESS STEEL COVERS.(NON-FERROUS CONTAINING) WITH STAINLESS STEEL SCREW. ELECTRICAL RACWAY SHALL BE INSTALLED WITH REMOVABLE COVERS. THE RACEWAY SHALL BE ACCESSIBLE FOR THE ENTIRE LENGTH EXCEPT WHERE EXTENDING TO ABOVE ACCESSIBLE CEILING OR TO ACCESSIBLE FLOOR WITHIN WALLS. JUNCTION BOXES SHALL BE INSTALLED IN SUCH A MANNER THAT CABLES WILL NOT FALL OUT OF THE BOX WHEN THE COVERS ARE REMOVED. RACEWAY ABOVE CEILING MUST BE KEPT AS NEAR TO THE FINISHED CEILING AS POSSIBLE BUT STILL ALLOW REMOVAL OF CEILING TILE AND OTHER ITEMS MOUNTED IN CEILING. ALL EMPTY RACEWAYS SHALL HAVE A GREENLEE PULL STRING(MEASURING TAPE (PART NO. 435, OR EQUIVALENT) INSTALLED.

C ALL SECTIONS OF RACEWAY AND CONDUIT ASSOCIATED WITH THE INSTALLATION OF THE NEW MRI UNIT SHALL BE GROUNDED WITH AN INDEPENDENT #6 AWG GREEN WIRE THAT IS TO BE ATTACHED USING SOLDERLESS LUGS. ALL CEILING MOUNTED STRUCTURAL SUPPORT MEMBERS AND CEILING PLATES SHALL ALSO BE GROUNDED. ALL GROUNDING CONNECTIONS, TERMINALS, ETC SHALL BE INSTALLED IN A MANNER TO PROVIDE ACCESSIBILITY FOR INSPECTION, MAINTENANCE, REPAIR, ETC.

D ALL CIRCUITS ENTERING THE MRI ROOM MUST BE ROUTED THROUGH AN ELECTRICAL FILTER SUPPLIED AND INSTALLED BY THE ELECTRICAL CONTRACTOR. ALL CIRCUITS ENTERING THE RF ENCLOSURE FOR LIGHTS AND RECEPTACLES SHALL HAVE A GROUND WIRE SIZED PER NEC FROM THE PANEL TO THE DEVICES AS WELL AS A #8 BOND WIRE INSTALLED FROM THE PROTECTIVE EARTH (PE) GROUND BUS BAR AND TO THE SPECIFIC DEVICES.

ELECTRICAL MISCELLANEOUS NOTES

E ALL DATA AND COMBINATION DATA/TELEPHONE OUTLETS SHALL CONSIST OF 4-11/16 INCH BY 4-11/16 INCH BY 2-1/8 INCH DEEP J-BOX (42 CUBIC INCHES) WITH A SINGLE GANG MUD RING AND A 3/4 INCH CONDUIT TO TELECOM CLOSET TC1A-145 LOCATED ON FIRST FLOOR OF BUILDING 145 ACROSS FROM THE FREIGHT ELEVATOR. CONDUIT TO TELECOM CLOSET SHALL BE ROUTED TO CRAWL SPACE OF MRI ADDITION AND THEN TO CRAWL SPACE UNDER EXISTING CORRIDOR CC1-113. CONDUIT SHALL BE BONDED AT TELECOM CLOSET BY WAY OF #10 CU CONDUCTOR. COMBINATION VOICE/DATA OUTLETS SHALL INCLUDE A FOUR PORT IVORY COLORED MODULAR JACK FACE PLATE WITH RJ-45/8wire MODULAR JACKS RATED CATEGORY 6A QUANTITY OF JACKS ARE BASED ON NUMBER NEXT TO EACH OUTLET. EACH JACK SHALL BE FED BY ITS OWN CATEGORY 6A 4 PAIR PLENUM RATED CABLE. ALL CABLES WILL BE TERMINATED AT EXISTING PATCH PANELS IN THE TELECOM CLOSET TC1A-145. PROVIDE 20 FOOT LOOP WITHIN THE TELECOM CLOSET. WIRING, FACEPLATES, AND JACKS SHALL MATCH VA STANDARD. COORDINATE WITH OWNER. CONTRACTOR SHALL TERMINATE BOTH ENDS AND PROVIDE FOR TESTING IN ACCORDANCE WITH EIA/TIA STANDARDS. PROVIDE DOCUMENTATION OF EACH TEST FOR EACH CABLE AND JACK AT COMPLETION OF PROJECT IN OPERATION AND MAINTENANCE MANUALS.

F EXISTING FIRE ALARM CONTROL PANEL (FACP) IS A SIMPLEX SYSTEM AND IS LOCATED IN ELECTRICAL ROOM 114 OF BUILDING 145. ALL NEW DEVICES SUPPLIED AS PART OF THIS PROJECT MUST BE UL LISTED FOR USE WITH EXISTING PANEL. IF ANY DEVICES ARE REMOVED AND REINSTALLED OR MODIFIED THE FIRE ALARM SYSTEM SHALL BE TESTED AND RECERTIFIED AS REQUIRED BY NFPA 72. COPIES OF ALL TEST REPORTS TO BE INCLUDED WITH OPERATION AND MAINTENANCE MANUALS AT COMPLETION OF PROJECT.

G NURSE CALL AND CODE BLUE DEVICES SHALL BE BY RAULAND-BORG WITH NEW RESPONDER 5 WHERE INDICATED. ANY MODIFICATIONS TO THIS SYSTEM WILL REQUIRE ASSISTANCE FROM THE VENDOR BEACON, (605)721-6865 OR (605)209-1162.

ELECTRICAL SPECIFIC NOTES

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E301	CONTRACTOR TO MODIFY EXISTING CONDUIT AND CONDUCTORS FROM EXISTING TRANSFORMER TO FEED NEW UPS. CONDUITS ENTER THE BUILDING IN THE CRAWL SPACE BELOW AND ARE ACCESSIBLE FOR MOVING TO THE NEW UPS LOCATION.
E302	CONTRACTOR TO INSTALL AND CONNECT UPS SUPPLIED WITH SIEMENS MRI. UPS, MAINTENANCE BYPASS AND ASSOCIATED BATTERY CABINET WILL BE DELIVERED TO THE SITE, THE ELECTRICAL CONTRACTOR TO MOVE AND INSTALL ALL THREE AT LOCATION SHOWN. PLEASE REFER TO ATTACHED SIEMENS AND EATON DOCUMENTS RELATED TO THE EATON 93PM 180KW UPS W/ MAINTENANCE BYPASS AND BATTERY CABINET. UPS W/ MAINTENANCE BYPASS WEIGHS APPROXIMATELY 1751 POUNDS AND THE BATTERY CABINET WEIGHS APPROXIMATELY 4913 POUNDS.
E303	CONTRACTOR TO PROVIDE NEW SURFACE MOUNTED MAIN PANEL (MP) AS SCHEDULED AND PROVIDE CONNECTIONS AS SHOWN. MP SHALL HAVE A MAIN BREAKER THAT IS SHUNT TRIP. THIS BREAKER SHALL BE CONNECTED TO THE EMERGENCY POWER OFF (EPO) BUTTONS SHOWN SUCH THAT THE BREAKER IS SHUNT TRIPPED OFF SHOULD ANY OF THE THREE EPO BUTTONS BE PUSHED.
E304	CONTRACTOR TO PROVIDE CONNECTION OF SIEMENS SUPPLIED ELECTRICAL POWER CABINET (EPC) FROM MAIN PANEL (MP). CONDUIT TO BE ROUTED FROM MP TO CABLE TRAY CD3 WITH FLEX FROM CD3 TO EPC. THERE MUST BE A DIELECTRIC SEPARATION BETWEEN THE CONDUIT AND THE CONNECTION TO THE EPC CABINET.
E305	THIS IS THE LOCATION OF THE EXISTING PP-IMEDCO RF FILTER BOX. ALL OF THE WIRES AND CABLES NOT SPECIFICALLY ASSOCIATED WITH THE PHILLIPS EQUIPMENT SUCH AS WIRE AND CABLE FOR RECEPTACLES, DATA, NURSE CALL, FIRE ALARM, ETC. ARE RAN THROUGH FILTERS IN THIS BOX. ANY ITEMS TO CALLED OUT TO BE REMOVED OR CHANGED SHALL BE DONE IN A MANNER TO PROTECT EXISTING FILTER BOX AND ENSURE REMAINING ITEMS ARE OPERATIONAL. ANY NEW WIRES OR CABLES ADD BY THIS CONTRACTOR INTO SCAN 105 WILL BE REQUIRED TO BE ROUTED THROUGH THIS BOX AND THE ELECTRICAL CONTRACTOR TO PROVIDE FILTERS FOR THOSE WIRES AND/OR CABLES.
E306	EXISTING EMERGENCY RUN DOWN BUTTONS (ERB) CONSIST OF A 2" (50MM)W X 4" (100MM)H X 2" (50MM)D WITH REMOVABLE SCREW-TYPE COVER PLATE FLUSH MOUNTED AT 70" AFF TO BOTTOM OF BOX AT LOCATIONS SHOWN. THERE IS 3/4" ALUMINUM CONDUIT FROM EACH ERB LOCATION TO SYSTEM FILTER BOX (SFB) FOR CABLES. THESE BOXES ARE TO BE REUSED FOR THE NEW EMERGENCY POWER OFF (EPO) BUTTONS AT THESE TWO LOCATIONS. CONDUITS ARE ROUTED UNDER FLOOR IN CRAWL SPACE. THE CONDUIT FOR THE EPO LOCATED IN SCAN 105 WILL NEED TO BE EXTENDED TO EXISTING PP-IMEDCO FILTER BOX AND NEW CABLING RAN THROUGH A NEW RF FILTER PROVIDED BY THIS CONTRACTOR. ALL OF THE EPO'S ARE TO BE TIED TO THE MAIN CIRCUIT BREAKER OF PANEL MP TO SHUNT THE BREAKER OFF WHEN ANY OF THE EPO BUTTONS ARE PUSHED. ALL OF THE EPO'S WILL HAVE NORMALLY CLOSED CONTACTS THAT ARE TO BE WIRED IN SERIES AND CONNECTED TO THE UPS.
E307	CONTRACTOR TO PROVIDE A NEW JUNCTION BOX WITH NEW CONDUIT DOWN TO NEW EPO SWITCH IN THIS ROOM. WIRE EPO SWITCHES AS NOTED IN E305 ABOVE.
E308	CONTRACTOR TO PROVIDE VERTICAL DUCT VD1. VD1 SHALL BE 10" X 3-1/2" FLUSH MOUNTED IN WALL OF CONTROL 104 FROM ABOVE FINISHED CEILING TO FLOOR LINE. PROVIDE WITH REMOVABLE FINISHED COVER. PROVIDE TWO 2-1/2" AND ONE 1-1/2" CONDUITS FROM VD1 TO CABLE TRAY CD3 OUTSIDE OF RF ENCLOSURE.
E309	ALARM BOX (AB) IS A 3" DIAMETER OPENING IN THE FACE OF VERTICAL DUCT VD1 AT 5' ABOVE FINISHED FLOOR.
E310	CONTRACTOR TO PROVIDE HORIZONTAL DUCT HD1. HD1 SHALL BE 4" X 2" SURFACE MOUNTED ON WALL OF CONTROL 104 ALONG FLOOR LINE FOR THE LENGTH SHOWN. PROVIDE WITH REMOVABLE FINISHED COVER. PAINT TO MATCH WALL.
E311	EXISTING DOOR SWITCH (DS) WILL REMAIN. THERE IS AN EXISTING 1/2" CONDUIT FROM DS TO DATA ACQUISITION AND CONTROL CABINET (DACC) IN COMPUTER 106. THIS CONDUIT WILL NEED TO BE REROUTED TO CABLE TRAY CD3 AND NEW CONDUCTORS PULLED TO EPC.
E312	A NEW MAGNETIC STOP (MS) BUTTON TO BE INSTALLED AT THIS LOCATION. CONTRACTOR TO PROVIDE A NON-FERROUS SINGLE GANG BOX MOUNTED FLUSH WITH FINISHED WALL MOUNTED 6'-0" ABOVE FINISHED FLOOR. PROVIDE WITH NYLON COVER WITH GROMMET OUT FRONT FOR CABLE EXIT. CONTRACTOR TO PROVIDE A 3/4" ALUMINUM CONDUIT FROM MS TO CABLE TRAY CD1.

ELECTRICAL SPECIFIC NOTES

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E313	CONTRACTOR TO REUSE EXISTING 1/2" CONDUIT TO EXISTING CHILLER (CH). THIS CONDUIT WILL BE REUSED FOR NEW CONTROL CABLES FROM NEW CHILLER REMOTE CONTROL/STATUS PANEL (WCS) TO NEW WATER CHILLER (WCH). CABLES WILL BE SUPPLIED BY CHILLER MANUFACTURER AND PULLED BY THE ELECTRICAL CONTRACTOR.
E314	CONTRACTOR TO INSTALL A NEW NON-FERROUS PULL BOX MOUNTED FLUSH WITH FINISHED WALL MOUNTED 24" ABOVE FINISHED FLOOR FOR INJECTOR POWER SUPPLY (IN1). THIS LOCATION IS DIFFERENT THAN WHAT IS SHOWN ON THE SIEMENS DRAWINGS AND IS IN THE LOCATION THE OWNER WANTS THIS TO BE LOCATED. PROVIDE WITH NYLON COVER WITH GROMMET OUT FRONT FOR CABLE EXIT. CONTRACTOR TO PROVIDE A 2" ALUMINUM CONDUIT FROM IN1 TO FILTER PANEL F1. CABLES WILL EXTEND FROM IN1 THROUGH F1 TO IN2 IN COMPUTER 106.
E315	CONTRACTOR TO INSTALL A NEW PULL BOX MOUNTED FLUSH WITH FINISHED WALL MOUNTED 24" ABOVE FINISHED FLOOR FOR INJECTOR POWER SUPPLY (IN2). PROVIDE WITH NYLON COVER WITH GROMMET OUT FRONT FOR CABLE EXIT. CONTRACTOR TO PROVIDE A 2" CONDUIT IN COMPUTER 106 FROM F1 TO IN2 AND ANOTHER 2" CONDUIT OUTSIDE OF RF ENCLOSURE FROM IN2 TO IN3.
E316	CONTRACTOR TO INSTALL A NEW PULL BOX MOUNTED FLUSH WITH FINISHED WALL MOUNTED 24" ABOVE FINISHED FLOOR FOR INJECTOR POWER SUPPLY (IN3). PROVIDE WITH NYLON COVER WITH GROMMET OUT FRONT FOR CABLE EXIT. CONTRACTOR TO PROVIDE A 2" CONDUIT OUTSIDE OF RF ENCLOSURE FROM IN2 TO IN3.
E317	CONTRACTOR TO INSTALL A NEW NON-FERROUS PULL BOX FOR PATIENT SUPERVISION CAMERA (PSC). EXACT MOUNTING HEIGHT AND LOCATION TO BE COORDINATED. CONTRACTOR TO PROVIDE A 1" ALUMINUM CONDUIT FROM PSC TO CABLE TRAY CD1.
E318	NEW SIEMENS SUPPLIED AND INSTALLED RF FILTER PANEL (F1) TO BE MOUNTED TO RF SHIELDED WALL. THE SHIELDING CONTRACTOR AND SIEMENS WILL NEED TO COORDINATE THIS INSTALLATION.
E319	CONTRACTOR TO PROVIDE NEW CABLE TRAY CD1. CABLE TRAY SHALL BE 24"X4" ALUMINUM LADDER TRAY, MOUNTED AT HEIGHT COORDINATED WITH SIEMENS PROJECT MANAGER. MAINTAIN 12" CLEARANCE ABOVE THE TRAY FOR ACCESS. CABLE LADDER IS REQUIRED TO SUPPORT INTERCONNECTING CABLES BETWEEN THE FILTER PANEL (F1) AND THE MAGNET. A 15" MINIMUM CLEARANCE IS REQUIRED BETWEEN THE LADDER TRAY AND THE RF FILTER PANEL (F1). WHEN ROUTING ALL RACEWAYS REFER TO DETAIL E-501/2 OF THE SIEMENS DRAWINGS TAKING CARE SO THAT MAXIMUM CABLE LENGTHS ARE NOT EXCEEDED. A 12" SEPARATION BETWEEN CD1 AND CD2 MUST BE MAINTAINED. DO NOT LOCATE THIS CABLE TRAY ABOVE THE MAGNET.
E320	CONTRACTOR TO PROVIDE NEW CABLE TRAY CD2. CABLE TRAY SHALL BE 24"X4" ALUMINUM LADDER TRAY, MOUNTED AT HEIGHT COORDINATED WITH SIEMENS PROJECT MANAGER. MAINTAIN 12" CLEARANCE ABOVE THE TRAY FOR ACCESS. CABLE LADDER IS REQUIRED TO SUPPORT INTERCONNECTING CABLES BETWEEN THE FILTER PANEL (F1) AND THE MAGNET. A 15" MINIMUM CLEARANCE IS REQUIRED BETWEEN THE LADDER TRAY AND THE RF FILTER PANEL (F1). WHEN ROUTING ALL RACEWAYS REFER TO DETAIL E-501/2 OF THE SIEMENS DRAWINGS TAKING CARE SO THAT MAXIMUM CABLE LENGTHS ARE NOT EXCEEDED. A 12" SEPARATION BETWEEN CD1 AND CD2 MUST BE MAINTAINED. DO NOT LOCATE THIS CABLE TRAY ABOVE THE MAGNET.
E322	CONTRACTOR TO REPLACE ALL EXISTING CAT 5E CABLES AT THESE DATA OUTLETS WITH NEW CAT 6A CABLES. QUANTITY OF CABLES AT EACH OUTLET IS NOTED BY THE NUMBER NEXT TO EACH OUTLET WHERE A NUMBER IS NOT SHOWN THERE IS ONE CABLE THAT NEEDS TO BE REPLACED. THESE CABLES EXTEND TO EXISTING TELECOMMUNICATIONS CLOSET T1CA IN BUILDING 145.
E323	CONTRACTOR TO INSTALL NEW CONDUCTORS, FROM NEW PANEL MP, IN EXISTING CONDUIT TO NEW FUSED DISCONNECT FOR WATER CHILLER (WCH). THE EXISTING CONDUIT THAT FEEDS THE EXISTING CHILLER (CH) IS A 1-1/4" CONDUIT THAT EXTENDS FROM PDP PANEL, BEING DEMOED, INTO THE CRAWL SPACE BELOW AND OUT TO THE CHILLER. THIS RACEWAY MAYBE REUSED TO THE EXTENT POSSIBLE TO FEED THE NEW WATER CHILLER (WCH).
E324	CONTRACTOR TO PROVIDE NEW NEMA 3R 100A/3P/FUSED DISCONNECT AT NEW WATER CHILLER (WCH). CONTRACTOR TO FUSE PER MANUFACTURERS REQUIREMENTS. CONTRACTOR TO PROVIDE NEW CONDUIT AND CONDUCTORS FROM FUSED DISCONNECT TO NEW WATER CHILLER (WCH).
E325	CONTRACTOR TO PROVIDE NEW 20A RECEPTACLE NEXT TO IN2 FOR POWER TO INJECTOR POWER SUPPLY. CONTRACTOR TO PROVIDE POWER TO THIS RECEPTACLE FROM SPARE 20A/1P BREAKER IN EXISTING PANEL MRIL LOCATED IN MECHANICAL 112. RECEPTACLE SHALL BE RED WITH RED COVER PLATE WITH THE WORD "EMERGENCY" STENCILED ON THE COVER PLATE TO MATCH OTHER EMERGENCY RECEPTACLES WITHIN MRI AREA. CONNECT USING 2-#12 CU AND 1-#12 CU GND.
E326	CONTRACTOR TO PROVIDE NEW DATA OUTLET WITH ONE CAT 6A CABLE. THE EXISTING CONDUIT BEING USED BY THE DATA OUTLET THAT IS BEING DEMOED ON THE EAST WALL MAYBE USED TO THE EXTENT POSSIBLE FOR THIS NEW DATA OUTLET LOCATION. THIS CABLE SHALL BE TERMINATED IN EXISTING PATCH PANEL IN EXISTING TELECOMMUNICATIONS CLOSET T1CA IN BUILDING 145.
E327	CONTRACTOR TO PROVIDE POWER TO NEW SLIDING DOOR SYSTEM AS WELL AS RACEWAY AND WIRING TO PUSHBUTTONS SUPPLIED WITH DOOR FOR OPERATION. WIREMOLD SYSTEM WILL BE REQUIRED IN THE CC1-113 CORRIDOR FOR THE PUSHBUTTON LOCATED THERE. POWER WILL COME FROM EXISTING 20A/1P BREAKER IN PANEL MRIL.
E328	CONTRACTOR TO PROVIDE POWER TO NEW FERRO DETECTOR SYSTEM INSTALLED IN HALL 101 AT DOOR INTO DRESSING 110. POWER SHALL COME FROM LOCAL RECEPTACLE CIRCUIT THAT IS BEING USED FOR THE EXISTING SYSTEM. COORDINATE INSTALLATION REQUIREMENTS WITH GENERAL CONTRACTOR. CONTRACTOR TO PROVIDE A 20AMP SINGLE POLE SWITCH TO ROUTE POWER THROUGH SWITCH FOR DETECTOR. LABEL SWITCH AS FERRO DETECTOR SWITCH. SEE FERRO DETECTOR INSTALLATION DETAIL FOR INFORMATION.
E329	CONTRACTOR TO PROVIDE NEW JOHNSON CONTROLS 8-READER ACCESS CONTROL PANEL (ACP) IN MECHANICAL 112. CONTRACTOR TO PROVIDE 1 - CAT6A CABLE IN 3/4 INCH CONDUIT FROM THIS NEW ACP BACK TO EXISTING IRM SERVER ROOM TO EXISTING SECURITY PANEL. CONDUIT AND WIRE CAN BE ROUTED INTO THE CRAWL SPACE UNDER THE EXISTING MRI SUITE INTO THE CRAWL SPACE UNDER THE CONNECTOR CORRIDOR TO THE CRAWL SPACE UNDER BUILDING 145 AND THEN TO SPACE BELOW THE IRM SERVER ROOM WHERE IT CAN BE PUNCHED INTO THAT ROOM TO THE SECURITY PANEL. CONTRACTOR TO ALSO PROVIDE POWER TO THE NEW ACP FROM AN EXISTING SPARE 20A/1P BREAKER IN PANEL MRIL.
E330	PROVIDE NEW HID ICLASS SE 921N OR EQUAL COMBINATION CARD READER/KEYPAD FOR DOOR OPERATOR FOR DOUBLE DOORS BETWEEN WAITING 100 AND HALL 101. THIS CARD READER TO BE WIRED TO CONTROL EXISTING DOOR OPERATOR. THE CARD READER WILL BE WIRED BACK TO THE NEW ACP INSTALLED IN MECHANICAL 112. PROVIDE ALL MATERIALS REQUIRED FOR INTERFACE AND CONTROL OF EXISTING DOOR OPERATOR.
E331	PROVIDE NEW HID ICLASS SE 921N OR EQUAL COMBINATION CARD READER/KEYPAD FOR DOOR OPERATOR FOR BIFOLD DOORS BETWEEN HALL 101 AND CONTROL 104 AREA. THIS CARD READER TO BE WIRED TO CONTROL EXISTING DOOR OPERATOR. THE CARD READER WILL BE WIRED BACK TO THE NEW ACP INSTALLED IN MECHANICAL 112. PROVIDE ALL MATERIALS REQUIRED FOR INTERFACE AND CONTROL OF EXISTING DOOR OPERATOR.
E332	THE EXISTING DOOR AND FRAME IS BEING DEMOED AT THIS LOCATION AND NEW DOOR AND FRAME WITH ELECTRONIC LATCH IS BEING INSTALLED. PROVIDE NEW HID ICLASS SE 920N CARD READER FOR CONTROL OF NEW ELECTRONIC LATCH SYSTEM THAT WILL REQUIRE HINGE CONNECTION THRU THE PANIC BAR. ALSO PROVIDE A DOOR POSITION SWITCH AT THIS DOOR. ALL WIRING FOR CARD READER, DOOR POSITION SWITCH, AND ELECTRONIC LATCH WILL BE WIRED BACK TO THE NEW ACP INSTALLED IN MECHANICAL 112. SEE ACCESS CONTROL DOOR INSTALLATION DETAIL FOR MORE INFORMATION.
E333	A NEW THERMOSTAT AND OXYGEN SENSOR ARE TO BE INSTALLED IN SCAN 105. CONTRACTOR TO PROVIDE A NON-FERROUS SINGLE GANG BOX FOR EACH MOUNTED FLUSH WITH FINISHED WALL MOUNTED 42" ABOVE FINISHED FLOOR TO CENTER. CONTRACTOR TO PROVIDE A 3/4" ALUMINUM CONDUIT FROM EACH BOX TO EXISTING PP-IMEDCO FILTER BOX. NEW CABLING SUPPLIED BY TEMPERATURE CONTROL CONTRACTOR TO BE RAN THROUGH NEW RF FILTERS PROVIDED BY THIS CONTRACTOR.
E335	CONTRACTOR TO PROVIDE POWER TO NEW CRAC-1 UNIT BY PROVIDING NEW HEAVY DUTY 30A/3P FUSED DISCONNECT AND BY MODIFYING EXISTING CONDUIT AND WIRING THAT FED THE CRAC-1 UNIT THAT WAS DEMOED. CONTRACTOR TO PROVIDE NEW FUSES PER MANUFACTURER NAMEPLATE ON THE EQUIPMENT. CONTRACTOR TO ALSO MODIFY EXISTING ALARM CONDUIT AND WIRING TO SECURITY PANEL TO TIE TO THE NEW CRAC-1 UNIT.
E336	CONTRACTOR TO PROVIDE POWER TO NEW CU-2 UNIT BY INSTALLING NEW 60A/3P/NEMA 3R FUSED DISCONNECT AND MODIFYING EXISTING CONDUIT AND WIRING THAT FED THE CU-2 UNIT THAT WAS DEMOED. CONTRACTOR TO PROVIDE NEW FUSES FOR NEW CU-2 PER NAMEPLATE REQUIREMENTS OF THE NEW EQUIPMENT. CONTRACTOR TO ALSO REINSTALL WEATHER PROOF GFI RECEPTACLE AT THIS LOCATION.

Revision#	Description	Date:

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10/28/2020 11:51:35 AM

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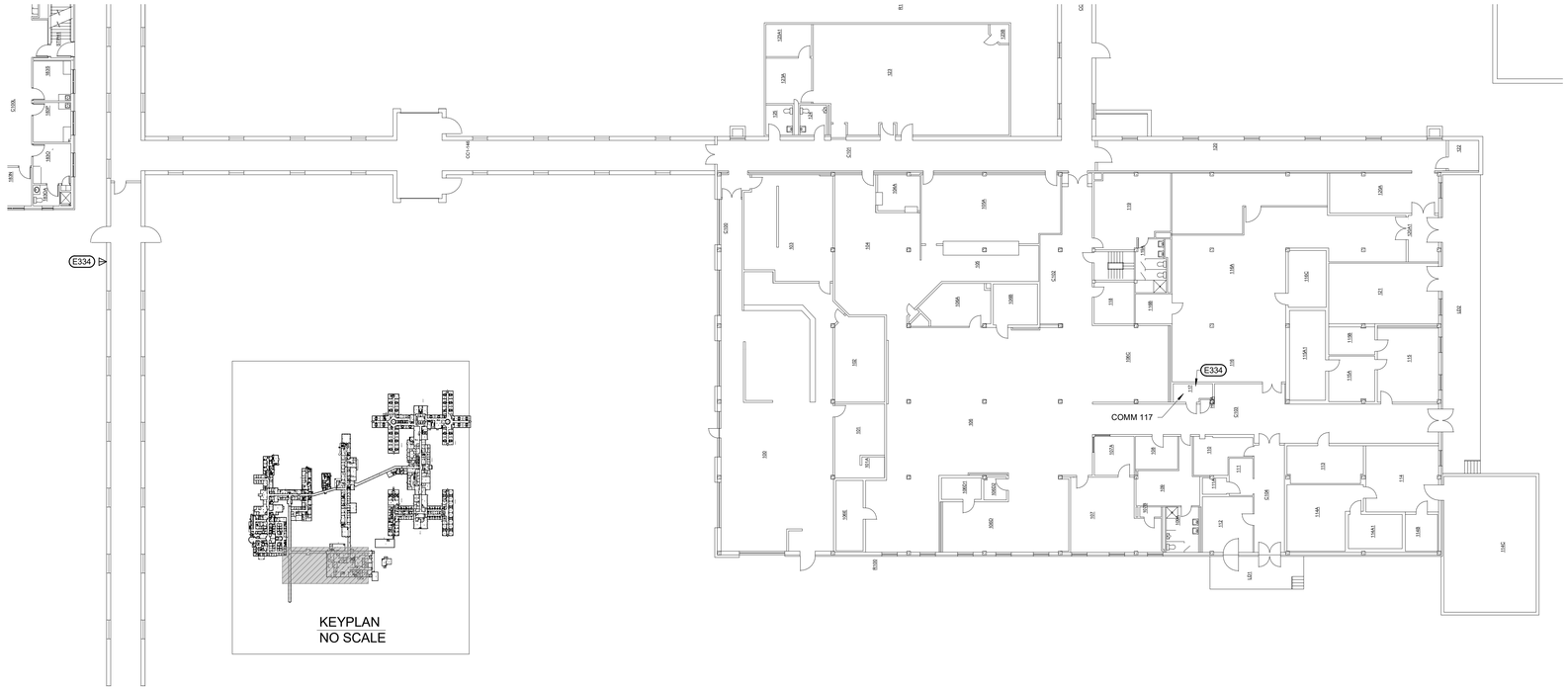
10/26/2020

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	1ST LEVEL POWER & SIGNAL PLAN
Phase	FINAL CONTRUCTION DOCUMENTS
Approved:	
Project Title	MRI SITE PREP FOR FT. MEADE / HOT SPRINGS VAMC
Project Number	VA #568-CSI-301 SGA #201910
Building Number	165 & 12
Location	FT. MEADE/HOT SPRINGS, SD
Drawing Number	FM-EE103
Issue Date	11/04/2020
Checked	MRS
Drawn	VLS

VA FORM 08 - 6231



KEYPLAN
NO SCALE

1 MOBILE MRI POWER & SIGNAL PLAN
1/16" = 1'-0"

ELECTRICAL SPECIFIC NOTES

#	
E334	THERE IS AN EXISTING WEATHER PROOF DATA OUTLET AT THIS LOCATION WITH THREE CAT 5E CABLES AND SOME OTHER LOW VOLTAGE CABLES THAT ARE RAN BACK TO COMMUNICATIONS CLOSET 117 IN BUILDING 146. CONTRACTOR TO REPLACE THE CAT 5E CABLES WITH NEW CAT 6A CABLES LEAVING THE REMAINING LOW VOLTAGE CABLES IN PLACE. CONTRACTOR TO REUSE EXISTING RACEWAY SYSTEM AND PATHWAY.

three inches = one foot
one and one half inches = one foot
one inch = one foot
three quarters inch = one foot
one half inch = one foot
three eighths inch = one foot
one quarter inch = one foot
one eighth inch = one foot

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Revision#	Description	Date:

CONSULTANTS

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11/24/2020

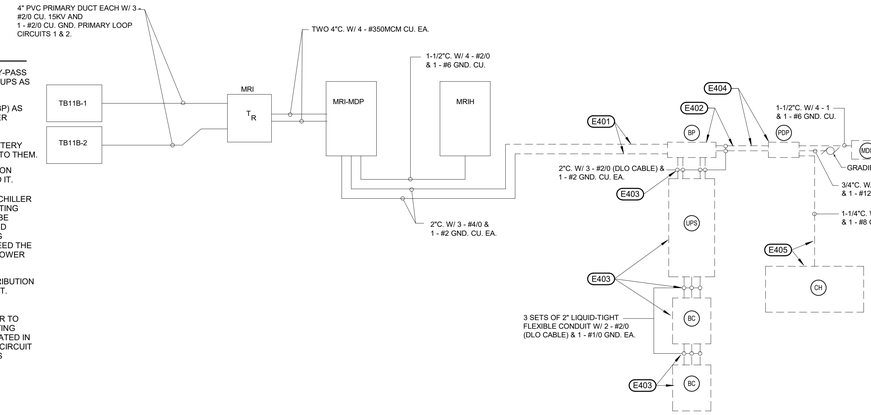
Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: MOBILE MRI POWER & SIGNAL PLAN
Phase: FINAL CONTRUCTION DOCUMENTS
Project Title: MRI SITE PREP FOR FT. MEADE / HOT SPRINGS VAMC
Project Number: VA #568-CSI-301 SGA #201910
Building Number: 165 & 12
Approved:
Location: FT. MEADE/HOT SPRINGS, SD
Drawing Number: FM-EE104
Issue Date: 11/04/2020
Checked: MRS
Drawn: VLS

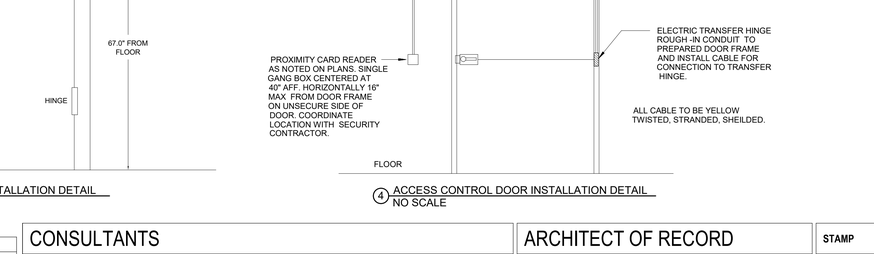
VA FORM 08 - 6231

E#	ELECTRICAL SPECIFIC NOTES
E401	CONTRACTOR TO INTERCEPT EXISTING FEEDER TO BY-PASS SWITCH (BP) IN THE CRAWL SPACE AND REROUTE TO UPS AS SHOWN IN REVISED POWER ONE-LINE DIAGRAM.
E402	CONTRACTOR TO DEMO EXISTING BY-PASS SWITCH (BP) AS WELL AS CONDUITS AND FEEDERS TO UPS AND POWER DISTRIBUTION PANEL (PDP).
E403	CONTRACTOR TO DEMO EXISTING UPS AND BOTH BATTERY CABINETS (BC) AS WELL AS CONDUITS AND FEEDERS TO THEM.
E404	CONTRACTOR TO DEMO EXISTING POWER DISTRIBUTION PANEL (PDP) AS WELL AS CONDUITS AND FEEDERS TO IT.
E405	CONTRACTOR TO DISCONNECT POWER TO EXISTING CHILLER (CH) SO IT CAN BE DEMOED AND REMOVED. THE EXISTING CONDUCTORS TO THE EXISTING CHILLER (CH) SHALL BE REMOVED AND NEW CONDUCTORS SHOWN IN REVISED POWER ONE-LINE DIAGRAM INSTALLED. THE EXISTING CONDUIT WILL NEED TO BE MODIFIED/EXTENED TO FEED THE NEW WATER CHILLER (WCH) AS SHOWN IN REVISED POWER ONE-LINE DIAGRAM.
E406	CONTRACTOR TO DEMO EXISTING POWER MAIN DISTRIBUTION UNIT (MDU) AS WELL AS CONDUITS AND FEEDERS TO IT.
E407	POWER FOR THE EXISTING GRADIENT FAN WILL BE DISCONNECTED WHEN PDP IS DEMOED. CONTRACTOR TO PROVIDE NEW POWER TO GRADIANT FAN FROM EXISTING 20A/1P SPARE BREAKER IN EXISTING PANEL MRIL LOCATED IN MECHANICAL 112. CONTRACTOR TO INTERCEPT THIS CIRCUIT IN COMPUTER 106 AND LEAVE EXISTING CONDUCTORS PASSING THROUGH EXISTING RF FILTER IN PLACE.



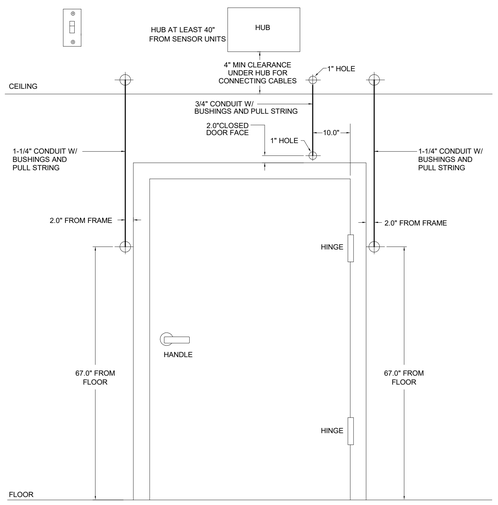
1 DEMOLITION POWER ONE-LINE DIAGRAM
1/8" = 1'-0"

E#	ELECTRICAL SPECIFIC NOTES
E501	CONTRACTOR TO MODIFY EXISTING CONDUIT AND CONDUCTORS FROM EXISTING TRANSFORMER TO FEED NEW UPS.
E502	CONTRACTOR TO INSTALL AND CONNECT UPS SUPPLIED WITH SIEMENS MRI. UPS, MAINTENANCE BYPASS AND ASSOCIATED BATTERY CABINET WILL BE DELIVERED TO THE SITE, THE ELECTRICAL CONTRACTOR TO MOVE AND INSTALL ALL THREE AT LOCATION SHOWN. PLEASE REFER TO ATTACHED SIEMENS AND EATON DOCUMENTS RELATED TO THE EATON 93PM 180KW UPS W/ MAINTENANCE BYPASS AND BATTERY CABINET. UPS W/ MAINTENANCE BYPASS WEIGHS APPROXIMATELY 1751 POUNDS AND THE BATTERY CABINET WEIGHS APPROXIMATELY 4913 POUNDS.
E503	CONTRACTOR TO PROVIDE NEW MAIN PANEL (MP) AS SCHEDULED AND PROVIDE CONNECTIONS AS SHOWN. MP SHALL HAVE A MAIN BREAKER THAT IS SHUNT TRIP. THIS BREAKER SHALL BE CONNECTED TO THE EMERGENCY POWER OFF (EPO) BUTTONS SHOWN SUCH THAT THE BREAKER IS SHUNT TRIPPED OFF SHOULD ANY OF THE THREE EPO BUTTONS BE PUSHED..
E504	CONTRACTOR TO PROVIDE CONNECTION OF SIEMENS SUPPLIED ELECTRICAL POWER CABINET (EPC) FROM MAIN PANEL (MP). CONDUIT TO BE ROUTED FROM MP TO CABLE TRAY CD3 WITH FLEX FROM CD3 TO EPC. THERE MUST BE A DIELECTRIC SEPARATION BETWEEN THE CONDUIT AND THE CONNECTION TO THE EPC CABINET.
E505	CONTRACTOR TO INSTALL NEW CONDUCTORS IN EXISTING CONDUIT TO NEW FUSED DISCONNECT FOR WATER CHILLER (WCH). THE EXISTING CONDUIT WILL NEED TO BE MODIFIED/EXTENED TO FEED THE NEW DISCONNECT.
E506	CONTRACTOR TO PROVIDE NEW NEMA 3R 100A/3P/FUSED DISCONNECT AT NEW WATER CHILLER (WCH). CONTRACTOR TO FUSE PER MANUFACTURERS REQUIREMENTS. CONTRACTOR TO PROVIDE NEW CONDUIT AND CONDUCTORS FROM FUSED DISCONNET TO NEW WATER CHILLER (WCH).

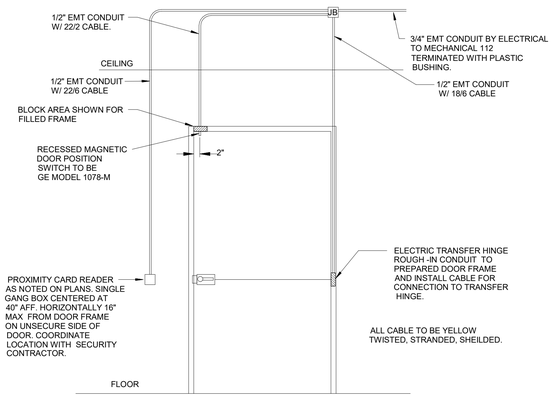


2 REVISED POWER ONE-LINE DIAGRAM
1/8" = 1'-0"

= CABLE HOLE CENTERS:
* ALL HOLES OUTSIDE ROOM
* 1.25" HOLE WITH CONDUIT
* CABLES HOLES WILL BE HIDDEN BY SENSOR UNITS WHEN MOUNTED.



3 FERRO DECTECTION INSTALLATION DETAIL
NO SCALE



4 ACCESS CONTROL DOOR INSTALLATION DETAIL
NO SCALE

ELECTRICAL ABBREVIATIONS

A STANDARD LIST. NOT ALL WORDS APPEAR IN THESE DRAWINGS.

SEE SPECIFICATION SECTION "EQUIPMENT WIRING" FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

A or AMP	AMPERE
A/C	AIR CONDITIONING
A/E or AE	ARCHITECT & ENGINEER
ac	ABOVE COUNTER
AC	ALTERNATING CURRENT
ADA	AMERICANS WITH DISABILITIES ACT
AFF	ABOVE FINISH FLOOR
AFG	ABOVE FINISH GRADE
AFI or AFCI	ARC FAULT CIRCUIT INTERRUPTER
AHJ	AUTHORITY HAVING JURISDICTION
AHU	AIR HANDLING UNIT
AIC	AMPERES INTERRUPTING CURRENT
AL	ALUMINUM
ANN	ANNUNCIATOR
AS	AUTOMATIC SENSORS
AWG	AMERICAN WIRE GAUGE
bc	BELOW COUNTER
BC	BELOW COUNTER
BH	BASKETBALL HOOP OPER
BL	BLEACHER ELECTRIC OPERATOR
BRD or BD	BOARD
BUH	BLAST UNIT HEATER
C or COND	CONDUIT
CB or CB	CIRCUIT BREAKER
CAT	CATEGORY
CCT or CKT	CIRCUIT
CM	CARBON MONOXIDE SENSOR
CO	CARBON MONOXIDE
COMB	COMBINATION
CONF	CONFERENCE
CP	CEILING PROJECTOR
CTC	CABLE TERMINATION CABINET
Cu or CU	COPPER
CU	CONDENSING UNIT
CUH	CABINET UNIT HEATER
DC	DIRECT CURRENT
DC	DISTRIBUTION CABINET
DP	DISTRIBUTION PANEL
DISC	DISCONNECT
DISP	DISPOSAL
DL	DOCK LEVELER
DN or DWN	DOWN
DR	DOOR
DW	DISHWASHER
DWG	DRAWING
EC	ELECTRICAL CONTRACTOR
EC	ELECTRICAL CABINET
EF	EXHAUST FAN
EH	ELECTRICAL HEAT
ELEC	ELECTRIC OR ELECTRICAL
EHD	ELECTRIC HAND DRYER
EM or EMERG	EMERGENCY
EMT	ELECTRICAL METALLIC TUBING
ENT	ELECTRICAL NON-METALLIC TUBING
EUH	ELECTRIC UNIT HEATER
EWC	ELECTRIC WATER COOLER
EX	EXISTING
EXP	EXPLOSION PROOF
F or FUS	FUSE OR FUSIBLE
FA	FIRE ALARM
FAAP	FIRE ALARM ANNUNCIATOR PANEL
FACP	FIRE ALARM CONTROL PANEL
FBO	FURNISHED BY OTHERS
FL, FLU or FLUOR	FLUORESCENT
FLA	FULL LOAD AMPERES
FVNR	FULL VOLTAGE, NON-REVERSING
FVR	FULL VOLTAGE, REVERSING
GC	GENERAL CONTRACTOR
GD	GARBAGE DISPOSAL
GEN	GENERATOR
GFI or GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GRC	GALVANIZED RIGID CONDUIT
GND or GRND	GROUND
H & AC	HEATING & AIR CONDITIONING
H & V	HEATING & VENTILATING
HA	HANDICAP ACCESS DOOR
HD	HAND DRYER
HID	HIGH INTENSITY DISCHARGE
HP	HORSE POWER
HPS	HIGH PRESSURE SODIUM
HTG	HEATING
HTR	HEATER
HVAC	HEATING, VENTILATION & AIR CONDITIONING
HZ	HERTZ (CYCLES/SEC)
IC	INTERRUPTING CURRENT
IGR	ISOLATED GROUND RECEPTACLE
IMC	INTERMEDIATE METAL CONDUIT
INC	INCANDESCENT
ISO	ISOLATED OR ISOLATION
J, JB or J-BOX	JUNCTION BOX
KCMIL	THOUSAND CIRCULAR MILS
KV	KILOVOLT
KVA	KILOVOLT - AMPERE
KVAR	KILOVOLT - AMPERE REACTIVE
KW	KILOWATT
KWH	KILOWATT - HOUR
LA	LIGHTNING ARRESTOR
LT	LIGHT
LTG	LIGHTING
LTS	LIGHTS
MC	MECHANICAL CONTRACTOR
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MCM	THOUSAND CIRCULAR MILS
MDP	MAIN DISTRIBUTION PANEL
MECH	MECHANICAL
MFS	MAIN FUSIBLE SWITCH
MH	METAL HALIDE
MLO	MAIN LUG ONLY
MSB	MAIN SWITCHBOARD
MTD	MOUNTED
MTS	MOTOR THERMAL SWITCH
MV	MERCURY VAPOR
MW	MICROWAVE
NA or N/A	NOT APPLICABLE
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NEU, NEUT or N	NEUTRAL
NF	NON-FUSED
NL	NIGHT LIGHT
NO	NORMALLY OPEN
OFF, OF, or OFC	OFFICE
OH	OVERHEAD
OHD	OVERHEAD DOOR
P	POLE
PA	PUBLIC ADDRESS
PB	PUSH BUTTON
PH	PHASE
PLBG	PLUMBING
PNL	PANEL
PR or pr	PAIR
PRV	POWER ROOF VENTILATOR
PS	PULL SWITCH
PS	PROJECTION SCREEN
PTZ	PAN TILT ZOOM
PVC	POLYVINYL CHLORIDE
PWR	POWER
RCP	REFLECTED CEILING PLAN
REC or RECEPT	RECEPTACLE
REF or REFRIG	REFRIGERATOR
RH	RADIANT HEAT
RH	RANGE HOOD
RLY	RELAY
RM	ROOM
RMS	ROOT MEAN SQUARE
SCC	SHORT CIRCUIT CURRENT
SD	SMOKE DETECTOR
SFR	SAFETY RECEPTACLE
SFTY	SAFETY
SHLD	SHIELD OR SHIELDED
SIG	SIGNAL
SMR	SURFACE MOUNT RACEWAY
SN	SOLID NEUTRAL
SP	SUMP PUMP
SPECS	SPECIFICATIONS
SPKR	SPEAKER
SPR	SPLIT WIRE RECEPTACLE
SW	SWITCH
SWBD	SWITCH BOARD
TC	TEMPERATURE CONTROL
TC	TELEPHONE CABINET
TCC	TEMPERATURE CONTROL CONTRACTOR
TEL	TELEPHONE
TL	TWIST LOCK
TR, TRANS or TRFMR	TRANSFORMER
TTB	TELEPHONE TERMINATION BOARD
TV	TELEVISION
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSION
TYP	TYPICAL
UG	UNDERGROUND
UH	UNIT HEATER
UV	UNIT VENTILATOR
V	VOLT
VFD	VARIABLE FREQUENCY DRIVE
W	WATT
W/	WITH
W/O	WITHOUT
WP	WEATHERPROOF
WTR or H20	WATER
WS	WINDOW SHADE
XFMR	TRANSFORMER
Y	WYE CONNECTION
ϕ	PHASE
Δ	DELTA

MP															
VOLTS:	480/277 Wye	PHASES:	3	WIRE:	4	MAIN CAPACITY:	400 A								
AIC RATING:	35,000	LOCATION:	COMPUTER 106			MAIN CONNECTION:	250A								
MOUNTING:	SURFACE	FEEDER SIZE:	SEE POWER ONE-LINE DIAGRAM			MAIN TYPE:	TYPE 1								

CKT	ITEM FED	WIRE SIZE	AMPS	POLES	A (WATTS)		B (WATTS)		C (WATTS)		POLES	AMPS	WIRE SIZE	ITEM FED	CKT
1	CH-1	3	80 A	3	18559	0					--	--	--	SPACE	2
3							18559	0			--	--	--	SPACE	4
5									18559	0	--	--	--	SPACE	6
7	MRI - EPC	2/0	125 A	3	29333	0					--	--	--	SPACE	8
9							29333	0			--	--	--	SPACE	10
11									29333	0	--	--	--	SPACE	12
13	SPACE	--	--	--	0	0					--	--	--	SPACE	14
15	SPACE	--	--	--			0	0			--	--	--	SPACE	16
17	SPACE	--	--	--					0	0	--	--	--	SPACE	18
TOTAL CONNECTED LOAD:					47892 W		47892 W		47892 W		AMPS:	173 A	LOAD:	143677 W	

ELECTRICAL SYMBOLS

THESE SYMBOLS COMPRISE A STANDARD LIST; NOT ALL SYMBOLS MAY APPEAR ON THIS PROJECT.
ALL MOUNTING HEIGHTS ARE TO CENTER OF DEVICE ABOVE FINISHED FLOOR. MOUNTING HEIGHTS INDICATED ON ARCH. WALL ELEVATIONS ORAS NOTED SPECIFICALLY ON THE DRAWINGS OR IN THE SPECIFICATIONS SHALL TAKE PRECEDENCE OVER MOUNTING HEIGHTS LISTED BELOW.

LIGHTING

- CEILING SURFACE MOUNT FIXTURE. (Capital letter indicates fixture type. Small letter indicates switching. Typical for all fixture types).
- EMERGENCY CEILING SURFACE MOUNT FIXTURE
- WALL FIXTURE
- EMERGENCY WALL FIXTURE
- RECESSED FIXTURE
- EMERGENCY RECESSED FIXTURE
- EXTERIOR POLE LIGHT
- BOLLARD LIGHT
- SURFACE MOUNT FIXTURE
- EMERGENCY SURFACE MOUNT FIXTURE
- RECESSED FIXTURE
- EMERGENCY RECESSED FIXTURE
- WALL FIXTURE
- FLOOD LIGHT
- TRACK LIGHT
- PHOTO ELECTRIC CELL
- LIGHTING CONTACTOR (54"M.H.)
- TIME CLOCK (60" M.H.)
- EMERGENCY LIGHTING W.BATTERY PACK.
- CEILING EXIT LIGHT (FACE(S) SHADED, ARROW INDICATES CHEVRON)
- WALL EXIT LIGHT (FACE(S) SHADED, ARROW INDICATES CHEVRON)
- OCCUPANCY SENSOR
- SINGLE POLE SWITCH (46" M.H.)
- DOUBLE POLE SWITCH (46" M.H.)
- THREE-WAY SWITCH (46" M.H.)
- FOUR-WAY SWITCH (46" M.H.)
- SWITCH WITH PILOT (46" M.H.)
- KEY OPERATED SWITCH (46" M.H.)
- MOMENTARY CONTACT SWITCH (60" M.H.)
- DIMMER SWITCH (46" M.H.)
- TIMER SWITCH (60" M.H.)
- VARIABLE SPEED SWITCH
- FUSED SWITCH

POWER

- PUSH BUTTON STATION (62" M.H.)
- DOUBLE PUSH BUTTON STATION
- EMERGENCY SHUTDOWN PUSHBUTTON
- ISOLATED GROUND RECEPTACLE (18" M.H.)
- DUPLEX CONVENIENCE RECEPTACLE (18" M.H.)
- SINGLE RECEPTACLE (18" M.H.)
- DOUBLE DUPLEX CONVENIENCE RECEPTACLE (18" M.H.)
- DOUBLE DUPLEX CONVENIENCE RECEPTACLE (18" M.H.)
- SPLIT WIRED DUPLEX RECEPTACLE (18" M.H)
- SAFETY CONVENIENCE RECEPTACLE
- POWER RECEPTACLE
- EMERGENCY DUPLEX RECEPTACLE
- TWIST LOCK RECEPTACLE
- GFI DUPLEX CONVENIENCE RECEPTACLE
- GFI DOUBLE DUPLEX CONVENIENCE RECEPTACLE
- SPECIAL PURPOSE OUTLET OR CONNECTION
- CORD/PLUG
- CORD REEL
- CEILING DUPLEX RECEPTACLE
- FLUSH FLOOR DUPLEX RECEPTACLE
- FLUSH FLOOR DOUBLE DUPLEX RECEPTACLE
- FLUSH FLOOR MULTI-SERVICE OUTLET (WITH DEVICES INDICATED)
- MULTI-SERVICE POLE (WITH DEVICES INDICATED)
- BLANK OUTLET
- JUNCTION BOX
- PULL BOX
- MOTOR
- DISCONNECT SWITCH
- GENERATOR ANNUNCIATOR PANEL
- AUTOMATIC TRANSFER SWITCH
- VARIABLE FREQUENCY DRIVE
- COMBINATION VARIABLE FREQUENCY DRIVE/DISCONNECT
- MAGNETIC STARTER
- COMBINATION STARTER/DISCONNECT
- MOTOR THERMAL SWITCH
- TRANSFORMER
- ELECTRIC METER
- SWITCHBOARD/DISTRIBUTION PANEL SECTION
- PANELBOARD OR LOAD CENTER
- PANELBOARD OR LOAD CENTER (EXISTING TO REMAIN)
- CIRCUIT BREAKER
- FUSE
- HUMIDISTAT
- THERMOSTAT
- REMOTE HVAC SENSOR
- RADIANT HEAT PANEL
- BASEBOARD OR COVE ELEC. HEAT
- ELECTRIC UNIT HEATER
- ELECTRIC CABINET UNIT HEATER
- MOTORIZED DAMPER
- BUS DUCT
- SURFACE MOUNT RACEWAY
- CEILING PADDLE FAN
- TYPE OF EQUIPMENT, SEE SCHEDULES
- EQUIPMENT NUMBER
- ROOFTOP EQUIPMENT/CIRCUITING
- EXISTING EQUIPMENT/CIRCUITING
- GROUND
- CONDUIT IN FLOOR OR UNDERGROUND
- CONDUIT IN WALL OR CEILING SPACE, CROSS MARKS INDICATE NUMBER OF WIRES, NO MARKS INDICATE TWO WIRES. ARROWS INDICATE HOME RUNS TO PANEL. NUMBERS INDICATE PANEL AND CIRCUIT IN PANEL.
- SWITCHLEG
- TRAVELER
- HOT
- NEUTRAL WIRE INDICATES SEPARATE GROUND WIRE TO BE INSTALLED IN RACEWAY

TELECOM

- SPECIAL EQUIPMENT CABINET-AS NOTED
- TERMINATION BOARD - AS NOTED
- CABLE TRAY
- INTERCOM
- TELEPHONE/VOICE OUTLET (18" M.H.)
- WALL PHONE (46" M.H.)
- DATA OUTLET (18" M.H.)
- CEILING MOUNT DATA OUTLET
- COMBINATION VOICE/DATA OUTLET (18" M.H.)
- TELEVISION OUTLET (18" M.H.)
- CEILING MOUNT TELEVISION OUTLET

FIRE ALARM

- FIRE ALARM MANUAL STATION (46" M.H.)
- HEAT DETECTOR (RATE OF RISE)
- HEAT DETECTOR (FIXED TEMP. ONLY)
- UNITARY TYPE SMOKE DETECTOR
- SMOKE DETECTOR
- DUCT SMOKE DETECTOR
- BEAM DETECTOR TRANSMITTER
- BEAM DETECTOR RECEIVER
- REMOTE TEST STATION
- COMB HEAT/SMOKE DETECTOR
- FLOW SWITCH
- PRESSURE SWITCH
- TAMPER SWITCH
- FIRE ALARM CUT-OFF RELAY
- REMOTE ANNUNICATOR
- DOOR HOLDER
- MONITOR MODULE
- CONTROL MODULE
- FIRE ALARM CHIME/STROBE
- FIRE ALARM HORN/STROBE (80"M.H)
- CEILING MOUNT FIRE ALARM HORN/STROBE
- FIRE ALARM VOICE/STROBE (80"M.H)
- CEILING MOUNT FIRE ALARM VOICE/STROBE
- MINI FIRE ALARM HORN
- MINI FIRE ALARM HORN/STROBE
- PROJECTION HORN
- FIRE ALARM STROBE (80" M.H.)
- CEILING MOUNT FIRE ALARM STROBE
- FIRE ALARM BELL (88" M.H.)
- COMBINATION FIRE/SMOKE DAMPER
- FIRE ALARM ANNUNCIATOR PANEL
- FIRE ALARM CONTROL PANEL
- FIRE FIGHTER PHONE JACK

NURSE CALL

- SINGLE PATIENT NURSE CALL STATION (46" M.H.)
- DUAL PATIENT CURSE CALL STATION (46" M.H.)
- STAFF STATION (46" M.H.)
- STAFF EMERGENCY STATION (46" M.H.)
- EMERGENCY SHOWER/BATH STATION (46" M.H.)
- ALARM/REST STATION
- MASTER STATION
- CORRIDOR LAMP
- CEILING MOUNTED CORRIDOR LAMP
- ZONE LAMP
- CEILING MOUNTED ZONE LAMP
- ANTENNA (AS NOTED)
- AREA CONTROL MODULE
- DOOR SWITCH
- DUTY STATION (46" M.H.)
- DOMELESS CONTROLLER
- CODE BLUE STATION

SOUND AND SECURITY

- FLUSH SPEAKER
- SURFACE SPEAKER
- PAGING HORN
- COLUME CONTROL (46" M.H.)
- MICROPHONE OUTLET (18" M.H.)
- AUXILIARY OUTLET
- AMPLIFIER
- SURVEILLANCE VIDEO CAMERA
- CEILING MOUNTED SURVEILLANCE VIDEO CAMERA
- SURVEILLANCE VIDEO CAMERA - PAN/TILT/ZOOM
- SURVEILLANCE VIDEO MONITOR
- SURVEILLANCE VIDEO RECORDER
- SURVEILLANCE VIDEO SWITCHER
- ALARM CONTROL PANEL
- BURGLAR ALARM ANNUNCIATOR
- ANTENNA (AS NOTED)
- ALARM PANIC SWITCH
- ALARM DOOR SWITCH
- DOOR RELEASE MECHANISM
- ALARM MOTION DETECTOR
- ALARM SHUNT PAD
- ALARM KEYPAD
- CARD ACCESS
- SECURITY INTERCOM (54" M.H.)
- REQUEST EXIT PUSH BUTTON

Revision#	Description	Date:

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REGISTERED PROFESSIONAL ENGINEER — REG. NO. 7595 — MICHAEL DARRYL SIGMAN — SOUTH DAKOTA — 15 APR 2020

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ELECTRICAL SCHEDULES & DETAILS

Phase: FINAL CONTRUCTION DOCUMENTS

Approved:

Project Title: MRI SITE PREP FOR FT. MEADE / HOT SPRINGS VAMC

Project Number: VA #568-CSI-301 SGA #201910

Building Number: 165 & 12

Location: FT. MEADE/HOT SPRINGS, SD

Issue Date: 11/04/2020 | **Checked:** MRS | **Drawn:** VLS

Drawing Number: FM-EE105

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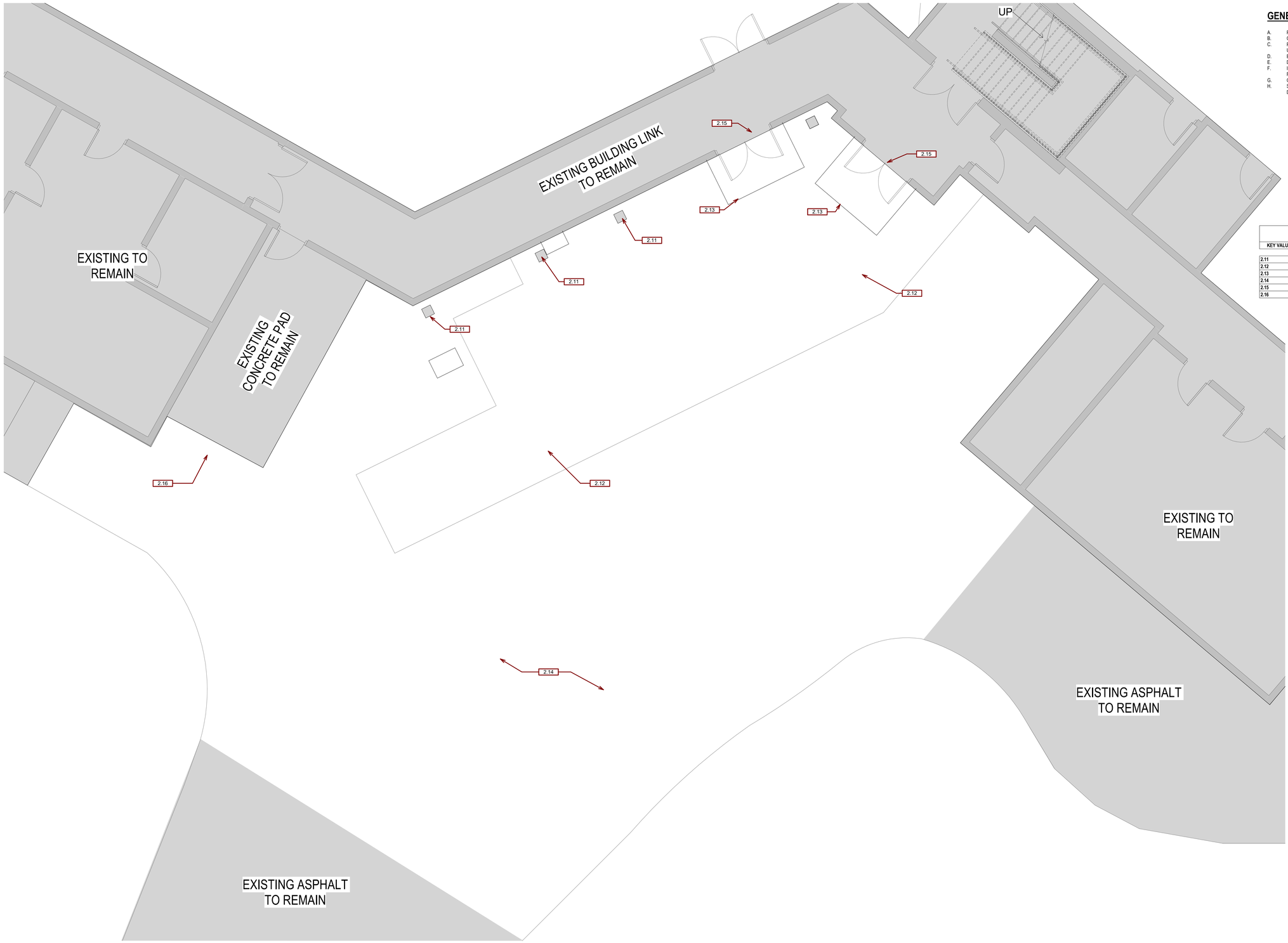

GENERAL DEMOLITION PLAN NOTES:

A. PROTECT ALL EXISTING UTILITIES.
B. CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS AT THE PROJECT SITE.
C. PATCH REMAINING EXISTING CONSTRUCTION, AFFECTED BY DEMOLITION, TO MATCH EXISTING U.O.N.
D. EXISTING ITEMS TO REMAIN ARE SHOWN AS HALFTONE.
E. DEMO ITEMS ARE SHOWN AS DASHED.
F. INFILL OF THE PENETRATIONS IN FIRE RATED WALLS SHALL MAINTAIN THE INTEGRITY OF THE RATING.
G. COORDINATE RELOCATION OF SALVAGED ITEMS WITH THE OWNER.
H. SEE MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION RELEVANT TO DEMOLITION & PATCHING.

SGA KEYNOTES

KEY VALUE	KEYNOTE TEXT
2.11	DEMO FOOTINGS FOR CONCRETE COLUMNS AND WALL.
2.12	DEMO EXISITNG CONCRFETE/ASPHALT FOR NEW CONCRETE SLAB ON GRADE.
2.13	DEMO EXISTING CONCRETE STOOP FOR NEW CONCRETE SLAB ON GRADE.
2.14	EXISTING ASPHALT DRIVEWAY-DEMO AREA TBD AS DESIGN ALERNATE.
2.15	EXISTING B12 EXIT TO MRI - TO REMAIN.
2.16	EXISTING CONCRETE LOADING PLATFORM - TO REMAIN.

F1 **1ST LEVEL SITE DEMOLITION PLAN**
1/4" = 1'-0"

Revision#	Description	Date:

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: HOT SPRINGS EXISTING SITE DEMOLITION PLAN
Approved:
Phase: FINAL CONSTRUCTION DOCUMENTS
Project Title: MRI SITE PREP FOR FT. MEADE / HOT SPRINGS VAMC
Location: FORT MEADE & HOT SPRINGS, SD
Issue Date: 11/04/2020
Checked: TRS
Drawn: JHK
Project Number: VA #568-CSI-301 SGA #201910
Building Number: 165 & 12
Drawing Number: HS-AD101

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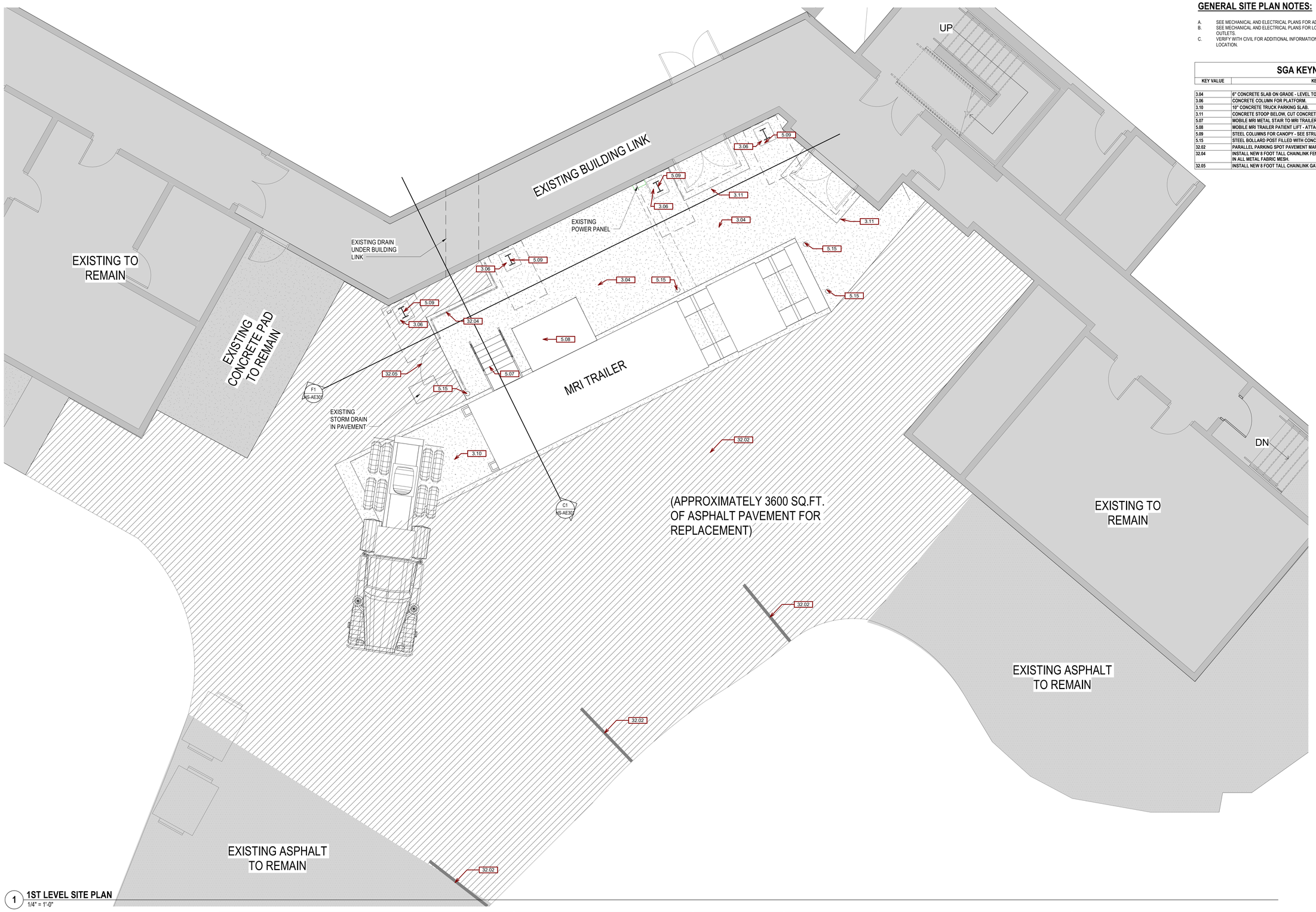

1 **1ST LEVEL SITE PLAN**
1/4" = 1'-0"

GENERAL SITE PLAN NOTES:

A. SEE MECHANICAL AND ELECTRICAL PLANS FOR ADDITIONAL INFORMATION
B. SEE MECHANICAL AND ELECTRICAL PLANS FOR LOCATIONS OF HOSE BIBS AND EXTERIOR OUTLETS.
C. VERIFY WITH CIVIL FOR ADDITIONAL INFORMATION, PROPERTY LINES, EASEMENTS, AND BUILDING LOCATION.

SGA KEYNOTES

KEY VALUE	KEYNOTE TEXT
3.04	6" CONCRETE SLAB ON GRADE - LEVEL TO EXISTING EXIT DOOR FROM BUILDING 12.
3.06	CONCRETE COLUMN FOR PLATFORM.
3.10	10" CONCRETE TRUCK PARKING SLAB.
3.11	CONCRETE STOOP BELOW, CUT CONCRETE SLAB CONTROL JOINT.
5.07	MOBILE MRI METAL STAIR TO MRI TRAILER.
5.08	MOBILE MRI TRAILER PATIENT LIFT - ATTACHED TO TRAILER.
5.09	STEEL COLUMNS FOR CANOPY - SEE STRUCTURAL.
5.15	STEEL BOLLARD POST FILLED WITH CONCRETE.
32.02	PARALLEL PARKING SPOT PAVEMENT MARKINGS.
32.04	INSTALL NEW 8 FOOT TALL CHAINLINK FENCE AT EDGE OF CONCRETE SLAB. INSTALL SLATS IN ALL METAL FABRIC MESH.
32.05	INSTALL NEW 8 FOOT TALL CHAINLINK GATE. INSTALL SLATS IN ALL METAL FABRIC MESH.

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: HOT SPRINGS SITE PLAN	Phase: FINAL CONSTRUCTION DOCUMENTS	Project Title: MRI SITE PREP FOR FT. MEADE / HOT SPRINGS VAMC	Project Number: VA #568-CSI-301 SGA #201910
			Building Number: 165 & 12
Approved:		Location: FORT MEADE & HOT SPRINGS, SD	Drawing Number: HS-AE101
		Issue Date: 11/04/2020 / Checked: TRS / Drawn: JHK	

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STRUCTURAL NOTES

GENERAL NOTES:
1. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH JOB SPECIFICATIONS AND ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING AND SITE DRAWINGS. CONSULT THESE DRAWINGS FOR SLEEVES, DEPRESSIONS AND OTHER DETAILS NOT SHOWN ON STRUCTURAL DRAWINGS.
2. ALL DIMENSIONS AND CONDITIONS MUST BE VERIFIED IN THE FIELD. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH AFFECTED PART OF THE WORK.
3. THE STRUCTURE IS DESIGNED TO BE SELF SUPPORTING AND STABLE AFTER THE BUILDING IS COMPLETE. IT IS THE CONTRACTORS SOLE RESPONSIBILITY TO DETERMINE ERECTION PROCEDURES AND SEQUENCE TO ENSURE SAFETY OF THE BUILDING AND ITS COMPONENTS DURING ERECTION. THIS INCLUDES THE ADDITION OF NECESSARY SHORING, SHEETING, TEMPORARY BRACING (AND ACCOMPANYING FOOTINGS), GUYS OR TIEDOWNS.
4. ADDITIONAL OBSERVATIONS AS A RESULT OF REJECTION OF WORK COMPLETED AND/OR ADDITIONAL OBSERVATIONS DUE TO THE DEFICIENCIES IN WORK OBSERVED WILL BE AT THE EXPENSE OF THE CONTRACTOR.
5. ALL STRUCTURAL SHOP DRAWINGS TO BE REVIEWED BY JOB SUPERINTENDENT IN ADDITION TO ALL PERSONNEL DEEMED NECESSARY BY CONTRACTOR PRIOR TO SUBMITTAL TO ENGINEER FOR APPROVAL.
6. ALL SHOP DRAWING TO BE REVIEWED BY ALBERTSON ENGINEERING INC. SHALL HAVE ELECTRONIC COPIES PROVIDED TO ALBERTSON ENGINEERING INC. FOR REVIEW. AN ELECTRONIC MARKED SET OF THOSE DRAWINGS WILL BE RETURNED TO THE CONTRACTOR. NO ADDITIONAL HARD COPIES OF THE SHOP DRAWINGS NEED TO BE PROVIDED TO ALBERTSON ENGINEERING INC. ALTHOUGH OTHER PARTIES MAY REQUIRE HARD COPIES OF THE MARKED UP DRAWINGS. THESE REQUIREMENTS ARE IN ADDITION TO THE TYPICAL PROJECT SHOP DRAWING SUBMITTAL REQUIREMENTS STATED IN THE PROJECT SPECIFICATIONS.

DESIGN CODES:
1. 2018 INTERNATIONAL BUILDING CODE, RISK CATEGORY IV
2. ACI 318-14 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE AND COMMENTARY.
3. 2018 NFPA
4. AISC 360-16 SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS.
5. SDI DESIGN MANUAL FOR COMPOSITE DECKS, FORM DECKS AND ROOF DECKS (PUBLICATION No. 30)

DESIGN LOADS:
1. THE STRUCTURAL SYSTEM FOR THIS BUILDING HAS BEEN DESIGNED WITH THE FOLLOWING SUPERIMPOSED LOADINGS.

ROOF		
	SNOW LOAD	36 PSF
	GROUND SNOW LOAD	42 PSF
	DEAD LOAD	5 PSF
WIND		
	ULTIMATE WIND SPEED	123 MPH
	EXPOSURE CATEGORY	B
SEISMIC		
	SEISMIC DESIGN CATEGORY	C
	SITE CLASSIFICATION	D

FOUNDATIONS:
1. FOUNDATIONS ARE DESIGNED FOR AN ALLOWABLE SOIL BEARING PRESSURE OF 2000 psf. ON EXISTING SOILS. BEFORE CONSTRUCTION COMMENCES, SOIL BEARING CAPACITY SHALL BE VERIFIED BY A SUBSURFACE INVESTIGATION, A CERTIFIED TESTING LABORATORY, WHOSE REPORT SHALL INCLUDE ANALYSIS AND RECOMMENDATIONS FOR SITE PREPARATION IN ORDER TO BEAR THE FOUNDATION LOADS. ABOVE REPORT SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW BEFORE FOUNDATION CONSTRUCTION BEGINS.

PLUMBING SLEEVES:
1. MINIMUM SLEEVE SPACING SHALL BE TWO DIAMETERS CENTER TO CENTER TO THE LARGER SLEEVE OR 6" CLEAR BETWEEN SLEEVES, WHICHEVER IS GREATER. PRIOR TO CONSTRUCTION, SLEEVE LOCATIONS AN SIZES SHALL BE APPROVED BY THE STRUCTURAL ENGINEER OF RECORD.

CHEMICAL ANCHORS:
1. SHALL BE A POLYMER INJECTION SYSTEM SUCH AS HILTI HY-200 OR APPROVED EQUAL. INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS INSTRUCTIONS. INSTALLERS SHALL BE TRAINED BY THE MANUFACTURER'S REPRESENTATIVE.

ANCHOR BOLTS:
1. SHALL BE ASTM F1554 GRADE 36 THREADED ROD. PROVIDE HOT DIP GALVANIZE FINISH ON ALL ANCHOR BOLTS PERMANENTLY EXPOSED TO EXTERIOR.
2. THREADED ROD EMBEDMENT DEPTH SPECIFIED IN THE DRAWINGS SHALL BE FROM TOP OF CONCRETE TO TOP OF DOUBLE NUT.

CONCRETE TESTING:
1. CONCRETE TESTING SHALL BE PAID FOR BY THE CONTRACTOR TESTING LABORATORY SHALL PERFORM THE FOLLOWING TESTS ON CAST-IN-PLACE CONCRETE.
1.A. ASTM C143 - "STANDARD TEST METHOD FOR SLUMP OF PORTLAND CEMENT CONCRETE."
1.B. ASTM C39 - "STANDARD TEST METHOD FOR COMPRESSIVE STRENGTH OF CYLINDRICAL CONCRETE SPECIMENS." A SEPARATE TEST SHALL BE CONDUCTED FOR EACH CLASS, FOR EVERY 50 CUBIC YARDS (OR FRACTION THEREOF), PLACED PER DAY. REQUIRED CYLINDER(S) QUANTITIES AND TEST AGE AS FOLLOWS:
1 AT 7 DAYS
2 AT 28 DAYS
1.C. PROVIDE ONE ADDITIONAL RESERVE CYLINDER TO BE TESTED UNDER THE DIRECTION OF THE ENGINEER, IF REQUIRED. IF 28 DAY STRENGTH IS ACHIEVED, THE ADDITIONAL CYLINDER(S) MAY BE DISCARDED.
1.D. TESTING SHALL BE BASED UPON CONCRETE TAKEN AT POINT OF PLACEMENT.
1.E. IN ADDITION TO TYPICAL TESTING REQUIREMENTS, SLUMP AND AIR CONTENT SAMPLES SHALL BE TAKEN AT BEGINNING OF FIRST TRUCK PRIOR TO ANY PLACEMENT AND REPEATED AT THE MIDDLE OF FIRST TRUCK. CONCRETE PLACEMENT SHALL NOT START IF INITIAL TEST(S) FAIL AND SHALL NOT CONTINUE IF TEST TAKEN AT MIDDLE OF FIRST LOAD FAILS.
1.F. IF ANY SLUMP OR AIR CONTENT FAILS DURING PLACEMENT, TEST SHALL BE IMMEDIATELY REPORTED AND RETAKEN. IF RETAKEN TESTS FAIL THEN ALL SUBSEQUENT LOADS MUST BE TESTED AT ARRIVAL AND TEST MUST SHOW COMPLIANCE PRIOR TO THE CONCRETE IN THAT TRUCK BEING ALLOWED FOR USE ON PROJECT. ALL COSTS FOR ADDITIONAL TESTING SHALL BE CREDITED TO THE OWNER.

PENETRATIONS:
1. NO PENETRATIONS SHALL BE MADE IN ANY STRUCTURAL MEMBERS OTHER THAN THOSE LOCATED ON THESE DRAWINGS WITHOUT PREVIOUS APPROVAL OF THE ENGINEER.

CONCRETE MIX DESIGN:
1. SHALL BE MIX DESIGNED BY A RECOGNIZED TESTING LABORATORY TO ACHIEVE A STRENGTH AT 28 DAYS AS LISTED BELOW WITH A PLASTIC AND WORKABLE MIX:
4000 psi - ALL CONCRETE
2. SUBMIT PROPOSED MIX DESIGN WITH RECENT FIELD CYLINDER OR LAB TEST FOR REVIEW PRIOR TO USE. MIX SHALL BE UNIQUELY IDENTIFIED BY MIX NUMBER OR OTHER POSITIVE IDENTIFICATION. CONCRETE SHALL COMPLY WITH ALL THE REQUIREMENTS OF ASTM STANDARD C94 FOR MEASURING, MIXING, TRANSPORTING, ETC. CONCRETE TICKETS SHALL BE TIME STAMPED WHEN CONCRETE IS BATCHED. THE MAXIMUM TIME ALLOWED FROM THE TIME THE MIXING WATER IS ADDED UNTIL IT IS DEPOSITED IN ITS FINAL POSITION SHALL NOT EXCEED ONE AND ONE-HALF (1-1/2) HOURS. IF FOR ANY REASON THERE IS A LONGER DELAY THAN STATED ABOVE, THE CONCRETE SHALL BE DISCARDED. IT SHALL BE THE RESPONSIBILITY OF THE TESTING LAB TO NOTIFY THE OWNER'S REPRESENTATIVE AND THE CONTRACTOR OF ANY NONCOMPLIANCE WITH THE ABOVE. ALL SLABS SHALL BE CURED USING CURING COMPOUND MEETING ASTM STANDARD C309 TYPE 1 AND SHALL HAVE A FUGITIVE DYE. THE COMPOUND SHALL BE PLACED AS SOON AS THE FINISHING IS COMPLETED OR AS SOON AS THE WATER HAS LEFT THE UNFINISHED CONCRETE. ALL CUFFED OR BROKEN AREAS IN THE CURING MEMBRANE SHALL BE RECOATED DAILY. CALCIUM CHLORIDES SHALL NOT BE UTILIZED. OTHER ADMIXTURES MAY BE USED ONLY WITH THE APPROVAL OF THE ENGINEER.
3. CONCRETE SHALL UTILIZE TYPE III CEMENT AND SHALL HAVE 25% MIN. FLY ASH CONTENT BY WEIGHT.
4. COARSE AND FINE AGGREGATES SHALL COMPLY WITH ASTM C33 AND ACI 302.1, CURRENT VERSIONS.
5. THE CONCRETE STRENGTHS SHOWN IN THE SECTION ABOVE AND IN THE SPECIFICATIONS ARE MINIMUM COMPRESSIVE STRENGTHS. THE ENGINEER SHALL DETERMINE IF THE CONCRETE IS ACCEPTABLE, OR TO BE REMOVED, OR TO RECEIVE SPECIAL CURING IF THE COMPRESSIVE STRENGTHS ARE LESS THAN SPECIFIED.
6. ALL CONCRETE EXPOSED TO WEATHER OR EARTH SHALL BE AIR ENTRAINED TO 5% TO 7%.
7. WATER REDUCING AGENTS MAY BE USED IN THE CONCRETE MIX. PLASTICIZERS AND SUPER-PLASTICIZERS MAY BE USED ONLY WHEN WRITTEN PERMISSION OF THE ENGINEER IS GIVEN.
8. NO SALTS OF ANY KIND MAY BE USE DIN CONCRETE BEFORE OBTAINING THE ENGINEER'S WRITTEN PERMISSION FOR THEIR USE.
9. MAXIMUM WATER TO CEMENTITIOUS MATERIAL RATIO FOR ALL CONCRETE SHALL NOT EXCEED 0.5.
10. MAXIMUM SLUMP LIMITS, PLUS OR MINUS 1"

SLAB ON GRADE	3"
FOOTINGS	5"
ALL OTHER CONCRETE	4"

CONCRETE AND REINFORCEMENT PLACEMENT:
1. ALL CONCRETE SHALL BE PLACED IN ACCORDANCE WITH ACI 301 AND ACI 117 EXCEPT AS MODIFIED BELOW:
ACI 117 ITEM 4.3.1.1
ELEVATIONS OF SLABS-ON-GRADE, TOP OF SLAB ELEVATION SHALL BE WITHIN A 1" ENVELOPE OF EITHER SIDE OF THE THEORETICAL DESIGN SURFACE.
ACI 117 ITEM 4.5.7
FLOOR FINISH TOLERANCES AS MEASURED BY PLACING A FREE STANDING (UNLEVELED) 10 FT. STRAIGHT EDGE ANYWHERE ON THE SLAB AND ALLOWING IT TO REST UPON TWO HIGH SPOTS WITHIN 28 DAYS AFTER SLAB CONCRETE PLACEMENT. THE GAP AT ANY POINT BETWEEN THE STRAIGHT EDGE AND THE FLOOR SHALL NOT EXCEED 1".
2. ALL REINFORCING STEEL TO BE ASTM A615, GRADE 60 (#4 AND LARGER), EXCEPT WHERE NOTED OTHERWISE. REINFORCING SHALL NOT BE WELDED.
3. ALL REINFORCING STEEL BARS TO BE DETAILED AND PLACED IN ACCORDANCE WITH THE LATEST ACI MANUALS.
4. LAP ALL REINFORCING SPLICES IN CONCRETE A MINIMUM OF 48 BAR DIAMETERS OR 24 INCHES, WHICHEVER IS GREATER, UNLESS NOTED OTHERWISE ON DRAWINGS (CLASS B SPLICE).
5. PROVIDE CORNER BARS OF SAME BAR DIAMETER AS SPECIFIED FOR THE WALL, BEAM OR FOOTING. PROVIDE MINIMUM OF 40 BAR DIAMETER LAP FOR ALL CORNER BARS, UNLESS NOTED OTHERWISE.
6. PROVIDE FOUNDATION DOWELS AS SHOWN. MINIMUM SIZE DOWELS TO BE #4, UNLESS OTHERWISE NOTED. ALL VERTICAL REINFORCING STEEL IN COLUMNS AND PIERS, OR VERTICAL REINFORCING IN WALLS, SHALL BE DOWELED INTO THE FOOTINGS WITH THE SAME SIZE AND QUANTITY DOWEL AS THE VERTICAL REINFORCING.
7. WHERE SHOWN ON THE DRAWINGS, PROVIDE WELD PLATES, WELDMENTS, OR CONCRETE INSERTS FOR FASTENING AND SECURING OTHER COMPONENTS. CONCRETE INSERTS SHALL BE FURNISHED BY THE CONTRACTOR REQUIRING THEM AND INSTALLED BY THE CONTRACTOR CASTING THE CONCRETE AROUND THEM. CLIP ANGLES SHALL BE FURNISHED BY THE CONTRACTOR REQUIRING THEM.
8. REINFORCING STEEL SHALL RECEIVE CONCRETE COVER AS FOLLOWS:

DESCRIPTION	MINIMUM COVER
CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	3"
EXPOSED TO EARTH OR WEATHER	
#6 THROUGH #18 BARS	2"
#5 BARS OR SMALLER	1-1/2"
NOT EXPOSED TO EARTH OR WEATHER OR IN CONTACT WITH THE GROUND, SLABS AND WALLS	
#11 BARS OR SMALLER	3/4"
#14 AND #18	1-1/2"
BEAMS AND COLUMNS	1-1/2"

9. COLD WEATHER AND HOT WEATHER PROVISIONS OF ACI 306 AND 305 (CURRENT EDITIONS), RESPECTIVELY, SHALL BE MAINTAINED.
10. CONTRACTOR SHALL MAINTAIN A CONSTANT THICKNESS OVER THE ENTIRE ELEVATED SLAB. ELEVATED SLAB THICKNESS SHALL NOT BE 3/8" GREATER OR 1/4" LESS THAN SPECIFIED SLAB THICKNESS.

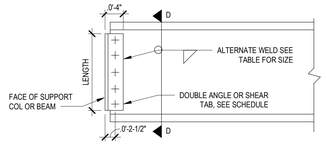
STRUCTURAL STEEL:
1. STEEL SHALL CONFORM TO ASTM A992 (Fy=50 ksi) FOR ALL W-SHAPES. AND ASTM A36 (Fy=36 ksi) FOR ALL OTHER MISCELLANEOUS SHAPES AND PLATES. STRUCTURAL TUBING SHALL CONFORM TO ASTM A500, GRADE B (Fy= 46ksi). STRUCTURAL PIPE SHALL CONFORM TO ASTM 53, GRADE B, TYPE "E" OR "S" (Fy=35ksi).
2. STEEL SHALL CONFORM TO THE LATEST EDITION OF AISC SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS.
3. ALL SHOP CONNECTIONS TO BE WELDED (UTILIZING E70XX ELECTRODES) AND FIELD CONNECTIONS TO BE BOLTED, UNLESS NOTED OTHERWISE. STEEL TO RECEIVE ONE SHOP COAT AND ONE FIELD TOUCH UP COAT OF APPROVED PAINT, EXCEPT WHERE GALVANIZED IS INDICATED ON THE DRAWINGS.
4. WELDS FOR ALL EXPOSED STRUCTURAL STEEL SHALL BE GROUND SMOOTH UNLESS NOTED OTHERWISE.
5. ALL BOLTED CONNECTIONS SHALL CONSIST OF 3/4" DIA. (MIN.) F1852 HIGH STRENGTH BOLTS, UNLESS NOTED OTHERWISE.
5.1 ALL BOLTS SHALL BE TWIST OFF BOLTS (ASTM F1852)
5.2 FAILURE OF A BOLT OR NUT DURING INSTALLATION PROCESS RESULTING IN A CRACK IN THE BOLT OR NUT SHALL BE GROUNDS FOR REJECTIONS OF ALL THE FAILED BOLTS OR NUTS COMING FROM THE SAME LOT. IF THE DOCUMENTATION OF THE LOT OF ORIGIN FOR THE FAILED NUT(S) OR BOLT(S) DOES NOT EXIST, OR IS NOT PROVIDED, THEN ALL THE BOLT(S) OR NUT(S) SHALL BE ASSUMED TO COME FROM THE LOT CONTAINING THE FAILED NUT(S) OR BOLT(S).
6. CONTRACTOR SHALL MAINTAIN ERECTION TOLERANCES OF STRUCTURAL STEEL AND ARCHITECTURALLY EXPOSED STRUCTURAL STEEL WITHIN AISC'S CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES.
7. ANCHOR BOLT HOLES IN STRUCTURAL STEEL SHALL BE OVERSIZED NO MORE THAN 1/8" MAX, UNLESS NOTED OTHERWISE.

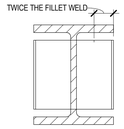
STEEL ROOF DECK:
1. STEEL ROOF DECK SHALL BE 3" DEEP 18 GAGE GALV. WIDE RIBBED STEEL ROOF DECK (3N18Ga.) AND SHALL CONFORM TO THE PROVISIONS OF THE STEEL DECK INSTITUTE (SDI) SPECIFICATIONS FOR STEEL ROOF DECK.
2. STEEL ROOF DECKS ARE DESIGNED AS HORIZONTAL DIAPHRAGMS AND SHALL BE ATTACHED TO SUPPORTS IN A 24/4 SDI PATTERN WITH #12 TEK SCREWS. PROVIDE #10 TEK SIDELAP SCREWS AT 24" C.C. SPACING MAX.

DOUBLE ANGLE CONNECTION SCHEDULE

BEAM SIZE	NO. OF A325 BOLTS	CONNECTION ANGLES THICK	CONNECTION ANGLES LENGTH	ALTERNATE WELD TO BEAM SIZE (SHOP WELD ONLY)
W12	(3)	5/16"	8-1/2"	5/16" FILLET
W16	(4)	5/16"	11-1/2"	5/16" FILLET
W21	(6)	5/16"	17-1/2"	5/16" FILLET
W24	(7)	5/16"	20-1/2"	5/16" FILLET
W27	(8)	5/16"	23-1/2"	5/16" FILLET

- USE E70XX ELECTRODES.
- BOLTS SHALL BE 3/4" DIA UNLESS NOTED OTHERWISE.
-SIZE AND NUMBER OF BOLTS INTO SUPPORTING MEMBER TO BE TWICE THE NUMBER OF BOLTS INTO THE BEAM & OF THE SAME SIZE.





SECTION D-D

SHEAR TAB CONNECTION SCHEDULE

BEAM	HEIGHT	THICKNESS	NO. 3/4" DIA. A325 BOLTS	WELD SIZE TO COL.
W12	8-1/2"	3/8"	(3)	5/16" FILLET
W16	11-1/2"	3/8"	(4)	5/16" FILLET
W21	17-1/2"	3/8"	(6)	5/16" FILLET
W24	20-1/2"	1/2""	(7)	5/16" FILLET
W27	23-1/2"	1/2"	(8)	5/16" FILLET

Revision#	Description	Date:

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: HOT SPRINGS STRUCTURAL NOTES	Phase: FINAL CONSTRUCTION DOCUMENTS	Project Title: MRI SITE PREP FOR FT. MEADE / HOT SPRINGS VAMC	Project Number: VA #568-CSI-301 SGA #201910
Approved:		Location: FORT MEADE & HOT SPRINGS, SD	Building Number: 165 & 12
		Issue Date: 11/04/2020 / Checked: TRS / Drawn: JHK	Drawing Number: HS-AE102

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three inches = one foot
one and one half inches = one foot
one inch = one foot
three quarters inch = one foot
one half inch = one foot
three eighths inch = one foot
one quarter inch = one foot
one eighth inch = one foot
VA FORM 08 - 6231

IBC 2018 TABLE 1705.3 REQUIRED SPECIAL INSPECTION AND TESTS OF CONCRETE CONSTRUCTION

TYPE	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION	REFERENCED STANDARD[a]	IBC REFERENCE	REQUIRED ON PROJECT
1. INSPECTION REINFORCEMENT, INCLUDING PRESTRESSING TENDONS, AND VERIFY PLACEMENT	-	X	ACI 318 CH 20, 25.2, 25.3, 26.6.1-26.6.3	1908.4	YES
2. REINFORCING BAR WELDING:					
A. VERIFY WELDABILITY OF REINFORCING BARS OTHER THAN ASTM A706	-	X	AWS D1.4, ACI 318: 26.6.4	-	NO
B. INSPECT SINGLE-PASS FILLET WELDS, MAXIMUM 5/16".		X			
C. INSPECT ALL OTHER WELDS	X	-			
3. INSPECT ANCHORS CAST IN CONCRETE.	-	X	ACI 318: 17.8.2	-	YES
4. INSPECT ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS:[a]					
A. ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS.	X		ACI 318: 17.8.2.4, ACI 318: 17.8.2	-	NO
B. MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED IN 4A.		X			YES
5. VERIFY USE OF REQUIRED DESIGN MIX.	-	X	ACI 318: CH. 19, 26.4.3, 26.4.4	1904.1, 1904.2, 1908.2, 1908.3	YES
6. PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	X	-	ASTM C172, ASTM C31, ACI 318: 26.5, 26.12	1908.10	YES
7. INSPECT CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES	X	-	ACI 318: 26.5	1908.6, 1908.7, 1908.8	YES
8. VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	-	X	ACI 318: 26.5.3-26.5.5	1908.9	YES
9. INSPECT OF PRESTRESSED CONCRETE FOR:					
A. APPLICATION OF PRESTRESSING FORCES.	X	-	ACI 318: 26.10	-	NO
B. GROUTING OF BONDED PRESTRESSING TENDONS.	X	-			
10. INSPECT ERECTION OF PRECAST CONCRETE MEMBERS.	-	X	ACI 318: CH. 26.9	-	NO
11. VERIFY IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST-TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND/FORMS FROM BEAMS AND STRUCTURAL SLABS.	-	X	ACI 318: 26.11.2	-	YES
12. INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.	-	X	ACI 318: 26.11.1.2(b)	-	YES

a. WHERE APPLICABLE, SEE SECTION 1705.12, SPECIAL INSPECTIONS FOR SEISMIC RESISTANCE.

b. SPECIFIC REQUIREMENTS FOR SPECIAL INSPECTION SHALL BE INCLUDED IN THE RESEARCH REPORT FOR THE ANCHOR ISSEUD BY AN APPROVED SOURCE IN ACCORDANCE WITH 17.8.2 IN ACI 318, OR OTHER QUALIFICATION PROCEDURES. WHERE SPECIFIC REQUIREMENTS ARE NOT PROVIDED, SPECIAL INSPECTION REQUIREMENTS SHALL BE SPECIFIED BY THE REGISTERED DESIGN PROFESSIONAL AND SHALL BE APPROVED BY THE BUILDING OFFICIAL PRIOR TO THE COMMENCEMENT OF THE WORK.

WELDING OF REINFORCING BARS.
SPECIAL INSPECTIONS OF WELDING AND QUALIFICATIONS OF SPECIAL INSPECTORS FOR REINFORCING BARS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF AWS D1.4 FOR SPECIAL INSPECTION AND AWS D1.4 FOR SPECIAL INSPECTOR QUALIFICATION.

MATERIAL TESTS.
IN THE ABSENCE OF SUFFICIENT DATA OR DOCUMENTATION PROVIDING EVIDENCE OF CONFORMANCE TO QUALITY STANDARDS FOR MATERIALS IN CHAPTERS 19 AND 20 OF ACI 318, THE BUILDING
OFFICIAL SHALL REQUIRE TESTING OF MATERIALS IN ACCORDANCE WITH THE APPROPRIATE STANDARDS AND CRITERIA FOR THE MATERIAL IN CHAPTERS 19 AND 20 OF ACI 318.

IBC 2018 TABLE 1705.6 REQUIRED VERIFICATION AND INSPECTION OF SOILS

VERIFICATION AND INSPECTION TASKS	FREQUENCY OF INSPECTION		REQUIRED ON PROJECT
	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION	
1. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.	-	X	YES
2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL	-	X	YES
3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.	-	X	YES
4. VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.	X	-	YES
PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VARIFY THAT SITE HAS BEEN PREPARED PROPERLY.	-	X	YES

SPECIAL INSPECTION AND TESTING:

1. SPECIAL INSPECTION AND MINIMUM TESTING SHALL BE PERFORMED IN ACCORDANCE WITH 2018 IBC AND ALL REFERENCED MATERIALS AND TABLES.
2. INSPECTION SHALL BE PROVIDED BY AN INDEPENDENT TESTING AGENCY HIRED AT THE CONTRACTOR'S EXPENSE. AGENCY INSPECTION PERSONNEL SHALL MEET THE INSPECTOR QUALIFICATIONS FOR EACH MATERIAL ITEM AS INDICATED IN THE SPECIFICATIONS.
3. ANY MATERIAL OR PLACEMENT DEVIATIONS FROM MINIMUMS SHOWN ON THE DRAWINGS OR IN SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
4. IN ADDITION TO THE IBC INSPECTION TABLES, THE INSPECTOR SHALL VERIFY THAT ALL STEEL MAINTAIN ERECTION TOLERANCE OF STRUCTURAL STEEL AND ARCHITECTURALLY EXPOSED STRUCTURAL STEEL WITHIN AISC'S CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES.
5. IN ADDITION TO THE CONCRETE IBC INSPECTION TABLES, THE INSPECTOR SHALL VERIFY THAT ALL CONCRETE MAINTAIN TOLERANCES SPECIFIED IN ACI 117-90 STANDARD SPECIFICATIONS FOR TOLERANCES FOR CONCRETE CONSTRUCTION AND MATERIALS.
6. TESTING - ANY FAILED FIELD TEST SHALL BE REPORTED TO ALBERTSON ENGINEERING INC IMMEDIATELY.

STANDARD FOR QUALITY CONTROL AND QUALITY ASSURANCE FOR THE INSTALLATION OF STEEL DECK

TABLE 1.1 INSPECTION OR EXECUTION TASKS PRIOR TO DECK PLACEMENT

TASK	QC	QA
A. VERIFY COMPLIANCE OF MATERIALS (DECK AND ALL DECK ACCESSORIES) WITH CONSTRUCTION DOCUMENTS, INCLUDING PROFILES, MATERIAL PROPERTIES, AND BASE METAL THICKNESS	PERFORM	PERFORM
B. DOCUMENT ACCEPTANCE OR REJECTION OF DECK AND DECK ACESSORIES	PERFORM	PERFORM

TABLE 1.2 INSPECTION OR EXECUTION TASKS AFTER DECK PLACEMENT

TASK	QC	QA
A. VERIFY COMPLIANCE OF DECK AND ALL DECK ACCESSORIES INSTALLATION WITH CONSTRUCTION DOCUMENTS	PERFORM	PERFORM
B. VERIFY DECK MATERIALS ARE REPRESENTED BY THE MILL CERTIFICATIONS THAT COMPLY WITH THE CONSTRUCTION DOCUMENTS	N/A	PERFORM
C. DOCUMENT ACCEPTANCE OR REJECTION OF INSTALLATION OF DECK AND DECK ACCESSORIES	PERFORM	PERFORM

TABLE 1.3 INSPECTION OR EXECUTION TASKS PRIOR TO WELDING

TASK	QC	QA
A. WELDING PROCEDURE SPECIFICATIONS (WPS) AVAILABLE	OBSERVE	OBSERVE
B. MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES AVAILABLE	OBSERVE	OBSERVE
C. MATERIAL IDENTIFICATION (TYPE/GRADE)	OBSERVE	OBSERVE
D. CHECK WELDING EQUIPMENT	OBSERVE	OBSERVE

TABLE 1.4 INSPECTION OR EXECUTION TASKS DURING WELDING

TASK	QC	QA
A. USE OF QUALIFIED WELDERS	OBSERVE	OBSERVE
B. CONTROL AND HANDLING OF WELDING CONSUMABLES	OBSERVE	OBSERVE
C. ENVIRONMENTAL CONDITIONS (WIND SPEED, MOISTURE, TEMPERATURE)	OBSERVE	OBSERVE
D. WPS FOLLOWED	OBSERVE	OBSERVE

TABLE 1.5 INSPECTION OR EXECUTION TASKS AFTER WELDING

TASK	QC	
A. VERIFY SIZE & LOCATION OF WELDS, INCLUDING SUPPORT, SIDELAP, & PERIMETER WELDS	PERFORM	PERFORM
B. WELDS MEET VISUAL ACCEPTANCE CRITERIA	PERFORM	PERFORM
C. VERIFY REPAIR ACTIVITIES	PERFORM	PERFORM
D. DOCUMENT ACCEPTANCE OR REJECTION OF WELDS	PERFORM	PERFORM

TABLE 1.6 INSPECTION OR EXECUTION TASKS PRIOR TO MECHANICAL FASTENING

TASK	QC	
A. MANUFACTURER INSTALLATION INSTRUCTIONS AVAILABLE FOR MECHANICAL FASTENERS	OBSERVE	OBSERVE
B. PROPER TOOLS AVAILABLE FOR FASTENER INSTALLATION	OBSERVE	OBSERVE
C. PROPER STORAGE FOR MECHANICAL FASTENERS	OBSERVE	OBSERVE

TABLE 1.7 INSPECTION OR EXECUTION TASKS DURING MECHANICAL FASTENING

INSPECTION TASKS DURING MECHANICAL FASTENING	QC	
A. FASTENERS ARE POSITIONED AS REQUIRED	OBSERVE	OBSERVE
B. FASTENERS ARE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS	OBSERVE	OBSERVE

TABLE 1.8 INSPECTION OR EXECUTION TASKS AFTER MECHANICAL FASTENING

INSPECTION TASKS AFTER MECHANICAL FASTENING	QC	
A. CHECK SPACING, TYPE, AND INSTALLATION OF SUPPORT FASTENERS	PERFORM	PERFORM
B. CHECK SPACING, TYPE, AND INSTALLATION OF SIDELAP FASTENERS	PERFORM	PERFORM
C. CHECK SPACING, TYPE, AND INSTALLATION OF PERIMETER FASTENERS	PERFORM	PERFORM
D. VERIFY REPAIR ACTIVITIES	PERFORM	PERFORM
E. DOCUMENT ACCEPTANCE OR REJECTION OF MECHANICAL FASTENERS	PERFORM	PERFORM

NOTE:
• QUALITY CONTROL (QC) SHALL BE PROVIDED BY THE INSTALLER
• QUALITY ASSURANCE (QA) SHALL BE PROVIDED BY THE CERTIFIED TESTING AGENCY

STEEL CONSTRUCTION

TABLE N5.4-1 INSPECTION TASKS PRIOR TO WELDING

INSPECTION TASKS PRIOR TO WELDING	INSPECTION INTERVAL	REQUIRED ON PROJECT
WELDER QUALIFICATION RECORDS AND CONTINUITY RECORDS	P	YES
WELDING PROCEDURE SPECIFICATIONS (WPSs) AVAILABLE	P	YES
MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES AVAILABLE	P	YES
MATERIAL IDENTIFICATION (TYPE/GRADE)	O	YES
WELDER IDENTIFICATION SYSTEM (a)	O	YES
FIT-UP OF GROOVE WELDS (INCLUDING JOINT GEOMETRY) • JOINT PREPARATION • DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL) • CLEANLINESS (CONDITION OF STEEL SURFACES) • TACKING (TACK WELD QUALITY AND LOCATION)	O	YES
FIT-UP OF CJP GROOVE WELDS OF HSS T-, Y- AND K-JOINTS WITHOUT BACKING • JOINT PREPARATIONS • DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL) • CLEANLINESS (CONDITION OF STEEL SURFACES) • TACKING (TACK WELD QUALITY AND LOCATION)	P	YES
CONFIGURATION AND FINISH OF ACCESS HOLES	O	YES
FIT-UP OF FILLET WELDS • DIMENSIONS (ALIGNMENT, GAPS AT ROOT) • CLEANLINESS (CONDITION OF STEEL SURFACES) • TACKING (TACK WELD QUALITY AND LOCATION)	O	YES
CHECK WELDING EQUIPMENT	O	-

(a) THE FABRICATOR OR ERECTOR, AS APPLICABLE. SHALL MAINTAIN A SYSTEM BY WHICH A WELDER WHO HAS WELDED A JOINT OR MEMBER CAN BE IDENTIFIED. STAMPS, IF USED, SHALL BE THE LOW-STRESS TYPE.

TABLE N5.4-2 INSPECTION TASKS DURING WELDING

INSPECTION TASKS DURING WELDING	INSPECTION INTERVAL	REQUIRED ON PROJECT
USE OF QUALIFIED WELDERS	O	YES
CONTROL AND HANDLING OF WELDING CONSUMABLES • PACKAGING • EXPOSURE CONTROL	O	YES
NO WELDING OVER CRACKED TACK WELDS	O	YES
ENVIRONMENTAL CONDITIONS • WIND SPEED WITHIN LIMITS • PRECIPITATION AND TEMPERATURE	O	YES
WPS FOLLOWED • SETTINGS ON WELDING EQUIPMENT • TRAVEL SPEED • SELECTED WELDING MATERIALS • SHIELDING GAS TYPE/FLOW RATE • PREHEAT APPLIED • INTERPASS TEMPERATURE MAINTAINED (MIN/MAX) • PROPER POSITION (F, V, H, OH)	O	YES
WELDING TECHNIQUES • INTERPASS AND FINAL CLEANING • EACH PASS WITHIN PROFILE LIMITATIONS • EACH PASS MEETS QUALITY REQUIREMENTS	O	YES
PLACEMENT AND INSTALLATION OF STEEL HEADED STUD ANCHORS	P	YES

AISC 360-16 TABLE N5.4-3 INSPECTION TASKS AFTER WELDING

INSPECTION TASKS AFTER WELDING	INSPECTION INTERVAL	REQUIRED ON PROJECT
WELDS CLEANED	O	YES
SIZE, LENGTH AND LOCATION OF WELDS	P	YES
WELDS MEET VISUAL ACCEPTANCE CRITERIA: • CRACK PROHIBITION • WELD/BASE-METAL FUSION • CRATER CROSS SECTION • WELD PROFILES • WELD SIZE • UNDERCUT • POROSITY	P	YES
ARC STRIKES	P	YES
k-AREA (a)	P	YES
WELD ACCESS HOLES IN ROLLED HEAVY SHAPES AND BUILT-UP HEAVY SHAPES(b)	P	YES
BACKING REMOVED AND WELD TABS REMOVED (IF REQUIRED)	P	YES
REPAIR ACTIVITIES	O	YES
DOCUMENT ACCEPTANCE OR REJECTION OF WELDED JOINT OR MEMBER	O	YES
NO PROHIBITED WELDS HAVE BEEN ADDED WITHOUT THE APPROVAL OF THE EOR	O	YES

(a) WHEN WELDING OF DOUBLE PLATES, CONTINUITY PLATES OR STIFFENERS HAS BEEN PERFORMED IN THE k-AREA, VISUALLY INSPECT THE WEB k-AREA FOR CRACKS WITHIN 3" (75 mm) OF THE WELD.

(b) AFTER ROLLED HEAVY SHAPES (SEE SECTION A3.1c) AND BUILT-UP HEAVY SHAPES (SEE SECTION A3.1d) ARE WELDED, VISUALLY INSPECT THE WELD ACCESS HOLE FOR CRACKS.

AISC 360-16 TABLE N5.6-1 INSPECTION TASKS PRIOR TO BOLTING

INSPECTION TASKS PRIOR TO BOLTING	INSPECTION INTERVAL	REQUIRED ON PROJECT
MANUFACTURER'S CERTIFICATIONS AVAILABLE FOR FASTENER MATERIALS	O	YES
FASTENERS MARKED IN ACCORDANCE WITH ASTM REQUIREMENTS	O	YES
CORRECT FASTENERS SELECTED FOR THE JOINT DETAIL (GRADE, TYPE, BOLT LENGTH IF THREADS ARE TO EXCLUDED FROM SHEAR PLANE)	O	YES
CORRECT BOLTING PROCEDURE SELECTED FOR JOINT DETAIL	O	YES
CONNECTING ELEMENTS, INCLUDING THE APPROPRIATE FAYING SURFACE CONDITION AND HOLE PREPARATION, IF SPECIFIED, MEET APPLICABLE REQUIREMENTS	O	YES
PRE-INSTALLATION VERIFICATION TESTING BY INSTALLATION PERSONNEL OBSERVED AND DOCUMENTED FOR FASTENER ASSEMBLIES AND METHODS USED	P	YES
PRTECTED STORAGE PROVIDED FOR BOLTS, NUTS, WASHERS AND OTHER FASTENER COMPONENTS	O	YES

AISC 360-16 TABLE N5.6-2 INSPECTION TASKS DURING BOLTING

INSPECTION TASKS DURING BOLTING	INSPECTION INTERVAL	REQUIRED ON PROJECT
FASTENER ASSEMBLIES PLACED IN ALL HOLES AND WASHERS AND NUTS ARE POSITIONED AS REQUIRED	O	YES
JOINT BROUGHT TO THE SNUG-TIGHT CONDITION PRIOR TO THE PRETENSIONING OPERATION	O	YES
FASTENER COMPONENT NOT TURNED BY THE WRENCH PREVENTED FROM ROTATING	O	YES
FASTENERS ARE PRETENSIONED IN ACCORDANCE WITH THE RCSC SPECIFICATION, PROGRESSING SYSTEMATICALLY FROM THE MOST RIGID POINT TOWARD THE FREE EDGES	O	YES

AISC 360-16 TABLE N5.6-3 INSPECTION TASKS AFTER BOLTING

INSPECTION TASKS AFTER BOLTING	INSPECTION INTERVAL	REQUIRED ON PROJECT
DOCUMENT ACCEPTANCE OR REJECTION OF BOLTED CONNECTIONS	P	YES

- O-OBSERVE THESE ITEMS ON A RANDOM BASIS. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPECTIONS. P-PERFORM THESE TASKS FOR EACH WELDED JOINT OR MEMBER.
- OBSERVATION OF WELDING OPERATIONS AND VISUAL INSPECTION OF IN-PROCESS AND COMPLETED WELDS SHALL BE THE PRIMARY METHOD TO CONFIRM THAT THE MATERIALS, PROCEDURES AND WORKMANSHIP ARE IN CONFORMANCE WITH THE CONSTRUCTION DOCUMENTS.
- FOR STRUCTURES IN RISK CATEGORY II/III/IV (ASCE/SEI 7, TABLE 1.5-1), ULTRASONIC TESTING SHALL BE PERFORMED ON ALL COMPLETE-JOINT-PENETRATION GROOVE WELDS SUBJECT TO TRANSVERSELY APPLIED TENSION LOADING IN BUTT, T- AND CORNER JOINTS, IN MATERIALS 5/16" (8 MM) THICK OR GREATER.
- FOR STRUCTURES IN RISK CATEGORY II/III (ASCE/SEI 7, TABLE 1.5-1), ULTRASONIC TESTING SHALL BE PERFORMED ON 10% OF COMPLETE-JOINT-PENETRATION GROOVE WELDS SUBJECT TO TRANSVERSELY APPLIED TENSION LOADING IN BUTT, T- AND CORNER JOINTS, IN MATERIALS 5/16" (8 MM) THICK OR GREATER.
- ALL NONDESTRUCTIVE TESTING OF WELDED JOINTS SHALL BE DOCUMENTED.
- SEE AISC360-16 CHAPTER N FOR ADDITIONAL WELD INSPECTION REQUIREMENTS.
- SEE AISC360-16 CHAPTER N FOR ADDITIONAL BOLT INSPECTION REQUIREMENTS.
- EXPOSED CUT SURFACES OF GALVANIZED STRUCTURAL STEEL MAIN MEMBERS AND EXPOSED CORNERS OF RECTANGULAR HSS SHALL BE VISUALLY INSPECTED FOR CRACKS SUBSEQUENT TO GALVANIZING.
- INSPECTION SHALL OCCUR DURING THE PLACEMENT OF ANCHOR RODS AND OTHER EMBEDMENTS SUPPORTING STRUCTURAL STEEL FOR COMPLIANCE WITH THE CONSTRUCTION DOCUMENTS, INCLUDING DIAMETER, GRADE, TYPE AND LENGTH OF THE ANCHOR ROD OR EMBEDDED ITEM, AND THE EXTENT OR DEPTH OF EMBEDMENT INTO THE CONCRETE.
- FABRICATED STEEL AND ERECTED STEEL FRAMES, AS APPROPRIATE, SHALL BE INSPECTED FOR COMPLIANCE WITH THE DETAILS SHOWN ON THE CONSTRUCTION DOCUMENTS, INCLUDING BRACES, STIFFENERS, MEMBER LOCATIONS AND PROPER JOINT DETAIL APPLICATION.

- O-OBSERVE THESE ITEMS ON A RANDOM BASIS. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPECTIONS. P-PERFORM THESE TASKS FOR EACH WELDED JOINT OR MEMBER.
- OBSERVATION OF WELDING OPERATIONS AND VISUAL INSPECTION OF IN-PROCESS AND COMPLETED WELDS SHALL BE THE PRIMARY METHOD TO CONFIRM THAT THE MATERIALS, PROCEDURES AND WORKMANSHIP ARE IN CONFORMANCE WITH THE CONSTRUCTION DOCUMENTS.
- FOR STRUCTURAL STEEL, ALL PROVISIONS OF AWS D1.1/D1.1M SHALL APPLY.
- FOR STRUCTURES IN RISK CATEGORY II/III/IV (ASCE/SEI 7, TABLE 1.5-1), ULTRASONIC TESTING SHALL BE PERFORMED ON ALL COMPLETE-JOINT-PENETRATION GROOVE WELDS SUBJECT TO TRANSVERSELY APPLIED TENSION LOADING IN BUTT, T- AND CORNER JOINTS, IN MATERIALS 5/16" (8 mm) THICK OR GREATER.
- FOR STRUCTURES IN RISK CATEGORY I/II (ASCE/SEI 7, TABLE 1.5-1), ULTRASONIC TESTING SHALL BE PERFORMED ON 10% OF COMPLETE-JOINT-PENETRATION GROOVE WELDS SUBJECT TO TRANSVERSELY APPLIED TENSION LOADING IN BUTT, T- AND CORNER JOINTS, IN MATERIALS 5/16" (8 mm) THICK OR GREATER.
- THERMALLY CUT SURFACES OF ACCESS HOLES SHALL BE TESTED USING MAGNETIC PARTICLE TESTING OR PENETRANT TESTING WHEN THE FLANGE THICKNESS EXCEEDS 2" (50 mm) FOR ROLLED SHAPES, OR WHEN THE WEB THICKNESS EXCEEDS 2" (50mm) FOR BUILT-UP SHAPES. ANY CRACK SHALL BE DEEMED UNACCEPTABLE REGARDLESS OF SIZE OR LOCATION.
- ALL NONDESTRUCTIVE TESTING OF WELDED JOINTS SHALL BE DOCUMENTED.
- SEE AISC360-10 CHAPTER N FOR ADDITIONAL WELD INSPECTION REQUIREMENTS.
- SEE AISC360-10 CHAPTER N FOR ADDITIONAL BOLT INSPECTION REQUIREMENTS.
- INSPECTION SHALL OCCUR DURING THE PLACEMENT OF ANCHOR RODS AND OTHER EMBEDMENTS SUPPORTING STRUCTURAL STEEL FOR COMPLIANCE WITH THE CONSTRUCTION DOCUMENTS, INCLUDING DIAMETER, GRADE, TYPE AND LENGTH OF THE ANCHOR ROD OR EMBEDDED ITEM, AND THE EXTENT OR DEPTH OF EMBEDMENT INTO THE CONCRETE.
- FABRICATED STEEL AND ERECTED STEEL FRAMES, AS APPROPRIATE, SHALL BE INSPECTED FOR COMPLIANCE WITH THE DETAILS SHOWN ON THE CONSTRUCTION DOCUMENTS, INCLUDING BRACES, STIFFENERS, MEMBER LOCATIONS AND PROPER JOINT DETAIL APPLICATION.

Revision#	Description	Date:

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REGISTERED ARCHITECT — 605 — 9774 — TODD SAMUEL STONE — SOUTH DAKOTA — 10-22-20

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	HOT SPRINGS - STRUCTURAL TABLES
Phase	FINAL CONSTRUCTION DOCUMENTS
Project Title	MRI SITE PREP FOR FT. MEADE / HOT SPRINGS VAMC
Project Number	VA #568-CSI-301 SGA #201910
Building Number	165 & 12
Location	FORT MEADE & HOT SPRINGS, SD
Drawing Number	HS-AE103
Approved:	
Issue Date	11/04/2020
Checked	TRS
Drawn	JHK

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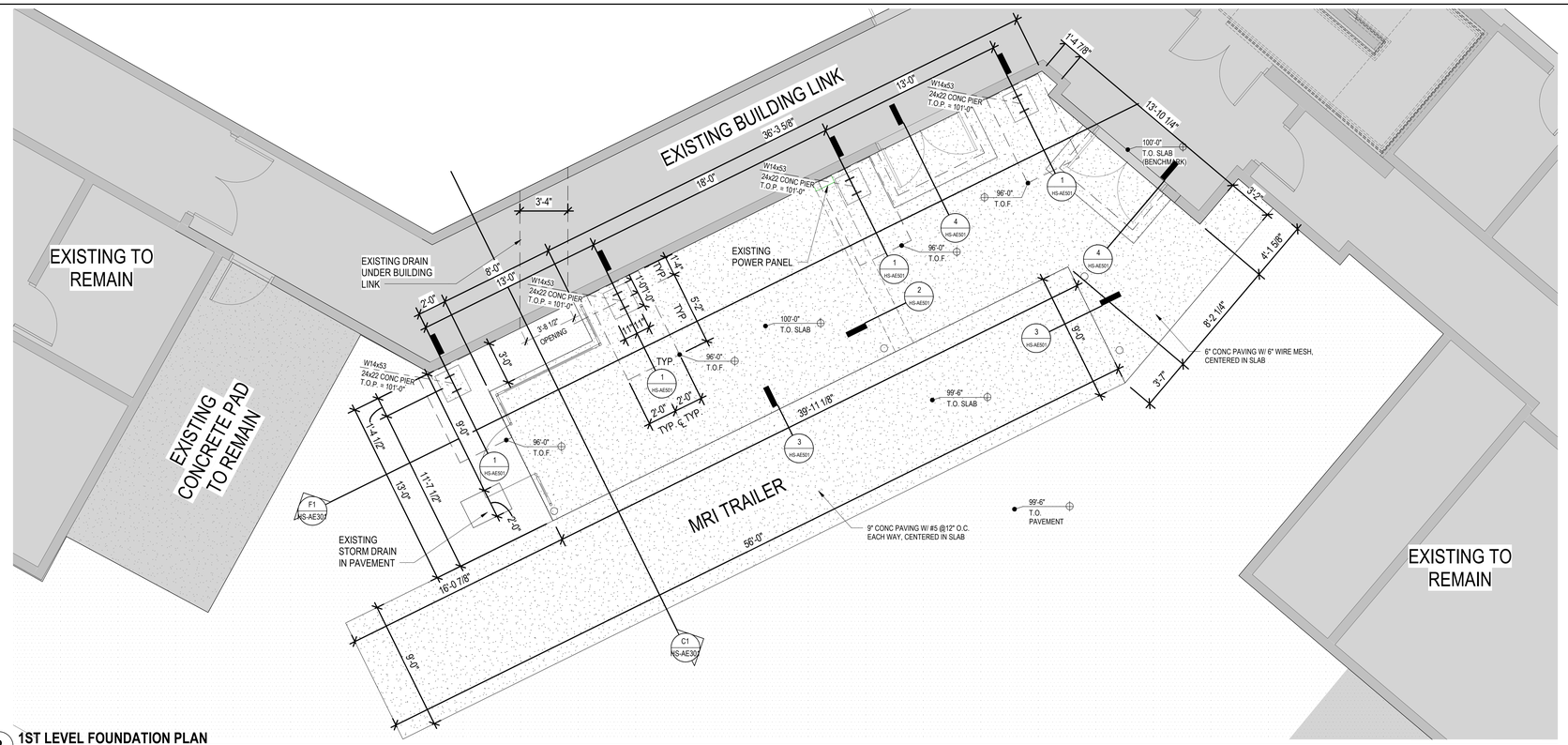
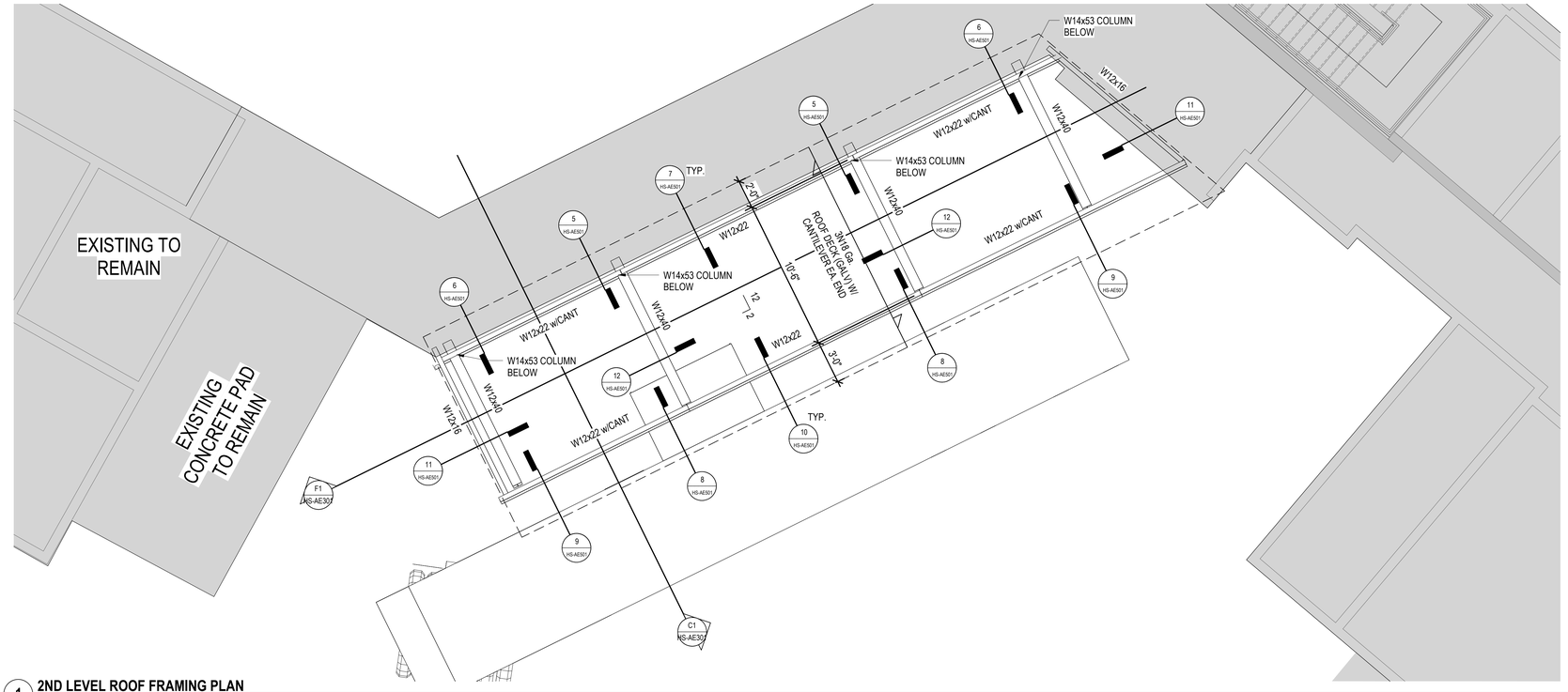


2 1ST LEVEL FOUNDATION PLAN

1/4" = 1'-0"



1 2ND LEVEL ROOF FRAMING PLAN

1/4" = 1'-0"

GENERAL SITE PLAN NOTES:

A. SEE MECHANICAL AND ELECTRICAL PLANS FOR ADDITIONAL INFORMATION.
B. SEE MECHANICAL AND ELECTRICAL PLANS FOR LOCATIONS OF HOSE BIBS AND EXTERIOR OUTLETS.
C. VERIFY WITH CIVIL FOR ADDITIONAL INFORMATION, PROPERTY LINES, EASEMENTS, AND BUILDING LOCATION.

Revision#	Description	Date:

CONSULTANTS

MECHANICAL / ELECTRICAL / PLUMBING:
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STONE GROUP ARCHITECTS

STAMP

REGISTERED ARCHITECT — 9773 — TODD RAYMOND STONE — SOUTH DAKOTA — 10-24-20

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	HOT SPRINGS FOUNDATION & ROOF FRAMING PLANS
Phase	FINAL CONSTRUCTION DOCUMENTS
Project Title	MRI SITE PREP FOR FT. MEADE / HOT SPRINGS VAMC
Project Number	VA #568-CSI-301 SGA #201910
Building Number	165 & 12
Approved:	
Location	FORT MEADE & HOT SPRINGS, SD
Drawing Number	HS-AE104
Issue Date	11/04/2020
Checked	TRS
Drawn	JHK

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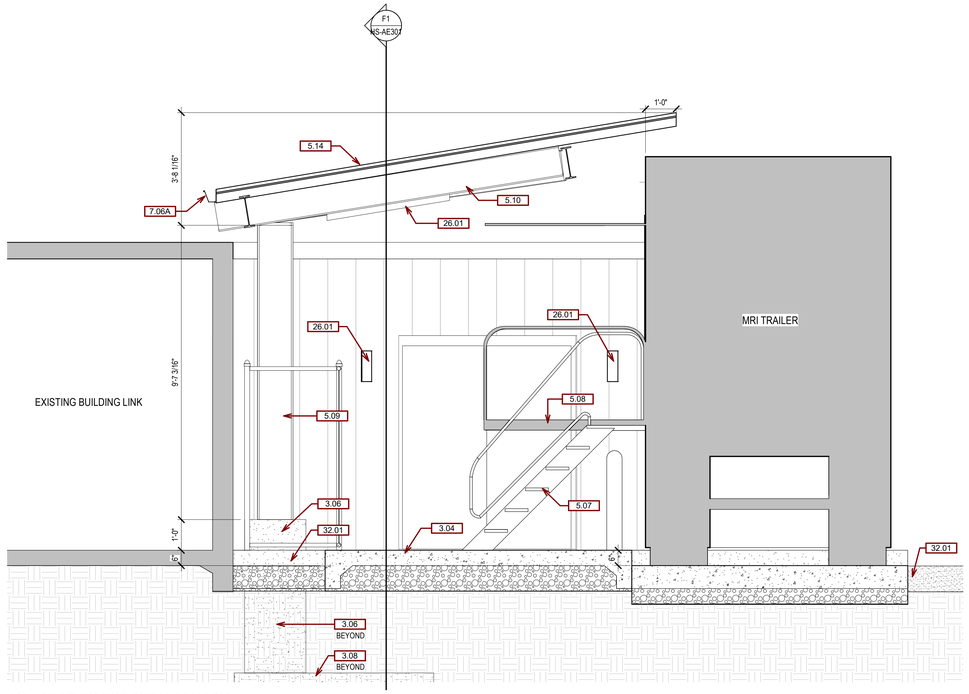
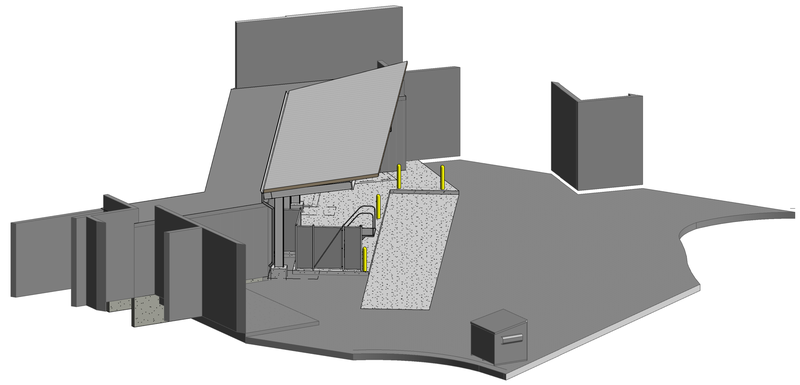


C1 **SECTION THROUGH CANOPY**
1/2" = 1'-0"



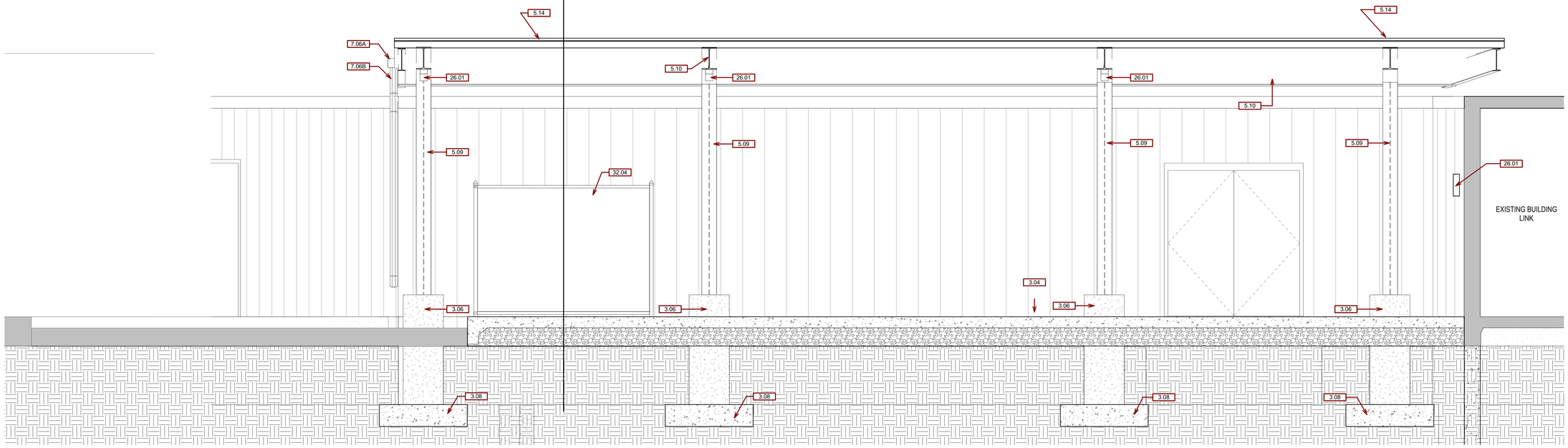
1 **3D - AXONOMETRIC VIEW**

GENERAL SECTION NOTES:

A. ANY DISCREPANCIES OR CONFLICTS FOUND IN THE VARIOUS PARTS OF THE CONSTRUCTION DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND THE OWNER BEFORE PROCEEDING WITH THE WORK.
B. FURNITURE IS PROVIDED AND INSTALLED BY OTHERS.
C. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS. DO NOT SCALE THE DRAWINGS.
D. CONTRACTOR & SUBCONTRACTORS TO VERIFY ALL EXISTING CONDITIONS AT THE PROJECT SITE.
E. ALL MATERIALS & EQUIPMENT SHALL BE INSTALLED PER MANUFACTURERS INSTRUCTIONS.
F. DETAILS SHOWN ARE TYPICAL UNLESS OTHERWISE NOTED. SIMILAR DETAILS APPLY IN SIMILAR CONDITIONS.
G. PROVIDE WOOD BACKING FOR ALL BATH ACCESSORIES, HANDRAILS, OR OTHER ITEMS ATTACHED TO BUILDING WALLS.
H. GYPSUM USED IN RESTROOMS SHALL BE WATER RESISTANT GYPSUM BOARD. USE DURAROCK @ ALL PORCELAIN & CERAMIC TILE LOCATIONS.
I. PROVIDE ADA COMPLIANT SIGNAGE FOR ALL REQUIRED AREAS, ROOMS, & ACCESSIBLE PATHS.
J. K. HEIGHT OF OPERATIONAL OR DISPENSING PORTION OF ACCESSORIES & FIXTURES NOT TO EXCEED 48" A.F.F.

SGA KEYNOTES

KEY VALUE	KEYNOTE TEXT
3.04	6" CONCRETE SLAB ON GRADE - LEVEL TO EXISTING EXIT DOOR FROM BUILDING 12.
3.06	CONCRETE COLUMN FOR PLATFORM.
3.08	CONCRETE BASE FOR CANOPY COLUMNS.
5.07	MOBILE MRI METAL STAIR TO MRI TRAILER.
5.08	MOBILE MRI TRAILER PATIENT LIFT - ATTACHED TO TRAILER.
5.09	STEEL COLUMNS FOR CANOPY - SEE STRUCTURAL.
5.10	STEEL BEAM FOR CANOPY ROOF - SEE STRUCTURAL.
5.14	GALV. METAL ROOF DECK 3" DEEP.
7.06A	PRE-FINISHED METAL GUTTER.
7.06B	PRE-FINISHED METAL DOWNSPOUT. ROUTE ALONG COLUMN AND DISCHARGE TO THE WEST.
26.01	LIGHT FIXTURE. SEE ELEC.
32.01	INSTALL 4" ASPHALT PAVEMENT TO SAME GRADE AS EXISTING.
32.04	INSTALL NEW 8 FOOT TALL CHAINLINK FENCE AT EDGE OF CONCRETE SLAB. INSTALL SLATS IN ALL METAL FABRIC MESH.



F1 **SECTION THROUGH PLATFORM**
1/2" = 1'-0"

Revision#	Description	Date:

CONSULTANTS

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REGISTERED ARCHITECT
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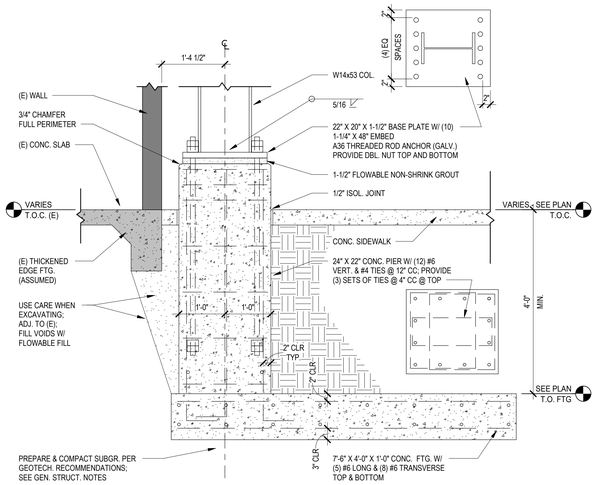
Office of Construction and Facilities Management

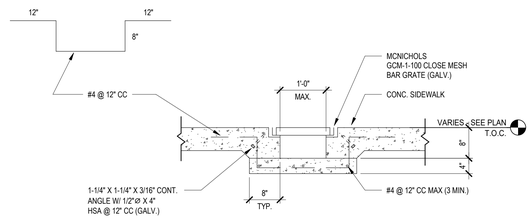
VA U.S. Department of Veterans Affairs

Drawing Title: HOT SPRINGS SITE SECTIONS	Phase: FINAL CONSTRUCTION DOCUMENTS
Approved:	

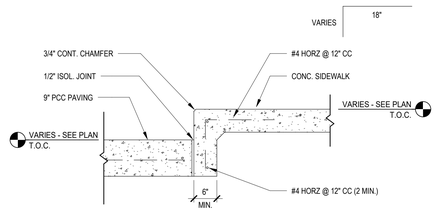
Project Title: MRI SITE PREP FOR FT. MEADE / HOT SPRINGS VAMC	Project Number: VA #568-CSI-301 SGA #201910
	Building Number: 165 & 12
Location: FORT MEADE & HOT SPRINGS, SD	Drawing Number: HS-AE301
Issue Date: 11/04/2020	Checked: TRS
	Drawn: JHK



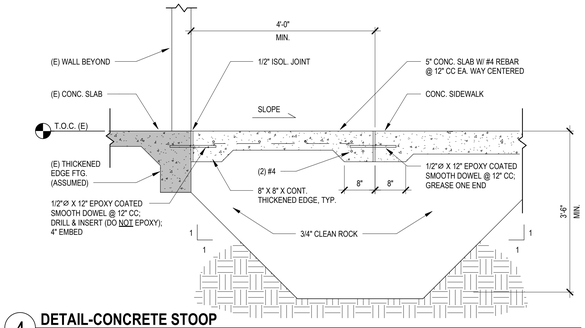
1 DETAIL-CONCRETE PIER FOUNDATION
3/4" = 1'-0"



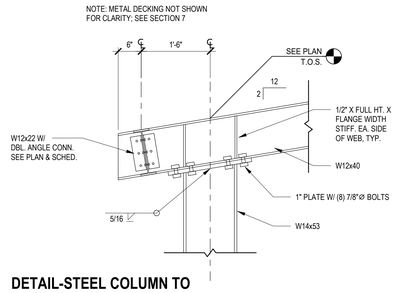
2 DETAIL-CONCRETE CABLE TRENCH
3/4" = 1'-0"



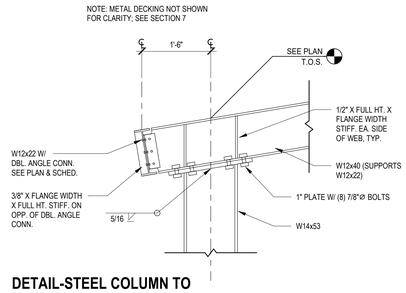
3 DETAIL-CONCRETE CURB
3/4" = 1'-0"



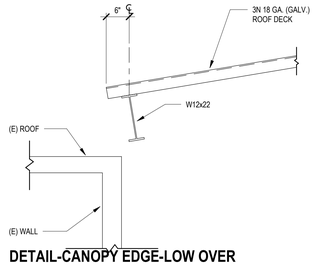
4 DETAIL-CONCRETE STOOP
3/4" = 1'-0"



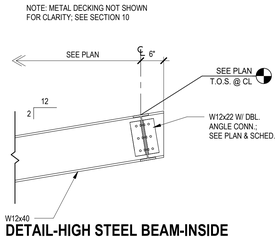
5 DETAIL-STEEL COLUMN TO BEAM-INSIDE COLUMNS
3/4" = 1'-0"



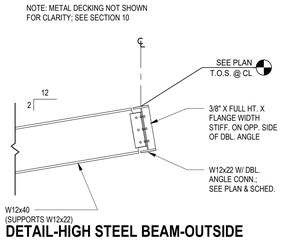
6 DETAIL-STEEL COLUMN TO BEAM-OUTSIDE COLUMNS
3/4" = 1'-0"



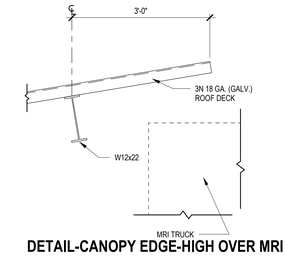
7 DETAIL-CANOPY EDGE-LOW OVER EXISTING WALKWAY
3/4" = 1'-0"



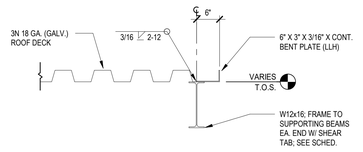
8 DETAIL-HIGH STEEL BEAM-INSIDE COLUMNS
3/4" = 1'-0"



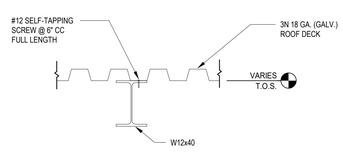
9 DETAIL-HIGH STEEL BEAM-OUTSIDE COLUMNS
3/4" = 1'-0"



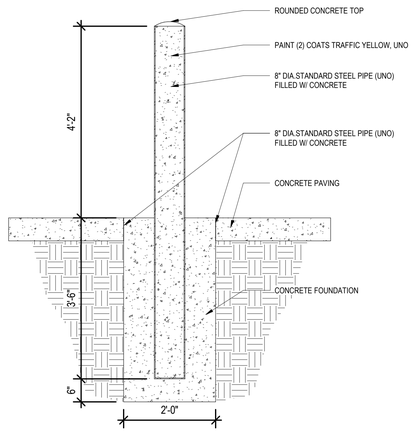
10 DETAIL-CANOPY EDGE-HIGH OVER MRI TRAILER
3/4" = 1'-0"



11 DETAIL-STEEL DECK-SIDE
3/4" = 1'-0"



12 DETAIL-STEEL DECK-CENTER
3/4" = 1'-0"



13 DETAIL-STEEL PIPE BOLLARD
3/4" = 1'-0"

Revision#	Description	Date:

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: HOT SPRINGS DETAILS	Phase: FINAL CONSTRUCTION DOCUMENTS
Approved:	
Project Title: MRI SITE PREP FOR FT. MEADE / HOT SPRINGS VAMC	Project Number: VA #568-CSI-301 SGA #201910
	Building Number: 165 & 12
Location: FORT MEADE & HOT SPRINGS, SD	Drawing Number: HS-AE501
Issue Date: 11/04/2020	Checked: TRS
	Drawn: JHK

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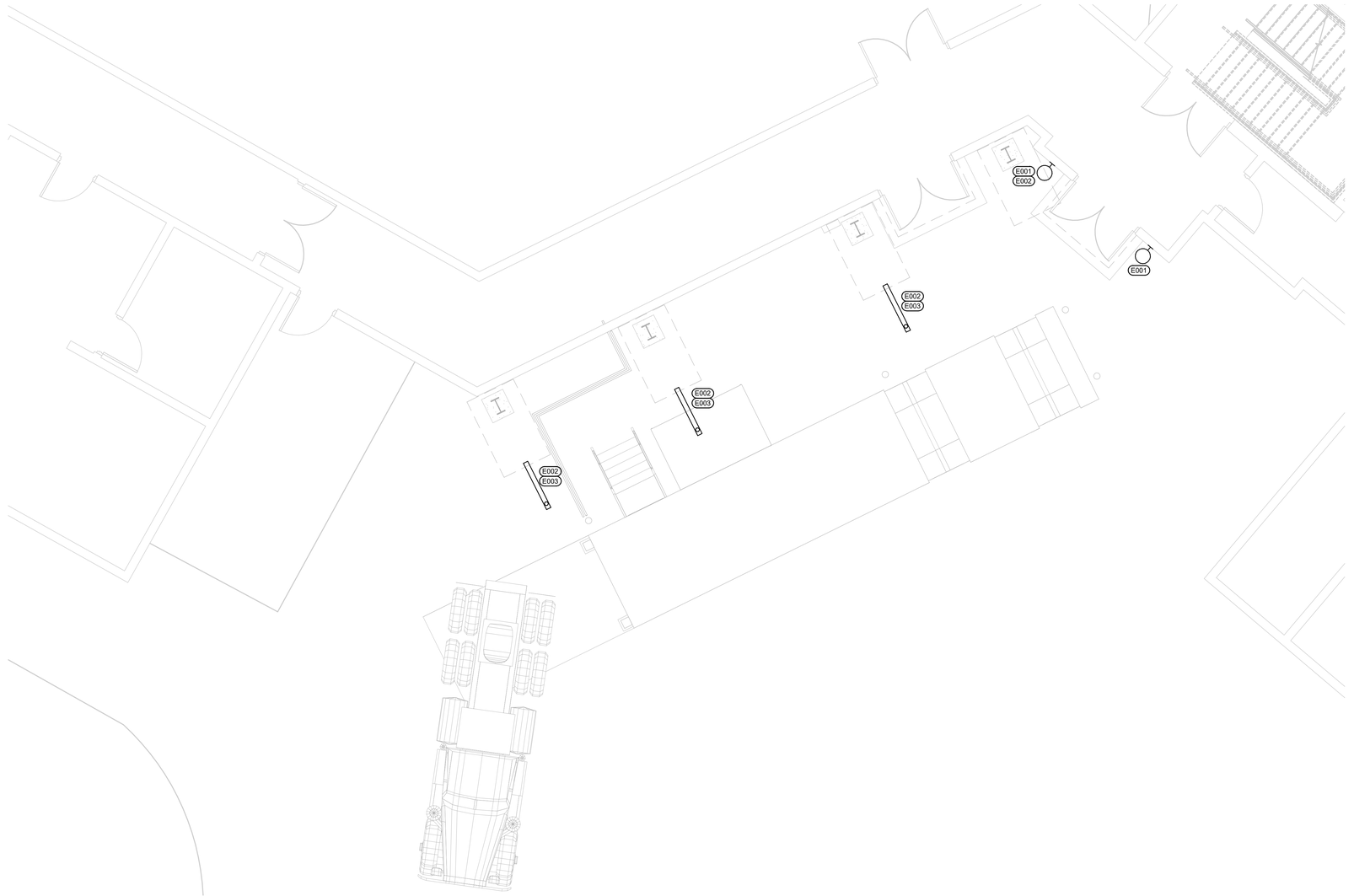
three inches = one foot
one and one half inches = one foot
one inch = one foot
three quarters inch = one foot
one half inch = one foot
three eighths inch = one foot
one quarter inch = one foot
one eighth inch = one foot



1 HOT SPRINGS 2ND LEVEL LIGHTING PLAN
1/4" = 1'-0"

ELECTRICAL SPECIFIC NOTES

#	
E001	CONTRACTOR TO DEMO TWO EXISTING WALL PACKS AND REPLACE WITH LITHONIA MODEL DSXW1 LED-20C-530-40K-T4M-MVOLT-BBW-SPD-DDBXD OR PRE-APPROVED EQUAL. EQUIVALENT FIXTURE MUST HAVE AN EFFICACY OF 95% OR BETTER; MUST DELIVER 95% OR MORE LUMENS; AND MUST HAVE A LUMEN MAINTENANCE OF 95% OR BETTER THAN THE FIXTURE SPECIFIED.
E002	CONTRACTOR TO EXTEND POWER FROM EXISTING WALL PACKS TO NEW FIXTURES TO BE INSTALLED UNDER THE NEW CANOPY. KEEP CONDUIT TIGHT TO BOTTOM OF CHANNEL OF ROOF.
E003	CONTRACTOR TO PROVIDE LITETRONICS MODEL VT30US440P OR PRE-APPROVED EQUAL. EQUIVALENT FIXTURE MUST HAVE AN EFFICACY OF 95% OR BETTER; MUST DELIVER 95% OR MORE LUMENS; AND MUST HAVE A LUMEN MAINTENANCE OF 95% OR BETTER THAN THE FIXTURE SPECIFIED. PROVIDE ALL MATERIALS NECESSARY TO INSTALL FIXTURE TO BOTTOM OF STRUCTURAL BEAM.

Revision#	Description	Date:

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REGISTERED PROFESSIONAL ENGINEER
REG. NO 7595
MICHAEL R. SIGMAN
SOUTH DAKOTA
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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title HOT SPRINGS 2ND LEVEL LIGHTING PLAN	**Phase** FINAL CONTRUCTION DOCUMENTS	**Project Title** MRI SITE PREP FOR FT. MEADE / HOT SPRINGS VAMC	**Project Number** VA #568-CSI-301 SGA #201910
			Building Number 165 & 12
Approved:		**Location** FT. MEADE/HOT SPRINGS, SD	**Drawing Number** HS-EE101
		Issue Date 11/04/2020 / **Checked** MRS / **Drawn** VLS	

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three inches = one foot 6"
one and one half inches = one foot 1 1/2"
one inch = one foot 1"
three quarters inch = one foot 3/4"
one half inch = one foot 1/2"
three eighths inch = one foot 3/8"
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