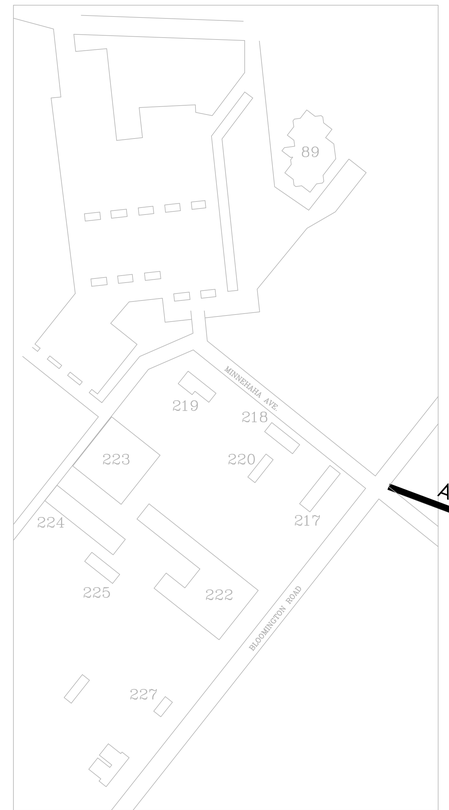
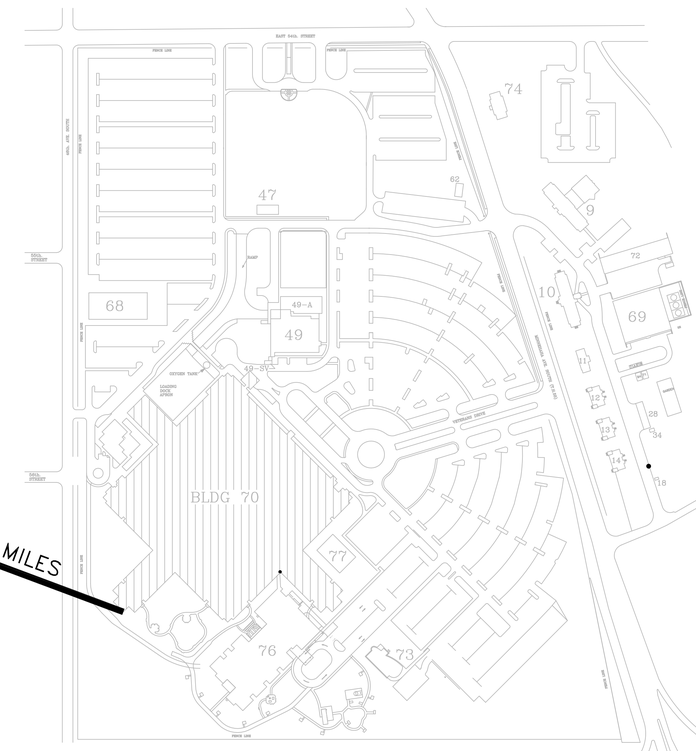
DEPARTMENT OF VETERANS AFFAIRS

MINNEAPOLIS, MN. MEDICAL CENTER
EMERGENCY DEPARTMENT RENOVATION

CD ISSUE
01-02-2014



APPROXIMATELY 1.5 MILES



LOCATION MAP: MPLS. VAMC

APPROVED BY:	DATE
DIRECTOR, FACILITIES ENGINEERING STEVE CHALLEEN	
CHIEF, PROJECTS SECTION CATHERINE JOYCE	
MAINTENANCE SUPERVISOR TED STEIDL	
SAFETY MANAGER PAM RUSSELL	
VA POLICE	
PATIENT SAFETY	
INFECTION CONTROL	
UNION 1969	
UNION 3669	

SHEET NAMING CONVENTION

DRAWING SET — SHEET

12##-XX-E###

BUILDING NUMBER

FULLY SPRINKLERED

REVISIONS	DATE

GENERAL NOTES:

GENERAL CONTRACTOR AND/OR ALL SUBCONTRACTORS SHALL FIELD VERIFY ALL DIMENSIONS SHOWN ON THESE PLANS AND SHALL BE RESPONSIBLE FOR VARIATIONS BETWEEN PLAN DIMENSIONS AND ACTUAL FIELD DIMENSIONS. WHERE VARIATIONS ARE FOUND TO OCCUR, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING PRIOR TO PROCEEDING WITH CONSTRUCTION; NO ADJUSTMENT TO THE WORK WILL BE MADE WITHOUT THE PRIOR APPROVAL OF THE PROJECT ENGINEER.

GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR GENERAL DEMOLITION INCLUDING REMOVAL OF WALLS, PARTITIONS, DOORS & CEILING & FLOORS. ANY AND ALL CUTTING OF CONCRETE FLOORS, WALLS OR STRUCTURE SHALL BE THE GENERAL CONTRACTOR'S RESPONSIBILITY. CORE DRILLING THROUGH CONCRETE WALLS, FLOORS OR STRUCTURE FOR PIPING OR CONDUIT SHALL BE THE RESPONSIBILITY OF THE SUBCONTRACTOR BY TRADE; FIRESTOPPING OF THESE OPENINGS SHALL BE DONE BY THE RESPECTIVE SUBCONTRACTOR. REMOVAL OF DEBRIS RESULTING FROM DEMOLITION, CUTTING, AND/OR DRILLING IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. PATCHING AND REPAIR OF CONCRETE WALLS, FLOOR, OR STRUCTURE SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR; THIS WILL BE ACCOMPLISHED UPON COMPLETION OF THE INSTALLATION OF ANY AND ALL UTILITIES INSTALLED BY THE VARIOUS SUBCONTRACTORS.

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TRUE NORTH

PLAN NORTH

Drawing Title: COVER SHEET	Project Title: VA MINNEAPOLIS ED RENOVATION 13441	Project No. 618-14-104	Office of Facilities Management
Drawing Scale: AS NOTED	Approved:	Building Number 70	
Plot Scale: 12" = 1'-0"	Approved:	Location: ONE VETERANS DRIVE MINNEAPOLIS, MN 55417	DRAWING NO. 1272-70-GI01
		Date 01/02/2014 · Checked PR · Drawn EB/TD	Dwg. 1 of 73

Department of Veterans Affairs

PROJECT GENERAL INFORMATION

1. ALL DRAWINGS SHALL BE READ IN CONJUNCTION WITH THE NOTES, SYMBOLS AND GENERAL INFORMATION ON THIS SHEET AND SHEET GI03 AND THE SPECIFICATIONS.

2. ALL DRAWINGS SHALL BE READ IN CONJUNCTION WITH OTHER DISCIPLINE DRAWINGS AND THE SPECIFICATIONS.

3. DO NOT SCALE DRAWINGS, USE FIGURED DIMENSIONS ONLY. VERIFY ALL DIMENSIONS PRIOR TO WORK. VERIFY ALL DISCREPANCIES BETWEEN FIELD CONDITIONS AND THE CONTRACT DOCUMENTS. IN THE EVENT OF DISCREPANCY, NOTIFY COR AND OBTAIN RESOLUTION BEFORE PROCEEDING. FAILURE TO NOTIFY COR WILL NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY TO PERFORM THE WORK AS INTENDED BY THE CONTRACT DOCUMENTS. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL WORK ARISING FROM SUCH FAILURE TO COORDINATE DISCREPANCIES TO THE SATISFACTION OF COR.

4. FLOOR PLANS AND INTERIOR ELEVATIONS INDICATE SPECIFIC INFORMATION, SEE TYPICAL PARTITION DETAILS, TYPICAL DOOR DETAILS, TYPICAL CASEWORK TYPES, TOP TYPES, SHELF TYPES, NOTES AND TYPICAL DETAILS FOR TYPICAL CONSTRUCTION UNLESS INDICATED OTHERWISE.

5. ALL SLEEVES, OPENINGS, PENETRATIONS, ETC. FOR CONDUIT, CABLE TRAYS, PIPES AND DUCTS, ETC. THROUGH RATED PARTITIONS AND FLOOR SLABS ARE TO BE FIRE STOPPED IN ACCORDANCE WITH THE FIRE RATED ASSEMBLY DESIGN, APPLICABLE CODES AND LOCAL FIRE AUTHORITY REQUIREMENTS.

6. NOTIFY THE COR IF A DISCREPANCY IS FOUND IN THE CONTRACT DOCUMENTS.

BATHROOMS

1. SINGLE STALL BATHROOM. PROVIDE LAV. BASIN, MIRROR, SDISP, TPH, PTC, TOILET, GB-1A, GB-1B, GB-1C, SND.

CASEWORK

1. CASEWORK TYPES, TOP TYPES, SHELF TYPES, NOTES AND TYPICAL DETAILS, SEE ROOM FINISHES SCHEDULE, CASEWORK TYPICAL NOTES AND DETAILS.

CEILINGS

1. CEILING HEIGHT SHALL BE 9'-0" IN ROOMS, CORRIDORS, PASSAGES, ETC. ABOVE FLOOR LEVEL UNLESS OTHERWISE NOTED. SEE ALSO ROOM FINISHES SCHEDULE.

2. SPRINKLER HEADS SHOWN ON THE RCP'S ARE THOSE OF DESIGN CONCERN. ALL AREAS ARE REQUIRED TO BE SPRINKLERED. SEE SPRINKLER DRAWINGS.

3. CUBICLE CURTAIN TRACKS (CCT) WHERE INDICATED. SEE INTERIOR CEILING DETAILS FOR DIMENSIONS AND CONSTRUCTION DETAILS.

4. SEE TYPICAL CASEWORK SOFFIT DETAILS UNLESS NOTED OTHERWISE.
A. GYPBOARD/ACT SOFFIT AT 7'-2" AFF. UNO. ABOVE CASEWORK, SEE INTERIOR/CABINET ELEVATION & DETAILS FOR GYPBOARD SOFFIT WIDTH AND DEPTH UNLESS NOTED OTHERWISE.
B. BOTTOM OF PLAM FILLER AT 7'-2" AFF. UNLESS NOTED OTHERWISE.

5. SEE TYPICAL GYPBOARD SOFFIT DETAILS UNLESS NOTED OTHERWISE.
A. GYPBOARD/ACT SOFFIT AT 7'-2" AFF. UNLESS NOTED OTHERWISE. ALIGN SOFFIT FLUSH WITH ADJACENT PARTITIONS WHERE APPLICABLE.
B. GYPBOARD/ACT SOFFIT IN OPENING/ CORRIDOR AT 7'-2" AFF. UNLESS NOTED OTHERWISE.

COORDINATION

1. VERIFY AND COORDINATE THE FOLLOWING WITH THE RESPECTIVE TRADES:
A. VERIFY ALL NEW AND EXISTING CONDITIONS, SIZES AND LOCATIONS OF MECH AND/OR ELEC PENETRATIONS PRIOR TO COMMENCEMENT OF ANY WORK.
B. LOCATIONS FOR BACKING/BLOCKING REQUIRED FOR MOUNTING ARCH, MECH AND/OR ELEC EQUIPMENT
C. CUTTING AND PATCHING FOR WORK REQUIRED BY MECH AND/OR ELEC
D. SIZES AND LOCATIONS OF MECH AND/OR ELEC CURBS AND PADS
E. SIZE & LOCATION OF CEILING OPENING WITH PTS SUPPLIER.

DRAWINGS

1. DEMOLITION PLANS, DEMOLITION AND SALVAGED ITEMS NOTES. SEE DEMOLITION PLANS AND GENERAL NOTES.

2. LIFE SAFETY PLANS LOCATES FIRE AND SMOKE RATED PARTITION, SEE AS02.

3. GYPBOARD PARTITION TYPES, NOTES AND TYPICAL DETAILS, SEE AS18 & AS19.

4. DOOR AND DOOR AND BORROWED LIGHT FRAME TYPES, FRAME PROFILES, NOTES AND TYPICAL DETAILS, SEE ROOM OPENING SCHEDULE AS20 AND AS21. LOCATE DOORS IN PARTITIONS ADJACENT TO PERPENDICULAR WALLS, SEE AS21.

5. CASEWORK TYPES, TOP TYPES, SHELF TYPES, NOTES AND TYPICAL DETAILS, SEE AS22.

6. FINISHES ARE INDICATED IN THE FINISH SCHEDULE AND/OR FINISH PLANS, SEE ROOM FINISH SCHEDULE AND INTERIOR FINISH PLANS.

7. TYPICAL MOUNTING HEIGHTS OF FITTING, FIXTURES AND ACCESSORIES, SEE DRAWING AS17.

8. CONCRETE CURBS AND PADS FOR EQUIPMENT. LOCATIONS MAY BE NOTED ON THE ARCHITECTURAL DRAWINGS. SEE MECHANICAL AND ELECTRICAL DRAWINGS FOR LOCATIONS AND SPECIFIC SIZE AND CONFIGURATION OF THEIR EQUIPMENT. SEE AS11 & AS12

9. CORNER GUARDS AND OTHER WALL PROTECTION ARE TYPES AS INDICATED ON THE DRAWINGS. SEE DRAWINGS LISTED BELOW
A. FOR CORNER GUARDS (CG) AND HANDRAILS (HR), SEE AS24.

EXISTING CONDITIONS

1. PROTECT AND PRESERVE ALL EXISTING ITEMS TO REMAIN AND REPAIR AND/OR REPLACE ANY ITEMS DAMAGED DURING THE COURSE OF THE WORK TO THE SATISFACTION AND APPROVAL OF THE ARCHITECT WITHOUT ADDITIONAL COST TO THE OWNER.

2. WHERE WORK OCCURS IN AREAS WITH EXISTING FINISHES TO REMAIN, REFINISH DISTURBED AREAS TO MATCH EXISTING FINISHES AND MATERIALS UNLESS NOTED OR DIRECTED.

3. WHERE EXISTING MASONRY WALLS ARE REMOVED OR NEW OPENINGS PROVIDED WITHIN EXISTING WALLS TO REMAIN, SAW CUTS SHALL BE USED FOR DEMOLITION BETWEEN WALL SECTIONS SCHEDULED TO REMAIN AND WALL SECTIONS TO BE REMOVED.

4. FOR GENERAL DEMOLITION AND REPAIR NOTES, REFER TO DEMOLITION NOTES AND PLANS.

FITTING, FIXTURES, DEVICES AND ACCESSORIES

1. INSTALLATION OF FITTING, FIXTURES AND ACCESSORIES SHALL BE IN ACCORDANCE WITH TYPICAL MOUNTING HEIGHT SHEET UNLESS INDICATED OTHERWISE.

LIFE SAFETY

1. LIFE SAFETY PLANS LOCATE FIRE AND SMOKE RATED PARTITIONS, SEE ALSO FLOOR PLANS FOR PARTITION TYPES.

OWNER FURNISHED FURNITURE AND EQUIPMENT

1. FURNITURE AND EQUIPMENT SHOWN DASHED IS BY OTHERS. REFER TO FURNITURE AND EQUIPMENT CONSULTANT DRAWINGS AND INSTRUCTIONS FOR INSTALLATION RESPONSIBILITIES.

2. THE FOLLOWING ABBREVIATIONS SHALL APPLY FOR CONTRACTOR FURNISHED/CONTRACTOR INSTALLED EQUIPMENT (CC) VA FURNISHED/CONTRACTOR INSTALLED EQUIPMENT (VC) VA FURNISHED VA INSTALLED EQUIPMENT (VV).

3. PROVIDE ALL BLOCKING & ANCHORAGE AS NECESSARY FOR PROPER INSTALLATION OF ANY WALL MOUNTED ITEMS, SEE PARTITION BLOCKING DETAILS.

PARTITIONS

1. PLAN DIMENSIONS ARE TO OUTSIDE FACE OF PARTITIONS EXCLUDING DIRECTLY APPLIED FINISH MATERIAL SUCH AS CERAMIC TILE UNLESS NOTED OTHERWISE.

2. THE FACE OF EVERY PARTITION SHALL BE FLUSH WITHOUT OFFSETS. CHANGES IN PARTITION THICKNESS SHALL OCCUR AT CORNERS, PARTITION INTERSECTIONS OR OTHER FEATURES WHICH INTERRUPT THE PLANE OF THE PARTITION. FACE OF CORRIDOR PARTITIONS SHALL BE FLUSH FOR THE ENTIRE LENGTH OF THE CORRIDOR REGARDLESS OF CHANGES IN PARTITION THICKNESS, ALL ADJUSTMENTS SHALL BE MADE TO THE ROOM SIDE OF THE CORRIDOR PARTITION AND AT CORNERS.

3. FLOOR PLANS INDICATE GYPSUM BOARD PARTITION TYPES, SEE GYPSUM BOARD PARTITION NOTES AND DETAILS FOR HEIGHTS AND TYPICAL CONSTRUCTION UNLESS INDICATED OTHERWISE. SEE AS18.

ROOM FINISHES

1. FINISHES ARE INDICATED IN THE ROOM FINISH SCHEDULE AND/OR FINISH PLANS.

ROOM OPENINGS

1. FLOOR PLANS INDICATE ROOM OPENING NUMBERS, SEE ROOM OPENING SCHEDULES FOR DOOR TYPE, FRAME TYPES, FRAME PROFILES, OPENING NOTES, AND TYPICAL DETAILS.

2. LOCATE DOORS IN PARTITIONS ADJACENT TO PERPENDICULAR PARTITIONS IN ACCORDANCE WITH TYPICAL DETAIL UNLESS INDICATED OTHERWISE.

SPECIFICATION

1. SEE SPECIFICATION FOR FINISHES, MATERIALS, BUILDING ACCESSORIES, TOILET AND BATHROOM ACCESSORIES, TOILET PARTITIONS AND URINAL SCREENS, ETC UNLESS NOTED OTHERWISE.

2. MATERIALS, PRODUCTS, SYSTEMS ETC IDENTIFIED ON THE DRAWINGS WITH EITHER "09260-11, 09510-1, ETC" OR "GYP-11, EXP-JT-21, ETC". REFER TO THE SPECIFICATION 09 0600 FOR BASIS OF DESIGN PRODUCT SELECTIONS AND OTHER REQUIREMENTS.

WALL BLOCKING AND ANCHORAGE

1. PROVIDE PLYWOOD WALL BLOCKING WHERE ARTWORK OR MBD AND TBD ARE SHOWN. EXTENT OF BLOCKING TO MATCH SIZE OF ARTWORK, MBD AND TBD. SEE PARTITION BLOCKING DETAILS.

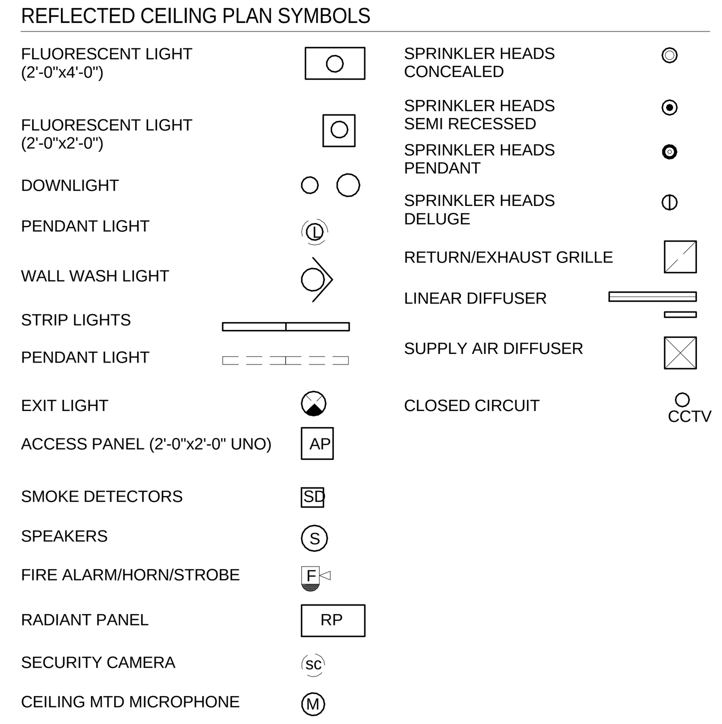
2. PROVIDE WALL BLOCKING FOR FITTINGS, FIXTURES AND ACCESSORIES IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS AND REQUIREMENTS. SEE PARTITION BLOCKING DETAILS.

3. WALL MOUNTED LAVATORY BASIN BRACKET DETAILS, SEE TYPICAL PARTITION DETAILS.

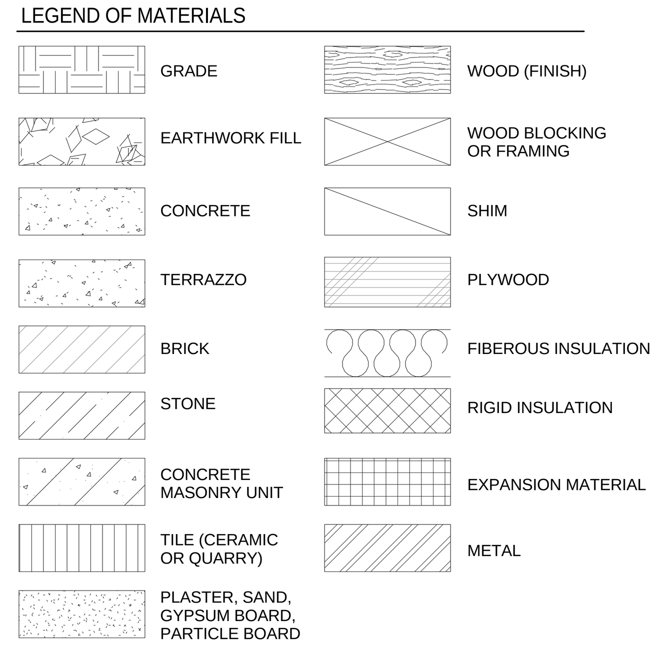
WALL PROTECTION

1. CORNER GUARDS AND OTHER WALL PROTECTION ARE TYPES AS INDICATED ON THE DRAWINGS. SEE AS24 FOR DETAILS AND MOUNTING

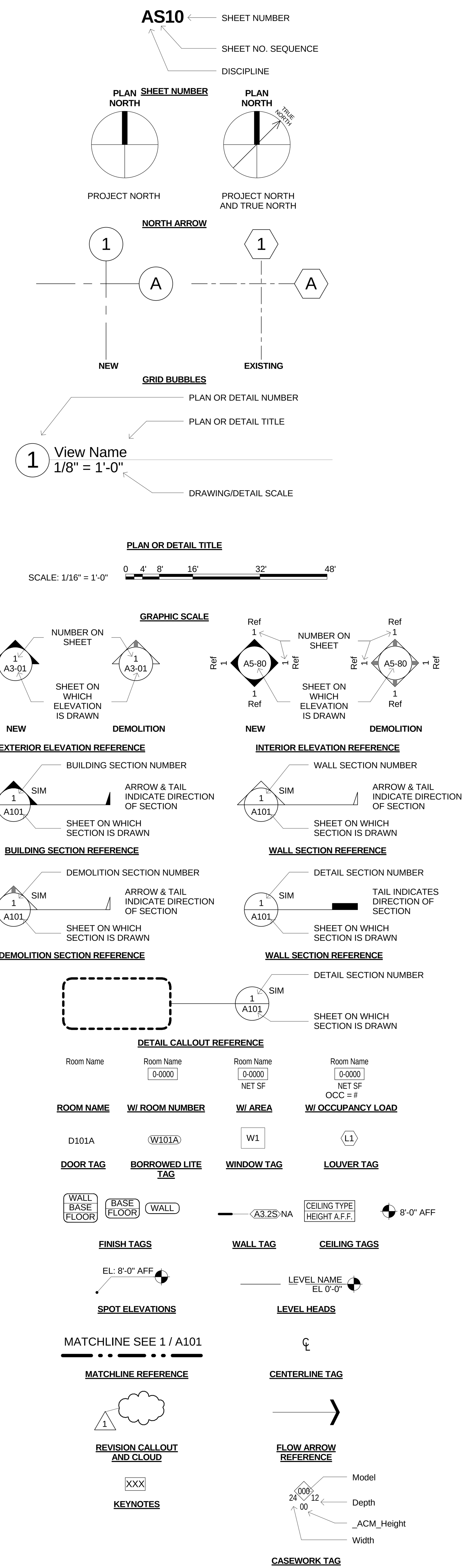
REFLECTED CEILING PLAN SYMBOLS



LEGEND OF MATERIALS



SYMBOLOGY LEGEND



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4	1272-70	GI04	WORK PHASE PLAN DIAGRAM	
5	1272-70	AS01	LIFE SAFETY CODE NOTES	
6	1272-70	AS02	FIRST FLOOR LIFE SAFETY PLAN	
7	1272-70	AS03	FIRST FLOOR DEMOLITION PLAN	
8	1272-70	AS04	FIRST FLOOR OVERALL PLAN	
9	1272-70	AS05	FIRST FLOOR FINISHES AND WALL PROTECTION PLAN	
10	1272-70	AS06	FIRST FLOOR FURNITURE AND EQUIPMENT PLAN	
11	1272-70	AS07	FIRST FLOOR SIGNAGE PLAN	
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29	1272-70	AS25	INTERIOR DETAILS, CEILINGS	
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42	1272-70	MG01	FIRST FLOOR MEDICAL GAS DEMOLITION PLAN	
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44	1272-70	MG03	FIRST FLOOR MEDICAL GAS PLAN	
45	1272-70	MG04	FIRST FLOOR INTERSTITIAL MEDICAL GAS PLAN	
46	1272-70	MH01	FIRST FLOOR MECHANICAL DEMOLITION PLAN	
47	1272-70	MH02	FIRST FLOOR INTERSTITIAL MECHANICAL DEMOLITION PLAN	
48	1272-70	MH03	FIRST FLOOR MECHANICAL PLAN	
49	1272-70	MH04	FIRST FLOOR MECHANICAL PLAN (BID OPTION #8)	
50	1272-70	MH05	FIRST FLOOR INTERSTITIAL MECHANICAL PLAN	
51	1272-70	MH06	FIRST FLOOR INTERSTITIAL MECHANICAL PLAN (BID OPTION #8)	
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68	1272-70	ES05	FIRST FLOOR LIGHTING PLAN	
69	1272-70	ES06	FIRST FLOOR POWER PLAN	
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73	1272-70	ES10	ELECTRICAL SCHEDULES	

FULLY SPRINKLERED

No.	Revisions	Date

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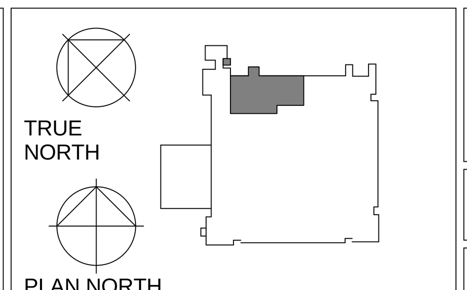

Drawing Scale: AS NOTED	Plot Scale: 12" = 1'-0"
Drawing Title	DRAWING INDEX, GENERAL NOTES AND SYMBOLS
Approved:	Approved:
Project Title	VA MINNEAPOLIS ED RENOVATION 13441
Location	ONE VETERANS DRIVE MINNEAPOLIS, MN 55417
Date	01/02/2014
Checked	PR
Drawn	EB/TD
Project Number	618-14-104
Building Number	70
Drawing Number	1272-70-GI02
Dwg.	2 of 73

Office of Facilities Management

Department of Veterans Affairs

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ARCHITECTURAL ABBREVIATIONS

A/C	AIR CONDITION
A/C UNIT	AIR CONDITIONING UNIT
A/E	ARCHITECT/ENGINEER
AAMA	AMERICAN ARCHITECTURAL MANUFACTURERS ASSN
AB	ANCHOR BOLT
ABC	AGGREGATE BASE COURSE
ACI	AMERICAN CONCRETE INSTITUTE
ACS DR	ACCESS DOOR
ACS FLR	ACCESS FLOOR
ACS PNL	ACCESS PANEL
ACST	ACOUSTIC
ACT	ACOUSTICAL CEILING TILE
AD	AREA DRAIN
ADA	AMERICANS WITH DISABILITIES ACT
ADC	AUTOMATIC DOOR CLOSER
ADDL	ADDITIONAL
ADDN	ADDITION
ADH	ADHESIVE
ADJ	ADJACENT, ADJOINING, OR ADJUSTABLE
ADMIN	ADMINISTRATION
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AFS	ABOVE FINISHED SLAB
AGC	ASSOCIATED GENERAL CONTRACTORS
AGGR	AGGREGATE
AHJ	AUTHORITY HAVING JURISDICTION
AHR	ANCHOR
AHU	AIR HANDLING UNIT
AIA	AMERICAN INSTITUTE OF ARCHITECTS
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
ALT	ALTERNATE
ALT NO	ALTERNATE NUMBER
ALUM	ALUMINUM
AMT	AMOUNT
ANOD	ANODIZE
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
ANT	ANTENNA
AP	ACCESS PANEL
APA	AMERICAN PLYWOOD ASSOCIATION
APPD	APPROVED
APPROX	APPROXIMATE
AR	AS REQUIRED
ARCH	ARCHITECT
ASB	ASBESTOS
ASI	ARCHITECT'S SUPPLEMENTAL INSTRUCTION
ASKLR	AUTOMATIC SPRINKLER
ASPH	ASPHALT
ASSN	ASSOCIATION
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AT	ACOUSTICAL CEILING TILE
ATCH	ATTACHMENT
ATM	AUTOMATIC TELLER MACHINE
AUTO	AUTOMATIC
AUX	AUXILIARY
AV	AUDIO VISUAL
AVG	AVERAGE
AW	ACID WASTE
AWI	ARCHITECTURAL WOODWORKING INSTITUTE
AWPA	AMERICAN WOOD PRESERVERS' ASSOCIATION
AWS	AMERICAN WELDING SOCIETY
B PL	BASE PLATE
BAT	BATTEN
BD	BOARD
BD FT	BOARD FEET (FOOT)
BEV	BEVEL
BHMA	BUILDER'S HARDWARE MANUFACTURER'S ASSOCIATION
BI FLD DR	BIFOLDING DOORS
BITUM	BITUMINOUS
BKG	BACKING
BLD	BUILD
BLDG	BUILDING
BM	BEAM OR BENCHMARK
BOT	BOTTOM
BRCG	BRACING
BRDG	BRIDGING
BRDG JST	BRIDGING JOIST
BRG	BEARING
BRG PL	BEARING PLATE
BRKT	BRACKET
BRZ	BRONZE
BSMT	BASEMENT
BTWN	BETWEEN
BUR	BUILT-UP ROOFING
C CONC	CAST CONCRETE
C TO C	CENTER TO CENTER
CAB	CABINET
CAC	CEILING ATTENUATION CLASS
CB	CATCH BASIN OR CORNER BEAD
CBB	CEMENTITIOUS (BACKER) BOARD
CCT	CUBICLE CURTAIN TRACK
CCTV	CLOSED CIRCUIT TELEVISION
CCW	COUNTERCLOCKWISE
CD	CONSTRUCTION DOCUMENTS OR CONTRACT DOCUMENTS
CEM	CEMENT
CEM PLAS	CEMENT PLASTER
CER	CERAMIC
CF	CONTRACTOR FURNISHED
CF/CI	CONTRACTOR FURNISHED/CONTRACTOR INSTALLED
CF/OI	CONTRACTOR FURNISHED/OWNER INSTALLED
CFLG	COUNTERFLASHING
CFMF	COLD-FORMED METAL FRAMING
CG	CORNER GUARD
CGSFU	CERAMIC GLAZED STRUCTURAL FACING UNITS
CH	COAT HOOK
CHEM	CHEMICAL
CHFR	CHAMFER
CHK	CHECK
CI	CAST IRON
CIP	CAST-IN-PLACE
CIR	CIRCLE
CIRC	CIRCULAR
CJ	CONSTRUCTION JOINT OR CONTROL JOINT
CL	CENTER LINE
CLDG	CLADDING
CLG	CEILING
CLG HT	CEILING HEIGHT
CLR	CLEAR
CM	CONSTRUCTION MANAGEMENT
CMU	CONCRETE MASONRY UNIT
CNR	CORNER
CNTR	COUNTER
CO	CARBON MONOXIDE
CO□	CARBON DIOXIDE
COL	COLUMN
COM	COMMON
COMB	COMBINATION, COMBINED
COMM	COMMUNICATION
COMP	COMPONENT
CONC	CONCRETE
CONC FLR	CONCRETE FLOOR
COND	CONDENSER OR CONDITION
CONF	CONFERENCE
CONN	CONNECT
CONSTR	CONSTRUCTION
CONT	CONTINUE
CONTR	CONTRACTOR
COORD	COORDINATE
CORR	CORRIDOR
CPM	CRITICAL PATH METHOD
CPRS	COMPRESSIBLE
CPT	CARPET MODULE TILE
CR	CRASH RAIL
CRS	COLD ROLLED STEEL
CRSI	CONCRETE REINFORCING STEEL INSTITUTE
CSB	CONCRETE SPLASH BLOCK
CSG	CASING
CSI	CONSTRUCTION SPECIFICATIONS INSTITUTE
CSK	COUNTER SUNK
CSMT	CASEMENT
CSWK	CASEWORK
CT	CERAMIC TILE
CTG	COATING
CTR	CENTER
CTRL	CONTROL
CTV	CABLE TELEVISION
CU FT	CUBIC FEET
CU IN	CUBIC INCH
CU YD	CUBIC YARD
CURT	CURTAIN
CW	CURTAINWALL
CYL	CYLINDER
CYL L	CYLINDER LOCK
D	DEPTH OR PENNY (NAIL)
DAT	DATUM
DBL	DOUBLE
DBL GLZ	DOUBLE GLAZE
DCS	DIAPER CHANGING STATION
DEG	DEGREE
DEL	DELETE
DEMO	DEMOLITION
DEPT	DEPARTMENT
DET	DETAIL
DF	DRINKING FOUNTAIN
DIA	DIAMETER
DIAG	DIAGONAL
DIFF	DIFFERENCE OR DIFFUSER
DIM	DIMENSION
DIR	DIRECTION
DISP	DISPENSER
DIST	DISTANCE
DIV	DIVIDE OR DIVISION
DL	DEAD LOAD
DOC	DOCUMENT
DR	DOOR, DRAIN, DRESSING ROOM, OR DRIVE
DR CL	DOOR CLOSER
DR FR	DOOR FRAME
DR OPNG	DOOR OPENING
DS	DOWNSPOUT
DSGN	DESIGN
DW	DISHWASHER
DWG	DRAWING
E	EAST
EA	EACH
EFF	EFFICIENCY
EFS	EXTERIOR FINISH SYSTEM
EIFS	EXTERIOR INSULATION AND FINISH SYSTEM
EJ	EXPANSION JOINT
EL	ELEVATION
ELAST	ELASTOMERIC
ELEC	ELECTRIC
ELEC DR OP	ELECTRIC DOOR OPENER
ELEV	ELEVATOR
EMER	EMERGENCY
EMER SHR	EMERGENCY SHOWER
ENCL	ENCLOSURE
ENGR	ENGINEER
ENVIR	ENVIRONMENT
EO	ELECTRICAL OUTLET
EPA	ENVIRONMENTAL PROTECTION AGENCY
EPDM	ETHYLENE PROPYLENE DIENE MONOMER
EPO	EMERGENCY POWER OFF
EPS	EXPANDED POLYSTYRENE BOARD (INSULATION)
EQ	EQUAL
EQL SP	EQUALLY SPACED
EQUIP	EQUIPMENT
EQUIV	EQUIVALENT
ERD	EXISTING ROOF DRAIN
ESC	ESCAPE OR ESCUTCHEON
ESMT	EASEMENT
ESP	ESPECIALLY
EST	ESTIMATE
ETC	AND SO FORTH OR ET CETERA
EW	EACH WAY
EWC	ELECTRIC WATER COOLER
EWS	EYE WASH STATION
EXH	EXHAUST
EXIST	EXISTING
EXP	EXPANSION OR EXPOSED
EXP BT	EXPANSION BOLT
EXST GR	EXISTING GRADE
EXT	EXTERIOR, EXTERNAL, OR EXTINGUISHER
EXT GR	EXTERIOR GRADE
F	FAHRENHEIT OR FEMALE
FA	FIRE ALARM
FAB	FABRIC
FAC	FACTOR
FACIL	FACILITY
FAS	FASCIA
FAS BD	FASCIA BOARD
FCO	FLOOR CLEANOUT
FCTY	FACTORY
FD	FLOOR DRAIN
FDC	FIRE DEPARTMENT CONNECTION
FDTN	FOUNDATION
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FF	FINISH FACE
FF EL	FINISH FLOOR ELEVATION
FF&E	FURNITURE, FIXTURE, AND EQUIPMENT
FGS	FOAM GASKET SEAL
FHC	FIRE HOSE CABINET
FHP	FULL HEIGHT PARTITION
FIG	FIGURE
FIL	FILLET
FIN	FINISH
FIN FLR	FINISH FLOOR
FIN GR	FINISH GRADE
FIN WD	FINISH WOOD
FIXT	FIXTURE
FL	FLOORLINE
FLASH	FLASHING
FLDG	FOLDING
FLEX	FLEXIBLE
FLG	FLOORING
FLR	FLOOR
FLR FIN	FLOOR FINISH
FLR SK	FLOOR SINK
FLUOR	FLUORESCENT
FLUOR FIX	FLUORESCENT FIXTURE
FM	FACTORY MUTUAL
FM-G	FACTORY MUTUAL GLOBAL
FO	FINISHED OPENING
FOC	FACE OF CONCRETE OR FACE OF CURB
FOF	FACE OF FINISH
FOM	FACE OF MASONRY
FOS	FACE OF SLAB OR FACE OF STUD
FOUNT	FOUNTAIN
FOW	FACE OF WALL
FP	FIRE PROTECTION OR FIREPROOF
FR	FIRE RATING, FIRE RESISTANT, OR FRAME
FR SNK	FLUSHING RIM SINK
FREQ	FREQUENCY
FRMG	FRAMING
FRP	FIBERGLASS REINFORCED PLASTIC
FRZ	FREEZER
FS	FEDERAL SPECIFICATION
FSTNR	FASTENER
FSTOP	FIRE STOPPING
FT	FEET OR FOOT
FTG	FOOTING
FTR	FIN TUBE RADIATION
FURG	FURRING
FURN	FURNISH OR FURNITURE
FUT	FUTURE
GA	GAGE OR GYPSUM ASSOCIATION
GAL	GALLON
GALV	GALVANIC OR GALVANIZED
GALV STL	GALVANIZED STEEL
GB	GRAB BAR
GC	GENERAL CONTRACTOR
GD	GUARD
GDR	GUARD RAIL
GEN	GENERAL OR GENERATOR
GFRC	GLASS-FIBER-REINFORCED CONCRETE
GFRG	GLASS-FIBER-REINFORCED GYPSUM
GFRP	GLASS-FIBER-REINFORCED PLASTIC
GI	GALVANIZED IRON
GL	GLASS
GL BLK	GLASS BLOCK
GLU LAM	GLUED LAMINATED WOOD
GR FL	GROUND FLOOR
GRAN	GRANITE
GRTG	GRATING
GSB	GYPSUM SHEATHING BOARD
GSM	GALVANIZED SHEET METAL
GSU	GLAZED STRUCTURAL UNIT
GT	GROUT
GUAR	GUARANTEE
GUT	GUTTER
GYB	GYPSUM BOARD
GYP	GYPSUM
GYP BD	GYPSUM BOARD
GYP SHTG	GYPSUM SHEATHING BOARD
H	HIGH
HAZ MAT	HAZARDOUS MATERIALS
HB	HOSE BIBB
HC	HOLLOW CORE
HCWD	HOLLOW CORE WOOD DOOR
HDBD	HARDBOARD
HDO	HIGH DENSITY OVERLAY
HDR	HEADER
HDW	HARDWARE
HDWD	HARDWOOD
HEPA	HIGH EFFICIENCY PARTICULATE AIR (FILTER)
HEX	HEXAGON
HGR	HANGER
HM	HOLLOW METAL
HMD	HOLLOW METAL DOOR
HMDF	HOLLOW METAL DOOR AND FRAME
HMF	HOLLOW METAL FRAME
HNDRL	HANDRAIL
HO	HOLD OPEN
HORIZ	HORIZONTAL
HOSP	HOSPITAL
HP	HIGH PRESSURE
HQ	HEADQUARTERS
HR	HANDRAIL
HS	HEAT-STRENGTHENED (GLASS) OR HIGH STRENGTH
HSE	HOUSE
HSKPG	HOUSEKEEPING
HST	HOIST
HT	HEIGHT
HVAC	HEATING, VENTILATING, AND AIR CONDITIONING
HVY	HEAVY
HW	HOT WATER
HYD	HYDRANT
HYDR	HYDRAULIC
IAQ	INDOOR AIR QUALITY
IBC	INTERNATIONAL BUILDING CODE
ID	INSIDE DIAMETER
ID NO	IDENTIFICATION NUMBER
ILLUM	ILLUMINATION
INCL	INCLUDED
IND	INDEPENDENT OR INDUSTRIAL
INFO	INFORMATION
INSUL	INSULATION
INT	INTERIOR
INTL	INTERNATIONAL
IVT	IV TRACK
IWH	INSTANTANEOUS WATER HEATER
J	JUNCTION BOX
JAN	JANITOR
KD	KILN DRIED OR KNOCKED DOWN
KIT	KITCHEN
KO	KNOCKOUT
KPL	KICKPLATE
L	ANGLE
LAB	LABORATORY
LAD	LADDER
LAM	LAMINATE
LAM GL	LAMINATED GLASS
LAU	LAUNDRY
LAV	LAVATORY
LBR	LUMBER
LBS	POUND
LD BRG	LOAD-BEARING
LDR	LEADER
LED	LIGHT EMITTING DIODE
LF	LINEAR FEET (FOOT)
LIB	LIBRARY
LIN	LINEAR
LIQ	LIQUID
LKR	LOCKER
LKR RM	LOCKER ROOM
LL	LEAD LINED
LMC	LINEAR METAL CEILING
LMST	LIMESTONE
LRG	LARGE
LRV	LOUVERED ROOF VENT
LT	LIGHT
LT GA	LIGHT GAGE
LT WT	LIGHTWEIGHT
LTG	LIGHTING
LTNG	LIGHTNING
LVD	LOUVERED
LVR	LOUVER
LWC	LIGHTWEIGHT CONCRETE
LWIC	LIGHTWEIGHT INSULATING CONCRETE
LYR	LAYER
MACH	MACHINE
MACH RM	MACHINE ROOM
MAINT	MAINTENANCE
MAN	MANUAL
MATL	MATERIAL
MATV	MASTER ANTENNA TELEVISION SYSTEM
MAX	MAXIMUM
MBD	MARKERBOARD
MCB	METAL CORNER BEAD
MD	DECK
ME	MECHANICAL ENGINEER
MEAS	MEASURE
MECH	MECHANICAL
MECH RM	MECHANICAL ROOM
MED	MEDICAL, MEDIUM
MEK	METHYL ETHYL KETONE
MEMB	MEMBRANE
MEMO	MEMORANDUM
MEZZ	MEZZANINE
MF	MILL FINISH
MFD	MANUFACTURED
MFG	MANUFACTURING
MFR	MANUFACTURER
MFR REC	MANUFACTURER'S RECOMMENDATION
MGT	MANAGEMENT
MIC	MICROPHONE
MID	MIDDLE
MIL STD	MILITARY STANDARD
MIN	MINIMUM
MIRR	MIRROR
MISC	MISCELLANEOUS
MIT	MITER
MKR	MARKER
ML	METAL LATH
MLDG	MOLDING (MOULDING)
MLWK	MILLWORK
mm	MILLIMETER
MO	MASONRY OPENING
MOD	MODEL, MODIFY OR MODULE
MOD BIT	MODIFIED BITUMEN
MON	MONITOR
MOPR	MOP RACK
MR	MOISTURE RESISTANT
MS	MOP SINK
MTD	MOUNTED
MTG	MOUNTING
MTL or MET	METAL
MULL	MULLION
MW	MICROWAVE
MWP	MEMBRANE WATERPROOFING
N	NORTH
NA	NOT APPLICABLE
NAT	NATURAL
NATL	NATIONAL
NC	NOISE CRITERIA
NC	NURSE CALL
NCOMBL	NONCOMBUSTIBLE
NEC	NATIONAL ELECTRICAL CODE
NEG	NEGATIVE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSN
NEUT	NEUTRAL
NFC	NATIONAL FIRE CODE
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NO	NUMBER
NOM	NOMINAL
NR	NOISE REDUCTION
NRC	NOISE REDUCTION COEFFICIENT
NRCA	NATIONAL ROOFING CONTRACTORS ASSOCIATION
NRP	NONREMOVABLE
NS	NARROW STILE
NUM	NUMERAL
O/O	OUT TO OUT
O	OXYGEN
OA	OUTSIDE AIR OR OVERALL
OC	ON CENTER
OCC	OCCUPY
OCT	OCTAGON
OD	OUTSIDE DIAMETER, OUTSIDE DIMENSION
OF/CI	OWNER FURNISHED/CONTRACTOR INSTALLED
OFD	OVERFLOW DRAIN
OFF	OFFICE
OF/OI	OWNER FURNISHED/OWNER INSTALLED
OH	OVERHANG
OH DR	OVERHEAD (COILING) DOOR
OPH	OPPOSITE HAND
OPNG	OPENING
OPP	OPPOSITE
OPR	OPERABLE
OPT	OPTIONAL
OR	OPERATING ROOM OR OUTSIDE RADIUS
ORD	ORDNANCE OR OVERFLOW ROOF DRAIN
ORG	ORGANIC
ORIG	ORIGINAL
ORN	ORNAMENTAL
OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINSTRATION
OUT	OUTLET
OZ	OUNCE
PAR	PARALLEL OR PARAPET
PARA	PARAGRAPH
PART	PARTIAL
PAT	PATTERN
PB	PUSHBUTTON
PBD	PARTICLEBOARD
PC	PIECE, POLYCARBONATE OR PORTLAND CEMENT
PCA	PORTLAND CEMENT ASSOCIATION
PCC	PRECAST CONCRETE
PCCP	CONCRETE PAVEMENT
PCD	PAPER CUP DISPENSER
PCF	POUNDS PER CUBIC FOOT
PCP	PORTLAND CEMENT PLASTER
PED	PEDESTAL
PEN	PENETRATE
PEND	PENDANT
PERF	PERFORATED
PERIM	PERIMETER
PERP	PERPENDICULAR
PHAR	PHARMACY
PHOTO	PHOTOGRAPH
PKG	PACKAGE
PL	PROPERTY LINE
PL GL	PLATE GLASS
PLAM	PLASTIC LAMINATE
PLAS	PLASTER OR PLASTIC
PLBG	PLUMBING
PLYWD	PLYWOOD
PMTL	PAINTED METAL
PNEU	PNEUMATIC
PNL	PANEL
PO	POST OFFICE, PURCHASE ORDER
POLY	POLYETHYLENE (PLASTIC)
PPC	PERSONAL PROTECTION CONTAINER
PR	PAIR
PRCST	PRECAST
PREFAB	PREFABRICATE
PREFIN	PREFINISH
PRELIM	PRELIMINARY
PREP	PREPARATION
PRESS	PRESSURE
PREV	PREVIOUS
PRKG	PARKING
PRMLD	PREMOLDED
PROJ	PROJECT
PROP	PROPERTY
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	PAINT, PNEUMATIC TUBE, OR PRESSURE TREATED
PTC	PAPER TOWEL CABINET
PTN	PARTITION
PTS	PNEUMATIC TUBE STATION
PVC	POLYVINYL CHLORIDE (PLASTIC)
PVG	PAVING
PWR	POWER
QA	QUALITY ASSURANCE
QC	QUALITY CONTROL
QRY	QUARRY
QTR	QUARTER
QTY	QUANTITY
QUAD	QUADRANT
QUAL	QUALITY
R	RADIUS OR RISER
RA	RETURN AIR
RAD	RADIATOR
RB	RESILIENT BASE
RBM	REINFORCED BRICK MASONRY
RBR	RUBBER
RC	REMOTE CONTROL
RCP	REFLECTED CEILING PLAN
RCVR	RECEIVER
RD	ROAD OR ROOF DRAIN
REC	RECESSED
RECD	RECEIVED
RECPT	RECEPTACLE
RECT	RECTANGLE
REF	REFERENCE OR REFRIGERATOR
REFR	REFRACTORY, REFRIGERATION
REG	REGISTER
REINF	REINFORCE
REP	REPAIR
REPL	REPLACE
REQ	REQUIRE
REQD	REQUIRED
RET	RETURN
REV	REVISION
RFG	ROOFING
RFI	REQUEST FOR INFORMATION
RFP	REQUEST FOR PROPOSAL
RL	ROOF LEADER
RLG	RAILING
RM	ROOM
RND	ROUND
RO	ROUGH OPENING
ROW	RIGHT OF WAY
RS	ROUGH SAWN
RSV	RESILIENT SHEET VINYL
RT	RIGHT
RV	ROOF VENT
RVS	REVERSE
RWL	RAIN WATER LEADER
SA	SUPPLY AIR
SALV	SALVAGE
SAMP	SAMPLE
SAN	SANITARY
SAT	SUSPENDED ACOUSTICAL TILE
SATC	SUSPENDED ACOUSTICAL TILE CEILING
SB	SPLASH BLOCK
SBS	STYRENE BUTADIEN STYRENE
SBSTR	SUBSTRATE
SC	SHADING COEFFICIENT OR SOLID CORE
SC	SHARPS CONTAINER
SCH	SCHOOL
SCHED	SCHEDULE
SCHEM	SCHEMATIC
SCP	SCUPPER
SCRN	SCREEN
SCT	STRUCTURAL CLAY TILE
SCWD	SOLID CORE WOOD DOOR
SD	SMOKE DETECTOR
SDG	SIDING
SDISP	SOAP DISPENSER
SECT	SECTION
SEG	SEGMENT
SEL	SELECT
SEP	SEPARATE
SF	SQUARE FOOT (FEET)
SFTWD	SOFTWOOD
SGD	SLIDING GLASS DOOR
SGL	SINGLE
SHR	SHOWER
SHR HD	SHOWER HEAD
SHRD	SHOWER DRAIN
SHT	SHEET
SHTG	SHEATHING
SHV	SHELVING
SIM	SIMILAR
SJ	SCORED JOINT
SJI	STEEL JOIST INSTITUTE
SK	SKETCH
SKLT	SKYLIGHT
SLD WDW	HORIZONTAL SLIDING WINDOW
SLDG	SLIDING
SLNT	SEALANT
SM	SHEET METAL
SMK	SMOKE
SND INS	SOUND INSULATION
SPEC	SPECIFICATION
SPKLR	SPRINKLER
SPKR	SPEAKER
SPLY	SUPPLY
SPR	SINGLE PLY MEMBRANE ROOF SYSTEM
SQ	SQUARE
SQ IN	SQUARE INCH
SQ YD	SQUARE YARD
SS	SOLID SURFACE (ARCH)
SS	SANITARY SEWER OR SERVICE SINK (MECH)
SST	STAINLESS STEEL
ST	STAIRS OR STREET
STC	SOUND TRANSMISSION CLASS
STD	STANDARD
STIF	STIFFENER
STL JST	STEEL JOIST
STL LNTL	STEEL LINTEL
STL PL	STEEL PLATE
STL RF DK	STEEL ROOF DECK
STL TB	STEEL TUBE
STL TR	STEEL TRUSS
STNLS	STAINLESS
STOR	STORAGE
STR	STRINGERS
STRUCT	STRUCTURAL
STRUCT STL	STRUCTURAL STEEL
SUB	SUBSTITUTE
SURF	SURFACE
SUSP	SUSPEND
SUSP CLG	SUSPENDED CEILING
SW	SWITCH
SWDR	SWING DOOR
SYM	SYMBOL
SYNTH	SYNTHETIC
SYS	SYSTEM
T	TREAD
T&M	TIME AND MATERIALS
TBD	TACKBOARD
TECH	TECHNICAL
TEL	TELEPHONE
TEMP	TEMPERATURE OR TEMPORARY
THERM	THERMAL
THK	THICKNESS
THRES	THRESHOLD
THRU	THROUGH
THRUOUT	THROUGHOUT
TMPD	TEMPERED
TMPD GL	TEMPERED GLASS
TN	TRUE NORTH
TO	TOP OF
TO FDN	TOP OF FOUNDATION
TOB	TOP OF BEAM
TOM	TOP OF MASONRY
TOP	TOP OF PARAPET
TOS	TOP OF STEEL
TOW	TOP OF WALL
TRANS	TRANSOM
TRTD	TREATED
TS	TUBE STEEL
TSTAT	THERMOSTAT
TV	TELEVISION
TYP	TYPICAL
U	HEAT TRANSFER COEFFICIENT
UC	UNDERCUT
UGND	UNDERGROUND
UL	UNDERWRITERS LABORATORIES
ULT	ULTIMATE
UNFIN	UNFINISH
UNO	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTIBLE POWER SUPPLY
UR	URINAL
UTIL	UTILITY
UV	ULTRAVIOLET
VAC	VACUUM
VAR	VARIES
VD	VOICE/DATA
VEH	VEHICLE
VENT	VENTILATION
VERT	VERTICAL
VEST	VESTIBULE
VIC	VICINITY
VID	VIDEO
VIF	VERIFY IN FIELD
VNR	VENEER
VOC	VOLATILE ORGANIC COMPOUND
VOL	VOLUME
VR	VAPOR RETARDER
VTR	VENT THROUGH ROOF
W	WIDE OR WEST
W	VINYL COATED WALL COVERING
W/	WITH
W/O	WITHOUT
WBL	WOOD BLOCKING
WC	WATER CLOSET
WD	WOOD
WDW	WINDOW
WF	WIDE FLANGE
WFR	WOOD FRAME
WFS	WOOD FURRING STRIPS
WH	WATER HEATER
WHSE	WAREHOUSE
WP	WATERPROOFING
WPM	WATERPROOF MEMBRANE
WR	WEATHER RESISTANT
WS	WEATHERSTRIP
WSCT	WAINSCOT
WT	WEIGHT
X BRACE	CROSS BRACE
XPS	EXTRUDED POLYSTYRENE BOARD
YD	YARD

FULLY SPRINKLERED

three inches = one foot

one and one half inch = one foot

one inch = one foot

three-quarters inch = one foot

one-half inch = one foot

three-eighth inch = one foot

one-quarter inch = one foot

one-eighth in = one foot

No.	Revisions	Date

GENERAL NOTES:

GENERAL CONTRACTOR AND/OR ALL SUBCONTRACTORS SHALL FIELD VERIFY ALL DIMENSIONS SHOWN ON THESE PLANS AND SHALL BE RESPONSIBLE FOR VARIATIONS BETWEEN PLAN DIMENSIONS AND ACTUAL FIELD DIMENSIONS. WHERE VARIATIONS ARE FOUND TO OCCUR, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING PRIOR TO PROCEEDING WITH CONSTRUCTION; NO ADJUSTMENT TO THE WORK WILL BE MADE WITHOUT THE PRIOR APPROVAL OF THE PROJECT ENGINEER.

GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR GENERAL DEMOLITION INCLUDING REMOVAL OF WALLS, PARTITIONS, DOORS & CEILING & FLOORS. ANY AND ALL CUTTING OF CONCRETE FLOORS, WALLS OR STRUCTURE SHALL BE THE GENERAL CONTRACTOR'S RESPONSIBILITY. CORE DRILLING THROUGH CONCRETE WALLS, FLOORS OR STRUCTURE FOR PIPING OR CONDUIT SHALL BE THE RESPONSIBILITY OF THE SUBCONTRACTOR BY TRADE; FIRESTOPPING OF THESE OPENINGS SHALL BE DONE BY THE RESPECTIVE SUBCONTRACTOR. REMOVAL OF DEBRIS RESULTING FROM DEMOLITION, CUTTING, AND/OR DRILLING IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. PATCHING AND REPAIR OF CONCRETE WALLS, FLOOR, OR STRUCTURE SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR; THIS WILL BE ACCOMPLISHED UPON COMPLETION OF THE INSTALLATION OF ANY AND ALL UTILITIES INSTALLED BY THE VARIOUS SUBCONTRACTORS.

ANDERSON ENGINEERING
Anderson Engineering of Minnesota, LLC
PERFORMANCE DRIVEN DESIGN.
DUNHAM
Dunham Associates, Inc.
50 South Sixth Street / Suite 1100
Minneapolis, Minnesota 55402-1540
mechanical + electrical consulting engineering

TRUE NORTH

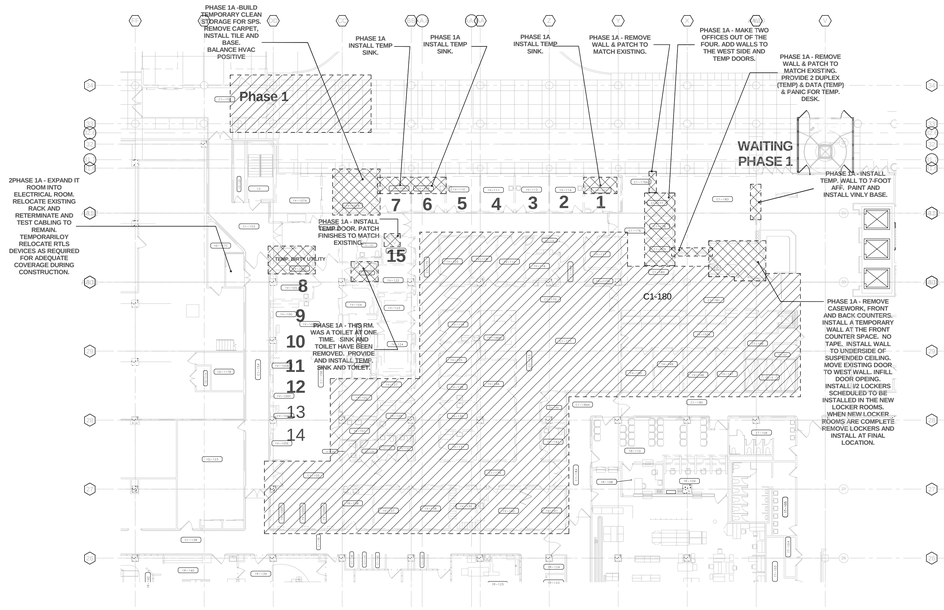
PLAN NORTH

Drawing Title	ABBREVIATIONS
Drawing Scale:	AS NOTED
Plot Scale:	12" = 1'-0"
Approved:	
Approved:	
Project Title	VA MINNEAPOLIS ED RENOVATION 13441
Location	ONE VETERANS DRIVE MINNEAPOLIS, MN 55417
Date	01/02/2014
Checked	PR
Drawn	EB/TD
Project Number	618-14-104
Building Number	70
Drawing Number	1272-70-GI03
Dwg.	3 of 73

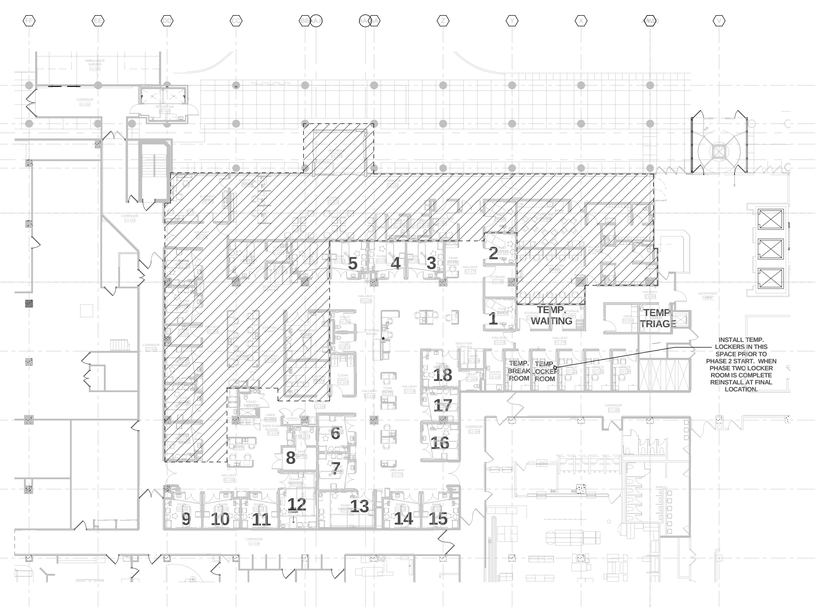
Office of Facilities Management

Department of Veterans Affairs

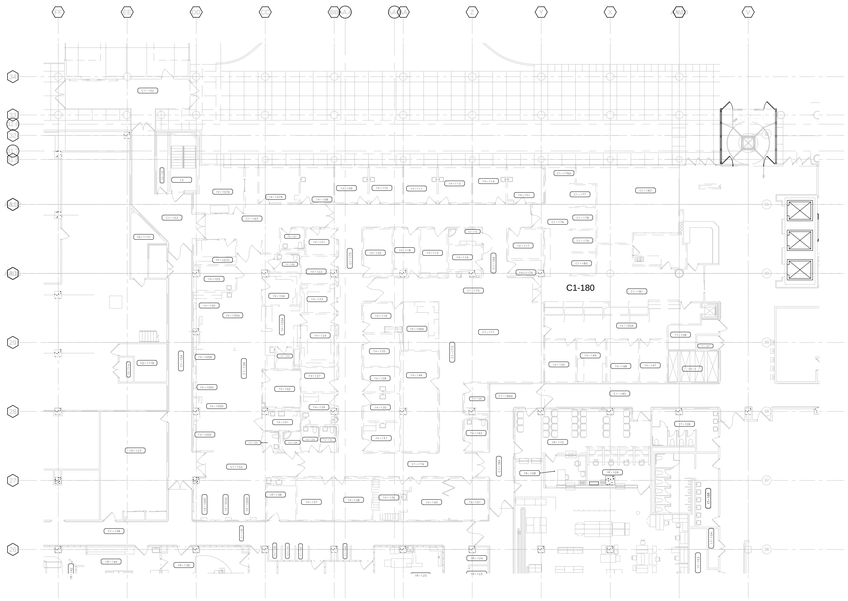
1/2/2014 11:22:57 PM



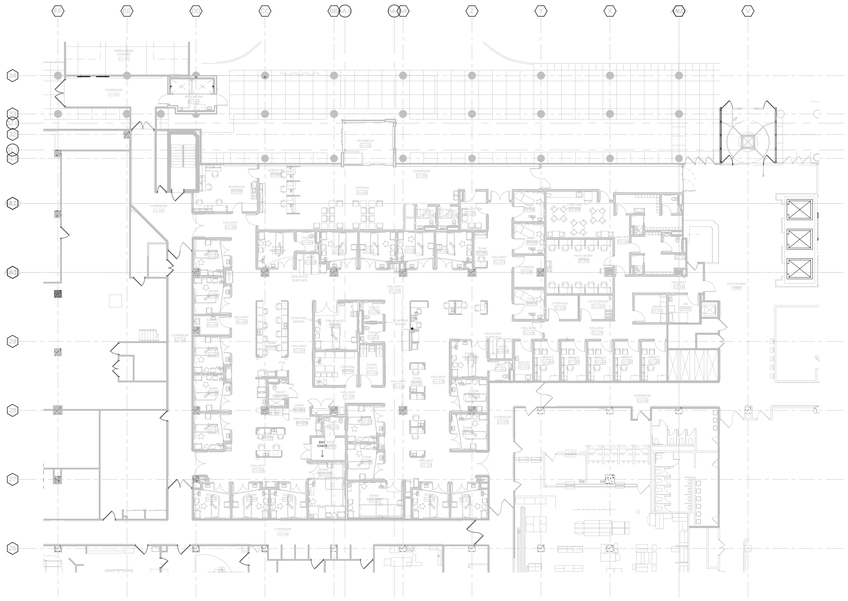
PHASE 1 PLAN DIAGRAM



PHASE 2 PLAN DIAGRAM



EXISTING CONDITION PLAN DIAGRAM



PHASE 1 & PHASE 2 PLAN DIAGRAM

1 PHASING PLAN
1" = 20'-0"

FULLY SPRINKLERED

No.	Revisions	Date

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PLAN NORTH

Drawing Title: WORK PHASE PLAN DIAGRAM	Project Title: VA MINNEAPOLIS ED RENOVATION 13441	Project Number: 618-14-104	Office of Facilities Management
Drawing Scale: AS NOTED	Approved:	Location: ONE VETERANS DRIVE MINNEAPOLIS, MN 55417	Building Number: 70	Department of Veterans Affairs
Plot Scale: 12" = 1'-0"	Approved:	Date: 01/02/2014 · Checked: Checker · Drawn: Author	Drawing Number: 1272-70-GI04	Dwg. 4 of 73

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CODE COMPLIANCE REVIEW - GENERAL

THE VA HAS ADOPTED THE LATEST EDITION OF THE FOLLOWING CODES AND STANDARDS

CODES, STANDARDS AND EXECUTIVE ORDERS

- VA DIRECTIVES, DESIGN MANUALS, MASTER SPECIFICATIONS, VA NATIONAL CAD STANDARD APPLICATION GUIDE, AND OTHER GUIDANCE ON THE TECHNICAL INFORMATION LIBRARY (TIL)
- INTERNATIONAL BUILDING CODE (IBC) - (SEE NOTES BELOW)
- NFPA 101 LIFE SAFETY CODE (SEE NOTES BELOW)
- NFPA NATIONAL FIRE CODES WITH 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)
- NATIONAL STANDARD PLUMBING CODE (NSPC)
- ASME BOILER AND PRESSURE VESSEL CODE
- ASME CODE FOR PRESSURE PIPING
- UNIFORM FEDERAL ACCESSIBILITY STANDARDS (UFAS) INCLUDING VA SUPPLEMENT BARRIER FREE DESIGN
- 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 ENVIRONMENTAL, ENERGY, AND TRANSPORTATION MANAGEMENT
- THE PROVISIONS FOR CONSTRUCTION AND SAFETY SIGNS. STATED IN THE GENERAL REQUIREMENTS SECTION 01010 OF THE VA MASTER CONSTRUCTION SPECIFICATION
- VENTILATION FOR ACCEPTABLE INDOOR AIR QUALITY - ASHRAE STANDARD 62.1-2004
- SAFETY STANDARD FOR REFRIGERATION SYSTEMS - ASHRAE STANDARD 15 -2007
- VA FIRE PROTECTION DESIGN MANUAL

NOTES:

1. NFPA 101 PRIMARILY ADDRESSES LIFE SAFETY AND FIRE PROTECTION FEATURES WHILE THE IBC ADDRESSES A WIDE RANGE OF CONSIDERATIONS, INCLUDING, BUT NOT LIMITED TO, STRUCTURAL STRENGTH, SEISMIC STABILITY, SANITATION, ADEQUATE LIGHT AND VENTILATION, AND ENERGY CONSERVATION. VA BUILDINGS MUST MEET THE REQUIREMENTS OF NFPA 101 AND DOCUMENTS REFERENCED BY NFPA 101 IN ORDER TO COMPLY WITH THE ACCREDITATION REQUIREMENTS OF THE JOINT COMMISSION. THEREFORE, DESIGNS SHALL COMPLY WITH THE REQUIREMENTS OF THE LATEST EDITION OF NFPA 101 AND DOCUMENTS REFERENCED THEREIN. DESIGN FEATURES NOT ADDRESSED BY NFPA 101 OR DOCUMENTS REFERENCED THEREIN SHALL COMPLY WITH THE REQUIREMENTS OF THE LATEST EDITION OF THE IBC OR AS OTHERWISE ADDRESSED ABOVE IN THIS PROGRAM GUIDE. FOR DESIGN FEATURES THAT ARE ADDRESSED BY BOTH THE IBC AS WELL AS NFPA 101 OR A DOCUMENT REFERENCED BY THE NFPA 101, THE REQUIREMENTS OF THE NFPA 101 OR THE DOCUMENT REFERENCED BY THE NFPA 101 SHALL BE USED EXCLUSIVELY (THIS APPLIES EVEN IF THE IBC REQUIREMENTS ARE DIFFERENT).

2. CONFLICTS BETWEEN NATIONALLY RECOGNIZED CODES AND STANDARDS AND VA REQUIREMENTS - SHOULD A CONFLICT EXIST BETWEEN VA REQUIREMENTS AND VA ADOPTED NATIONALLY RECOGNIZED CODES AND STANDARDS, THE CONFLICT SHALL BE BROUGHT TO THE ATTENTION OF THE VA. THE RESOLUTION OF THE CONFLICT SHALL BE MADE BY THE AUTHORITY HAVING JURISDICTION FOR THE VA TO ENSURE A CONSISTENCY SYSTEM WIDE.

PLUMBING FIXTURES:

IBC 2009 "TABLE 2902.1
RESIDENTIAL CARE, 161 OCCUPANTS.
WATER CLOSET 1 PER 10 (MALE/FEMALE), 17 MALE FIXTURES REQUIRED, 17 FEMALE FIXTURES REQUIRED, TOTAL 54 PROVIDED.
LAVATORIES 1 PER 10 (MALE/FEMALE), 17 MALE FIXTURES REQUIRED, 17 FEMALE FIXTURES REQUIRED, TOTAL 54 PROVIDED.
BATHTUB/SHOWER 1 PER 8 (MALE/FEMALE), 21 MALE FIXTURES REQUIRED, 21 FEMALE FIXTURES REQUIRED, TOTAL 52 PROVIDED.
DRINKING FOUNTAIN 1 PER 100, 2 REQUIRED, 2 PROVIDED VIA FILTERED WATER DISPENSING FRIDGE'S IN LOUNGES.
ONE SERVICE SINK REQUIRED. ONE PROVIDED ON SECOND AND THIRD FLOORS.

IBC 2009 2902.3.1 ACCESS TO FIXTURES: ACCESS TO THE REQUIRED FACILITIES SHALL BE FROM WITHIN THE BUILDING OR FROM THE EXTERIOR OF THE BUILDING

CONCEALED SPACES AND DRAFTSTOPS:

NFPA 101 "8.6.10.1 ANY CONCEALED COMBUSTIBLE SPACE IN WHICH BUILDING MATERIALS HAVING A FLAME SPREAD INDEX GREATER THAN CLASS A ARE EXPOSED SHALL BE DRAFT STOPPED AS FOLLOWS:
(1) EVERY EXTERIOR AND INTERIOR WALL AND PARTITION SHALL BE FIRESTOPPED AT EACH FLOOR LEVEL, AT THE STORY CEILING LEVEL AND AT THE LEVEL OF SUPPORT FOR ROOFS
(2) EVERY UNOCCUPIED ATTIC SPACE SHALL BE DIVIDED BY DRAFTSTOPS INTO AREAS NOT TO EXCEED 3000 S.F.
(3) ANY UNCONCEALED SPACE BETWEEN THE CEILING AND THE FLOOR OR ROOF ABOVE SHALL BE DRAFTSTOPPED FOR THE FULL DEPTH OF THE SPACE ALONG THE LINE OF SUPPORT FOR THE FLOOR OR ROOF STRUCTURAL MEMBERS AND, IF NECESSARY, AT OTHER LOCATIONS TO FORM AREAS NOT TO EXCEED 1000S.F. FOR ANY SPACE BETWEEN THE CEILING AND THE FLOOR, AND 3000S.F. FOR ANY SPACE BETWEEN THE CEILING AND THE ROOF."

INTERIOR WALL & CEILING FINISH:

NFPA 101 38.3.3.2.1 INTERIOR WALL AND CEILING FINISH MATERIAL COMPLYING WITH SECTION 10.2 SHALL BE CLASS A OR CLASS B IN EXITS AND EXIT ACCESS CORRIDORS
NFPA 101 38.3.3.2.2 INTERIOR WALL AND CEILING FINISHES SHALL BE CLASS A, CLASS B, OR CLASS C IN AREAS OTHER THAN THOSE SPECIFIED IN 38.3.3.2.1

INTERIOR FLOOR FINISH:

NFPA 101 38.3.3.3.2 INTERIOR FLOOR FINISH IN EXIT ENCLOSURES SHALL BE CLASS I OR CLASS II
38.3.3.3.3 INTERIOR FLOOR FINISH SHALL COMPLY WITH 10.2.7.1 OR 10.2.7.2 AS APPLICABLE
TABLE A.10.2.2 INTERIOR FINISH CLASSIFICATION LIMITATIONS NEW BUSINESS-FLOOR FINISH-NOT APPLICABLE

OCCUPANCY SPECIFIC CODE COMPLIANCE REVIEW

NEW HEALTH CARE OCCUPANCIES, NFPA 101 LIFE SAFETY CODE CHAPTER 18 and EXISTING HEALTH CARE OCCUPANCIES, NFPA 101 LIFE SAFETY CODE CHAPTER 19.

Since this is considered a new construction/major renovation in an existing facility and code compliance can not be verified, the worst case code scenario must be utilized.

Occupancy Type per 18.1.1.1.5 and 19.1.1.1.5, New Health Care Occupancies and Existing Health Care Occupancies are those providing sleeping accommodation for their occupants and are occupied by persons who are mostly incapable of self-preservation.

Separation of existing facility not conforming to Chapter 19 requires a 2 hour fire barrier separation, per 18.1.1.4.1 and 19.1.1.4.1.

Permitted Means of Egress Components per section 18.2.2 and 19.2.2 include;
Doors, Stairs, Smoke proof enclosures, Horizontal Exits, Ramps, Exit Passageways, Fire Escape Ladders, Alternating treat devices, Area of Refuge.

Construction Type per Table 18.1.6.1 and 19.1.6.1;
Fully sprinklered per NFPA 13 and 14.
4 Story building or higher.
Unlimited area per floor.
Construction Type I (442), I (332), or Type II (222) with roof and supports complying with Class A ASTM E108 and NFPA 220.

Corridor, Aisles and Ramps used for required exist minimum 8'-0" clear unobstructed width,
Except 44" clear unobstructed width is permitted where not used for patient housing, treatment or inpatients.
Projections 6" or less from the wall and not less than 38" above the floor are permitted, per 18.2.3.4 and 19.2.3.4.

Corridor, Aisles and Ramps used for required exit minimum 6'-0" clear unobstructed width in areas in limited care or psychiatric care facilities, per 18.2.3.5 and 19.2.3.5.

Dead End Corridors per 18.2.5.2 and 19.2.5.2, maximum length 30'-0".

Travel Distance to an Exit per 18.2.6 200'-0" and per 19.2.6 150'-0" plus 50'-0" increase for fully sprinklered building, total maximum travel distance 200'-0".

Hazardous area protection per Table 18.3.2 and 19.3.2.
Boiler and fuel fire equipment rooms, Storage rooms exceeding 100 sq ft, Soiled Linen rooms, Trash rooms require one hour rated walls per 18.3.2 and no rating require if protected by a sprinkler system per 19.3.2.
Storage rooms exceeding 50 sq ft but less than 100 sq ft do not require smoke walls.

Fire Extinguishers per 18.3.5 and 19.3.5 and NFPA 10, required to be placed no more than 75'-0" apart. Additional Extinguishers to be provided in hazardous areas such as Commercial Kitchens, Boiler and fuel fire equipment rooms, Storage rooms exceeding 100 sq ft, Soiled Linen rooms, Trash rooms.

Corridor walls in new facilities are not required to be rated but limit the passage of smoke per 18.3.6.2 with doors not requiring any rating but resist the passage of smoke. Doors do not require closers per 18.3.6.3.
Corridor walls in existing facilities are required to be 1/2" hour rating and limit the passage of smoke per 19.3.6.2 with doors having a 1/3 hour rating. Doors do not require closers per 19.3.6.3. Exceptions, section 19.3.6.2.5 and 19.3.6.3.2 eliminates the fire rating requirements for walls and doors where an automatic sprinkler system is provided.

Smoke Zone Separation per 18.3.7 and 19.3.7, subdivision of each level is required into 2 smoke zones with each zone maximum 22,500 sq ft.
Smoke Zone walls are require to be 1 hour rated walls per 18.3.7.1 and 1/2 hour rated walls per 19.3.7.1.
Doors require vision panels and 1/3 hour rating.

Cooking Facilities per 18.3.2.5 and 19.3.2.5, commercial equipment if provided shall comply with 9.2.3 and NFPA 96, domestic equipment does not need to comply.

GENERAL REQUIREMENTS: NFPA 101 LIFE SAFETY CODE.

Headroom, minimum 7'-6" with projections minimum 6'-8".

Doors, must swing in the direction of egress where numbers of occupants exceed 50.

Stair minimum width per Table 7.2.2.2.2.1.2 (B), 36" where numbers of occupants does not exceed 50, 44" where numbers of occupants exceed 50 but is less than 2000.

Stair riser maximum height 7", tread minimum with 11", maximum rise to a landing 12'-0", head room 6'-8", handrail mounting height 34", guardrail height 42".

Area of refuge to be provided on all accessible levels, 30" x 48" space to be provided for wheelchairs. Area of Refuge is permitted within adjacent Smoke Zones.

Occupant load factors per Table 7.3.1.2, Health Care Inpatient Treatment use 240 sq ft per occupant, Sleeping use 120 sq ft per occupant, Ambulatory Healthcare use 100 sq ft per occupant, 500 sq ft per occupant for storage, mechanical and electrical areas.
Waiting space occupant load factor 3 sq ft per occupant, existing for waiting areas shall be in addition to existing requirements for the occupant use space per 12.1.7.2 and 13.1.7.2.

Egress widths factor per Table 7.3.3.1, Stairway width factor 0.3" per occupant, level components 0.2" per occupant per 18.2.3.2 and 19.2.3.2.

Occupant load/Egress width required;

First Level, Health Care Occupancy, 16,177 sq ft, 162 occupants, 49" stair width, 25" horiz width.
First Level, Waiting Occupancy, 655 sq ft, 44 occupants, 13" stair width, 7" horiz width.

Overall Building, 16,832 sq ft, 206 occupants, 62" stair width, 32" horiz width.

Number of exits, 2 means of egress is required per section 7.4, 18.2.4 and 19.2.4, 2 accessible means of egress is required per section 7.5.4, 18.2.4 and 19.2.4.

Boiler, Mechanical and Electrical room maximum travel distance 100'-0" per 7.12.1 (1).

Vertical enclosures per section Table 8.3.4.2 where required, Elevator hoist way 2 hour rated walls with 1 1/2 hour rated doors, Elevator lobbies 1 hour rated walls with 1 hour rated doors, Vertical shafts 2 hour rated walls with 1 1/2 hour rated doors, Corridors 1/2 hour rated walls with 1/3 hour rated doors.

GENERAL REQUIREMENTS: NFPA 220.

Fire Resistive Rating per Table 4.1.1 based on Construction Type I (442);
Exterior Baring walls, 4 hour fire rating, 4 hour fire rating if supporting a roof only.
Columns, 4 hour fire rating, 3 hour fire rating if supporting a roof only.
Beams, 4 hour fire rating, 2 hour fire rating if supporting a roof only.
Floors, 2 hour fire rating.
Roof, 2 hour fire rating.

GENERAL REQUIREMENTS: NFPA 5000 BUILDING CONSTRUCTION AND SAFETY CODE.

Building Horizontal Separation per Table 7.3.2.1, no rating is required where exterior wall separation exceed 30'-0".

PLUMBING FIXTURES : IBC Chapter 29 and IPC Chapter 4.
Minimum number by occupancy type, travel distance 500'-0".
Residential Care, water closets and lavatories 1:10, bathtub/showers 1:8, drinking fountain 1:100.
Hospitals, water closets and lavatories 1 per room, bathtub/showers 1:8, drinking fountain 1:100.
Hospital Employees, water closets 1:25, lavatories 1:35, bathtub/showers not required, drinking fountain 1:100.
Visitors, water closets 1:75, lavatories 1:100, bathtub/showers not required, drinking fountain 1:500.

Required number of fixtures shall be divided equally for each sex unless occupant load is less than 15.

Unisex fixtures are permitted to be included in the required fixture count for Assembly and Mercantile occupancies per IPC.

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No.	Revisions	Date

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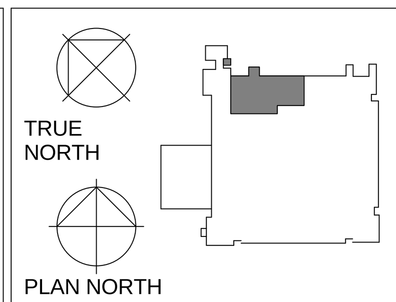


Drawing Scale: AS NOTED

Plot Scale: 12" = 1'-0"

Drawing Title: LIFE SAFETY CODE NOTES

Approved:

Approved:

Project Title: VA MINNEAPOLIS ED RENOVATION 13441

Location: ONE VETERANS DRIVE MINNEAPOLIS, MN 55417

Date: 01/02/2014 | Checked: PR | Drawn: EB/TD

Project Number: 618-14-104

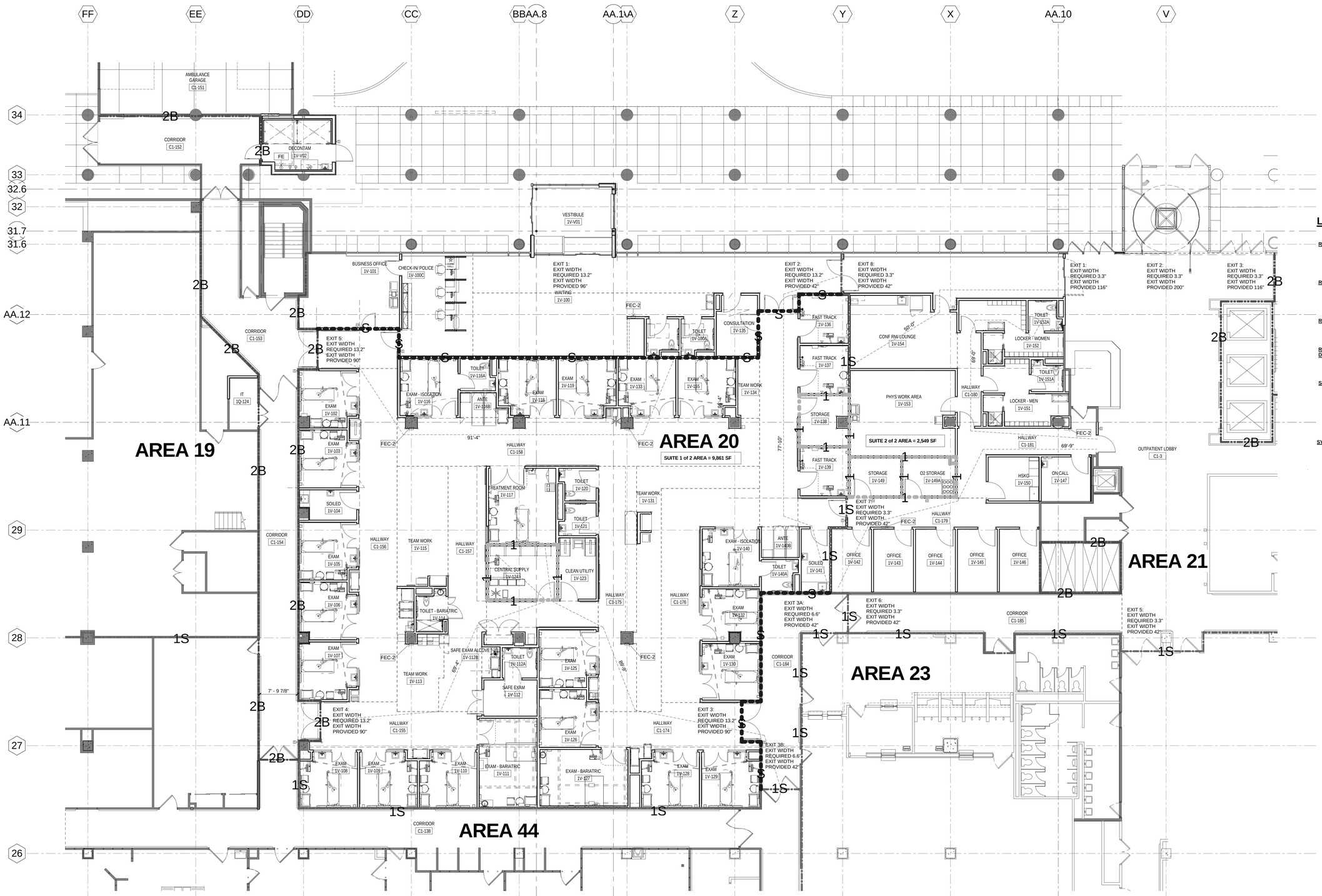
Building Number: 70

Drawing Number: 1272-70-AS01

Dwg. 5 of 73

Office of Facilities Management

Department of Veterans Affairs



1 FIRST LEVEL LIFE SAFETY PLAN
1/8" = 1'-0"

OCCUPANCY CLASSIFICATION
CHAPTER 19: EXISTING HEALTH CARE OCCUPANCY

SEE ALSO AS01 FOR CODE NOTES.

LIFE SAFETY LEGEND

RATED FIRE PARTITIONS (IBC 708)

- 1 = 1 HR FIRE PARTITION — 1
- 2 = 2 HR FIRE PARTITION — 2
- 3 = 3 HR FIRE PARTITION — 3

RATED FIRE BARRIERS (IBC 706/707)

- 1B = 1 HR FIRE BARRIER — 1B
- 2B = 2 HR FIRE BARRIER — 2B
- 3B = 3 HR FIRE BARRIER — 3B

RATED FIRE WALLS (IBC 705)

- 2W = 2 HR FIRE WALL — 2W
- 3W = 3 HR FIRE WALL — 3W

RATED FIRE BARRIERS W/ 45 MIN OPENING PROTECTION - DELUGE REQUIRED AT GLAZING ONLY

- 1D = 1 HR FIRE BARRIER W/ DELUGE — 1D
- 2D = 2 HR FIRE BARRIER W/ DELUGE — 2D

SMOKE PARTITIONS (IBC 709/710)

- 1S = 1 HR SMOKE BARRIER — 1S
- 2S = 2 HR SMOKE BARRIER — 2S
- S = SMOKE PARTITION - CORRIDOR CONSTRUCTION TO PREVENT SMOKE PENETRATION — S
- AT = AIR TIGHT PARTITION — AT

SYMBOL KEY

- FIRE EXTINGUISHER — FE
- FIRE EXTINGUISHER CABINET — FEC

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PLAN NORTH

Drawing Title: FIRST FLOOR LIFE SAFETY PLAN	Project Title: VA MINNEAPOLIS ED RENOVATION 13441	Project Number: 618-14-104	Office of Facilities Management
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Department of Veterans Affairs

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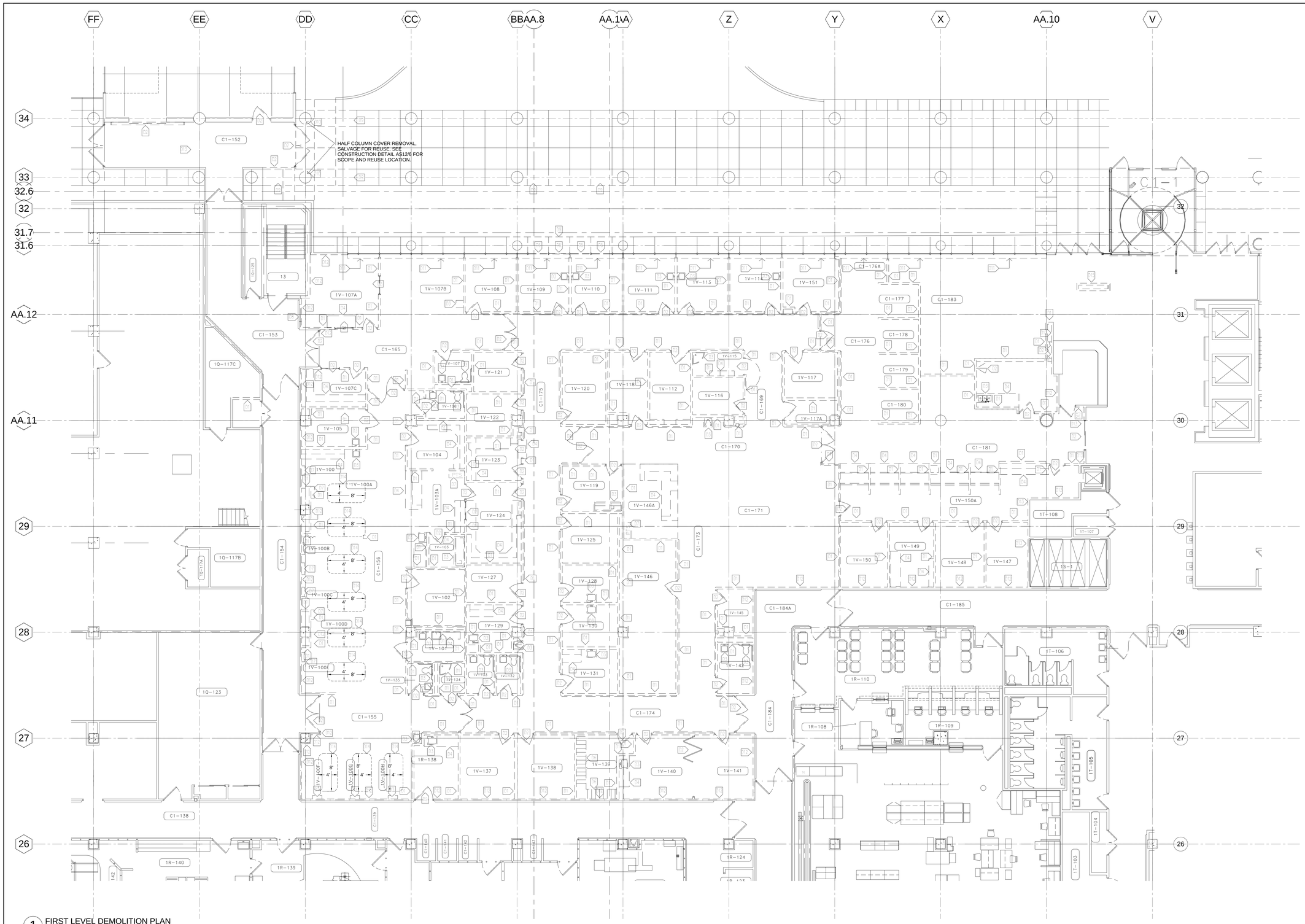

1 FIRST LEVEL DEMOLITION PLAN
1/8" = 1'-0"

DEMOLITION GENERAL NOTES

1. SEE SPECIFICATION FOR ADDITIONAL DEMOLITION REQUIREMENTS.

2. ITEM SHOWN DASHED ON THE DEMOLITION PLANS INDICATES EXIST. PARTITIONS, DOORS, FRAMES, WINDOWS, CASEWORK, FIXTURES AND FITTINGS, ETC.TO BE REMOVED UNLESS OTHERWISE NOTED TO BE SALVAGED FOR RELOCATION OR STORAGE.

3. REFER ALSO TO CIVIL, STRUCTURAL, ELECTRICAL AND MECHANICAL DRAWINGS FOR COORDINATION AND EXTENT OF OTHER DEMOLITION REQUIRED FOR OTHER TRADES BUT NOT SHOWN ON THESE DRAWINGS.

4. DEMOLISH CEILINGS IN AREAS WHERE NEW CEILINGS ARE SCHEDULED.

5. REMOVE FLOOR AND/OR WALL FINISHES IN AREAS WHERE NEW FLOOR AND/OR WALL FINISHES ARE SCHEDULED.

6. CAREFULLY REMOVE CEILINGS AS ARE REQUIRED BY MECHANICAL AND/OR ELECTRICAL CONTRACTORS OR OTHER ABOVE CEILING WORK IN AREAS WHERE NO ARCHITECTURAL DEMOLITION WORK OR LIMITED DEMO WORK IS BEING DONE. REINSTALL CEILING AND PATCH TO MATCH EXISTING.

7. PATCH HOLES AND VOIDS IN EXIST. ROOF DECK/CONC. FLOOR, WALLS, AND CEILINGS OCCURRING AS A RESULT OF DEMOLITION WORK. MATCH THICKNESS OF EXIST. CONC. SEE FLOOR REPAIR SPECIFICATION SECTION.

8. FOR SAW CUTTING OF R.C. CONCRETE, DO NOT OVER CUT HORIZONTALLY OR VERTICALLY. HOLD BACK CUT LINES TO EXACT OPENING SIZES REQUIRED. REMOVE REMAINING CONC.BY OTHER MEANS.

9. ITEMS TO BE REMOVED, SALVAGED AND PLACED IN STORAGE LOCATION TO BE DETERMINED BY THE CLIENT. OWNERS VENDOR TO REMOVE AND SALVAGE SUPPLIES, COMPUTERS, FAXES, PRINTERS, COPIERS, CLOCKS, PHONES, MEDICAL EQUIPMENT, PTS, ATM AND VENDING MACHINES.

10. SEE ALSO NEW CONSTRUCTION DRAWINGS FOR SCOPE OF OTHER ITEMS TO BE REMOVED.

D1 REMOVE PARTITION, STEEL STUD FRAMING, INSULATION, BRACING, LINING, CORNER GUARDS, WALL PROTECTION AND FINISHES.

D2 REMOVE DOOR AND/OR WINDOW AND FRAME, INCLUDING HARDWARE.

D3 REMOVE PLUMBING FIXTURE, BRACKET, CLIPS AND SUPPORT FRAMES. REMOVE ANY ASSOCIATED PTC, SD, GB, MIRRORS, SHELF, ETC. SEE ALSO MECHANICAL DRAWINGS.

D4 REMOVE CABINET, BASE, OVERHEAD CABINET/CASEWORK AND WALL SHELVING. REMOVE TASK LIGHTING WHERE APPLICABLE, SEE ALSO ELECTRICAL DRAWINGS.

D5 REMOVE STOREFRONT WINDOW/DOOR AND LOUVERS ASSOCIATED HARDWARE AND WINDOW SILL.

D6 REMOVE BUILT-IN LOCKERS

D7 PNEUMATIC TUBE STATIONS (PTS) TO BE RELOCATED BY PTS VENDOR (SWISSLOG). STATIONS ARE CURRENTLY FED FROM INTERSTITIAL SPACE DIRECTLY ABOVE. PLEASE SEND ITB AND CONTACT DAN KEELER @ 303-576-8816 / dan.keeler@swisslog.com

D8 REMOVE PARTITION TO FORM OPENING FOR NEW DOOR OR WINDOW.

D9 REMOVE SIDEWALK IN PREPARATION FOR NEW CONSTRUCTION.

D10 REMOVE ALUMINUM METAL PANEL COLUMN COVER AND WEATHER BARRIER, SUPPORT CLIPS, FRAMING ETC BACK TO EXPOSE STRUCTURAL COLUMN. REMOVE ALSO CONCRETE BASE DOWN TO 2" BELOW UNDERSIDE OF NEW CONCRETE FLOOR.

D11 REMOVE METAL FTR COVER, SUPPORT CLIPS/BRACKETS, FRAMING ETC BACK TO EXPOSE THE BACK OF EXTERIOR WINDOW.

D12 REMOVE GYB FACE AND BLOCKING FROM EXISITNG STUDS. PATCH/REPAIR FOR NEW GYB FACE AND BLOCKING AS NOTED ON FLOOR PLAN

D13 REMOVE EXISITNG WALLCOVERING, FLOORING AND CEILING. PATCH/REPAIR FOR NEW INTERIOR FINISHES.

D14 DEMOLISH EXISTING IV TRACK SYSTEM MOUNTED ON CEILING AND EXISTING MISC. METAL STRUCTURE OF IV TRACK SUPPORT SYSTEM (ABOVE CEILING).

D15 REMOVE EXISTING TALL HVAC CABINET; REMOVE QUARRY TILE BENEATH CABINET AND ANY ADJACENT DISTURBED OR DAMAGED QUARRY TILE DUE TO CONSTRUCTION; CAP AND SEAL PLUMBING/ELECTRICAL STUBOUTS BENEATH SLAB AND PREPARE SLAB FOR NEW QUARRY TILE (QT1) FINISH. PATCH TO MATCH EXISTING QUARRY TILE.

FULLY SPRINKLERED

No.	Revisions	Date

GENERAL NOTES:

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TRUE NORTH
PLAN NORTH

Drawing Title: FIRST FLOOR DEMOLITION PLAN	Project Title: VA MINNEAPOLIS ED RENOVATION 13441		Project Number: 618-14-104	Office of Facilities Management
Drawing Scale: AS NOTED	Approved:	Location: ONE VETERANS DRIVE MINNEAPOLIS, MN 55417	Building Number: 70	
Plot Scale: 12" = 1'-0"	Approved:	Date: 01/02/2014 / Checked: PR / Drawn: EB/TD	Drawing Number: 1272-70-AS03	Department of Veterans Affairs
			Dwg. 7 of 73	

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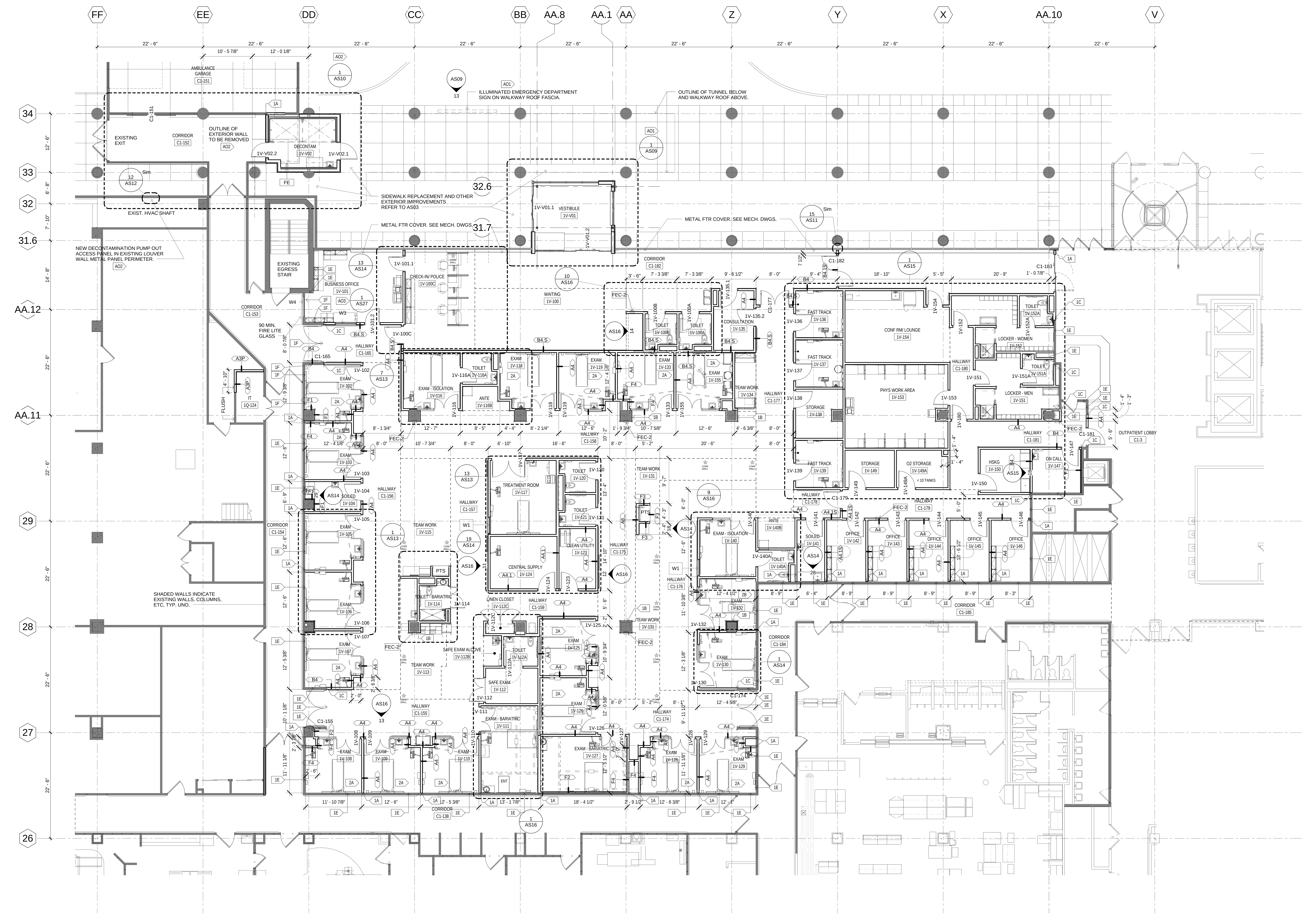
1/6/2014 11:16:51 AM
three inches = one foot
one and one half inch = one foot
one inch = one foot
three-quarters inch = one foot
one-half inch = one foot
three-eighth inch = one foot
one-quarter inch = one foot
one-eighth in = one foot



FLOOR PLAN GENERAL NOTES

1. FOR GENERAL NOTES, ABBREVIATIONS, SYMBOLS AND MATRERIALS, ETC SEE GI02 AND GI03.

KEYED NOTES

- 1A NEW PARTITION INTERSECTION WITH NEW OR EXISTING SURFACE. PROVIDE METAL TRIM AND 1/4" SEALANT JOINT TO PERIMETER BOTH SIDES OF WALL WHERE APPLICABLE. SEE AS19/3 TYP UNO.
- 1B WRAP PARTITION TYPE F2 TIGHT AROUND NEW OR EXISTING COLUMN.
- 1C ALIGN NEW PARTITION FLUSH WITH ADJACENT SURFACE. PROVIDE METAL TRIM AND 1/4" SEALANT JOINT TO PERIMETER BOTH SIDES OF WALL. SEE ALSO AS19/5.
- 1D PROVIDE PLYWOOD FURNITURE/EQUIPMENT BLOCKING FOR ENTIRE LENGTH AND HEIGHT OF WALL. 1/4" UNO. 3/4" IN ELEC & COMM ROOMS.
- 1E APPLY NEW GYB LAYER TO EXISTING STUD WALL TO FULL EXTENT AND HEIGHT OF STUD WALL. PROVIDE SEALANT TO STRUCTURE ABOVE.
- 1F APPLY 2 NEW GYB LAYER TO EXISTING STUD WALL TO FULL EXTENT AND HEIGHT OF STUD WALL. PROVIDE SEALANT TO STRUCTURE ABOVE.
- 2A SEE 1/AS13 FOR TYP EXAM ROOM LAYOUT
- 2B SEE 1/AS14 FOR TYP ROOM LAYOUT
- 2C SEE 7/AS13 FOR TYP ISOLATION ROOM LAYOUT
- 2D SEE 1/AS15 FOR TYP TOILET ROOM LAYOUT
- 2E SEE 1/AS15 FOR TYP FAST TRACK ROOM LAYOUT

ADD OPTIONS

- AO1 ADD OPTION #1 - BUILD-OUT VESTIBULE
- AO2 ADD OPTION #2 - BUILD-OUT DECONTAMINATION
- AO3 ADD OPTION #3 - CUSTOM CASEWORK AND CEILING ELEMENT AT CHECK-IN

FULLY SPRINKLERED

No.	Revisions	Date

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TRUE NORTH

PLAN NORTH

Drawing Title: FIRST FLOOR OVERALL PLAN	Project Title: VA MINNEAPOLIS ED RENOVATION 13441	Project Number: 618-14-104	Office of Facilities Management
Drawing Scale: AS NOTED	Approved:	Location: ONE VETERANS DRIVE MINNEAPOLIS, MN 55417	Building Number: 70
Plot Scale: 12" = 1'-0"	Approved:	Date: 01/02/2014 / Checked: PR / Drawn: EB/TD	Drawing Number: 1272-70-AS04 / Dwg. 8 of 73

Department of Veterans Affairs

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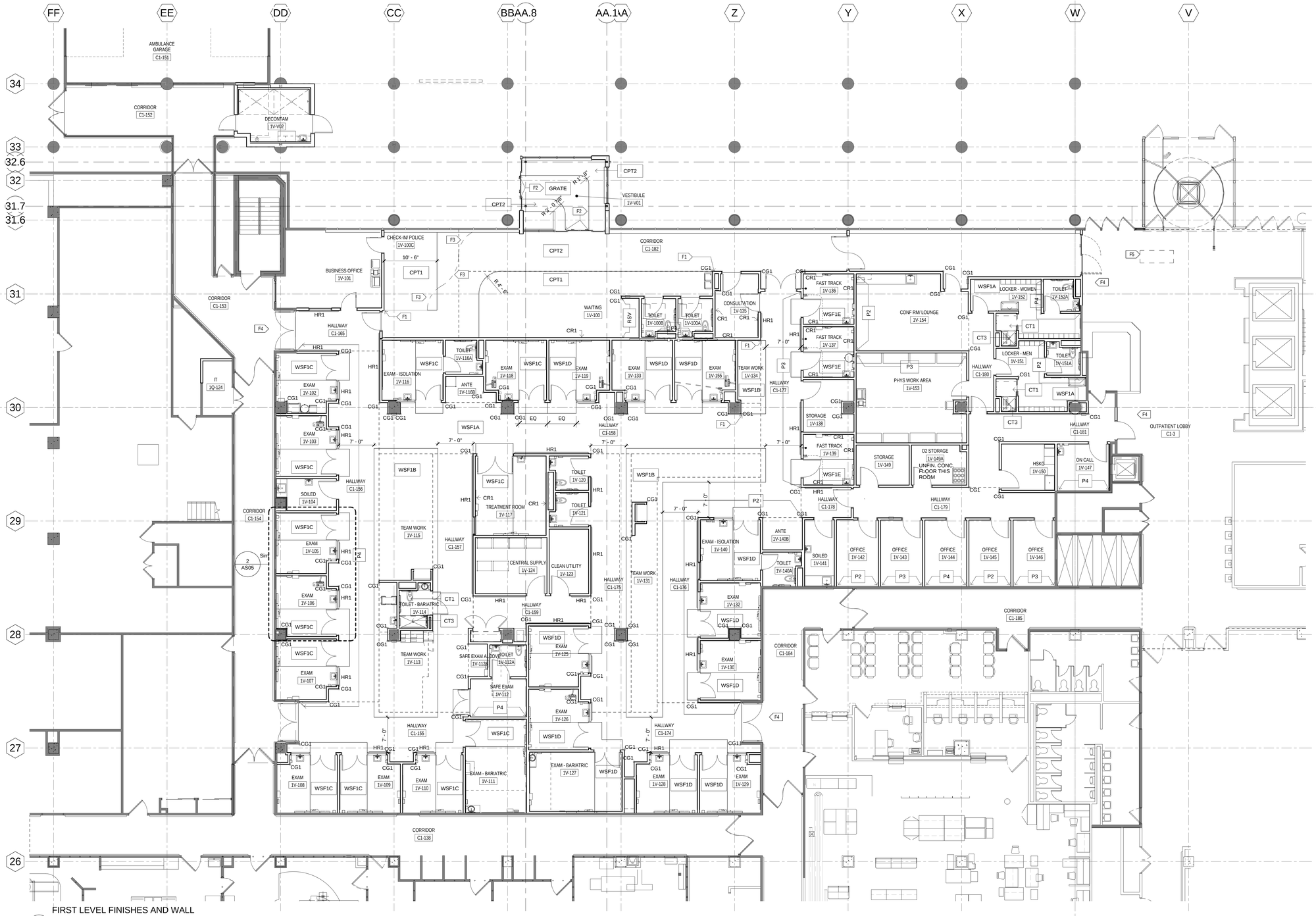
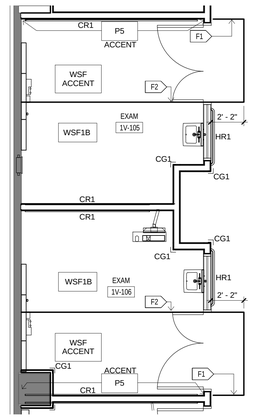


1 FIRST LEVEL FINISHES AND WALL PROTECTION PLAN
1/8" = 1'-0"



2 ENLARGED PLAN EXAM TYP FINISHES
1/4" = 1'-0"

FLOOR PLAN GENERAL NOTES

1. FOR GENERAL NOTES, ABBREVIATIONS, SYMBOLS AND MATERIALS, ETC SEE GI02 AND GI03.

2. SEE SHEET AS24 FOR FLOOR TRANSITION DETAILS

3. SEE SHEET AS24 FOR CORNER GUARD, HANDRAIL, AND CRASHRAIL DETAILS

4. SEE SHEET AS17 FOR CORNER GUARD, HANDRAIL, AND CRASHRAIL MOUNTING HT DETAILS

KEYED NOTES

- F1 FLOOR PATTERN TO ALIGN WITH WALL EDGE
- F2 FLOOR PATTERN TO ALIGN WITH DOOR FRAME EDGE
- F3 AS03: FLOOR PATTERN TO ALIGN WITH FRONT DESK EDGE. SEE AS27 FOR ALIGNMENT AND DIMENSIONS.
- F4 NEW VINYL WALL COVERING (W2) WHERE DISTURBED BY NEW CONSTRUCTION. PATCH TO MATCH EXISTING - TYPICAL AT ALL EXISTING CORRIDORS
- F5 NEW QUARRY TILE (QT1) AT LOCATION OF CABINET REMOVAL, PATCH TO MATCH EXISTING.

FULLY SPRINKLERED

No.	Revisions	Date

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TRUE NORTH

PLAN NORTH

Drawing Title
FIRST FLOOR FINISHES AND WALL PROTECTION PLAN

Drawing Scale: AS NOTED

Plot Scale: 12" = 1'-0"

Approved:

Approved:

Project Title
VA MINNEAPOLIS ED RENOVATION 13441

Location ONE VETERANS DRIVE MINNEAPOLIS, MN 55417

Date 01/02/2014 | Checked PR | Drawn EB/TD

Project Number 618-14-104

Building Number 70

Drawing Number 1272-70-AS05

Dwg. 9 of 73

Office of Facilities Management

Department of Veterans Affairs

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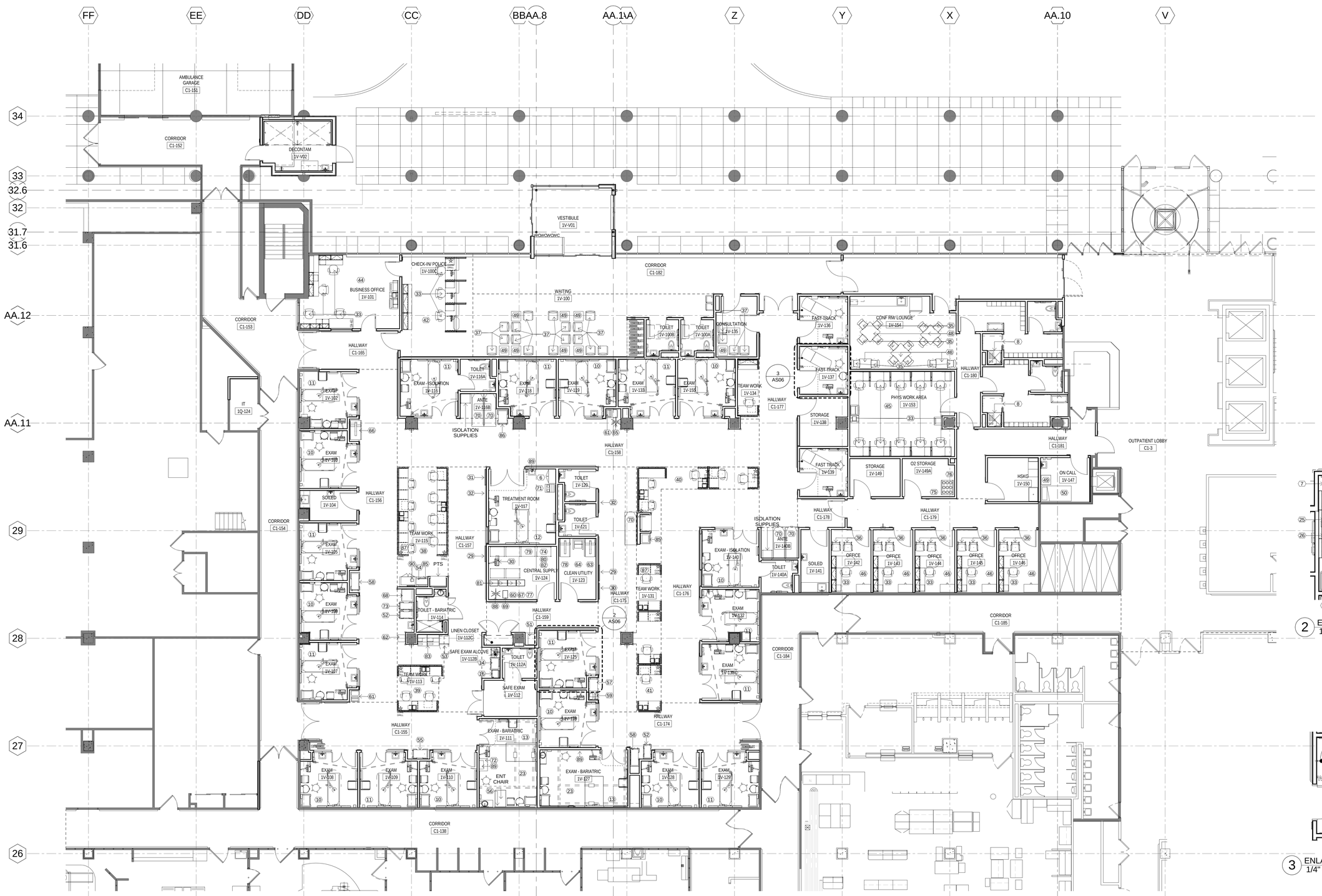
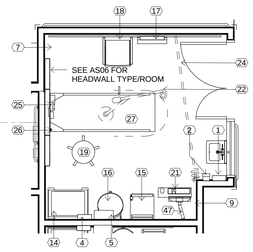
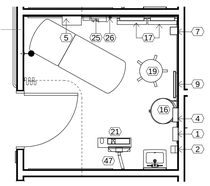


1 FIRST LEVEL FURNITURE AND EQUIPMENT PLAN
1/8" = 1'-0"



2 ENLARGED EXAM TYP EQUIPMENT PLAN
1/4" = 1'-0"



3 ENLARGED FAST TRACK TYP EQUIP PLAN
1/4" = 1'-0"

FLOOR PLAN GENERAL NOTES

1. FOR GENERAL NOTES, ABBREVIATIONS, SYMBOLS AND MATRERIALS, ETC SEE GI02 AND GI03.

INTERIOR ELEVATION GENERAL NOTES

1. REFER TO AS22 CASEWORK FINISHES AND GENERAL NOTES FOR CABINET TYPES, TOP TYPES, SHELF TYPES, PLAM. FINISHES, WOOD FINISHES, ADJUSTABLE SHELVING AND OTHER GENERAL CASEWORK NOTES AND INFORMATION.

2. FOR TYPICAL COUNTER TOP TYPES, UNDERCOUNTER TASK LIGHTING, SUPPORT BRACKET TYPES, COUNTER TOP CORNER, GROMET, GYB/PLAM SOFFIT DETAILS AND PLAM/WOOD FINISHES, SEE AS22 AND CASEWORK FINISHES AND GENERAL NOTES.

3. SEE SPECIFICATION FOR BUILDING, TOILET AND BATHROOM ACCESSORIES.

4. SEE SPECIFICATION FOR TOILET PARTITIONS AND URINAL SCREENS.

5. REFER TO SHEET AS17 FOR TYPICAL FITTINGS, FIXTURES, ACCESSORIES, ASSEMBLIES TYPICAL MOUNTING HEIGHTS, DIMENSIONS AND OTHER GENERAL INFORMATION, UNO.

6. SEE AS20 FOR FURNITUREAND EQUIPMENT SCHEDULE WITH EQUIPMENT CODE DESCRIPTIONS.

7. PROVIDE WALL BLOCKING AT ARTWORK, MBD AND TBD AND ALL OTHER WALL MOUNTED ITEMS - SEE AS18.

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No.	Revisions	Date

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TRUE NORTH

PLAN NORTH

Drawing Scale: AS NOTED

Plot Scale: 12" = 1'-0"

Drawing Title: **FIRST FLOOR FURNITURE AND EQUIPMENT PLAN**

Approved:

Approved:

Project Title: **VA MINNEAPOLIS ED RENOVATION 13441**

Location: ONE VETERANS DRIVE MINNEAPOLIS, MN 55417

Date: 01/02/2014 | Checked: PR | Drawn: EB/TD

Project Number: 618-14-104

Building Number: 70

Drawing Number: 1272-70-AS06

Dwg. 10 of 73

Office of Facilities Management

Department of Veterans Affairs

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one-eighth in = one foot | one-quarter inch = one foot | three-eighth inch = one foot | one-half inch = one foot | three-quarters inch = one foot | one inch = one foot | one and one half inch = one foot | three inches = one foot

FLOOR PLAN GENERAL NOTES

1. FOR GENERAL NOTES, ABBREVIATIONS, SYMBOLS AND MATERIALS, ETC SEE G102 AND G103.

2. SEE SHEET AS26 FOR SIGNAGE DETAILS.

3. ALL SIGNAGE IS CONTRACTOR PROVIDED AND CONTRACTOR INSTALLED (CC).

Signage Qty		Window Backer Qty	
A.6	2	G	18
B	6		
C.3–1S	1		
D	1		
E	1		
E.2	7		
G	41		
G.x	1		
H	7		
J.2	1		
M	5		

1 FIRST LEVEL SIGNAGE PLAN.
1/8" = 1'-0"

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TRUE NORTH

PLAN NORTH

Drawing Title
FIRST FLOOR SIGNAGE PLAN

Drawing Scale: AS NOTED

Plot Scale: 12" = 1'-0"

Approved:

Approved:

Project Title
VA MINNEAPOLIS ED RENOVATION 13441

Location ONE VETERANS DRIVE MINNEAPOLIS, MN 55417

Date 01/02/2014 | Checked PR | Drawn EB/TD

Project Number 618-14-104

Building Number **70**

Drawing Number **1272-70 AS07**

Dwg. 11 of 73

Office of Facilities Management

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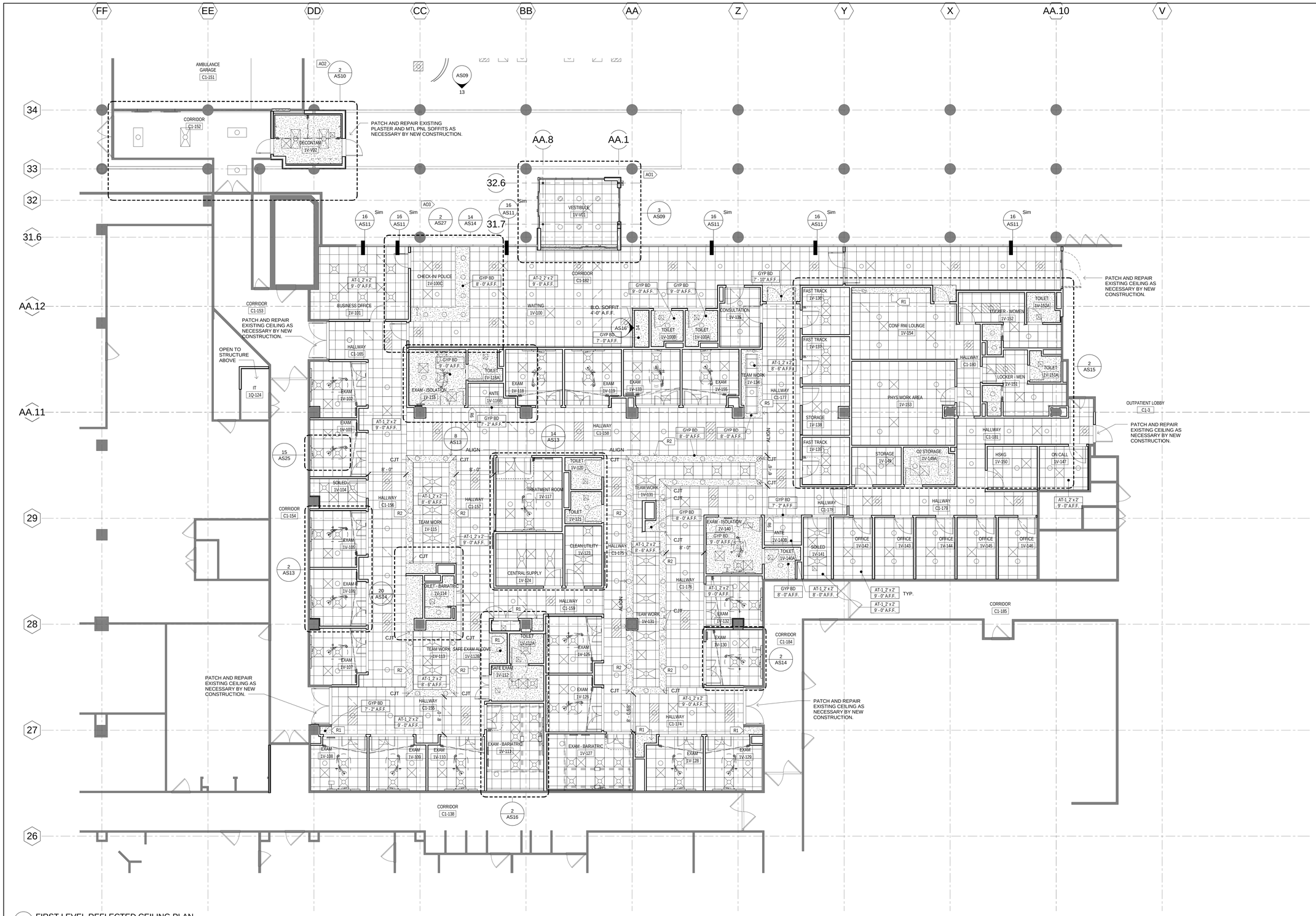

1 FIRST LEVEL REFLECTED CEILING PLAN
1/8" = 1'-0"

FLOOR PLAN GENERAL NOTES

1. FOR GENERAL NOTES, ABBREVIATIONS, SYMBOLS AND MATRERIALS, ETC SEE GI02 AND GI03.

REFLECTED CEILING PLAN GENERAL NOTES

1. SEE SHEET AS25 FOR CEILING TRANSITION AND SPECIALITY CEILING EQUIPMENT DETAILS

2. ALIGN CEILING SOFFITS WITH ADJACENT PARTITIONS, TYP. UNO.

3. COORDINATE SIZE & LOCATION OF CEILING OPENING WITH EQUIPMENT SUPPLIER.

4. SPRINKLER HEADS SHOWN ON THE RCP'S ARE THOSE OF DESIGN CONCERN. CENTER ALL SPRINKLER HEADS IN CEILING GRID. ALL AREAS ARE REQUIRED TO BE SPRINKLERED.

5. REFER TO 5/AS19 FOR 1-HR FIRE RATED DUCT LINER DETAIL.

KEYED NOTES

- R1 GYB SOFFIT - SEE 2/AS25 FOR DETAIL
- R2 18" WIDE GYB SOFFIT, SEE 7/AS25 FOR DETAIL
- R3 BARIATRIC CEILING LIFT - SEE STRUCTURAL 1/SS3 FOR SUPPORT DETAIL
- R4 BOOM LIGHT - SEE STRUCTURAL 2/SS3 FOR SUPPORT DETAIL
- R5 12" WIDE GYB SOFFIT, SEE 7/AS25 FOR DETAIL
- R6 GYB SOFFIT, SEE 4/AS25 FOR DETAIL

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mechanical + electrical consulting engineering

TRUE NORTH
PLAN NORTH

Drawing Title: FIRST FLOOR REFLECTED CEILING PLAN	Project Title: VA MINNEAPOLIS ED RENOVATION 13441	Project Number: 618-14-104	Office of Facilities Management
Drawing Scale: AS NOTED	Approved:	Location: ONE VETERANS DRIVE MINNEAPOLIS, MN 55417	Building Number: 70
Plot Scale: 12" = 1'-0"	Approved:	Date: 01/02/2014 · Checked: PR · Drawn: EB/TD	Drawing Number: 1272-70-AS08
			Dwg. 12 of 73

Department of Veterans Affairs

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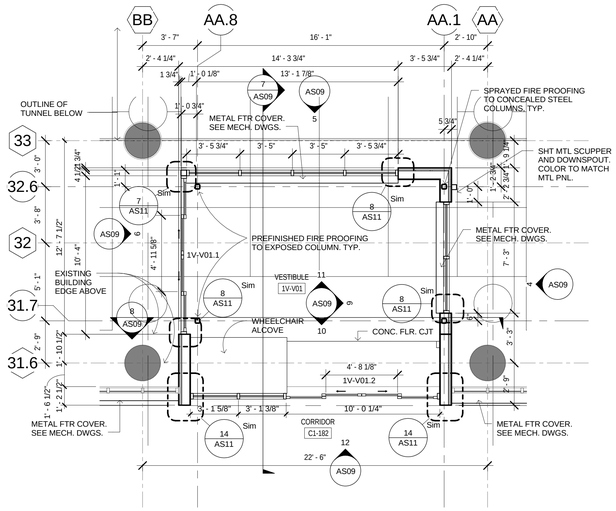
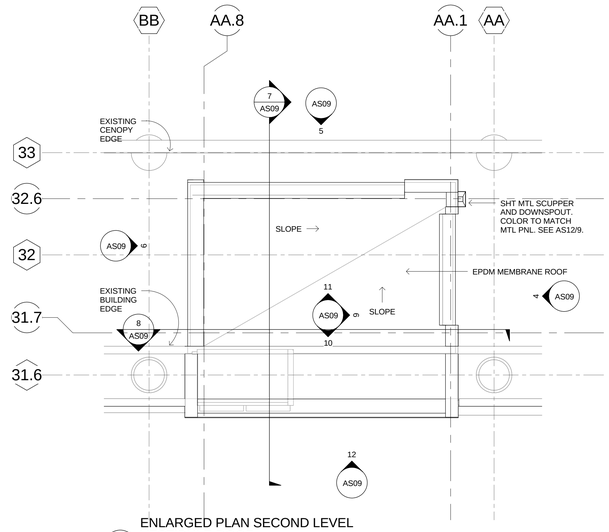
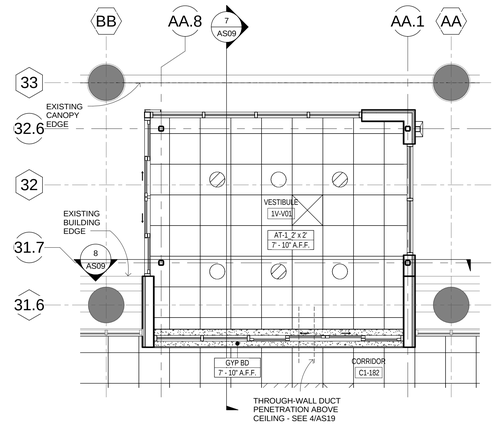


1 ENLARGED FLOOR PLAN VESTIBULE
1/4" = 1'-0"



2 ENLARGED PLAN SECOND LEVEL VESTIBULE ROOF
1/4" = 1'-0"



3 ENLARGED REFLECTED CEILING PLAN VESTIBULE
1/4" = 1'-0"

FLOOR PLAN GENERAL NOTES

1. FOR GENERAL NOTES, ABBREVIATIONS, SYMBOLS AND MATERIALS, ETC SEE GI02 AND GI03.

REFLECTED CEILING PLAN GENERAL NOTES

1. SEE SHEET AS25 FOR CEILING TRANSITION AND SPECIALITY CEILING EQUIPMENT DETAILS

2. ALIGN CEILING SOFFITS WITH ADJACENT PARTITIONS, TYP. UNO.

3. COORDINATE SIZE & LOCATION OF CEILING OPENING WITH EQUIPMENT SUPPLIER.

4. SPRINKLER HEADS SHOWN ON THE RCP'S ARE THOSE OF DESIGN CONCERN. CENTER ALL SPRINKLER HEADS IN CEILING GRID. ALL AREAS ARE REQUIRED TO BE SPRINKLERED.

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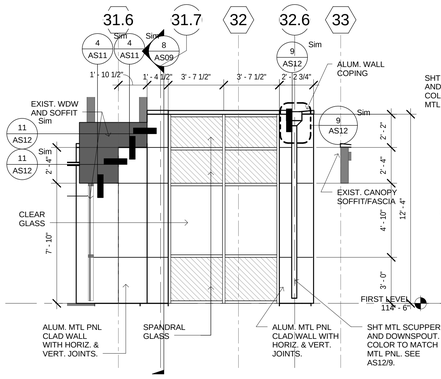
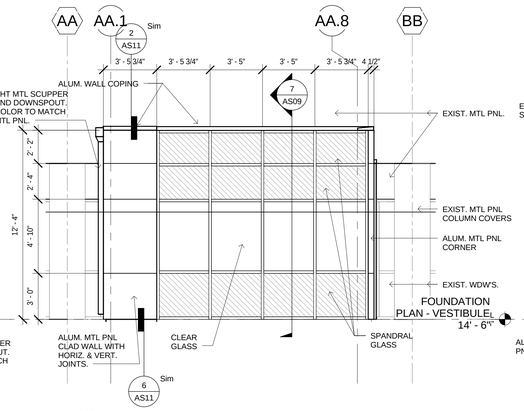
5. REFER TO SHEET AS17 FOR TYPICAL FITTINGS, FIXTURES, ACCESSORIES, ASSEMBLIES TYPICAL MOUNTING HEIGHTS, DIMENSIONS AND OTHER GENERAL INFORMATION, UNO.

6. SEE AS20 FOR FURNITUREAND EQUIPMENT SCHEDULE WITH EQUIPMENT CODE DESCRIPTIONS.

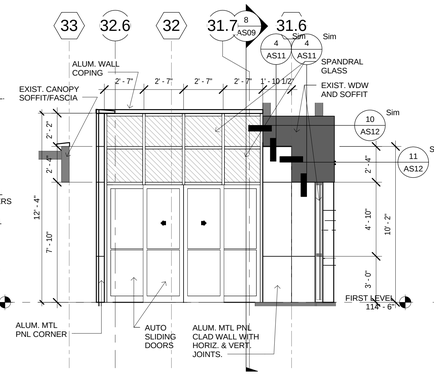
7. PROVIDE WALL BLOCKING AT ARTWORK, MBD AND TBD AND ALL OTHER WALL MOUNTED ITEMS - SEE AS18.



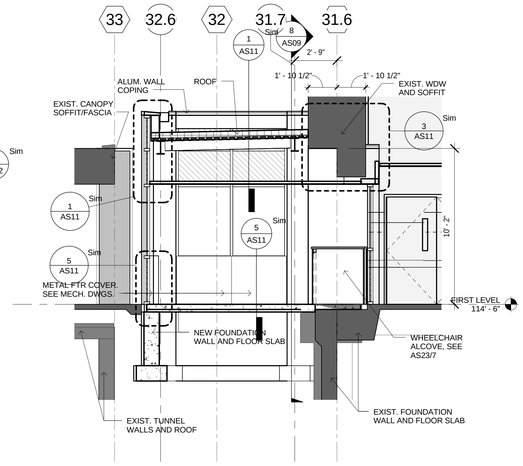
4 EXTERIOR ELEVATION VESTIBULE EAST
1/4" = 1'-0"



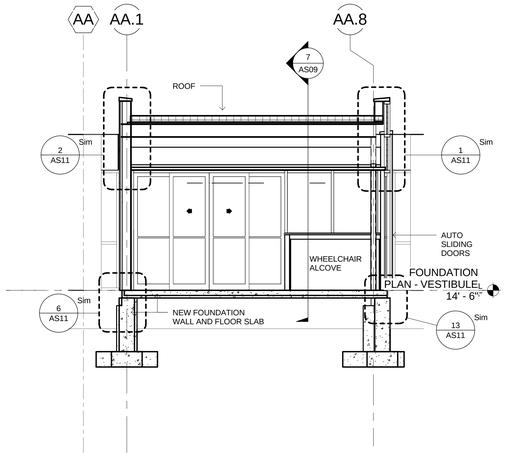
5 EXTERIOR ELEVATION VESTIBULE NORTH
1/4" = 1'-0"



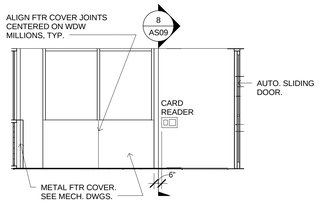
6 EXTERIOR ELEVATION VESTIBULE WEST
1/4" = 1'-0"



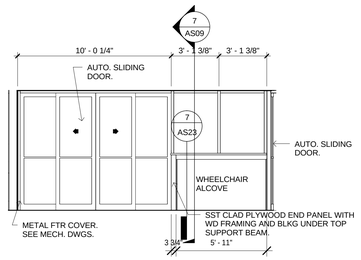
7 SECTION VESTIBULE 1
1/4" = 1'-0"



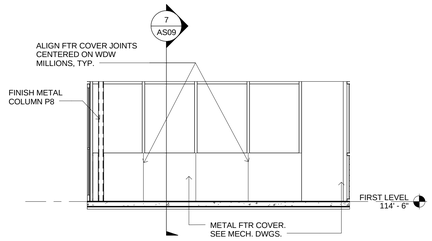
8 SECTION VESTIBULE 2
1/4" = 1'-0"



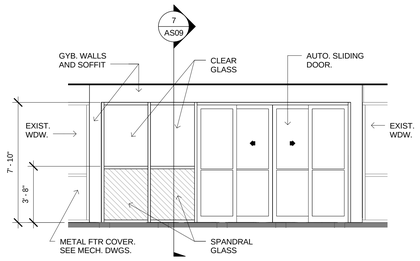
9 VESTIBULE EAST
1/4" = 1'-0"



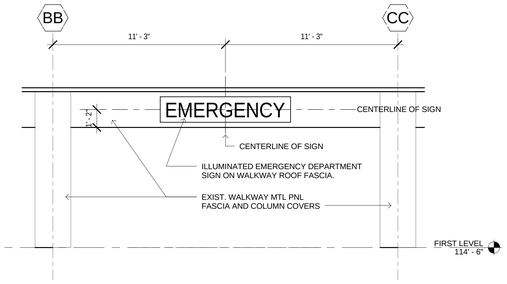
10 VESTIBULE SOUTH
1/4" = 1'-0"



11 VESTIBULE NORTH
1/4" = 1'-0"



12 VESTIBULE CORRIDOR
1/4" = 1'-0"



13 EMERGENCY DEPARTMENT SIGN
1/4" = 1'-0"

FULLY SPRINKLERED

No.	Revisions	Date

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TRUE NORTH

PLAN NORTH

Drawing Title: ENLARGED VESTIBULE PLANS ELEVATIONS AND SECTIONS	Project Title: VA MINNEAPOLIS ED RENOVATION 13441		Project Number: 618-14-104
			Building Number: 70
Drawing Scale: AS NOTED	Approved:	Location: ONE VETERANS DRIVE MINNEAPOLIS, MN 55417	Drawing Number: 1272-70-AS09
Plot Scale: 12" = 1'-0"	Approved:	Date: 01/02/2014 / Checked: PR / Drawn: EB/TD	Dwg. 13 of 73

Office of Facilities Management

Department of Veterans Affairs

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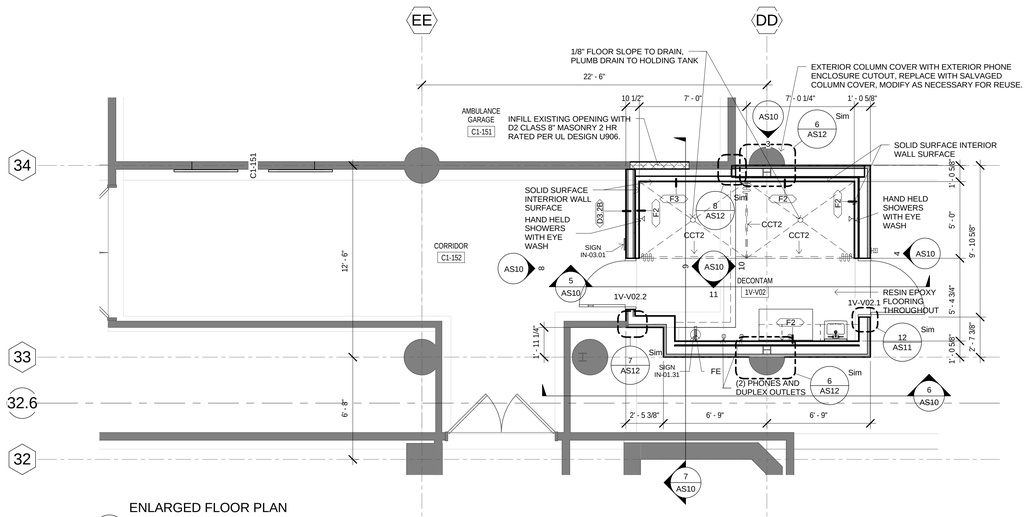
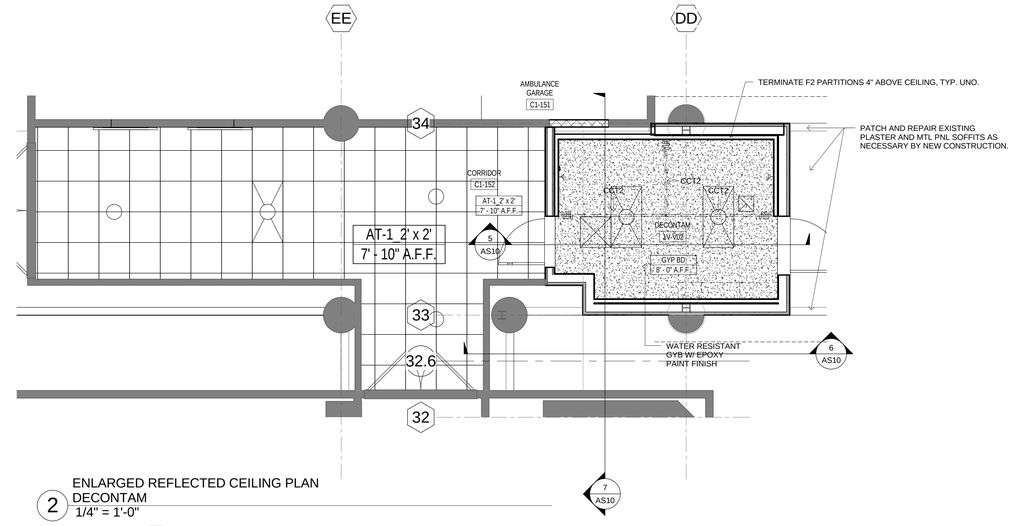


1 ENLARGED FLOOR PLAN DECONTAMINATION
1/4" = 1'-0"



2 ENLARGED REFLECTED CEILING PLAN DECONTAM
1/4" = 1'-0"

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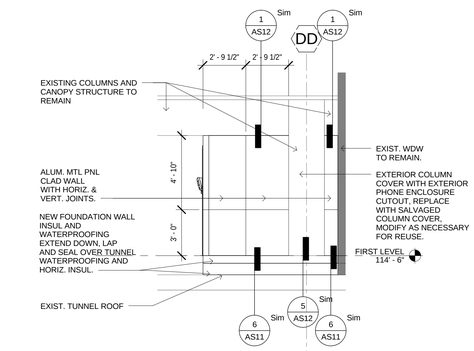
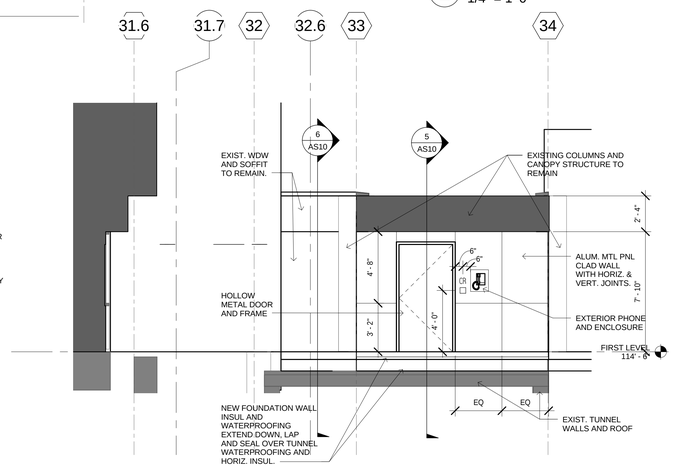
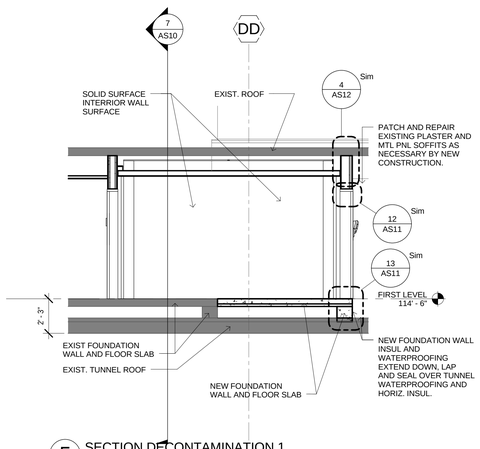


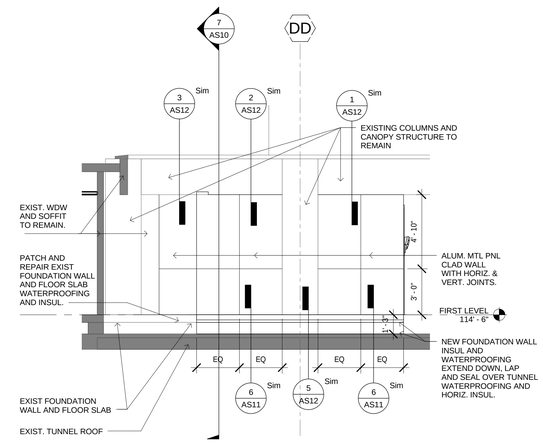
3 EXTERIOR ELEVATION DECONTAMINATION NORTH
1/4" = 1'-0"



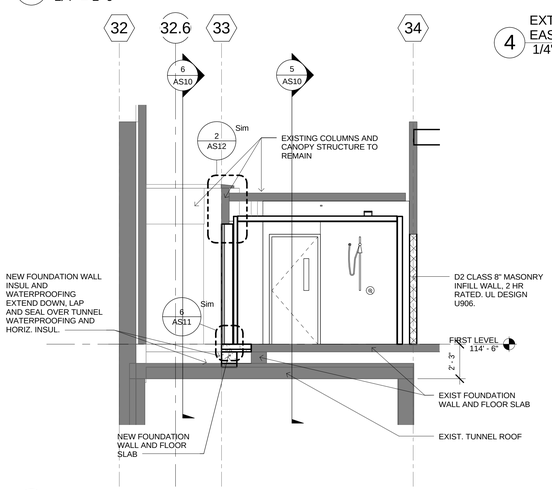
4 EXTERIOR ELEVATION DECONTAMINATION EAST
1/4" = 1'-0"



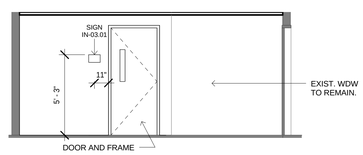
5 SECTION DECONTAMINATION 1
1/4" = 1'-0"



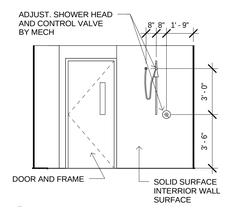
6 SECTION DECONTAMINATION 3
1/4" = 1'-0"



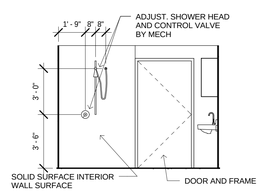
7 SECTION DECONTAMINATION 2
1/4" = 1'-0"



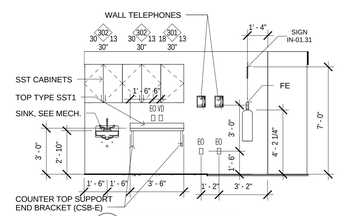
8 ELEVATION EXIT CORRIDOR
1/4" = 1'-0"



9 DECONT. WEST
1/4" = 1'-0"



10 DECONT. EAST
1/4" = 1'-0"



11 DECONT. SOUTH
1/4" = 1'-0"

FULLY SPRINKLERED

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TRUE NORTH

PLAN NORTH

Drawing Title
ENLARGED DECONTAMINATION PLANS ELEVATIONS AND SECTIONS

Drawing Scale: AS NOTED

Plot Scale: 12" = 1'-0"

Approved:

Approved:

Project Title
VA MINNEAPOLIS ED RENOVATION 13441

Location: ONE VETERANS DRIVE MINNEAPOLIS, MN 55417

Date: 01/02/2014 | Checked: PR | Drawn: EB/TD

Project Number: 618-14-104

Building Number: 70

Drawing Number: 1272-70-AS10

Dwg. 14 of 73

Office of Facilities Management

Department of Veterans Affairs

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one-eighth in = one foot | one-quarter inch = one foot | three-eighth inch = one foot | one-half inch = one foot | three-quarters inch = one foot | one inch = one foot | one and one half inch = one foot | three inches = one foot

FLOOR PLAN GENERAL NOTES

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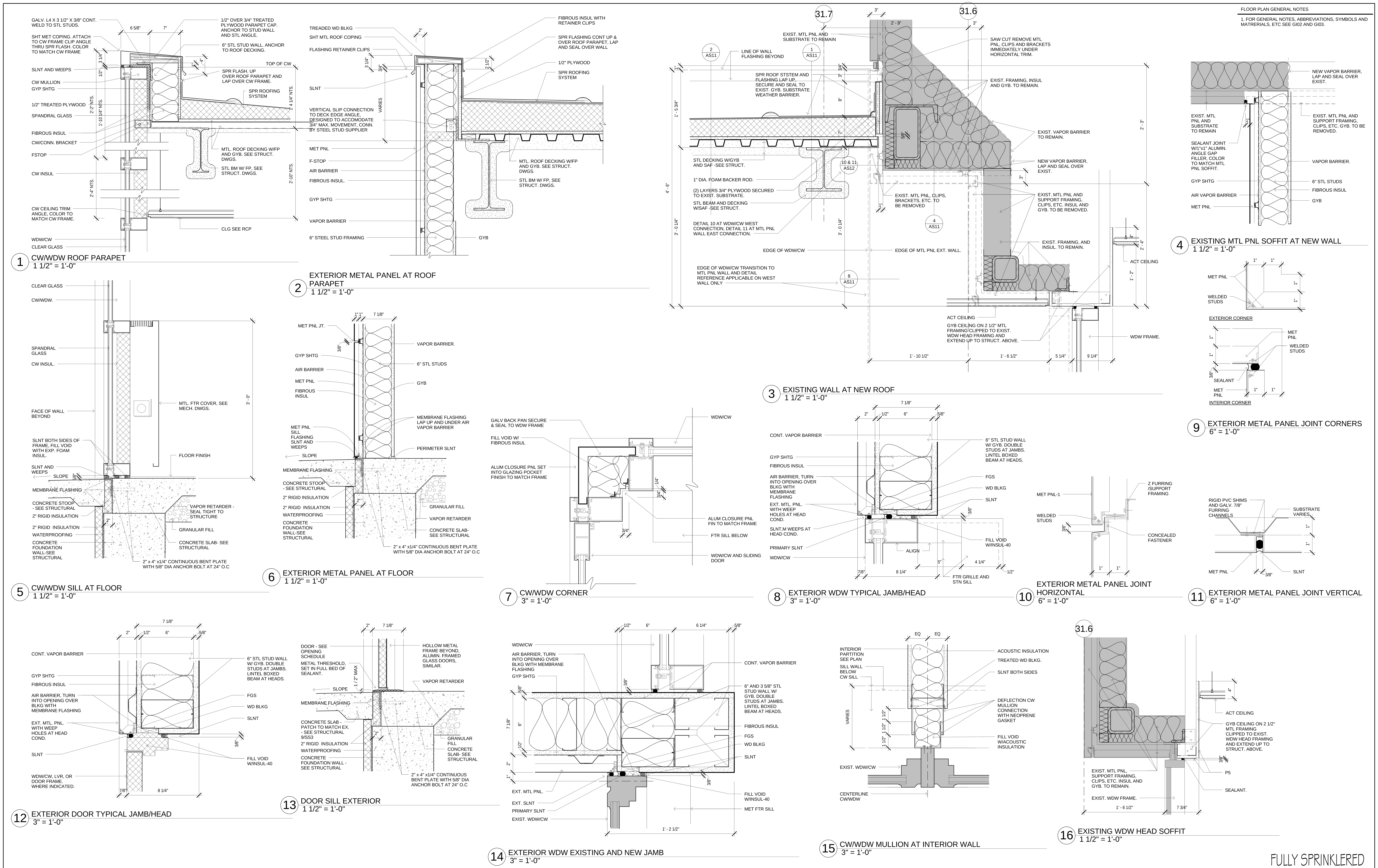

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TRUE NORTH

PLAN NORTH

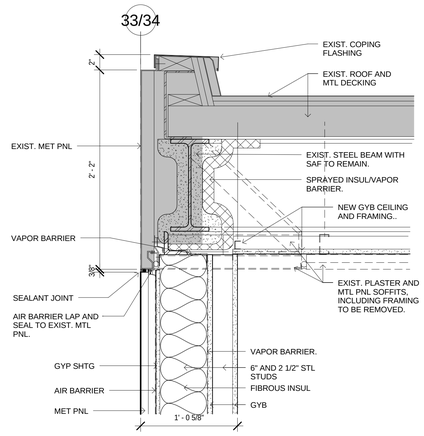
Drawing Title	EXTERIOR DETAILS
Drawing Scale: AS NOTED	Approved:
Plot Scale: 12" = 1'-0"	Approved:
Project Title	VA MINNEAPOLIS ED RENOVATION 13441
Location	ONE VETERANS DRIVE MINNEAPOLIS, MN 55417
Date	01/02/2014
Checked	PR
Drawn	EB/TD
Project Number	618-14-104
Building Number	70
Drawing Number	1272-70-AS11
Dwg.	15 of 73

Office of Facilities Management

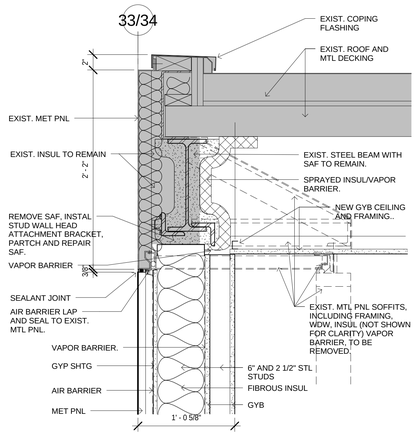
Department of Veterans Affairs

FLOOR PLAN GENERAL NOTES

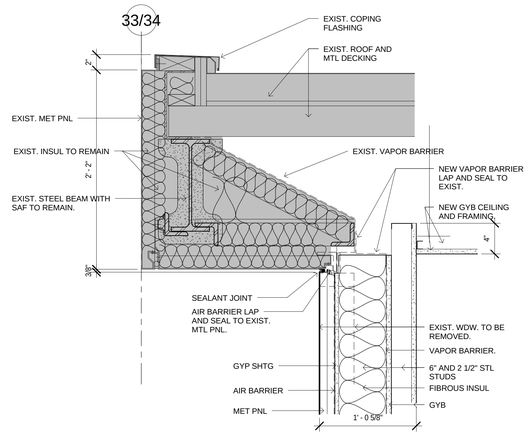
1. FOR GENERAL NOTES, ABBREVIATIONS, SYMBOLS AND MATRERIALS, ETC SEE GI02 AND GI03.



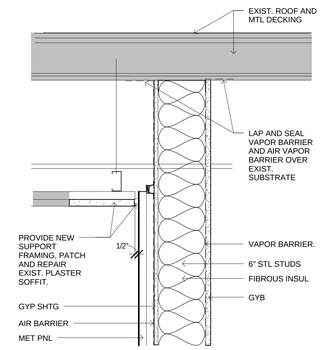
1 EXISTING CANOPY AT NEW WALL
1 1/2" = 1'-0"



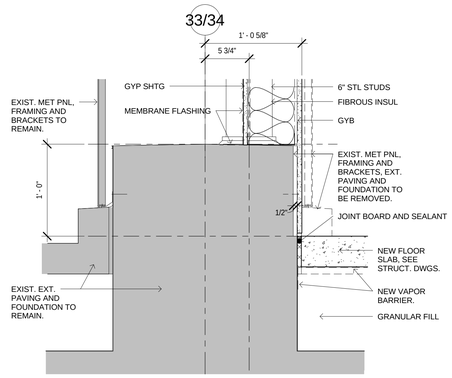
2 EXISTING CANOPY AT NEW WALL 1
1 1/2" = 1'-0"



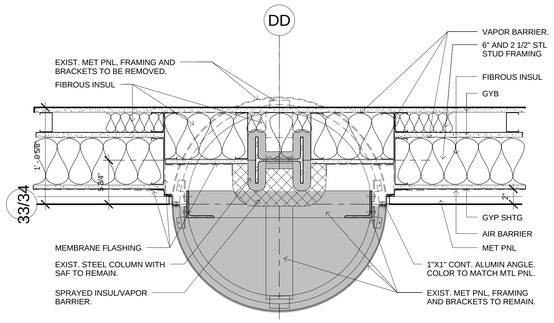
3 EXISTING CANOPY WDW AT NEW WALL
1 1/2" = 1'-0"



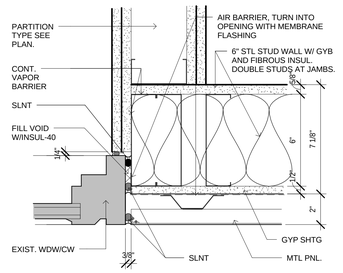
4 EXISTING CANOPY AT NEW WALL AND SOFFIT
1 1/2" = 1'-0"



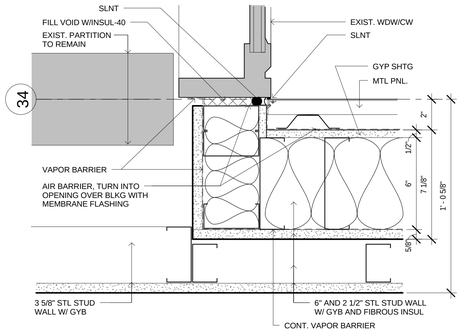
5 EXISTING CANOPY COLUMN BASE
1 1/2" = 1'-0"



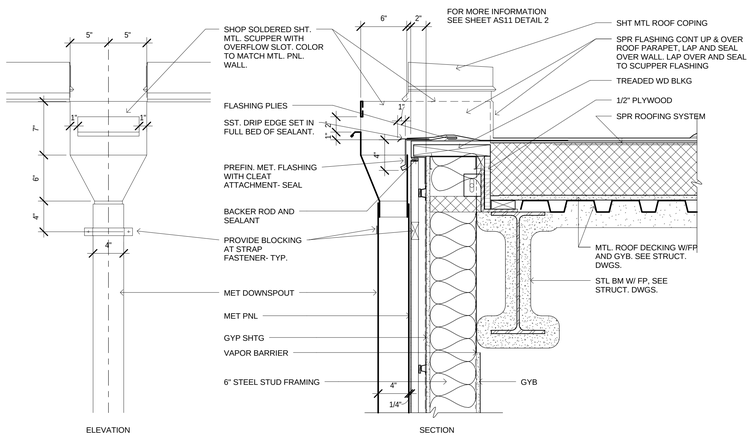
6 EXISTING CANOPY COLUMNS AT NEW WALLS
1 1/2" = 1'-0"



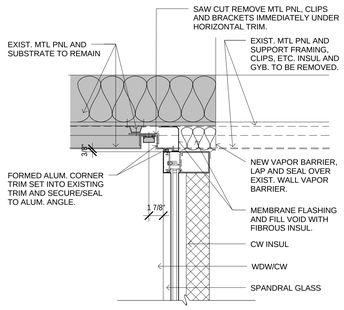
7 EXTERIOR WDW EXISTING JAMB
3" = 1'-0"



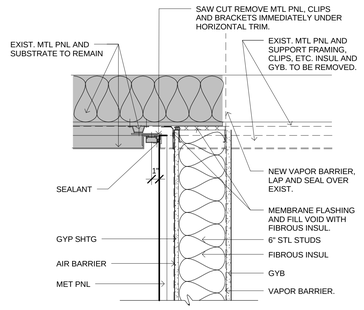
8 EXTERIOR WDW EXISTING JAMB CORNER
3" = 1'-0"



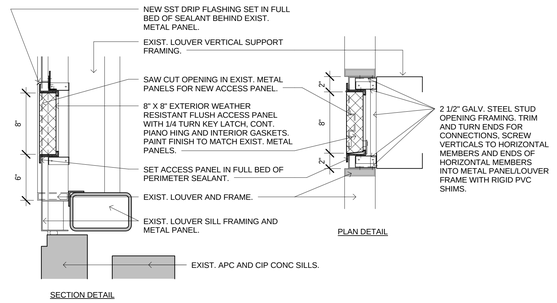
9 ROOF SCUPPER AT ROOF EDGE
1 1/2" = 1'-0"



10 EXISTING WALL AT NEW WDW/CW PLAN
1 1/2" = 1'-0"



11 EXISTING WALL AT NEW WALL PLAN
1 1/2" = 1'-0"



12 EXTERIOR LOUVER ACCESS PANEL
1 1/2" = 1'-0"

FULLY SPRINKLERED

No.	Revisions	Date

GENERAL NOTES:

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WEB dunhameng.com
mechanical + electrical consulting engineering

TRUE NORTH

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Drawing Title: EXTERIOR DETAILS	Project Title: VA MINNEAPOLIS ED RENOVATION 13441	Project Number: 618-14-104	Office of Facilities Management
Drawing Scale: AS NOTED	Approved:	Location: ONE VETERANS DRIVE MINNEAPOLIS, MN 55417	Building Number: 70
Plot Scale: 12" = 1'-0"	Approved:	Date: 01/02/2014 · Checked: PR · Drawn: EB/TD	Drawing Number: 1272-70-AS12
			Dwg. 16 of 73

Department of Veterans Affairs

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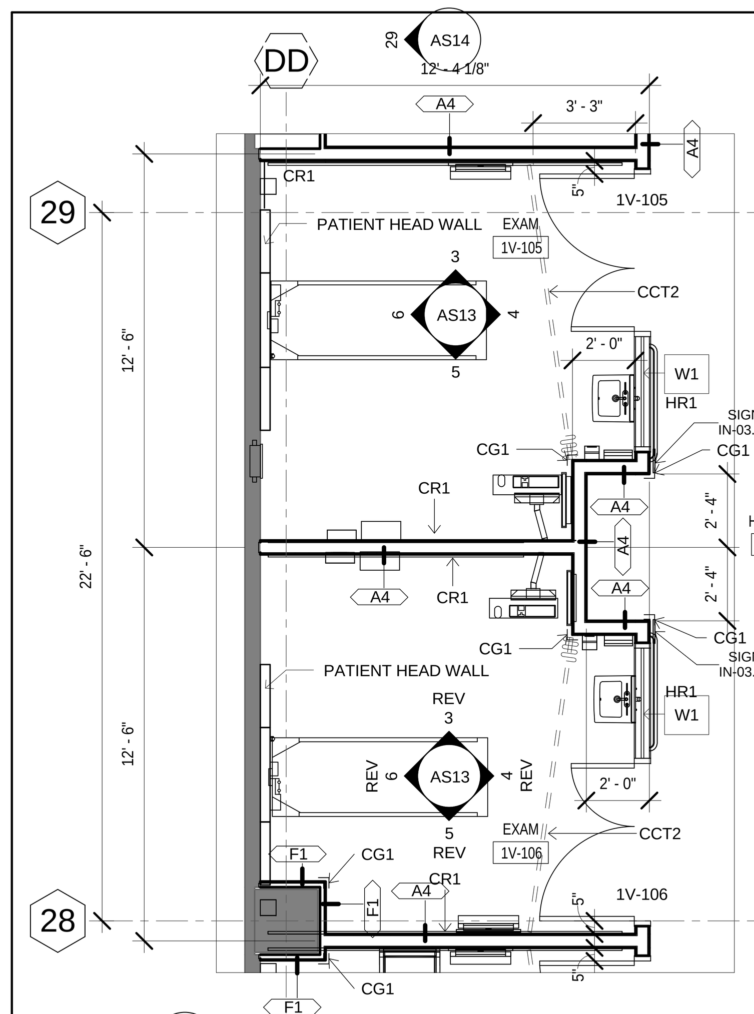
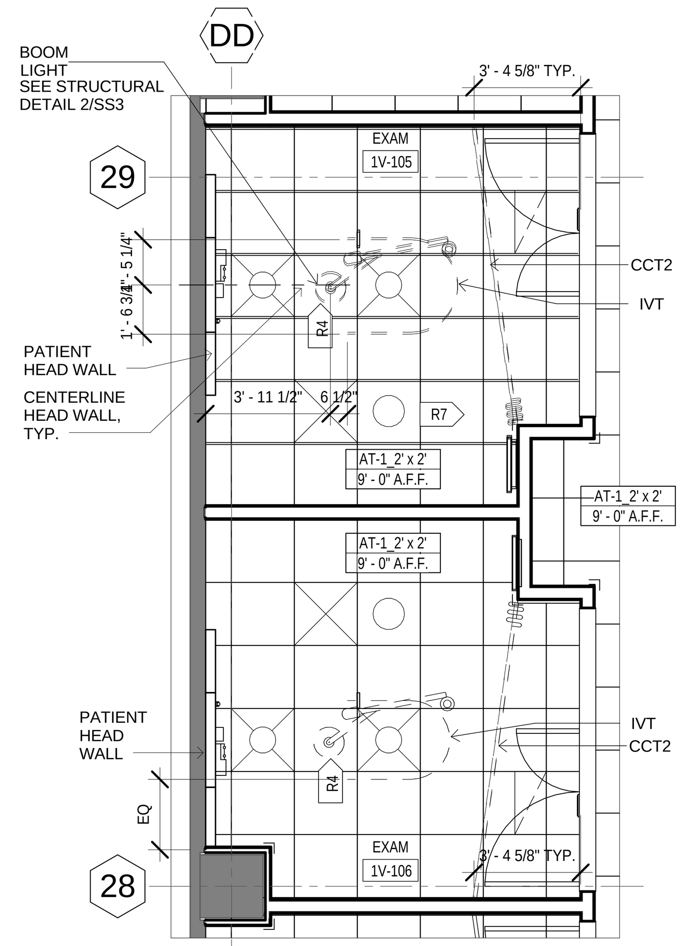
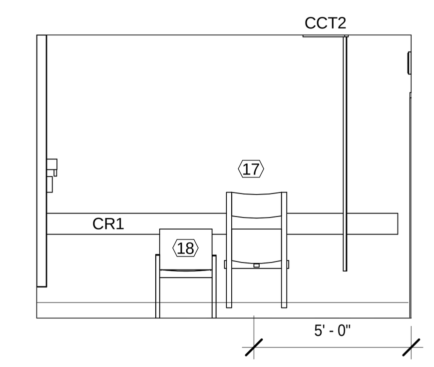
one-eighth in = one foot · one-quarter inch = one foot · one-half inch = one foot · three-eighth inch = one foot · three-quarters inch = one foot · one inch = one foot · one and one half inch = one foot · three inches = one foot



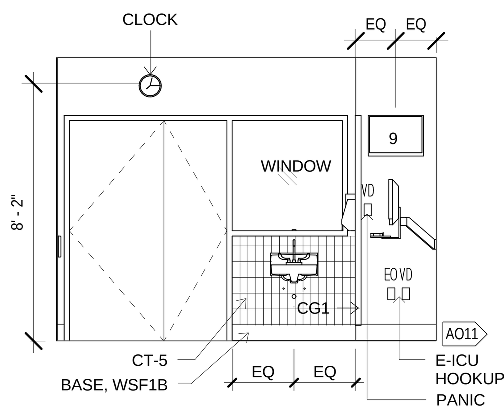
1 ENLARGED PLAN EXAM TYP FP
1/4" = 1'-0"



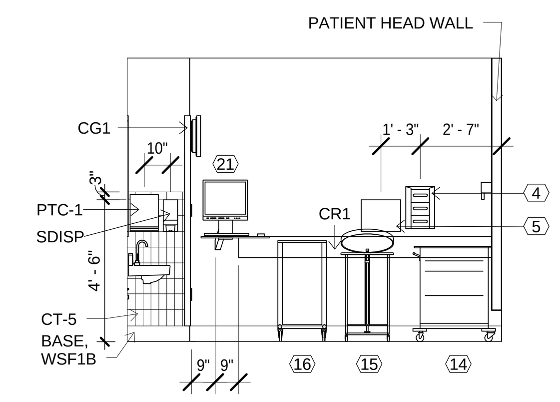
2 ENLARGED REFLECTED CEILING PLAN EXAM TYP
1/4" = 1'-0"



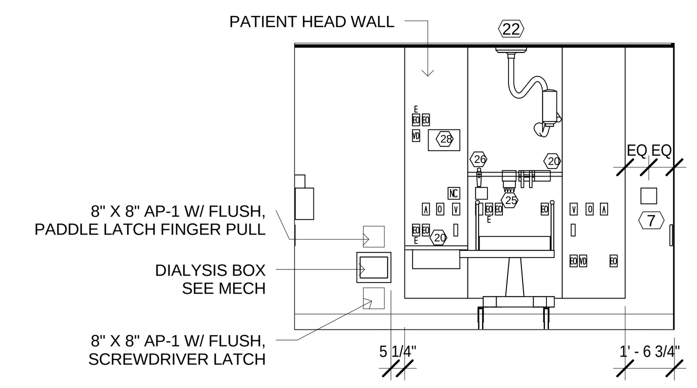
3 EXAM TYP (A)
1/4" = 1'-0"



4 EXAM TYP (B)
1/4" = 1'-0"



5 EXAM TYP (C)
1/4" = 1'-0"



*NOTE: FOR DIALYSIS ROOMS ONLY 1V-125, 1V-126, 1V-128, 1V-129

6 EXAM TYP (D)
1/4" = 1'-0"

FLOOR PLAN GENERAL NOTES

1. FOR GENERAL NOTES, ABBREVIATIONS, SYMBOLS AND MATRERIALS, ETC SEE GI02 AND GI03.

REFLECTED CEILING PLAN GENERAL NOTES

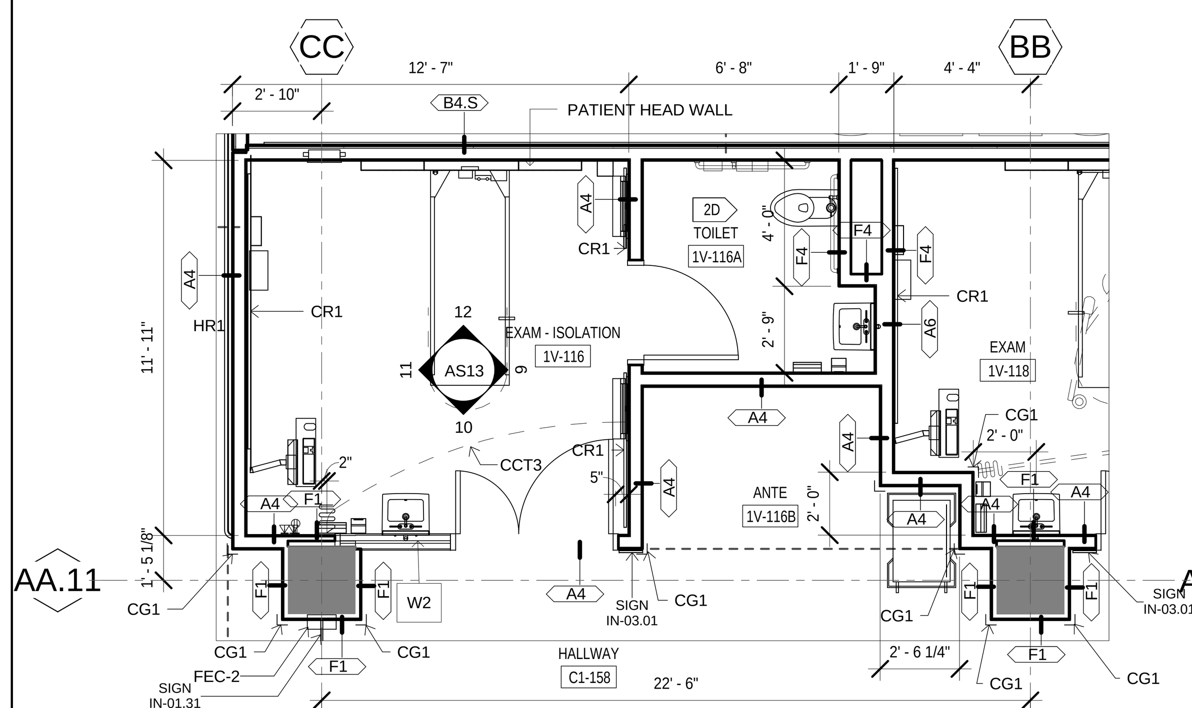
1. SEE SHEET AS25 FOR CEILING TRANSITION AND SPECIALITY CEILING EQUIPMENT DETAILS
2. ALIGN CEILING SOFFITS WITH ADJACENT PARTITIONS, TYP. UNO.
3. COORDINATE SIZE & LOCATION OF CEILING OPENING WITH EQUIPMENT SUPPLIER.
4. SPRINKLER HEADS SHOWN ON THE RCP'S ARE THOSE OF DESIGN CONCERN. CENTER ALL SPRINKLER HEADS IN CEILING GRID. ALL AREAS ARE REQUIRED TO BE SPRINKLERED.

INTERIOR ELEVATION GENERAL NOTES

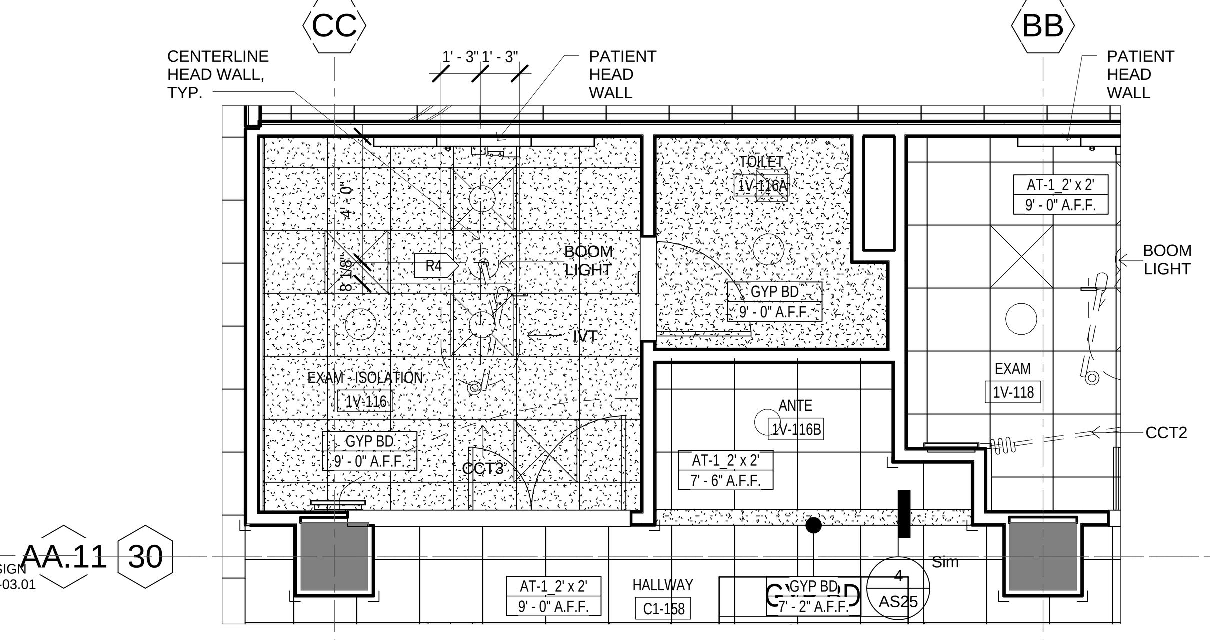
1. REFER TO AS22 CASEWORK FINISHES AND GENERAL NOTES FOR CABINET TYPES, TOP TYPES, SHELF TYPES, PLAM. FINISHES, WOOD FINISHES, ADJUSTABLE SHELVING AND OTHER GENERAL CASEWORK NOTES AND INFORMATION.
2. FOR TYPICAL COUNTER TOP TYPES, UNDERCOUNTER TASK LIGHTING, SUPPORT BRACKET TYPES, COUNTER TOP CORNER, GROMET, GYB/PLAM SOFFIT DETAILS AND PLAM/WOOD FINISHES, SEE AS22 AND CASEWORK FINISHES AND GENERAL NOTES.
3. SEE SPECIFICATION FOR BUILDING, TOILET AND BATHROOM ACCESSORIES.
4. SEE SPECIFICATION FOR TOILET PARTITIONS AND URINAL SCREENS.
5. REFER TO SHEET AS17 FOR TYPICAL FITTINGS, FIXTURES, ACCESSORIES, ASSEMBLIES TYPICAL MOUNTING HEIGHTS, DIMENSIONS AND OTHER GENERAL INFORMATION, UNO.
6. SEE AS20 FOR FURNITUREAND EQUIPMENT SCHEDULE WITH EQUIPMENT CODE DESCRIPTIONS.
7. PROVIDE WALL BLOCKING AT ARTWORK, MBD AND TBD AND ALL OTHER WALL MOUNTED ITEMS - SEE AS18.

ADD ALTERNATES

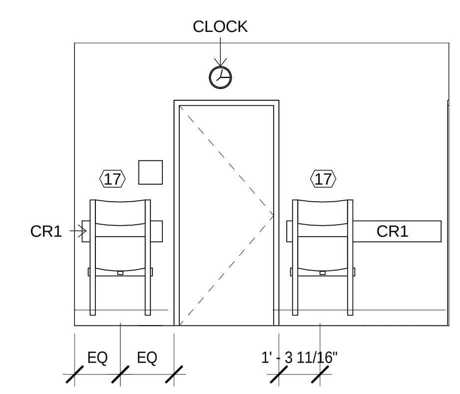
AO9	ADD OPTION #9 - PROVIDE DIALYSIS IN ROOM LISTED
AO11	ADD OPTION #11 - PROVIDE E-ICU ROUGH-IN A ALL EXAM ROOMS IN LOCATION SHOWN



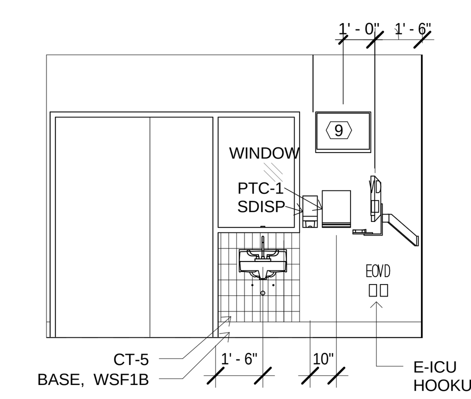
7 ENLARGED PLAN EXAM ISO FP
1/4" = 1'-0"



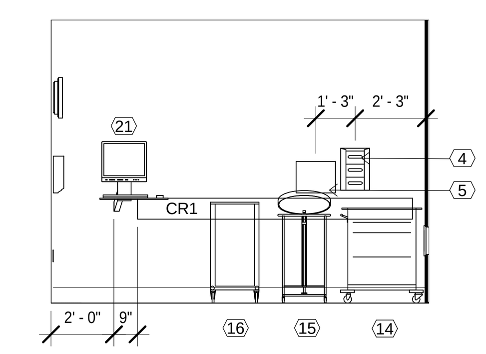
8 ENLARGED REFLECTED CEILING PLAN EXAM ISO
1/4" = 1'-0"



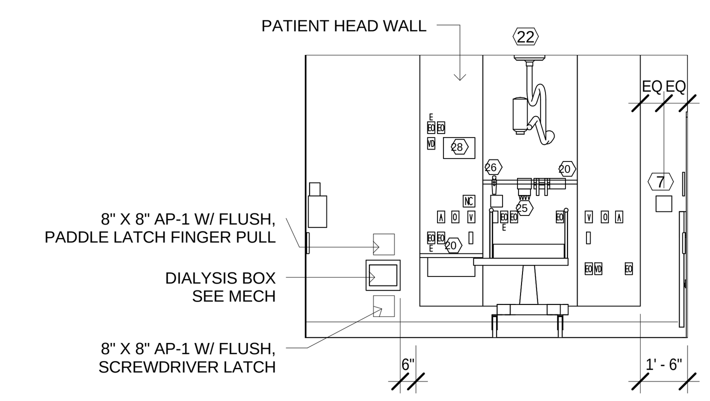
9 EXAM ISO (A)
1/4" = 1'-0"



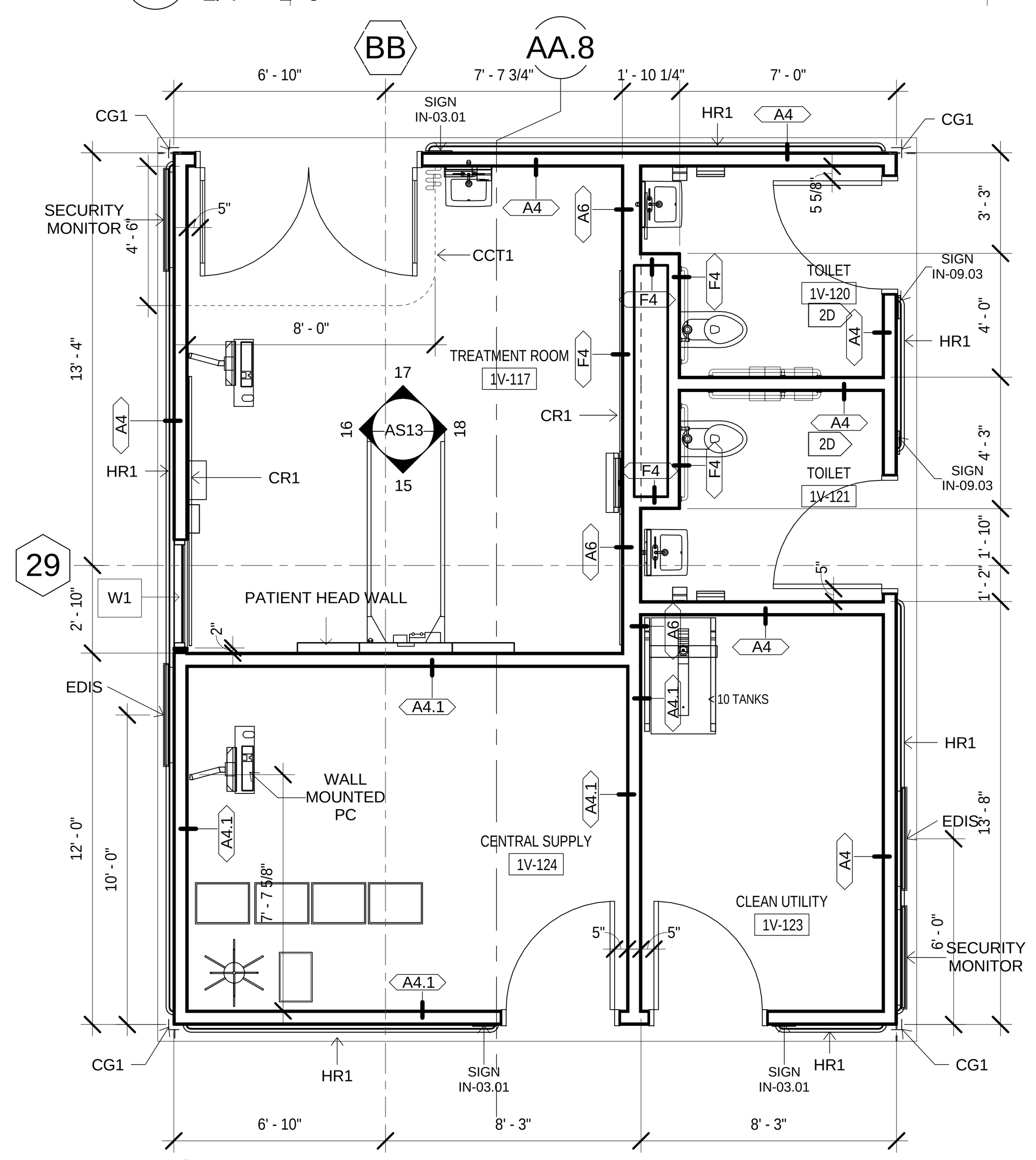
10 EXAM ISO (B)
1/4" = 1'-0"



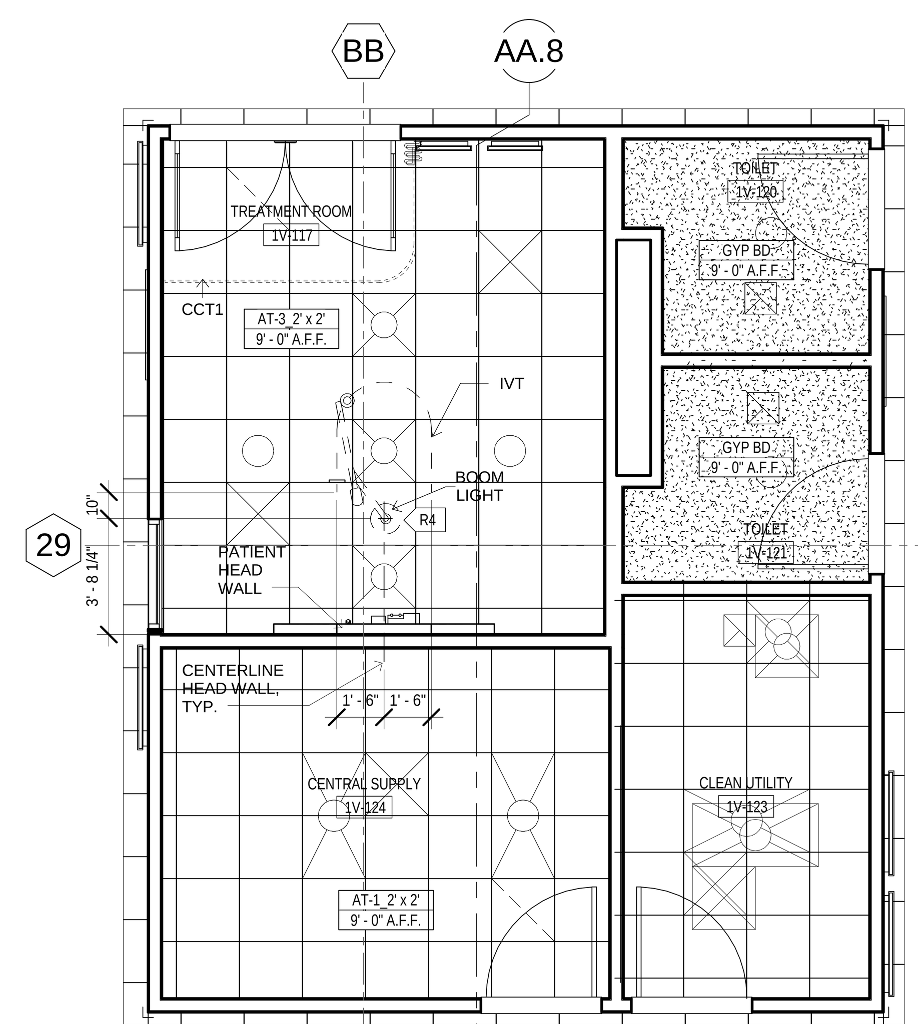
11 EXAM ISO (C)
1/4" = 1'-0"



12 EXAM ISO (D)
1/4" = 1'-0"



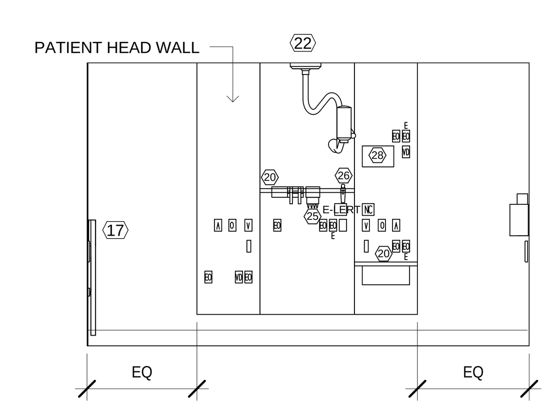
13 ENLARGED PLAN TRAUMA ROOM FP
1/4" = 1'-0"



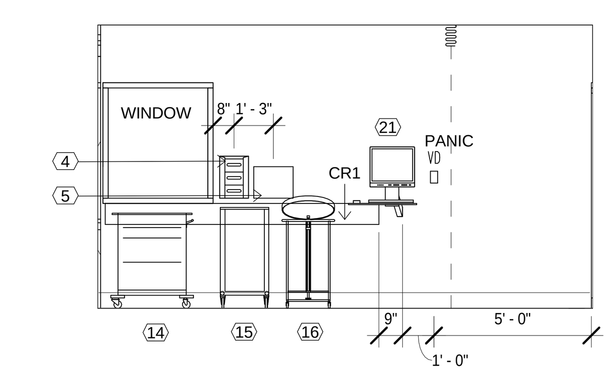
14 ENLARGED REFLECTED CEILING PLAN TRAUMA ROOM
1/4" = 1'-0"

KEYED NOTES

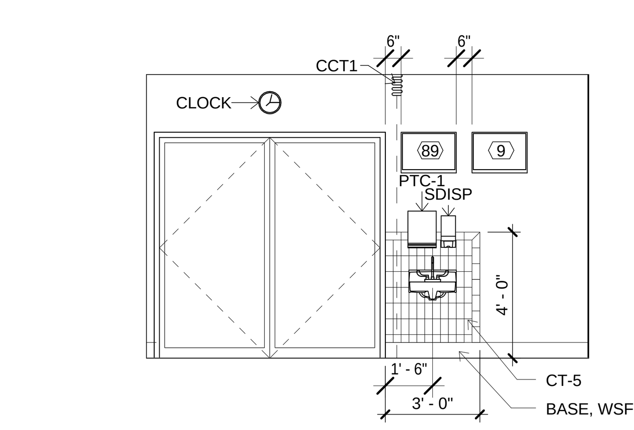
R1	GYB SOFFIT - SEE 2/AS25 FOR DETAIL
R2	18" WIDE GYB SOFFIT, SEE 7/AS25 FOR DETAIL
R3	BARIATRIC CEILING LIFT - SEE STRUCTURAL 1/SS3 FOR SUPPORT DETAIL
R4	BOOM LIGHT - SEE STRUCTURAL 2/SS3 FOR SUPPORT DETAIL
R5	12" WIDE GYB SOFFIT, SEE 7/AS25 FOR DETAIL
R6	GYB SOFFIT, SEE 4/AS25 FOR DETAIL
2D	SEE 1/AS15 FOR TYP TOILET ROOM LAYOUT



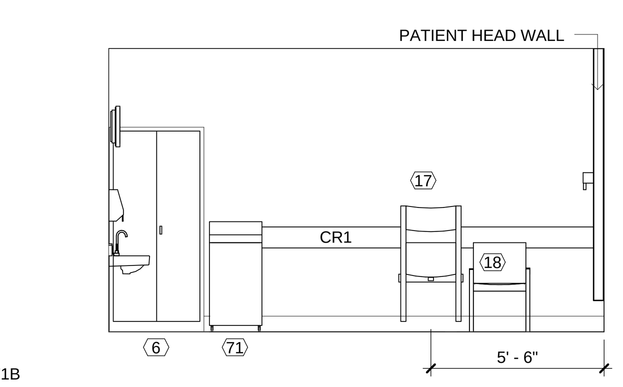
15 TRAUMA ROOM (A)
1/4" = 1'-0"



16 TRAUMA ROOM (B)
1/4" = 1'-0"



17 TRAUMA ROOM (C)
1/4" = 1'-0"



18 TRAUMA ROOM (D)
1/4" = 1'-0"

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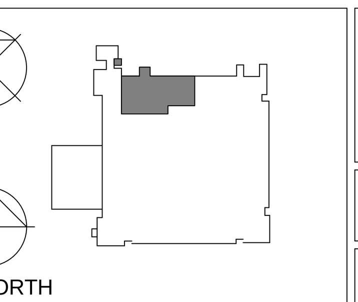

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Project Number	618-14-104
Building Number	70
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Dwg.	17 of 73

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Department of Veterans Affairs

three inches = one foot
one and one half inch = one foot
one inch = one foot
three-quarters inch = one foot
one-half inch = one foot
three-eighth inch = one foot
one-quarter inch = one foot
one-eighth in = one foot

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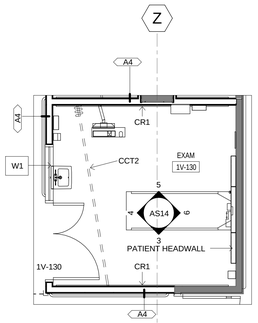
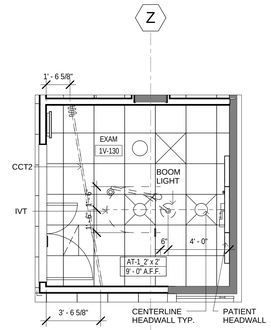


1 ENLARGED PLAN EXAM
1/4" = 1'-0"



2 ENLARGED RCP EXAM
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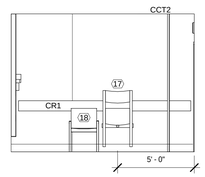

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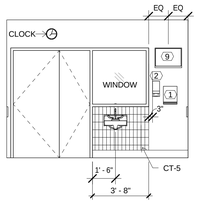

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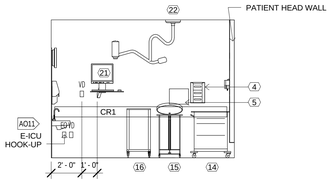
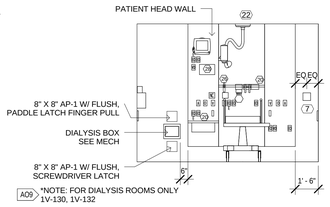


5 EXAM (C)
1/4" = 1'-0"



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3. COORDINATE SIZE & LOCATION OF CEILING OPENING WITH EQUIPMENT SUPPLIER.

4. SPRINKLER HEADS SHOWN ON THE RCP'S ARE THOSE OF DESIGN CONCERN. CENTER ALL SPRINKLER HEADS IN CEILING GRID. ALL AREAS ARE REQUIRED TO BE SPRINKLERED.

INTERIOR ELEVATION GENERAL NOTES

1. REFER TO AS22 CASEWORK FINISHES AND GENERAL NOTES FOR CABINET TYPES, TOP TYPES, SHELF TYPES, PLAM. FINISHES, WOOD FINISHES, ADJUSTABLE SHELVING AND OTHER GENERAL CASEWORK NOTES AND INFORMATION.

2. FOR TYPICAL COUNTER TOP TYPES, UNDERCOUNTER TASK LIGHTING, SUPPORT BRACKET TYPES, COUNTER TOP CORNER, GROMET, GYB/PLAM SOFFIT DETAILS AND PLAM/WOOD FINISHES, SEE AS22 AND CASEWORK FINISHES AND GENERAL NOTES.

3. SEE SPECIFICATION FOR BUILDING, TOILET AND BATHROOM ACCESSORIES.

4. SEE SPECIFICATION FOR TOILET PARTITIONS AND URINAL SCREENS.

5. REFER TO SHEET AS17 FOR TYPICAL FITTINGS, FIXTURES, ACCESSORIES, ASSEMBLIES TYPICAL MOUNTING HEIGHTS, DIMENSIONS AND OTHER GENERAL INFORMATION, UNO.

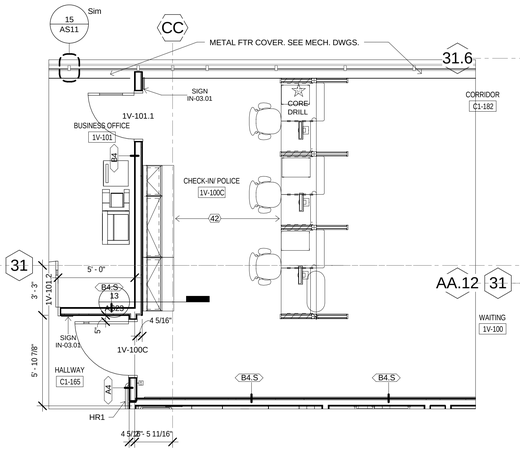
6. SEE AS20 FOR FURNITUREAND EQUIPMENT SCHEDULE WITH EQUIPMENT CODE DESCRIPTIONS.

7. PROVIDE WALL BLOCKING AT ARTWORK, MBD AND TBD AND ALL OTHER WALL MOUNTED ITEMS - SEE AS18.

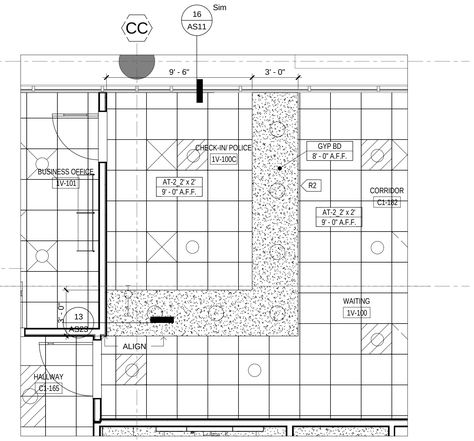
ADD ALTERNATES

A09 ADD OPTION #9 - PROVIDE DIALYSIS IN ROOM LISTED

A011 ADD OPTION #11 - PROVIDE E-ICU ROUGH-IN A ALL EXAM ROOMS IN LOCATION SHOWN



13 ENLARGED PLAN CHECK IN/POLICE
1/4" = 1'-0"



14 ENLARGED REFLECTED CEILING PLAN CHECK IN/POLICE
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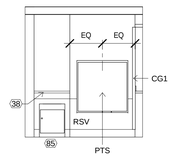
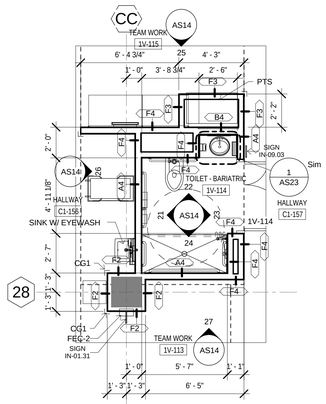
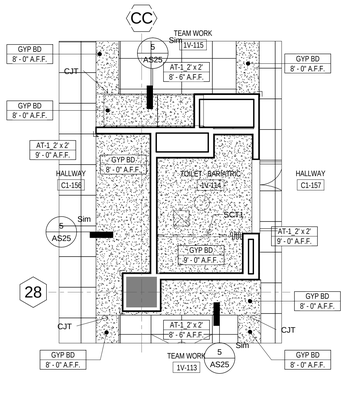


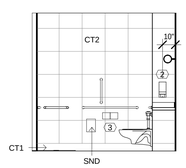
18 PTS - POD B
1/4" = 1'-0"



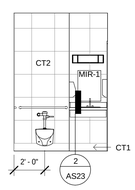
19 ENLARGED PLAN TOILET BARIATRIC FP
1/4" = 1'-0"



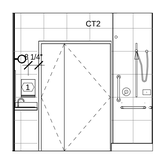
20 ENLARGED RCP TOILET - BARIATRIC
1/4" = 1'-0"



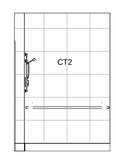
21 TOILET - BARI (A)
1/4" = 1'-0"



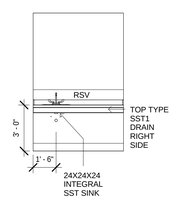
22 TOILET - BARI (B)
1/4" = 1'-0"



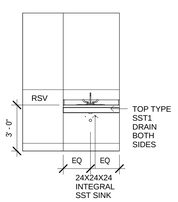
23 TOILET - BARI (C)
1/4" = 1'-0"



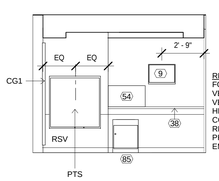
24 TOILET - BARI (D)
1/4" = 1'-0"



28 SOILED HOLD - POD B
1/4" = 1'-0"

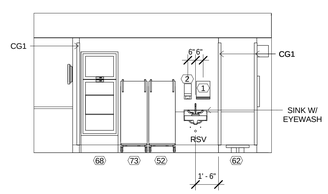


29 SOILED HOLD - POD A
1/4" = 1'-0"

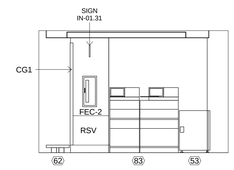


RELOCATED PTS -
FOR MORE INFO. CONTACT PTS VENDOR, TYP.
VENDOR: SWISSLOG HEALTHCARE SOLUTIONS
CONTACT: DANIEL J. KEELER, REGION MGR.
PHONE: 305-576-8816
EMAIL: dan.keeler@swisslog.com

25 PTS - POD A
1/4" = 1'-0"



26 CORRIDOR EYEWASH
1/4" = 1'-0"



27 PYXIS - POD A
1/4" = 1'-0"

FULLY SPRINKLERED

No.	Revisions	Date

GENERAL NOTES:

GENERAL CONTRACTOR AND/OR ALL SUBCONTRACTORS SHALL FIELD VERIFY ALL DIMENSIONS SHOWN ON THESE PLANS AND SHALL BE RESPONSIBLE FOR VARIATIONS BETWEEN PLAN DIMENSIONS AND ACTUAL FIELD DIMENSIONS. WHERE VARIATIONS ARE FOUND TO OCCUR, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING PRIOR TO PROCEEDING WITH CONSTRUCTION; NO ADJUSTMENT TO THE WORK WILL BE MADE WITHOUT THE PRIOR APPROVAL OF THE PROJECT ENGINEER.

GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR GENERAL DEMOLITION INCLUDING REMOVAL OF WALLS, PARTITIONS, DOORS & CEILING & FLOORS. ANY AND ALL CUTTING OF CONCRETE FLOORS, WALLS OR STRUCTURE SHALL BE THE GENERAL CONTRACTOR'S RESPONSIBILITY. CORE DRILLING THROUGH CONCRETE WALLS, FLOORS OR STRUCTURE FOR PIPING OR CONDUIT SHALL BE THE RESPONSIBILITY OF THE SUBCONTRACTOR BY TRADE; FIRESTOPPING OF THESE OPENINGS SHALL BE DONE BY THE RESPECTIVE SUBCONTRACTOR. REMOVAL OF DEBRIS RESULTING FROM DEMOLITION, CUTTING, AND/OR DRILLING IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR; PATCHING AND REPAIR OF CONCRETE WALLS, FLOOR, OR STRUCTURE SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR; THIS WILL BE ACCOMPLISHED UPON COMPLETION OF THE INSTALLATION OF ANY AND ALL UTILITIES INSTALLED BY THE VARIOUS SUBCONTRACTORS.

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FAX 612.465.7551
WEB dunhameng.com
mechanical + electrical consulting engineering

TRUE NORTH
PLAN NORTH

Drawing Title
ENLARGED PLANS AND ELEVATIONS

Drawing Scale: AS NOTED
Plot Scale: 12" = 1'-0"
Approved:
Approved:

Project Title
VA MINNEAPOLIS ED RENOVATION 13441

Location: ONE VETERANS DRIVE MINNEAPOLIS, MN 55417

Date: 01/02/2014 | Checked: PR | Drawn: EB/TD

Project Number: 618-14-104
Building Number: 70
Drawing Number: 1272-70-AS14
Dwg. 18 of 73

Office of Facilities Management
Department of Veterans Affairs

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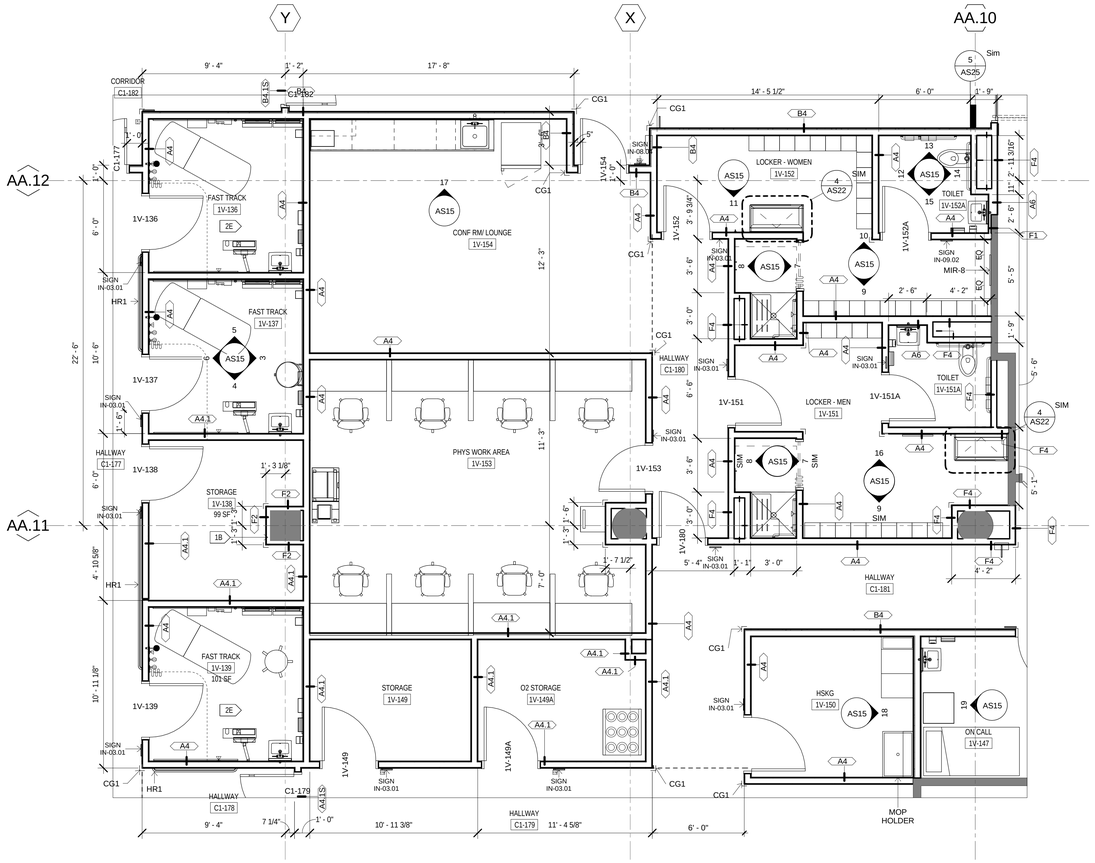
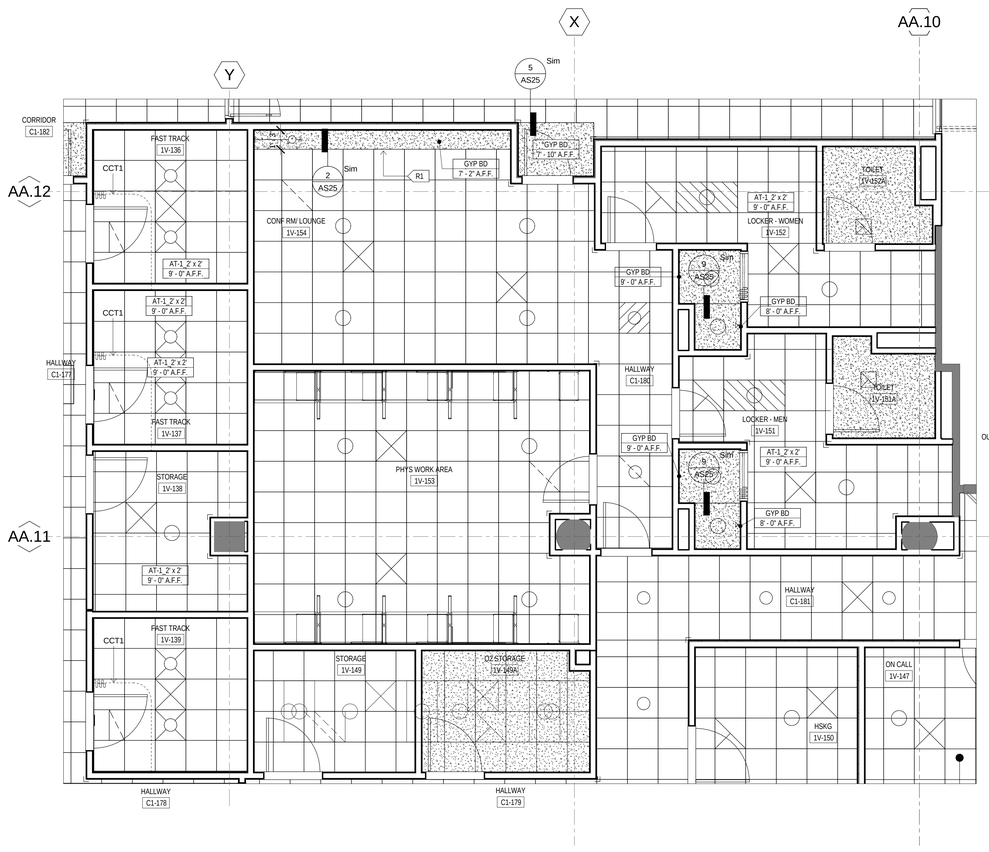
1/2/2014 11:38:55 PM



1 ENLARGED PLAN MENS LOCKER AND LOUNGE FP
1/4" = 1'-0"



2 ENLARGED REFLECTED CEILING PLAN MENS LOCKER AND LOUNGE
1/4" = 1'-0"

FLOOR PLAN GENERAL NOTES

1. FOR GENERAL NOTES, ABBREVIATIONS, SYMBOLS AND MATRERIALS, ETC SEE GI02 AND GI03.

REFLECTED CEILING PLAN GENERAL NOTES

1. SEE SHEET AS25 FOR CEILING TRANSITION AND SPECIALITY CEILING EQUIPMENT DETAILS

2. ALIGN CEILING SOFFITS WITH ADJACENT PARTITIONS, TYP. UNO.

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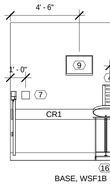
6. SEE AS20 FOR FURNITUREAND EQUIPMENT SCHEDULE WITH EQUIPMENT CODE DESCRIPTIONS.

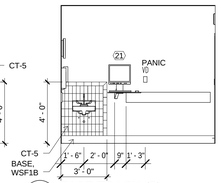
7. PROVIDE WALL BLOCKING AT ARTWORK, MBD AND TBD AND ALL OTHER WALL MOUNTED ITEMS - SEE AS18.

KEYED NOTES

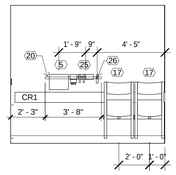
- R1 GYB SOFFIT - SEE 2/AS25 FOR DETAIL
- R2 18" WIDE GYB SOFFIT, SEE 7/AS25 FOR DETAIL
- R3 BARIATRIC CEILING LIFT - SEE STRUCTURAL 1/SS3 FOR SUPPORT DETAIL
- R4 BOOM LIGHT - SEE STRUCTURAL 2/SS3 FOR SUPPORT DETAIL
- R5 12" WIDE GYB SOFFIT, SEE 7/AS25 FOR DETAIL
- R6 GYB SOFFIT, SEE 4/AS25 FOR DETAIL
- 1A NEW PARTITION INTERSECTION WITH NEW OR EXISTING SURFACE. PROVIDE METAL TRIM AND 1/4" SEALANT JOINT TO PERIMETER BOTH SIDES OF WALL WHERE APPLICABLE. SEE AS19/3 TYP UNO.
- 1B WRAP PARTITION TYPE F2 TIGHT AROUND NEW OR EXISTING COLUMN.
- 1C ALIGN NEW PARTITION FLUSH WITH ADJACENT SURFACE. PROVIDE METAL TRIM AND 1/4" SEALANT JOINT TO PERIMETER BOTH SIDES OF WALL. SEE ALSO AS19/5.
- 1D PROVIDE PLYWOOD FURNITURE/EQUIPMENT BLOCKING FOR ENTIRE LENGTH AND HEIGHT OF WALL. 1/4" UNO. 3/4" IN ELEC & COMM ROOMS.
- 1E APPLY NEW GYB LAYER TO EXISTING STUD WALL TO FULL EXTENT AND HEIGHT OF STUD WALL. PROVIDE SEALANT TO STRUCTURE ABOVE.
- 1F APPLY 2 NEW GYB LAYER TO EXISTING STUD WALL TO FULL EXTENT AND HEIGHT OF STUD WALL. PROVIDE SEALANT TO STRUCTURE ABOVE.
- 2A SEE 1/AS13 FOR TYP EXAM ROOM LAYOUT
- 2B SEE 1/AS14 FOR TYP ROOM LAYOUT
- 2C SEE 7/AS13 FOR TYP ISOLATION ROOM LAYOUT
- 2D SEE 1/AS15 FOR TYP TOILET ROOM LAYOUT
- 2E SEE 1/AS15 FOR TYP FAST TRACK ROOM LAYOUT



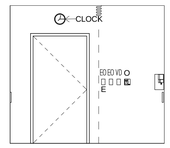
3 FAST TRACK (A)
1/4" = 1'-0"



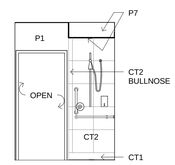
4 FAST TRACK (B)
1/4" = 1'-0"



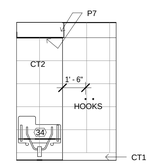
5 FAST TRACK (C)
1/4" = 1'-0"



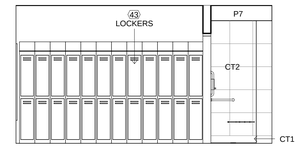
6 FAST TRACK (D)
1/4" = 1'-0"



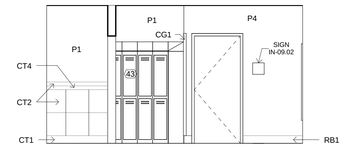
7 SHOWER (A)
1/4" = 1'-0"



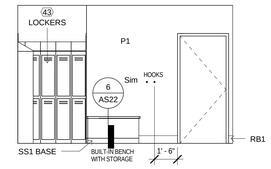
8 SHOWER (C)
1/4" = 1'-0"



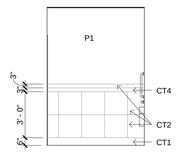
9 WOMENS LOCKER (B)
1/4" = 1'-0"



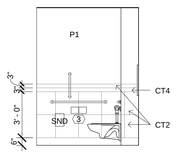
10 WOMENS LOCKER (D)
1/4" = 1'-0"



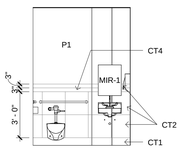
11 WOMENS LOCKER (BENCH)
1/4" = 1'-0"



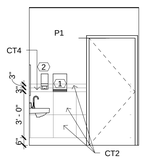
12 TOILET TYP (A)
1/4" = 1'-0"



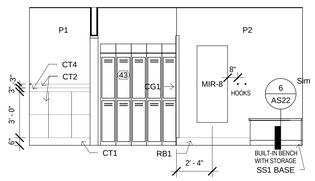
13 TOILET TYP (B)
1/4" = 1'-0"



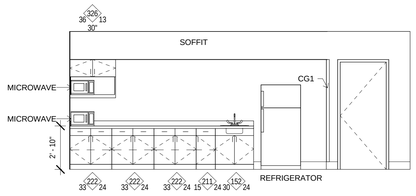
14 TOILET TYP (C)
1/4" = 1'-0"



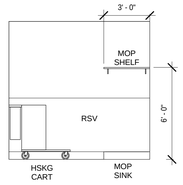
15 TOILET TYP (D)
1/4" = 1'-0"



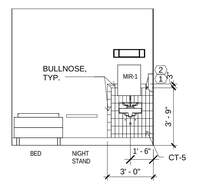
16 MENS LOCKER (D)
1/4" = 1'-0"



17 CONF RM / LOUNGE
1/4" = 1'-0"



18 HSKG
1/4" = 1'-0"



19 ON-CALL ROOM
1/4" = 1'-0"

FULLY SPRINKLERED

No.	Revisions	Date

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consulting engineering

TRUE NORTH

PLAN NORTH

Drawing Scale: AS NOTED	Approved:	
Plot Scale: 12" = 1'-0"	Approved:	

Drawing Title
ENLARGED PLANS AND ELEVATIONS

Project Title
VA MINNEAPOLIS ED RENOVATION 13441

Location ONE VETERANS DRIVE MINNEAPOLIS, MN 55417

Date 01/02/2014 | Checked PR | Drawn EB/TD

Project Number 618-14-104

Building Number 70

Drawing Number 1272-70-AS15

Dwg. 19 of 73

Office of Facilities Management

Department of Veterans Affairs

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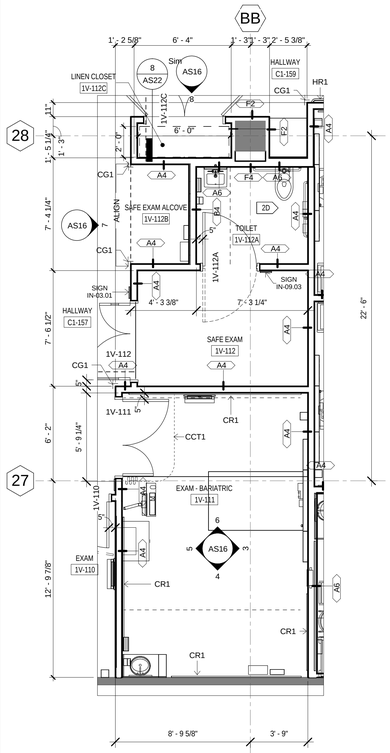
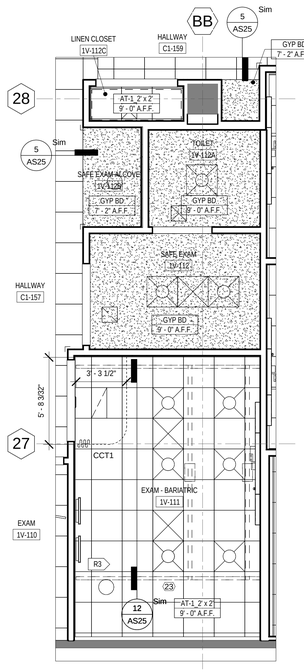
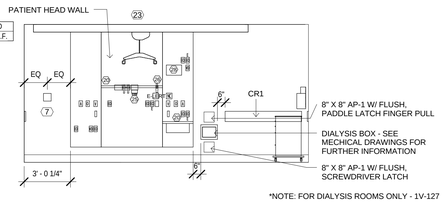


1 ENLARGED PLAN EXAM BARIATRIC FP
1/4" = 1'-0"

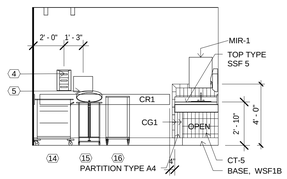


2 ENLARGED REFLECTED CEILING PLAN EXAM BARIATRIC
1/4" = 1'-0"

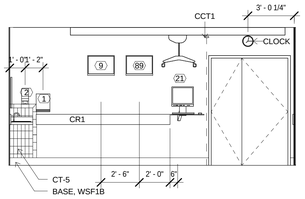


*NOTE: FOR DIALYSIS ROOMS ONLY - 1V-127

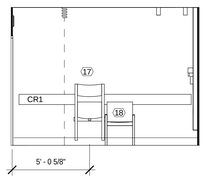
3 EXAM BARIATRIC (A)
1/4" = 1'-0"



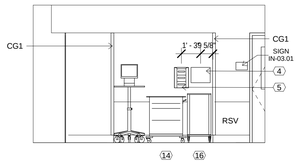
4 EXAM BARIATRIC (B)
1/4" = 1'-0"



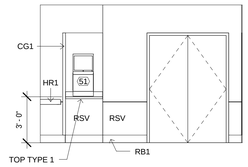
5 EXAM BARIATRIC (C)
1/4" = 1'-0"



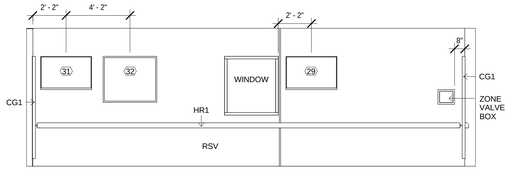
6 EXAM BARIATRIC (D)
1/4" = 1'-0"



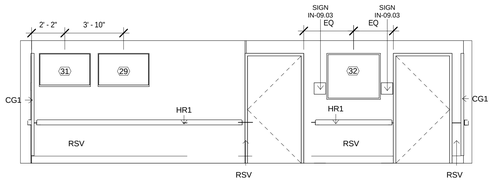
7 SAFE EXAM ALCOVE
1/4" = 1'-0"



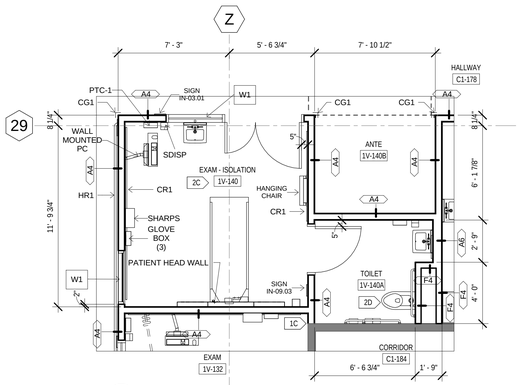
8 CORRIDOR C1-159
1/4" = 1'-0"



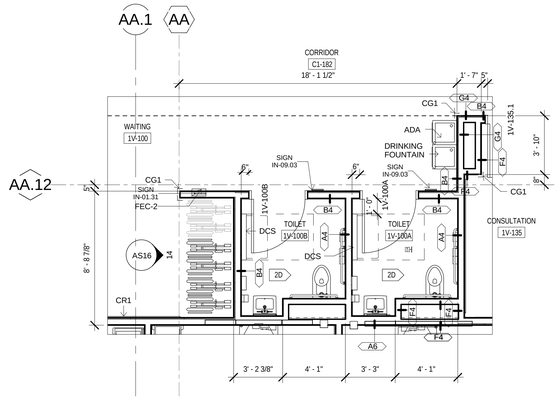
11 CORRIDOR C1-157 STAFF MONITORS
1/4" = 1'-0"



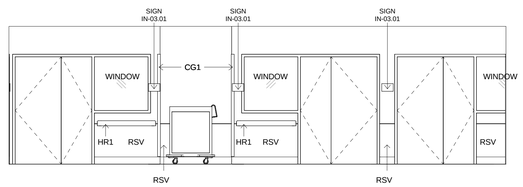
12 CORRIDOR C1-175 STAFF MONITORS
1/4" = 1'-0"



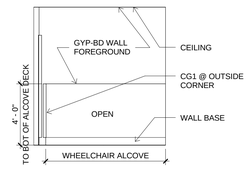
9 ENLARGED PLAN ISOLATION BATHROOM
1/4" = 1'-0"



10 ENLARGED PLAN PUBLIC BATHROOMS
1/4" = 1'-0"



13 TYPICAL CORRIDOR ELEVATION
1/4" = 1'-0"



14 WAITING 1V-100, WHEELCHAIR ALCOVE
1/4" = 1'-0"

FLOOR PLAN GENERAL NOTES

1. FOR GENERAL NOTES, ABBREVIATIONS, SYMBOLS AND MATRERIALS, ETC SEE GI02 AND GI03.

REFLECTED CEILING PLAN GENERAL NOTES

1. SEE SHEET AS25 FOR CEILING TRANSITION AND SPECIALITY CEILING EQUIPMENT DETAILS

2. ALIGN CEILING SOFFITS WITH ADJACENT PARTITIONS, TYP. UNO.

3. COORDINATE SIZE & LOCATION OF CEILING OPENING WITH EQUIPMENT SUPPLIER.

4. SPRINKLER HEADS SHOWN ON THE RCP'S ARE THOSE OF DESIGN CONCERN. CENTER ALL SPRINKLER HEADS IN CEILING GRID. ALL AREAS ARE REQUIRED TO BE SPRINKLERED.

INTERIOR ELEVATION GENERAL NOTES

1. REFER TO AS22 CASEWORK FINISHES AND GENERAL NOTES FOR CABINET TYPES, TOP TYPES, SHELF TYPES, PLAM. FINISHES, WOOD FINISHES, ADJUSTABLE SHELVING AND OTHER GENERAL CASEWORK NOTES AND INFORMATION.

2. FOR TYPICAL COUNTER TOP TYPES, UNDERCOUNTER TASK LIGHTING, SUPPORT BRACKET TYPES, COUNTER TOP CORNER, GROMET, GYB/PLAM SOFFIT DETAILS AND PLAM/WOOD FINISHES, SEE AS22 AND CASEWORK FINISHES AND GENERAL NOTES.

3. SEE SPECIFICATION FOR BUILDING, TOILET AND BATHROOM ACCESSORIES.

4. SEE SPECIFICATION FOR TOILET PARTITIONS AND URINAL SCREENS.

5. REFER TO SHEET AS17 FOR TYPICAL FITTINGS, FIXTURES, ACCESSORIES, ASSEMBLIES TYPICAL MOUNTING HEIGHTS, DIMENSIONS AND OTHER GENERAL INFORMATION, UNO.

6. SEE AS20 FOR FURNITUREAND EQUIPMENT SCHEDULE WITH EQUIPMENT CODE DESCRIPTIONS.

7. PROVIDE WALL BLOCKING AT ARTWORK, MBD AND TBD AND ALL OTHER WALL MOUNTED ITEMS - SEE AS18.

KEYED NOTES

- R1 GYB SOFFIT - SEE 2/AS25 FOR DETAIL
- R2 18" WIDE GYB SOFFIT, SEE 7/AS25 FOR DETAIL
- R3 BARIATRIC CEILING LIFT - SEE STRUCTURAL 1/SS3 FOR SUPPORT DETAIL
- R4 BOOM LIGHT - SEE STRUCTURAL 2/SS3 FOR SUPPORT DETAIL
- R5 12" WIDE GYB SOFFIT, SEE 7/AS25 FOR DETAIL
- R6 GYB SOFFIT, SEE 4/AS25 FOR DETAIL
- 2C SEE 7/AS13 FOR TYP ISOLATION ROOM LAYOUT
- 2D SEE 1/AS15 FOR TYP TOILET ROOM LAYOUT

FULLY SPRINKLERED

No.	Revisions	Date

GENERAL NOTES:

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GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR GENERAL DEMOLITION INCLUDING REMOVAL OF WALLS, PARTITIONS, DOORS & CEILING & FLOORS. ANY AND ALL CUTTING OF CONCRETE FLOORS, WALLS OR STRUCTURE SHALL BE THE GENERAL CONTRACTOR'S RESPONSIBILITY. CORE DRILLING THROUGH CONCRETE WALLS, FLOORS OR STRUCTURE FOR PIPING OR CONDUIT SHALL BE THE RESPONSIBILITY OF THE SUBCONTRACTOR BY TRADE; FIRESTOPPING OF THESE OPENINGS SHALL BE DONE BY THE RESPECTIVE SUBCONTRACTOR. REMOVAL OF DEBRIS RESULTING FROM DEMOLITION, CUTTING, AND/OR DRILLING IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. PATCHING AND REPAIR OF CONCRETE WALLS, FLOOR, OR STRUCTURE SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR; THIS WILL BE ACCOMPLISHED UPON COMPLETION OF THE INSTALLATION OF ANY AND ALL UTILITIES INSTALLED BY THE VARIOUS SUBCONTRACTORS.

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TRUE NORTH

PLAN NORTH

Drawing Title: ENLARGED PLANS AND ELEVATIONS	Project Title: VA MINNEAPOLIS ED RENOVATION 13441	Project Number: 618-14-104	Office of Facilities Management
		Building Number: 70	
Drawing Scale: AS NOTED	Approved:	Location: ONE VETERANS DRIVE MINNEAPOLIS, MN 55417	Drawing Number: 1272-70-AS16
Plot Scale: 12" = 1'-0"	Approved:	Date: 01/02/2014 · Checked: PR · Drawn: EB/TD	Dwg. 20 of 73

Department of Veterans Affairs

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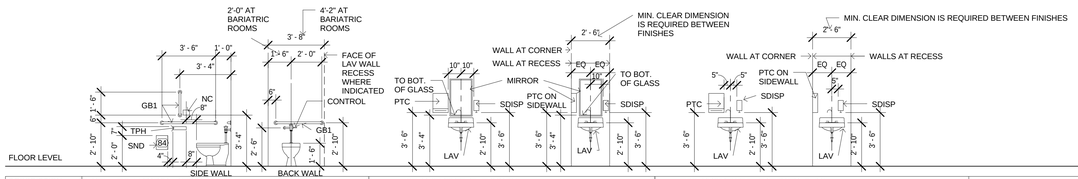
three inches = one foot · one and one half inch = one foot · one inch = one foot · three-quarters inch = one foot · one-half inch = one foot · three-eighth inch = one foot · one-quarter inch = one foot · one-eighth in = one foot



TYPICAL MOUNTING HEIGHT GENERAL NOTES

1. FOR GENERAL ABBREVIATIONS, SYMBOLS AND MATRERIALS, ETC SEE GI02 & GI03. FOR GENERAL NOTES SEE GI02.

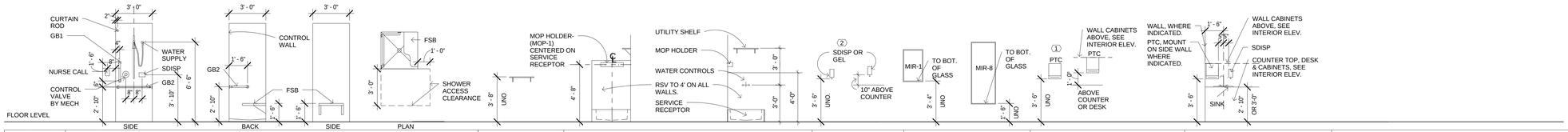
2. PROVIDE EQUIPMENT, FIXTURE AND FITTING SUPPORT WOOD OR SHEET METAL BLOCKING IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS, TYP. UNO. SEE ALSO TYPICAL PARTITION BLOCKING DETAILS.

3. REFER TO PLANS AND SPECIFIC ELEVATION FOR EQUIPMENT, FIXTURE AND FITTING LOCATIONS.

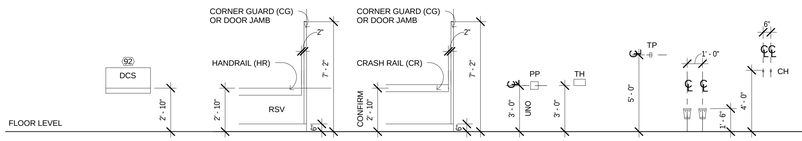
4. PNEUMATIC TUBE SYSTEM, BED LOCATORS, HEAD WALLS, TV'S, KEYBOARD, PENCIL DRAWERS, FURNITURE, PC'S, PRINTERS, COPIERS AND FAXES NIC TYPICAL UNO.

5. CLOCKS, FILM ILLUMINATORS, MOUNTING BRACKETS, SC SHARPS CONTAINERS, PPE/PPS GLOVE BOXES AND SOLUTION CENTERS ARE PROVIDED BY OTHERS AND INSTALLED BY THE CONTRACTOR TYPICAL UNO.

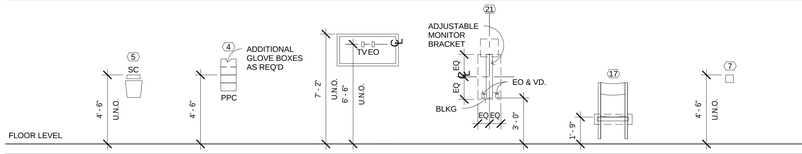
DESCRIPTION	TOILET/WATER CLOSETS ACCESSIBLE	LAVATORY BASIN/BATHROOMS	LAVATORY BASIN/HANDWASH STATION	
NOTES :	1. NC - NURSE CALL. PROVIDE AT PATIENT BATHROOMS ONLY. 2. SND - SANITARY NAPKIN DISPOSAL. PROVIDE AT UNISEX, & WOMEN'S PATIENT BATHROOMS ONLY. 3. GB1 - GRAB BARS. AT NON-ACCESSIBLE WATER CLOSETS OMIT GRAB BARS.	1. SEE PLAN FOR SPECIFIC LOCATION CONDITION 2. SDISD & PTC-BY OWNER, INSTALLED BY CONTRACTOR (2) (1)	1. SEE PLAN FOR SPECIFIC LOCATION CONDITION 2. SDISD & PTC-BY OWNER, INSTALLED BY CONTRACTOR (2) (1)	



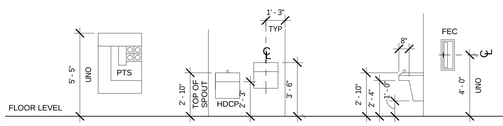
DESCRIPTION	ACCESSIBLE SHOWER - SHOWER WITH SEAT	UTILITY SHELF	HOUSEKEEPING/EVS CLOSET	SOAP/GEL/FOAM DISP.	MIRROR	PAPER TOWEL CABINET	COUNTER TOP SINK	
NOTES :	1. 36" X 36" CLEAR ACCESSIBLE SHOWER	1. XXX	1. UTILITY SHELF 24" LONG UNO. 2. WATER CONTROLS AND SERVICE RECEPTOR, REFER MECHANICAL DRAWINGS.	1. XXX	1. SEE INTERIOR ELEVATIONS FOR MIRROR TYPE. 2. MIR-1 = 18"x 30" UNO. 3. MIR-8 = 24"x 60" UNO. 4. MOUNTING HEIGHT TO BOTTOM OF GLASS, TYP. UNO.	1. AT CERAMIC TILE WAINSCOT ALIGN TOP OF CAB WITH TOP EDGE OF TILE	1. SEE PLAN FOR SPECIFIC LOCATION CONDITION 2. SDISD & PTC-BY OWNER, INSTALLED BY CONTRACTOR	



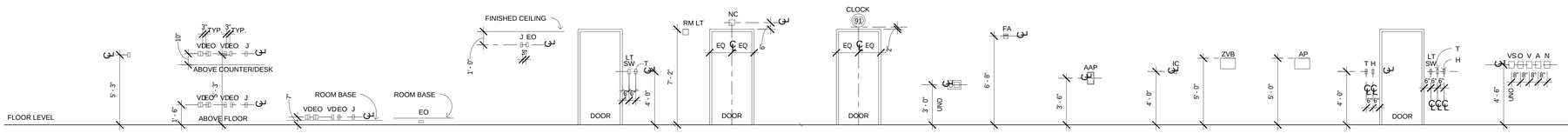
DESCRIPTION	DIAPER CHANGING STATION	HANDRAIL	CRASH RAILS	PUSH PLATE	TISSUE HOLDER	TP HOOK	WR MTD BKT	HOOKS/COAT HOOKS
NOTES :	1. KOALA BEAR KARE, 10721	HANDRAIL (HR), SEE DETAILS ON SHEET AS24/3 & 4	COORDINATE CRASH RAIL (CR) HEIGHT WITH CHAIR BACK HEIGHT. CENTER OF CHAIR BACK TO ALIGN WITH CENTER OF CRASH RAIL					6" SEPARATION AT DOUBLE COAT HOOK CONDITION (TYP)



DESCRIPTION	SHARPS CONTAINER	GLOVE BOX	FLAT TV SCREEN/ EQUIPMENT MONITORS	PC MOUNTING BRACKET	WALL MOUNTED CHAIR BRACKET	EMESIS BAG DISPENSER
NOTES :		2 GLOVE BOXES SHOWN, REFER TO ELEV FOR REQ'D QTY. ADDITIONAL BOXES MOUNTED ABOVE 4'-6"/1370mm.	PROVIDE PARTITION BLOCKING, REFER TO AS18.	ADJUSTABLE VERTICAL SLIDE MONITOR BRACKET PROVIDE MOUNTING STEEL PLATE, REFER TO AS18	PROVIDE BLOCKING FOR BRACKET, REFER TO EQUIPMENT MANUFACTURER FOR MOUNTING REQUIREMENTS AND INSTRUCTIONS. CONFIRM PLACEMENT FOR FLUSH INSTALLATION WITH CR1	



DESCRIPTION	PNEUMATIC TUBE SYSTEM	DF, DRINKING FOUNTAIN OR EWC, ELECTRIC WATER COOLER	FEC	
NOTES :	VERIFY WITH EQUIP. SUPPLIER/MFR.	1. WHERE A PAIR OF DF'S ARE REQUIRE INSTALL AS INDICATED ABOVE.		



DESCRIPTION	PANIC BUTTON	ELECT/COMM OUTLETS	ELECT/COMM OUTLETS	ELECTRICAL OUTLET	CCTV CAMERA OUTLETS	LIGHT SWITCH	NURSE CALL LT / ROOM LT	WALL CLOCK	CARD READER	FIRE ALARM	ALARM ANNUNCIATOR PANEL	INTERCOM	ZONE VALVE BOX	GAS ALARM PANEL	THERMOSTAT/HUMIDISTAT	MEDICAL GASES
NOTES :		MOUNT HEIGHTS SHOWN FOR ABOVE FLOOR AND ABOVE COUNTER UNO., REFER TO ELEVATIONS FOR LOCATIONS.	SEE FURNITURE PLAN FOR REFERENCE.	CENTERED IN BASE		AT DOOR LOCATION	ABOVE DOOR OR BLT. REFER ELECTRICAL DRAWINGS.	ABOVE DOOR ELECTRICAL DRAWINGS.	REFER ELECTRICAL AND COMMUNICATION DRAWINGS.						WALL MOUNTED AT DOOR LOCATION	

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No.	Revisions	Date

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TRUE NORTH

PLAN NORTH

Drawing Title: INTERIOR ELEVATIONS - TYPICAL MOUNTING HEIGHTS

Drawing Scale: AS NOTED

Plot Scale: 12" = 1'-0"

Approved:

Approved:

Project Title: VA MINNEAPOLIS ED RENOVATION 13441

Location: ONE VETERANS DRIVE MINNEAPOLIS, MN 55417

Date: 01/02/2014 | Checked: PR | Drawn: EB/TD

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Building Number: 70

Drawing Number: 1272-70-AS17

Dwg. 21 of 73

Office of Facilities Management

Department of Veterans Affairs

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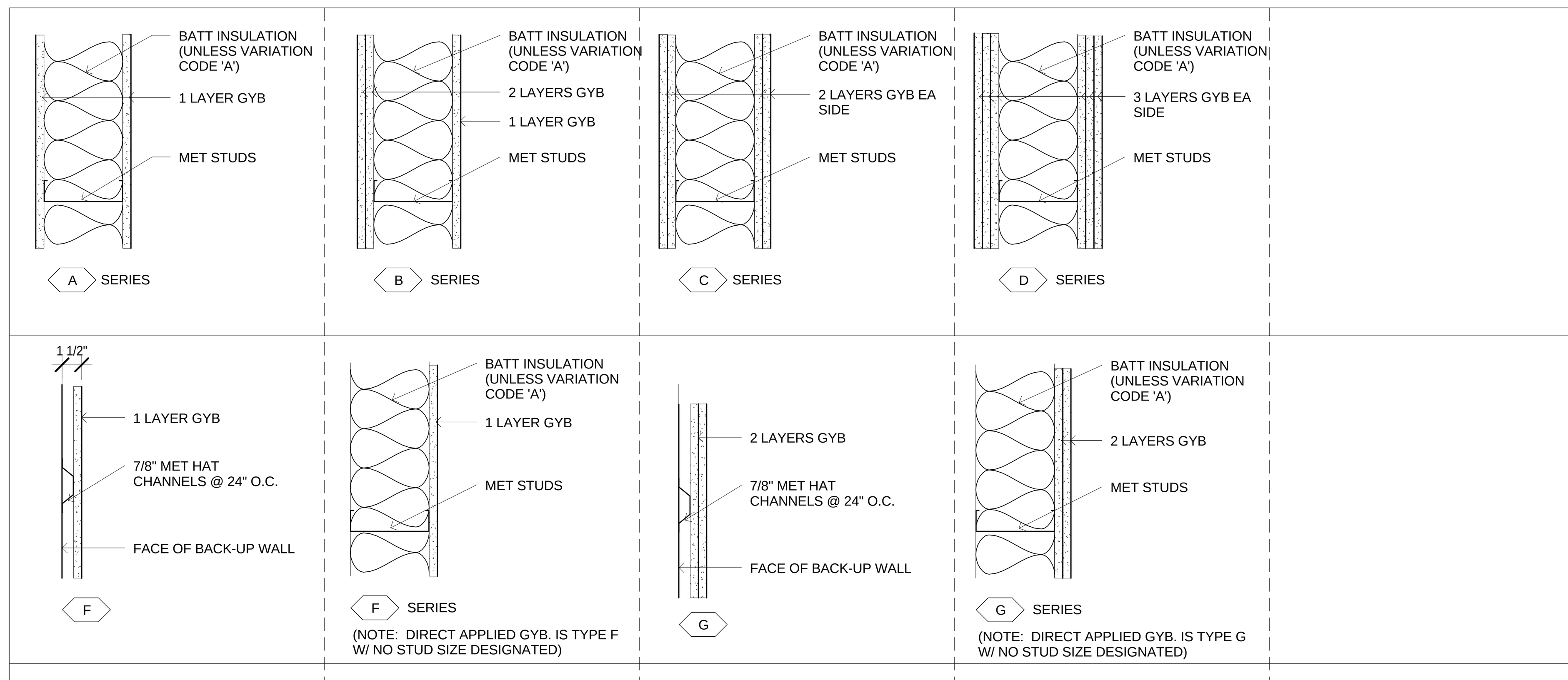
INTERIOR PARTITION TYPES (NON-COMBUSTIBLE)



PARTITON TYPE NOTES:
1. IF PARTITION BISECTS A CONTINUOUS EXISTING OPENING BETWEEN SLOT DIFFUSER AT EXTERNAL WALL, CLOSE AND FINISH EXPOSED SPACE ABOVE CEILING TO MATCH WALL. PACK SOLID WITH INSULATION.
2. WHEN EXISTING WALLS ARE TO REMAIN SEE DETAIL 3 - 1C SHEET AS19.
3. FOR CONTROL JOINT DETAILS AT RATED WALLS SEE DETAIL 3 - 1A OR 1B - SHEET AS19.
4. FOR RATED PARTIONS INTERSECTING DUCT WORK SEE DETAIL 4 - SHEET AS19.
5. FOR BACKING AND BLOCKING INFORMATION SEE BACKING/BLOCKING SCHEDULE/NOTES AND LOADING TABLES - ON THIS SHEET.

PARTITION TYPE SYMBOL
1. SEE PARTITION TYPE SHEETS FOR DETAILS OF WALL CONSTRUCTION.
2. SEE BELOW FOR PARTITION TYPE SYMBOL PLAN REFERENCES.

A6.1B N
INDICATES THE PARTITION TYPE
INDICATES THE STUD/CMU SIZE TYPE
IF SHOWN - INDICATES PARTITION VARIATION CODES.
IF SHOWN - INDICATES PARTITION FIRE/SMOKE RATING.

PARTITION FIRE RATING.
FOR PARTITION FIRE RATINGS SEE ALSO LIFE SAFETY PLANS.

PARTITION VARIATION CODES.
A = PARTITION WITHOUT ACOUSTIC INSULATION.
C = PARTITION TO UNDERSIDE OF CLG. CLG IS CONTINUOUS ABOVE CLG.
G = INCREASE STUD GUAGE TO 16 GA.
N = PARTITION TO 4" ABOVE CLG.
P= PARTITION W/ 8'-0" HIGH 3/4" A-C VOID FREE FIRE-RATED PLYWOOD SHEATHING, PAINTED TO MATCH ADJACENT WALL
T = THERMAL INSULATION AND VAPOR BARRIER PLACED ON THE HUMID SOURCE SIDE OF PARTITION.
W = WOOD STUDS, NOM. 2"/50mm THICK.
X = 1/2" FIBER REINFORCED GWB - WITH VENEER PLASTER.
Z = STAGGERED STUDS - STUDS IN OVERSIZED TRACK (STUD SIZE IN TAG INDICATES TRACK SIZE), 16" O.C. EACH SIDE:
3 = 3 5/8" TRACK WITH 2 1/2" STUDS
4 = 4" TRACK WITH 2 1/2" STUDS
6 = 6" TRACK WITH 3 5/8" OR 4" STUDS
8 = 8" TRACK WITH 6" STUDS

SHEET GENERAL NOTES

1. FOR GENERAL ABBREVIATIONS, SYMBOLS AND MATRERIALS, ETC SEE GI02 & GI03. FOR GENERAL NOTES SEE GI03.

GYPBOARD PARTITIONS GENERAL NOTES

1. ALL PARTITIONS INDICATED ON THE PLANS SHALL COMPLY WITH THE FOLLOWING CRITERIA. SEE PLANS FOR SPECIFIC PARTITION TYPE, RATINGS AND VARIATION CODE REQUIREMENTS.

2. ALL PARTITIONS SHALL BE TYPE A4, TYP. UNO. SEE PLANS.

3. ALL PARTITIONS, WITH THE EXCEPTION OF FURRING PARTITION AROUND COLUMNS, SHALL BE ACOUSTIC INSULATED, FULL HEIGHT TO UNDERSIDE OF STRUCTURE ABOVE, GYB TO BE 5/8" GYB-11, UNO. **SEE PARTITION DEFLECTION DETAIL AT ACOUSTIC WALL DETAIL,** FULL HEIGHT WALL TOP DETAIL (NO VARIATION CODE).

4. ALL INTERIOR STEEL STUDS SHALL BE NOT LESS THAN 20 GAUGE AND NOT MORE THAN 16" ON CENTER UNLESS INDICATED OTHERWISE IN PARTITION TYPE. SEE ALSO MAXIMUM WALL HEIGHT SCHEDULE BELOW AND TYPICAL DOOR AND WINDOW/BORROWED LIGHT FRAMING ELEVATIONS.

STUD FRAMING MAXIMUM HEIGHTS.
7/8" 20 Ga FURRING CHANNEL, MAX HEIGHT NOT APPLICABLE. SUPPORT STUD ON EXIST, CMU OR CONCRETE SUBSTRATE AT 4'-0" OC.
1 1/2" 20 Ga STUD, MAX HEIGHT 15'-5" W/BRACING ABOVE CEILING LEVEL.
2 1/2" 20 Ga STUD, MAX HEIGHT 17'-0" W/BRACING ABOVE CEILING LEVEL.
3 5/8" 20 Ga STUD, MAX HEIGHT 14'-9"
4" 20 Ga STUD, MAX HEIGHT 15'-5"
6" 20 Ga STUD, MAX HEIGHT 18'-0"

2 1/2" 20 Ga CH STUD, MAX HEIGHT 12'-4", 17'-0" W/BRACING ABOVE CEILING LEVEL.
4" 20 Ga CH STUD, MAX HEIGHT 16'-0"
6" 20 Ga CH STUD, MAX HEIGHT 19'-8"

3. DIMENSIONING OF PARTITIONS ON THE FLOOR PLANS IS TO THE FACE OF PARTITION TYPE. THICKNESS OF FINISHES ARE NOT FIGURED INTO FLOOR PLAN DIMENSIONS UNLESS FINISH IS SHOWN IN PARTITON TYPE.

RATED PARTITIONS
1. ALL FIRE AND SMOKE RATED PARTITIONS ARE FULL HEIGHT PARTITIONS TO STRUCTURE ABOVE. SEE ALSO LIFE SAFETY PLANS FOR LOCATIONS. SEE DEFLECTION HEAD CONNECTION DETAIL ON AS19.

2. FOR FIRE RATED PARTITION PENETRATIONS SEE FIRE STOPPING SPECIFICATIONS.

3. MAINTAIN CONTINUITY OF FIRE AND SMOKE RATED PARTITIONS AT INTERSECTIONS WITH NON RATED OR LESSER RATED PARTITIONS.

4. PROVIDE BRACING OF NON-FHP AS RECOMMENDED BY STUD MANUFACTURER, AT ALL CHASE WALLS.

ACOUSTIC PARTITIONS
1. ALL GYB PARTITION TYPES WITH SOUND ATTENUATION BATTS SHALL HAVE THE BATTS INSTALLED FOR THE FULL THICKNESS AND HEIGHT OF PARTITION, ABOVE AND BELOW ALL OPENINGS.

2. SEAL ALL PENETRATIONS AND HORIZONTAL / VERTICAL PERIMETER OF PARTITION WITH FIRESTOPPING OR ACOUSTICAL SEALANT AS APPROPRIATE.

3. SOUND ATTENUATION BATTS ARE NOT REQUIRED AT PARTITION IN THESE LOCATIONS:
A. WALL FURRING AROUND COLUMNS.
B. LOW WALLS THAT DO NOT EXTEND TO THE CEILING.
C. PARTITIONS AT CROSS CORRIDOR DOORS, CORRIDOR TO CORRIDOR, CORRIDOR TO AISLE, CORRIDOR TO HALLWAY, CORRIDOR TO ELEVATOR LOBBY, CORRIDOR TO WAITING, AISLE TO AISLE, HALLWAY TO HALLWAY AND EXITWAY TO CORRIDOR.

CONTROL JOINTS
1. PROVIDE CONTROL JOINTS IN PARTITIONS WHERE INDICATED ON PLANS AND/OR INTERIOR ELEVATIONS, AT END INTERSECTION WITH CONC/CMU WALLS, INTERSECTION WITH EXISTING PARTITIONS, ABOVE THE STRIKE SIDE OF EACH DOOR FRAME AND NOT MORE THAN 30'-0" O.C. SEE ALSO TYPICAL GYPBOARD AND CMU PARTITION CONTROL JOINT DETAILS.

2. PROVIDE CONTROL JOINTS IN UNINTERRUPTED LONG EXPANSES OF GYB AT 30'-0" OC MAX. WITH EACH SIDE OF PARTITION CONSIDERED SEPARATELY

CERAMIC TILES
WHERE CERAMIC TILE FINISH IS SCHEDULED PROVIDE FINISH LAYER OF GYB-27 EXCEPT CEMENT TILE BACKER BOARD GYB-41 AT SHOWERS, BATHTUBS AND OTHER WET AREAS.

GYPBOARD BASE
1. PROVIDE 1/4" SLNT JOINT AND BASE OF ALL GYPBOARD PARTITIONS.

GYPBOARD TERMINATION
1. ALL GYB TERMINATING IN AREAS EXPOSED TO VIEW SHALL HAVE NON-EXPOSED METAL TRIM AND BE FINISHED WITH JOINT TREATMENT.

GYPBOARD ENDS AND CORNERS
1. ALL OUTSIDE CORNERS OF GYB PARTITIONS SHALL HAVE GALV METAL CORNER BEADS AND BE FINISHED WITH JOINT TREATMENT.

UNBALANCED PARTITIONS
1. PARTITIONS WITH UNBALANCED NUMBER OF GYB LAYERS SHALL HAVE MULTIPLE LAYERS LOCATED ON CORRIDOR SIDE OF PARTITION UNO.

LEAD SHIELDING
1. PARTITION KEYNOTED OR TAGGED ON THE PLANS TO RECEIVE LEAD SHEILDING SHALL HAVE LEAD LAMINATED GYPBOARD ON THE OPPOSITE SIDE TO THE ROOM BEING PROTECTED. LEAD SIDE OF LEAD LAMINATED GYPBOARD SHALL BE PLACED AGAINST STUDS SIDE OF WALL. INSTALL LEAD TABS OVER SCREW HEADS. ADHESIVELY APPLY FINISHED LAYER OF GYB OVER LEAD LAMINATED BASE LAYER. LEAD THICKNESS TO BE DETERMINED BY OWNER'S PHYSICIST.

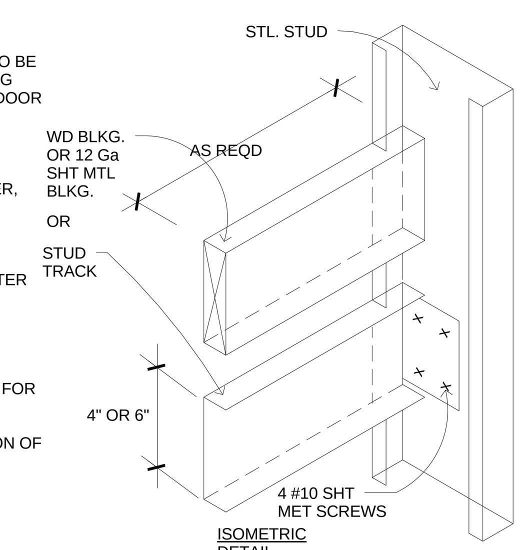
BACKING/BLOCKING SCHEDULE/NOTES.
1. PROVIDE BACKING/BLOCKING IN GYB PARTITIONS FOR ALL WALL-HUNG ITEMS.

2. THESE ANCHORING DETAILS ARE SHOWN AS TYPICAL AND ARE NOT INTENDED TO BE ALL INCLUSIVE. PROVIDE WOOD OR STEEL BACKING IN PARTITIONS FOR WALL HUNG ITEMS, SUCH AS WALL CABINETS, BLDG ACCESS, BATHROOM ACCESS, SHELVING, DOOR HOLD-OPENS, & STOPS, ETC, INCLUDING NIC, BO, BOF, & RE ITEMS.

3. USE THE FOLLOWING ASSUMED LOADS TO DETERMINE BLKG & FASTENER REQUIREMENTS UNLESS GREATER LOADS ARE KNOWN.
a. S DISP, PTC, TPH, MIRRORS, COAT HOOKS, BPG, TOWEL BAR & RING, MOP HOLDER, ASH URN, ETC-USE 100lbs MOP HOLDER, ASH URN ETC - USE 100 LB.
b. HANDRAIL, BUMPER RAILS - USE 200 LB CONCENTRATED LOAD.
c. GRAB BARS - USE 250 LB CONCENTRATED LOAD.
d. WALL CABINETS - USE WEIGHT OF CABINET PLUS 100LB PER FOOT OF SHELF.
e. COUNTERTOPS- USE WEIGHT OF COUNTER TOP PLUS 55 LB PER FOOT OF COUNTER
f. 12" ADJ SHELVES - USE 40 LB PER BRKT
g. 18" ADJ SHELVES - USE 55 LB PER BRKT
h. 24" ADJ SHELVES - USE 83 LB PER BRKT

LOADING TABLE NOTES:
1. SEE TABLE 1 BELOW FOR SIZE OF WOOD BLKG, QUANTITY AND SIZE OF SCREWS FOR CONNECTION TO EACH STUD.

2. SEE TABLE 2 OR 3 BELOW FOR QUANTITY AND SIZE OF SCREWS FOR CONNECTION OF WALL HUNG ITEMS, IF NOT ALREADY PROVIDED BY MFR OF WALL HUNG ITEM.



ISOMETRIC DETAIL

TABLE 1

MAXIMUM ALLOWABLE LOAD-IN POUNDS				
WOOD SCREW		LENGTH OF WALL HUNG ITEM		
QUAN.	SIZE	1'-4" OR LESS	2'-8" OR LESS	2'-9" OR MORE
2x4 WOOD BLOCKING				
2	#6	160	320	480
2	#8	240	480	700
2	#10	320	640	700
2x6 WOOD BLOCKING				
3	#6	240	480	700
3	#8	360	700	700
3	#10	480	700	700

LOADS BASED ON GROUP II WOOD SPECIES & SCREWS EMBEDED IN WOOD A MIN OF 7 TIMES THE SCREW DIA WITH SCREWS INSERTED IN SIDE GRAIN ON ONE SIDE & SIDE GRAIN ON OPPOSITE END.

TABLE 3

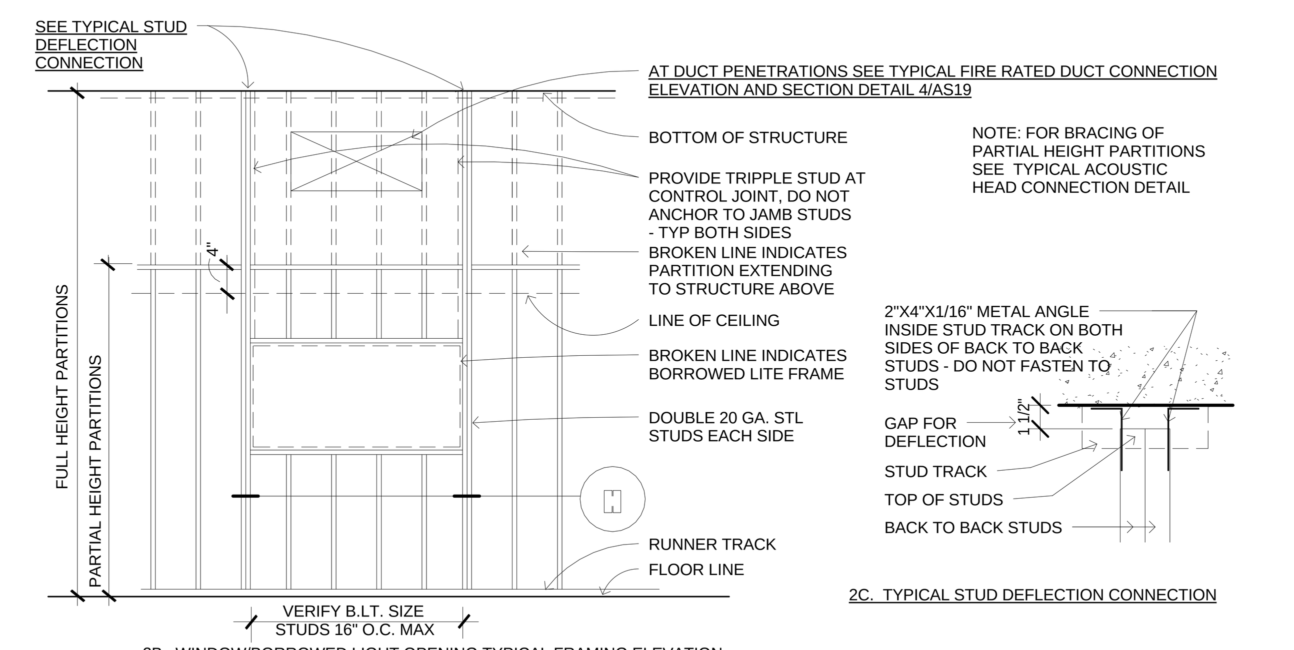
MAXIMUM ALLOWABLE LOAD-IN POUNDS				
SCREW SIZE	QUANTITY OF SCREWS			
	2	3	4	5
#6-S12	224	336	448	560
#8-18	236	354	472	590
#10-16	272	438	584	700
#12-14	288	438	576	700

LOADS BASED ON PUBLISHED DATA FOR MILCOR TITELOCK SCREWS WITH 20 GA GALV STEEL BACKING AND LIMITING CRITERIA BEING PULLOUT STRENGTH

TABLE 2

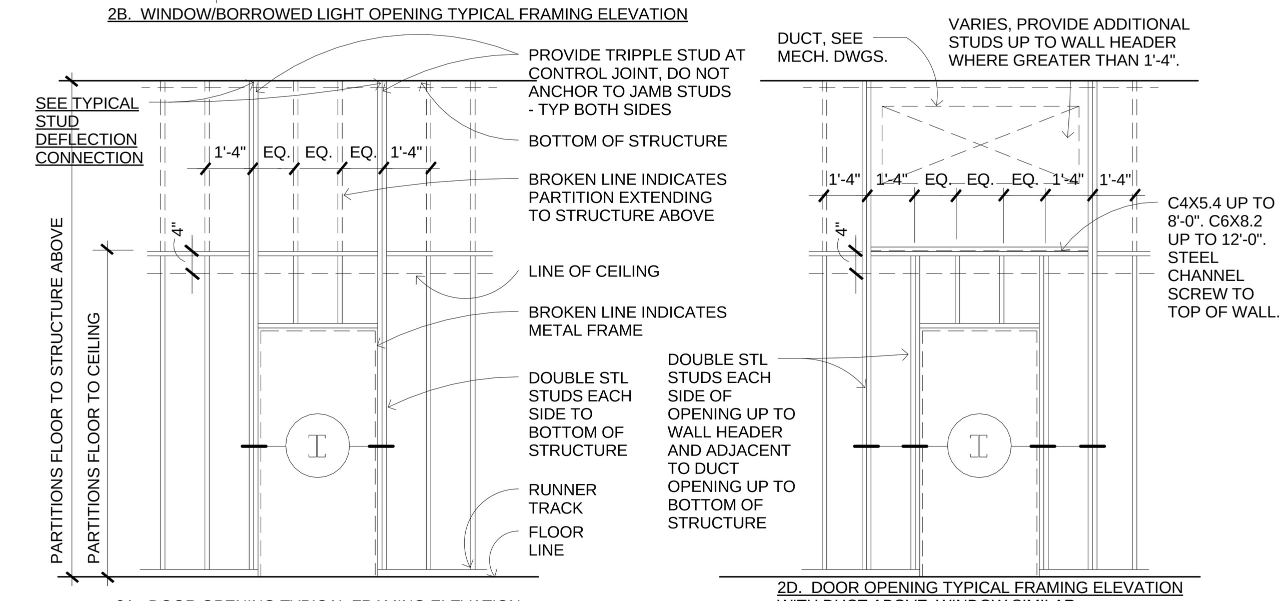
MAXIMUM ALLOWABLE LOAD-IN POUNDS				
SCREW SIZE	QUANTITY OF SCREWS			
	2	3	4	5
#6	150	225	300	375
#8	212	318	424	530
#10	286	429	572	700
#12	370	555	700	700

LOADS BASED ON GROUP II WOOD SPECIES & SCREWS EMBEDED IN WOOD A MIN OF 7 TIMES THE SCREW DIA WITH SCREWS INSERTED IN SIDE GRAIN.



2B. WINDOW/BORROWED LIGHT OPENING TYPICAL FRAMING ELEVATION

2C. TYPICAL STUD DEFLECTION CONNECTION



2A. DOOR OPENING TYPICAL FRAMING ELEVATION

2D. DOOR OPENING TYPICAL FRAMING ELEVATION WITH DUCT ABOVE. WINDOW SIMILAR.

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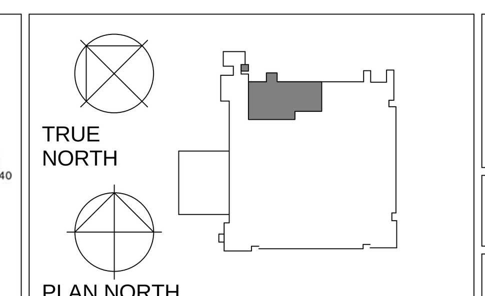

Drawing Scale: AS NOTED

Plot Scale: 12" = 1'-0"

Drawing Title
INTERIOR DETAILS, PARTITION TYPES

Approved:

Approved:

Project Title
VA MINNEAPOLIS ED RENOVATION 13441

Location: ONE VETERANS DRIVE MINNEAPOLIS, MN 55417

Date: 01/02/2014 | Checked: PR | Drawn: EB/TD

Project Number: 618-14-104

Building Number: 70

Drawing Number: **1272-70-AS18**

Dwg. 22 of 73

Office of Facilities Management

Department of Veterans Affairs

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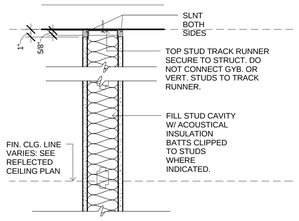
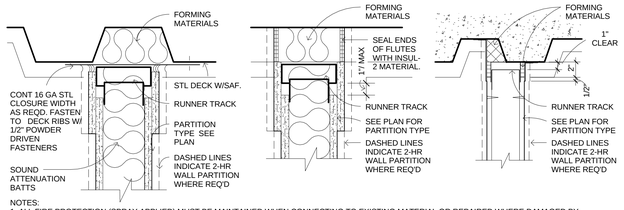


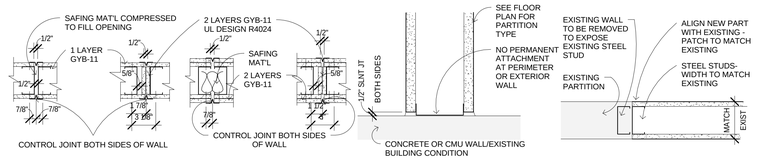
FULL HEIGHT WALL TOP DETAIL
(NO VARIATION CODE)

1 DEFLECTION DETAIL AT ACOUSTIC WALLS
1 1/2" = 1'-0"

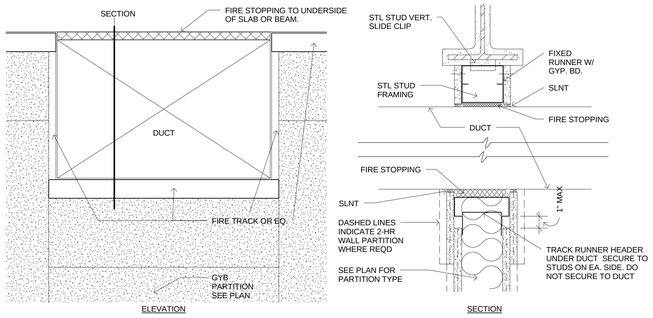


NOTES:
1. ALL FIRE PROTECTION (SPRAY APPLIED) MUST BE MAINTAINED WHEN CONNECTING TO EXISTING MATERIAL OR REPAIRED WHERE DAMAGED BY DEMOLITION OR NEW CONSTRUCTION.
2. UL SYSTEM HW-D-0020 FOR 1 HR AND 2 HR RATED PARTITIONS.

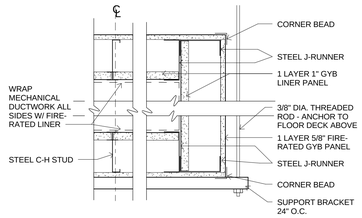
2 DEFLECTION DETAIL AT COMPOSITE DECKING
1 1/2" = 1'-0"



3 PARTITION GYPBOARD CONTROL JOINTS
1 1/2" = 1'-0"



4 PARTITION GYP. BD. FIRE RATED DUCT CONNECTION AT VESTIBULE
1 1/2" = 1'-0"



5 1-HOUR FIRE-RATED DUCT LINER
1 1/2" = 1'-0"

FLOOR PLAN GENERAL NOTES

1. FOR GENERAL NOTES, ABBREVIATIONS, SYMBOLS AND MATRERIALS, ETC SEE GI02 AND GI03.

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Drawing Scale: AS NOTED

Plot Scale: 12" = 1'-0"

Drawing Title: **INTERIOR DETAILS, PARTITIONS**

Approved:

Approved:

Project Title: **VA MINNEAPOLIS ED RENOVATION 13441**

Location: ONE VETERANS DRIVE MINNEAPOLIS, MN 55417

Date: 01/02/2014 | Checked: PR | Drawn: EB/TD

Project Number: 618-14-104

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Drawing Number: **1272-70-AS19**

Dwg. 23 of 73

Office of Facilities Management

Department of Veterans Affairs

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FLOOR PLAN GENERAL NOTES

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DOOR/OPENING SCHEDULE

OPENING INFORMATION NO.	PANEL INFORMATION LEAFS	PANEL INFORMATION LEAF 1	PANEL INFORMATION LEAF 2	DOOR TYPE	DOOR MATL	LABEL	FRAME TYPE	FRAME MATL	HDWR	COMMENTS	REV
FIRST LEVEL											
1V-100A	1	3' - 6"		5	WD		A	HM	2G		
1V-100B	1	3' - 6"		5	WD		A	HM	2G		
1V-100C	1	3' - 6"		1	WD		A	HM	SH4B	LOCK DOWN DOOR/FIRE LITE GLASS/AUTO OPERATOR/CARD READER	
1V-101.1	1	3' - 0"		3	WD		A	HM	SH3	LOCK DOWN DOOR/CARD READER; OMIT THRESHOLD	
1V-101.2	1	3' - 0"		1	WD		A	HM	SH3	LOCK DOWN DOOR/CARD READER	
1V-102	2	3' - 0"	2' - 0"	18	AL		E	AL	8		
1V-103	2	3' - 0"	2' - 0"	18	AL		E	AL	8		
1V-104	1	3' - 6"		5	WD		A	HM	SH3C	CARD READER	
1V-105	2	3' - 0"	2' - 0"	18	AL		E	AL	8		
1V-106	2	3' - 0"	2' - 0"	18	AL		E	AL	8		
1V-107	2	3' - 0"	2' - 0"	18	AL		E	AL	8		
1V-108	2	3' - 0"	2' - 0"	18	AL		E	AL	8		
1V-109	2	3' - 0"	2' - 0"	18	AL		E	AL	8		
1V-110	2	3' - 0"	2' - 0"	18	AL		E	AL	8		
1V-111	2	3' - 0"	2' - 0"	18	AL		D	AL	8		
1V-112	2	3' - 0"	2' - 0"	1	WD		A	HM	MH6A	ANTILIGITURE	
1V-112A	1	3' - 6"		5	WD		A	HM	MH6	ANTILIGITURE	
1V-112C	2	2' - 6"	2' - 6"	5	WD	45	C	HM	SH9A	CARD READER; 180 SWING	
1V-114	2	3' - 0"	1' - 6"	5	WD		A	HM	HW8A		
1V-116	2	3' - 0"	2' - 0"	18	AL		E	AL	8		
1V-116A	1	3' - 0"		5	WD		A	HM	2H		
1V-117	2	3' - 6"	3' - 6"	18	AL		A	AL	8		
1V-118	2	3' - 0"	2' - 0"	18	AL		D	AL	8		
1V-119	2	3' - 0"	2' - 0"	18	AL		E	AL	8		
1V-120	1	3' - 6"		5	WD		A	HM	2G		
1V-121	1	3' - 6"		5	WD		A	HM	2G		
1V-123	1	3' - 6"		5	WD		A	HM	SH3C	CARD READER	
1V-124	1	3' - 6"		5	WD		A	HM	SH3C	CARD READER	
1V-125	2	3' - 0"	2' - 0"	18	AL		E	AL	8		
1V-126	2	3' - 0"	2' - 0"	18	AL		E	AL	8		
1V-127	2	3' - 0"	2' - 0"	18	AL		D	AL	8		
1V-128	2	3' - 0"	2' - 0"	18	AL		E	AL	8		
1V-129	2	3' - 0"	2' - 0"	18	AL		E	AL	8		
1V-130	2	3' - 0"	2' - 0"	18	AL		E	AL	8		
1V-132	2	3' - 0"	2' - 0"	18	AL		E	AL	8		
1V-133	2	3' - 0"	2' - 0"	18	AL		E	AL	8		
1V-135.1	1	3' - 6"		5	WD		A	HM	SH3	LOCK DOWN DOOR/CARD READER	
1V-135.2	1	3' - 6"		5	WD		A	HM	1R	LOCK DOWN DOOR/CARD READER	
1V-136	1	3' - 6"		5	WD		A	HM	1R		
1V-137	1	3' - 6"		5	WD		A	HM	1R		
1V-138	1	3' - 6"		5	WD		A	HM	SH3C	CARD READER	
1V-139	1	3' - 6"		5	WD		A	HM	1R		
1V-140	2	3' - 0"	2' - 0"	18	AL		E	AL	8		
1V-140A	1	3' - 0"		5	WD		A	HM	2H		
1V-141	1	3' - 6"		5	WD		A	HM	SH3C	CARD READER	
1V-142	1	3' - 6"		5	WD		A	HM	3E		
1V-143	1	3' - 6"		5	WD		A	HM	3E		
1V-144	1	3' - 6"		5	WD		A	HM	3E		
1V-145	1	3' - 6"		5	WD		A	HM	3E		
1V-146	1	3' - 6"		5	WD		A	HM	3E		
1V-147	1	3' - 6"		5	WD		A	HM	SH3C	CARD READER	
1V-149	1	3' - 6"		5	WD		A	HM	SH3C	CARD READER	
1V-149A	1	3' - 6"		5	WD		A	HM	SH3C	CARD READER	
1V-150	1	3' - 6"		5	WD		A	HM	5	CARD READER	
1V-151	1	3' - 0"		5	WD		A	HM	HW1		
1V-151A	1	3' - 0"		5	WD		A	HM	HW2C		
1V-152	1	3' - 0"		5	WD		A	HM	HW1		
1V-152A	1	3' - 0"		5	WD		A	HM	HW2C		
1V-153	1	3' - 0"		5	WD		A	HM	3E		
1V-154	1	3' - 0"		5	WD		A	HM	SH4B	CARD READER	
1V-155	2	3' - 0"	2' - 0"	18	AL		E	AL	8		
1V-180	1	3' - 0"		5	WD		A	HM	HW1		
1V-V01.1	4	2' - 7 1/2"	2' - 7 1/2"	50	AL		D	AL	6D	AUTOMATIC SLIDING DOOR, ADD OPTION ' A01' -SEE KEYNOTE ON AS04	
1V-V01.2	4	2' - 7 1/16"	2' - 7 1/16"	50	AL		D	AL	6D	AUTO. SLIDING DR/LOCK DOWN DR/AUTO OPERATOR/CR, ADD OPTION 'A01' -SEE KEYNOTE ON AS04	
1V-V02.1	1	3' - 6"		52	HM		B	HM	E1	CARD READER, ADD OPTION 'A02' -SEE KEYNOTE ON AS04	
1V-V02.2	1	3' - 0"		2	HM	90	A	HM	SH3D	ADD OPTION 'A02' -SEE KEYNOTE ON AS04	
C1-151	2	4' - 4"	4' - 4"	2	SST	90	EXISTING	SST	12K	FIRE RATED SST CLAD AUTOMATIC SLIDING DOOR, EXISTING HM CMU FRAME TO REMAIN.	
C1-155	2	3' - 9"	3' - 9"	1	WD	45	A	HM	HW12H	LOCK DOWN DOOR/AUTO OPERATOR/CARD READER	
C1-165	2	3' - 9"	3' - 9"	3	WD	90	A	HM	HW12H	LOCK DOWN DOOR/FIRE LITE GLASS/AUTO OPERATOR/CARD READER	
C1-174	2	3' - 9"	3' - 9"	1	WD	45	A	HM	HW12H	LOCK DOWN DOOR/AUTO OPERATOR/CARD READER	
C1-177	2	3' - 0"	3' - 0"	1	WD		A	HM	HW12H	LOCK DOWN DOOR/AUTO OPERATOR/CARD READER	
C1-179	1	3' - 6"		1	WD	45	A	HM	SH4B	LOCK DOWN DOOR/AUTO OPERATOR/CARD READER	
C1-181	1	3' - 6"		5	WD	45	A	HM	SH4C	CARD READER	
C1-182	2	3' - 3"	3' - 3"	1	WD	45	C	HM	9	LOCK DOWN DOOR/CROSS CORRIDOR-AREA SEPARATION DOORS	
C1-183	2	3' - 11 1/2"	3' - 11 1/2"	18	AL		D	AL	6D		

VA Emergency Department Renovation

Minneapolis, MN

Code	Item	Purchase/Installed By	Notes
1	Paper Towel Dispenser	VV	
2	Soap Dispenser	VC	
3	Toilet Paper Dispenser	VV	
4	Glove Box	VC	
5	Sharps Container	VC	
6	Storage Cabinet	VC	
7	Emesis Bag Dispensers	VC	
8	Shower Curtain	VC	
9	TV and TV Bracket	VC	
10	Headwall Type 1 - Physio Rt	CC	
11	Headwall Type 2 - Physio Lt	CC	
12	Headwall Type 3 - Treatment Rm	CC	
13	Headwall Type 4 - Bariatric Rms	CC	
14	Exam Supply Cart	VV	
15	Trash Container (Large)	VV	
16	Linen Hamper	VV	
17	Wall Hung Chair	VV	
18	Guest Chair	VV	
19	Phycisian Stool	VV	
20	LifeSpan Rail	CC	
21	Computer	VV	
22	Boom Light	CC	
23	Ceiling Lift	VC	
24	Cubicle Curtain	VV	
25	Oto/Optho Scope	VV	
26	Thermometer	VV	
27	Litter	VV	
28	Physio Monitor	VC	
29	EDIS Monitor	VV	
30	EDIS Workstation	VV	
31	Security Monitor	VV	
32	Staffing Board	VV	
33	Task Chair - Desk Ht	VV	
34	Shower Fold-down Bench	CC	
35	Stacking Guest Chair	VV	
36	Guest Chair Medium	VV	
37	Guest Chair Large	VV	
38	Team Station 1	VV	
39	Team Station 2	VV	
40	Team Station 3	VV	
41	Team Station 4	VV	
42	Check-in/Police Desk	VV	
43	Lockers and Locker Accessories	VV	
44	Business Office Furniture	VV	
45	Physician Workroom Furniture	VV	
46	Private Office Furniture	VV	
47	Computer bracket arms	VC	
48	Table	VV	
49	Side Table	VV	
50	Bed and Frame	VV	
51	Ice Machine	VV	
52	Crash Cart	VV	
53	Mini Refrigerator	VV	
54	Sage Warmer	VV	
55	Code Blue Response Cart	VV	
56	Slit Lamp	VV	
57	Pediatric Cart	VV	
58	I.V. Cart	VV	
59	Ultrasound	VV	
60	Vital Sign Monitor on Roll Stand	VV	
61	EKG Cart	VV	
62	Standing Scale	VV	
63	Arjo Lift and Charging Station	VV	
64	Ventilator	VV	
65	Vital Signs Monitor	VV	
66	Trixie Lift Battery	VV	
67	Cart with PAPR Batteries/Hoses	VV	
68	Blanket Warmer	VV	
69	Mayo Stands	VV	
70	Stretchers	VV	6
71	Ortho Cart	VV	
72	ENT Cart	VV	
73	Urology Cart	VV	
74	Blower for Hover Mat	VV	
75	Oxygen Fill Machine	VV	
76	2-Canister Oxygen	VV	
77	Bladder Scanners	VV	
78	Opera Lift	VV	
79	Scale - Portable	VV	
80	Bipap	VV	
81	Bedside Table	VV	4
82	Doppler	VV	
83	Pyxis Medication Dispenser	VV	
84	Sanitary Napkin Dispenser	VV	
85	Shred-It Bin	VV	
86	GYN Cart	VV	
87	BRIT PACS Reading Station	VV	
88	IV Pump	VV	
89	Tele ICU Set-up	VV	
90	Accucheck	VV	
91	Clock	VV	
92	Diaper Changing Station	CC	
93			
94			

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No.	Revisions	Date

GENERAL NOTES:

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TRUE NORTH

PLAN NORTH

Drawing Scale: AS NOTED

Plot Scale: 12" = 1'-0"

Drawing Title: DOOR/OPENING & EQUIPMENT SCHEDULE

Approved:

Approved:

Project Title: VA MINNEAPOLIS ED RENOVATION 13441

Location: ONE VETERANS DRIVE MINNEAPOLIS, MN 55417

Date: 01/02/2014 | Checked: PR | Drawn: EB/TD

Project Number: 618-14-104

Building Number: 70

Drawing Number: 1272-70-AS20

Office of Facilities Management

Department of Veterans Affairs

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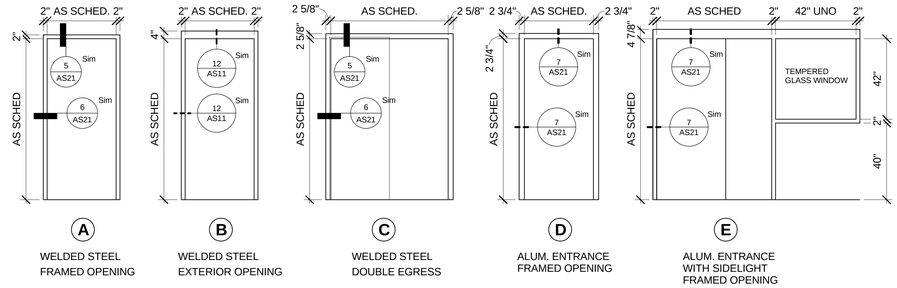
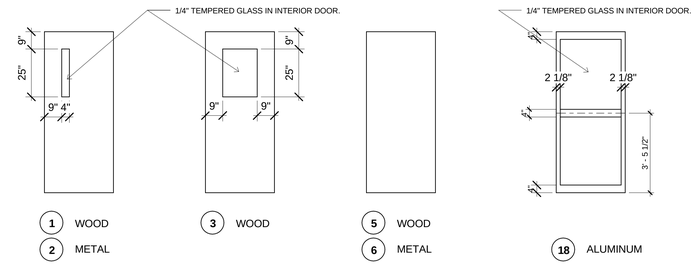
FLOOR PLAN GENERAL NOTES

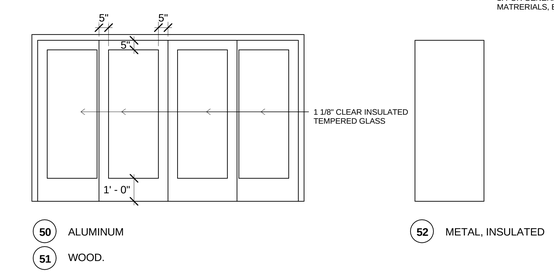
1. FOR GENERAL NOTES, ABBREVIATIONS, SYMBOLS AND MATRERIALS, ETC SEE GI02 AND GI03.



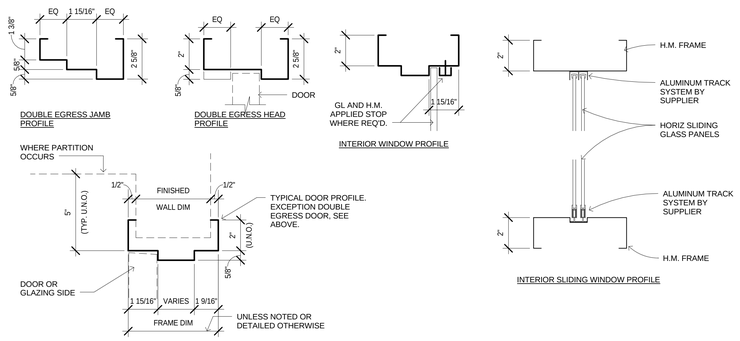
1 FRAME TYPES
3/8" = 1'-0"



2 INTERIOR DOOR TYPES
3/8" = 1'-0"



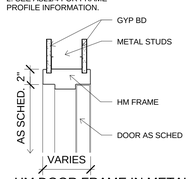
3 EXTERIOR DOOR TYPES
3/8" = 1'-0"



GENERAL NOTES:
1. FRAMES ARE TO BE GROUT FILLED AND WELDED UNLESS NOTED OTHERWISE.
2. FRAME INFO SHOWN IS TYPICAL UNLESS NOTED OTHERWISE BY SPECIFIC DETAIL REFERENCE ON PLANS/SCHEDULE.

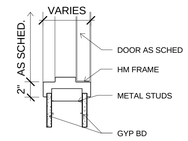
4 TYP HOLLOW METAL FRAME INFO
3" = 1'-0"

NOTE:
1. FOR PARTITION THICKNESS SEE PLANS AND PARTITION TYPE SCHEDULE/DERTAILS.
2. SEE AS21/4 FOR FRAME PROFILE INFORMATION.

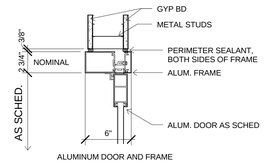


5 HM DOOR FRAME IN METAL STUD PARTITION - HEAD
1 1/2" = 1'-0"

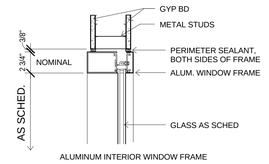
NOTE:
1. FOR PARTITION THICKNESS SEE PLANS AND PARTITION TYPE SCHEDULE/DERTAILS.
2. SEE AS21/4 FOR FRAME PROFILE INFORMATION.



6 HM DOOR FRAME IN METAL STUD PARTITION - JAMB
1 1/2" = 1'-0"

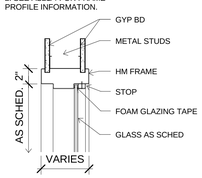


7 DOOR FRAME ALUMIN HEAD/JAMB
1 1/2" = 1'-0"



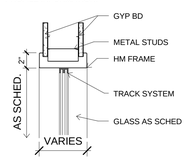
8 INTERIOR WINDOW FRAME ALUMIN HEAD/JAMB
1 1/2" = 1'-0"

NOTE:
1. FOR PARTITION THICKNESS SEE PLANS AND PARTITION TYPE SCHEDULE/DETAILS.
2. SEE AS21/4 FOR FRAME PROFILE INFORMATION.



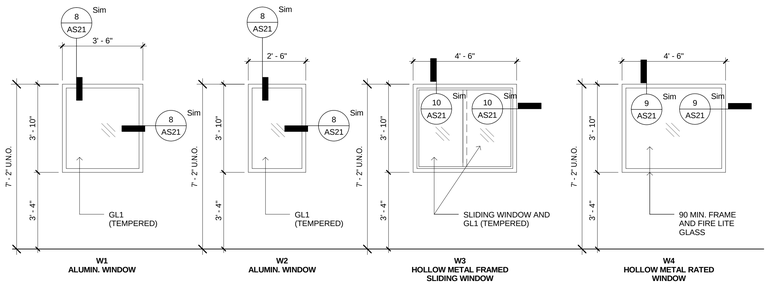
9 HM WINDOW FRAME IN METAL STUD PARTITION - HEAD (JAMB SIM)
1 1/2" = 1'-0"

NOTE:
1. FOR PARTITION THICKNESS SEE PLANS AND PARTITION TYPE SCHEDULE/DETAILS.
2. SEE AS21/4 FOR FRAME PROFILE INFORMATION.



10 HM FRAME SLIDING WINDOW IN METAL STUD PARTITION - HEAD (JAMB)
1 1/2" = 1'-0"

NOTE: REFER TO GLAZING SPECIFICATIONS FOR FURTHER DESCRIPTION OF GLAZING TYPES



INTERIOR WINDOW FRAME TYPES

17 INTERIOR WINDOW FRAME TYPES
3/8" = 1'-0"

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No.	Revisions	Date

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mechanical + electrical consulting engineering

TRUE NORTH

PLAN NORTH

Drawing Title: DOOR TYPES, FRAME TYPES, DOOR AND MISC DETAILS	Project Title: VA MINNEAPOLIS ED RENOVATION 13441	Project Number: 618-14-104	Office of Facilities Management
		Building Number: 70	
Drawing Scale: AS NOTED	Approved:	Location: ONE VETERANS DRIVE MINNEAPOLIS, MN 55417	Drawing Number: 1272-70-AS21
Plot Scale: 12" = 1'-0"	Approved:	Date: 01/02/2014 / Checked: PR / Drawn: EB/TD	Dwg. 25 of 73

Department of Veterans Affairs

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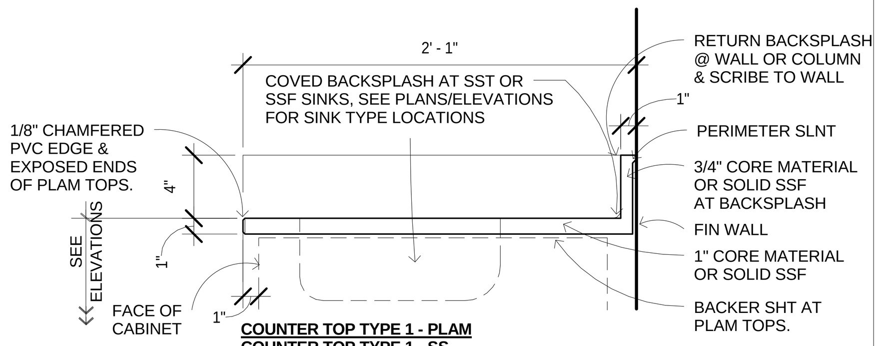
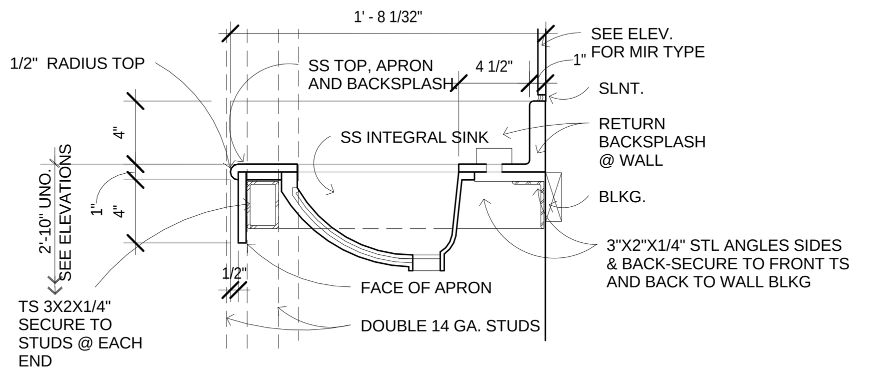
COUNTER TOP TYPE SCHEDULE

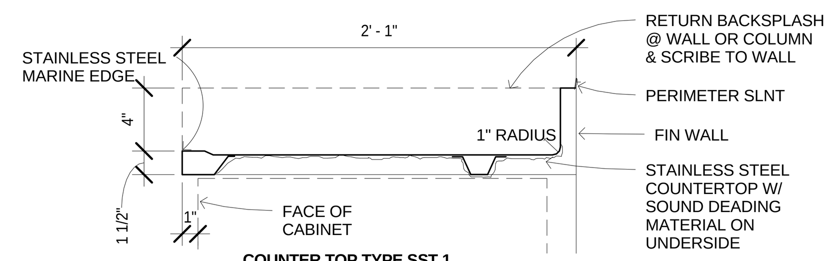
FINISHES NOTES:
1. PLAM TOP TYPES, PLAM FINISH ALL EXPOSED SURFACES INCLUDING ENDS AND BACKSPLASHES.
2. SSF TOP TYPES, FINISH ALL EXPOSED SURFACES OF SOLID SSF TOP AND BACKSPLASH.
3. SEE CASEWORK FINISHES AND GENERAL NOTES FOR TYPICAL FINISH COLOR SELECTION.



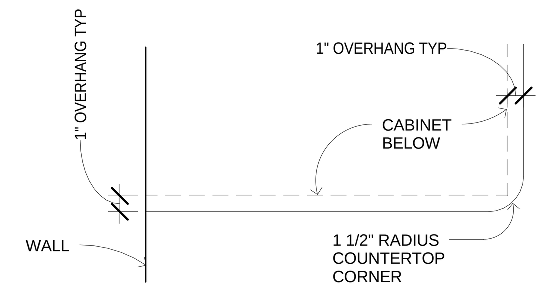
COUNTER TOP TYPE 1 - PLAM
COUNTER TOP TYPE 1 - SS



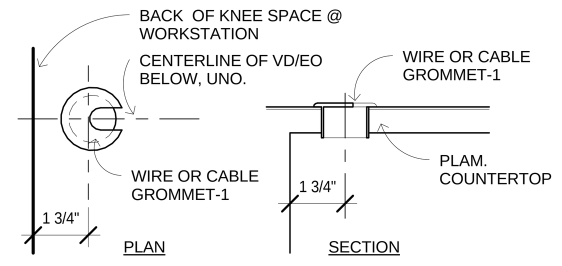
COUNTER TOP TYPE 5



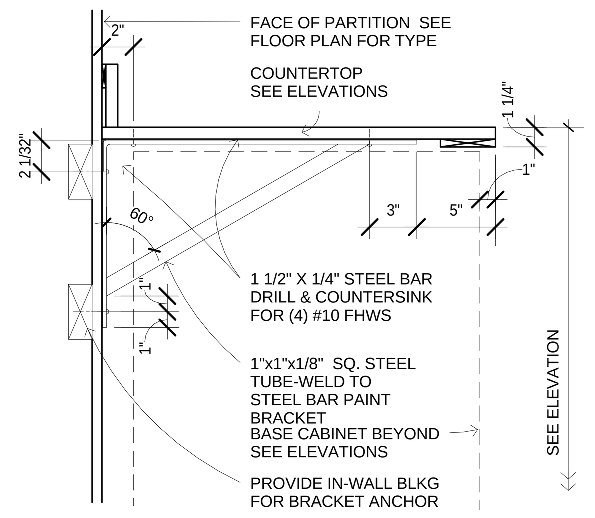
COUNTER TOP TYPE SST 1



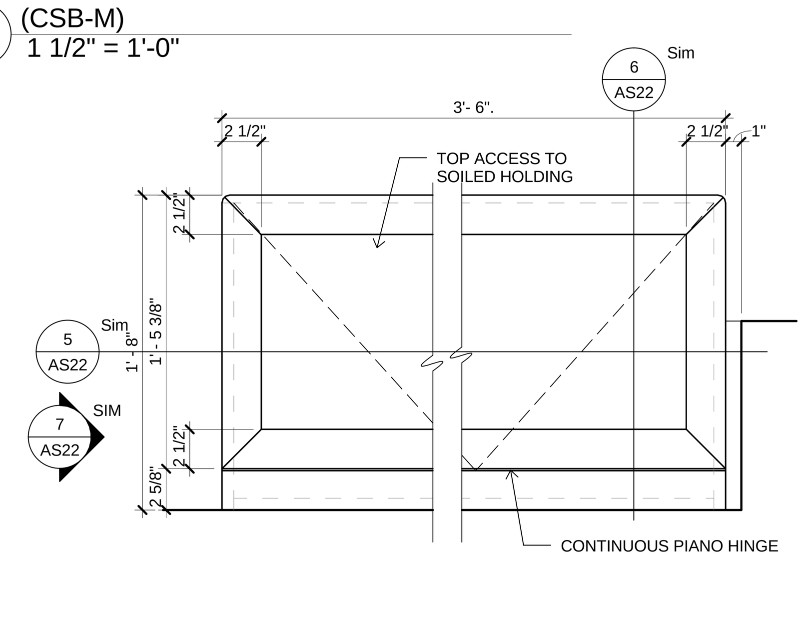
1 COUNTER TOP CORNER
1 1/2" = 1'-0"



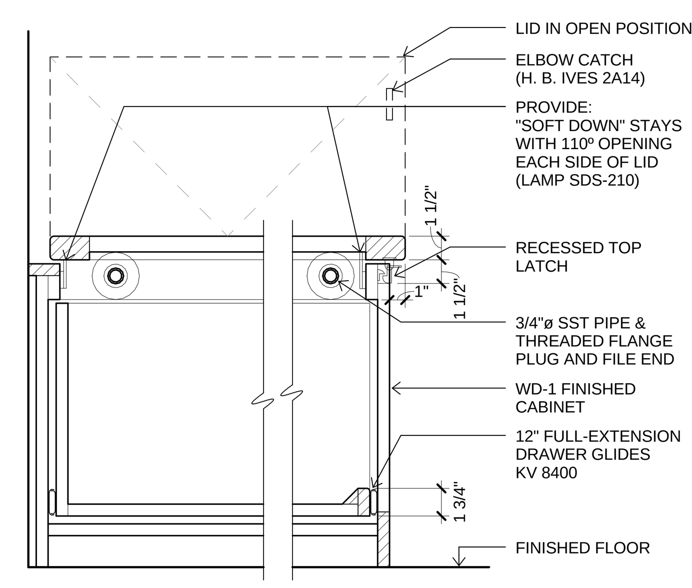
2 COUNTERTOP GROMMETS
3" = 1'-0"



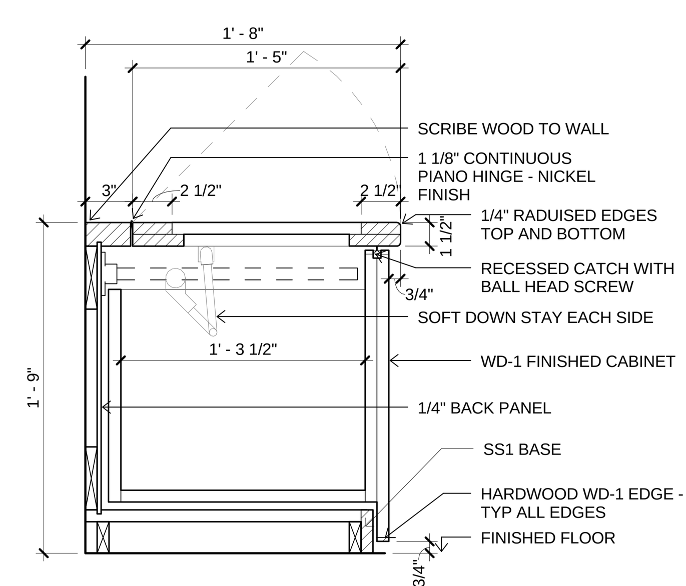
3 COUNTER TOP SUPPORT BRACKETS (CSB-M)
1 1/2" = 1'-0"



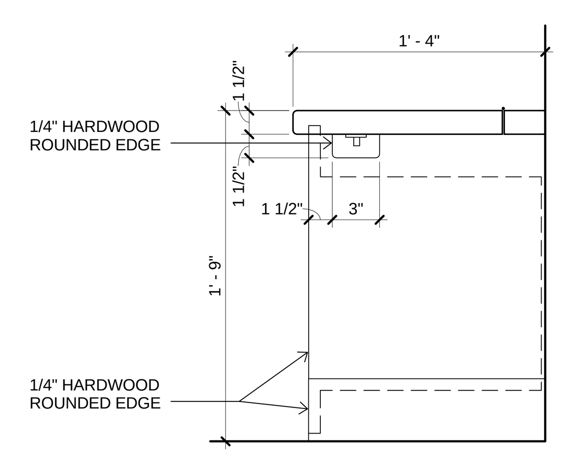
4 BENCH AT LOCKER ROOMS
1 1/2" = 1'-0"



5 BENCH LENGTHWISE SECTION
1 1/2" = 1'-0"



6 BENCH CROSS SECTION
1 1/2" = 1'-0"



7 BENCH END ELEVATION
1 1/2" = 1'-0"

FLOOR PLAN GENERAL NOTES

1. FOR GENERAL NOTES, ABBREVIATIONS, SYMBOLS AND MATERIALS, ETC SEE GI02 AND GI03.

CASEWORK FINISHES AND GENERAL NOTES

1. SEE COUNTERTOP TYPE SCHEDULE THIS SHEET. ALL COUNTERTOP TYPES ARE TO BE TOP TYPE 1, TYP., UNO ON INTERIOR ELEVATIONS. ALL COUNTERTOPS ARE TO BE FINISHED WITH HPDL.2, TYP., UNO. WHERE SST TOP TYPES ARE INDICATED, FINISH TO BE SST-1, TYP., UNO. WHERE SS TOP TYPES ARE INDICATED, FINISH TO BE SS-1 TYP. UNO. SEE FINISH SCHEDULE IN SPECIFICATIONS FOR DESCRIPTION OF FINISHES.

2. ALL EXPOSED COUNTER TOP CORNERS ARE TO HAVE RADIUSED CORNER, SEE TYPICAL COUNTER TOP RADIUSED CORNER DETAIL.

3. ALL EXPOSED WOOD PANELS ARE TO BE WD-1 TYP. UNO.

4. ALL EXPOSED HARDWOOD SHALL BE WD-1 TYP. UNO.

5. ALL FILLERS, SUPPORT BRACKETS, TASK LIGHTING, EXPOSED ENDS, VERTICAL AND HORIZONTAL SURFACES OF TALL, WALL AND BASE CABINETS, ADJUSTABLE AND OPEN SHELVING ARE TO BE FINISHED TO MATCH CABINET, TYP. UNO.

6. WHERE CABINETS ARE INDICATED TO BE SST, ALL PANELS, DOORS, DRAWERS, SHELVES, ETC. ARE TO BE CONSTRUCTED FROM SST.

7. WALL AND BASE CASEWORK SCHEDULE NOTES:
A.) CABINETS SHOWN ARE TYPICAL AND ALL MAY NOT BE USED.
B.) ALL CABINET DEPTHS ARE CLEAR INSIDE. TYPICAL CABINETS ARE; WALL 12", BASE 22", UTILITY 22".
C.) NUMBER OF SHELVES, UNO: 24" HIGH WALL UNIT (1); 30" HIGH WALL UNIT (2); 36" HIGH WALL UNIT (3); TALL CABINET (5); BASE CABINETS (2); ALL SHELVES ADJ. SHELVES OVER 27" LONG AND ALL SHELVES IN OPEN CABINETS 1" THICK. FOR ADJUSTABLE SHELVES PROVIDE ADJUSTMENT 4" FROM TOP, BOTTOM AND 1" O.C.
D.) MAXIMUM DOOR WIDTH: 24" HINGED DOOR CABINET; 36" SLIDING DOOR CABINET
E.) MAXIMUM DRAWER WIDTH: ALL CABINETS 30"
F.) PROVIDE LOCKS ON ALL DRAWERS AND DOORS OF CABINETS NOTED WITH (L)
G.) PROVIDE PERFORATED HARDBOARD BACKS WHERE NOTED
H.) PROVIDE MIN. TWO ROWS OF SUPPORT WALL BLOCKING FOR WALL CABINET INSTLLATION

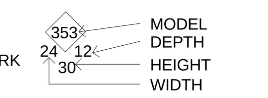
8. TALL CABINET SCHEDULE NOTES:
A. CABINETS SHOWN ARE TYPICAL AND MAY NOT BE USED.
B. TALL CABINETS 24" DEEP UNLESS NOTED OTHERWISE.
C. ALL UTILITY CABINETS TO HAVE (5) ADJUSTABLE SHELVES UNLESS NOTED OTHERWISE, PROVIDE ADJUSTMENT 4" FROM TOP, BOTTOM AND 1" O.C.
D. PERFORATED HARDBOARD BACK WHERE NOTED.
E. 36" MINIMUM WIDTH FOR SLIDING DOOR UTILITY CABINETS.
F. 24" MAXIMUM DOOR WIDTH FOR UTILITY CABINETS UNLESS NOTED OTHERWISE.
G. PROVIDE LOCKS ON INDIVIDUAL DOORS & DRAWERS WHERE NOTED W/ (L) ON DOOR AND/OR DRAWER FACE
H. CABINETS TO RECEIVE RESILIENT BASE UNLESS NOTED OTHERWISE.

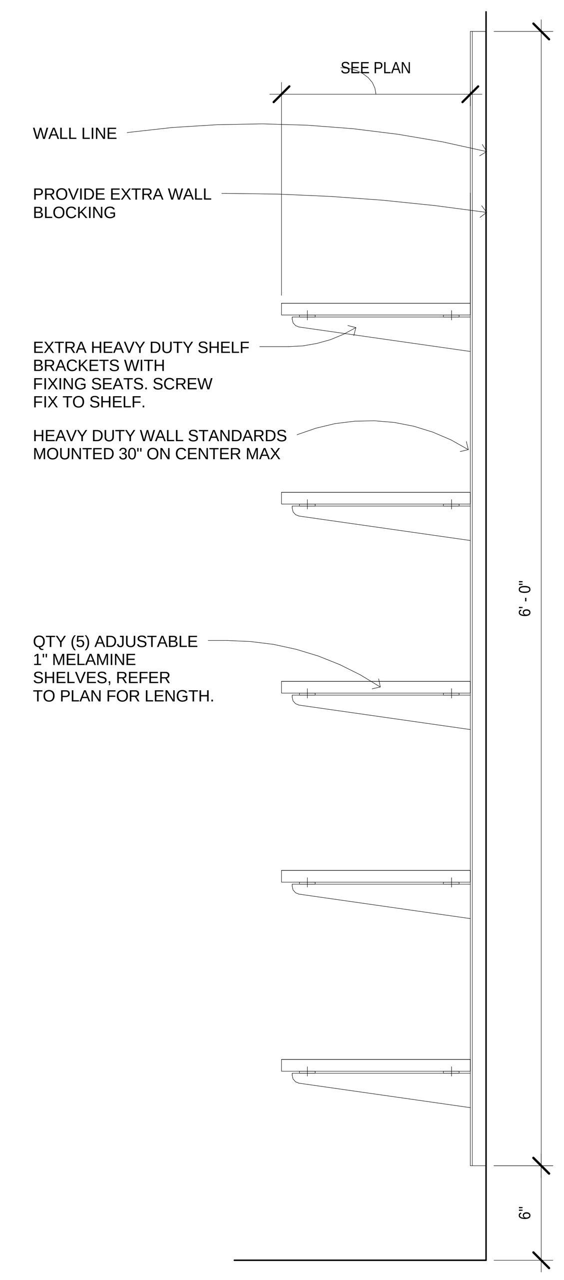
9. PROVIDE TASK LIGHTING WHERE INDICATED ON INTERIOR ELEVATIONS, SEE TASK LIGHTING DETAILS.

10. SOFFITS WHERE INDICATED ON INTERIOR ELEVATIONS. SEE CASEWORK SOFFIT DETAIL FOR GYB AND PLAM SOFFITS.

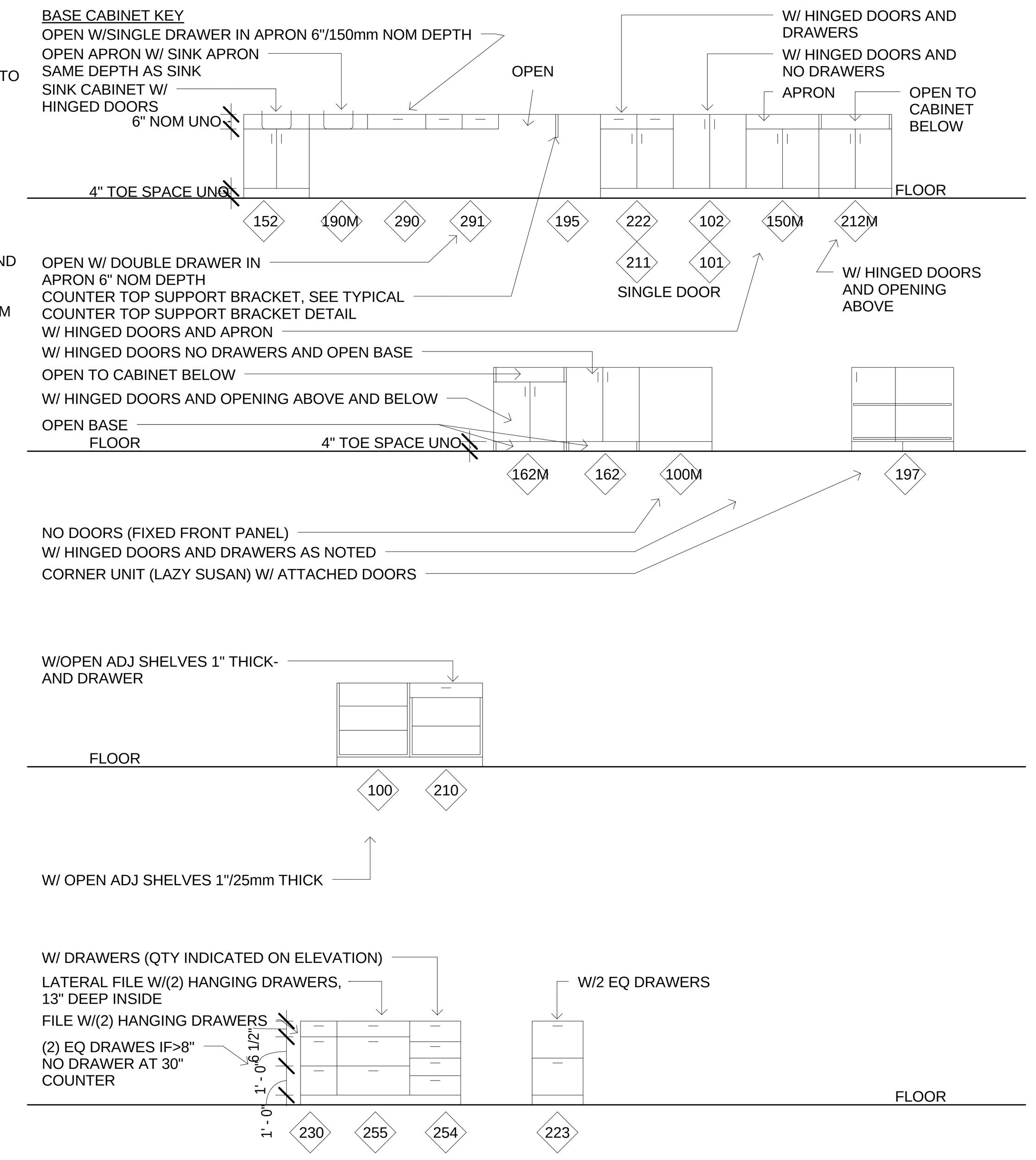
CASEWORK TAGS

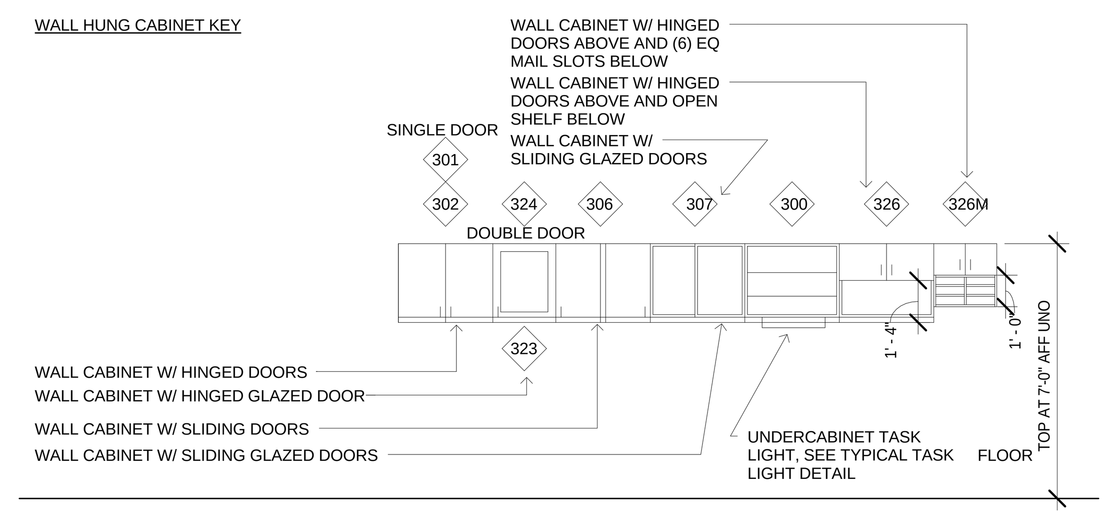
CASEWORK TAG SYMBOL USED ON THIS SHEET DESIGNATES CASEWORK MODEL TYPE ONLY, SEE INTERIOR ELEVATIONS FOR FULL CASEWORK TAGS WITH SIZE INFORMATION.





8 CASEWORK ADJUSTABLE STORAGE SHELVING SECTION
1 1/2" = 1'-0"





FULLY SPRINKLERED

No.	Revisions	Date

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Minneapolis, Minnesota 55402-1540
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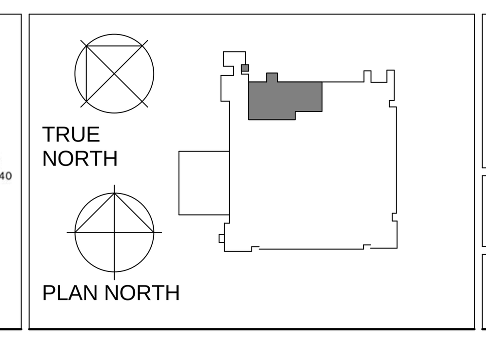
PERFORMANCE DRIVEN DESIGN.



Drawing Title	INTERIOR DETAILS, CASEWORK SCHEDULE AND DETAILS
Project Title	VA MINNEAPOLIS ED RENOVATION 13441
Project Number	618-14-104
Building Number	70
Drawing Number	1272-70-AS22
Drawing Scale	AS NOTED
Plot Scale	12" = 1'-0"
Approved:	
Approved:	
Location	ONE VETERANS DRIVE MINNEAPOLIS, MN 55417
Date	01/02/2014
Checked	PR
Drawn	EB/TD
Dwg.	26 of 73

Office of Facilities Management

Department of Veterans Affairs

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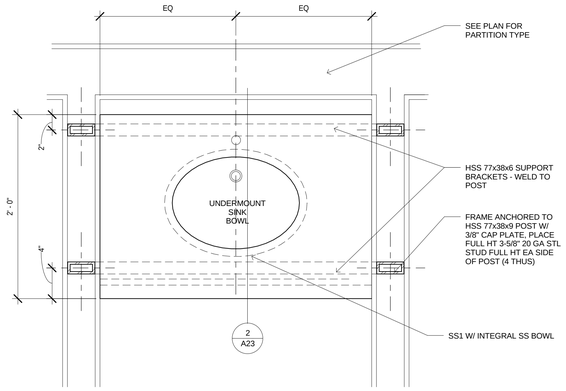
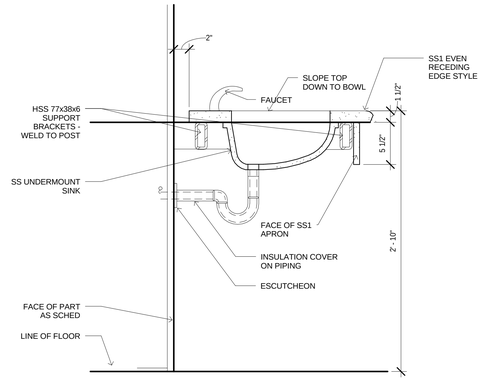
FLOOR PLAN GENERAL NOTES

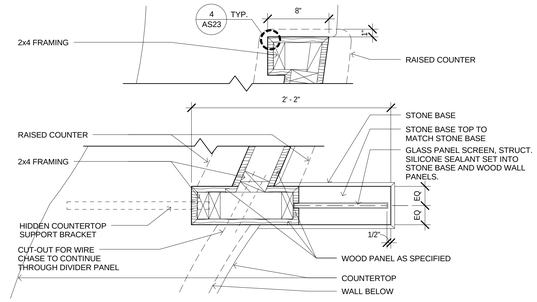
1. FOR GENERAL NOTES, ABBREVIATIONS, SYMBOLS AND MATRERIALS, ETC SEE GI02 AND GI03.



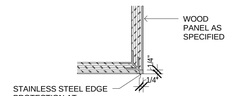
1 CASEWORK SINK VANITY PLAN 1 BOWL
1 1/2" = 1'-0"



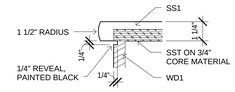
2 CASEWORK SINK VANITY SECTION
1 1/2" = 1'-0"



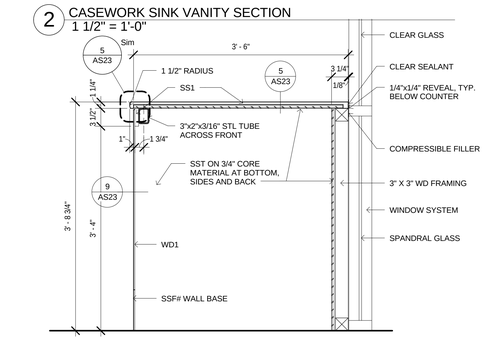
3 CASEWORK CHECK IN DESK DETAIL
1 1/2" = 1'-0"



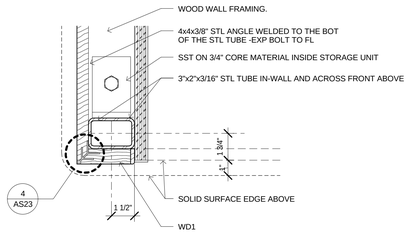
4 WOOD CORNER
3" = 1'-0"



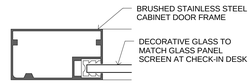
5 CASEWORK DETAIL AT REVEAL
3" = 1'-0"



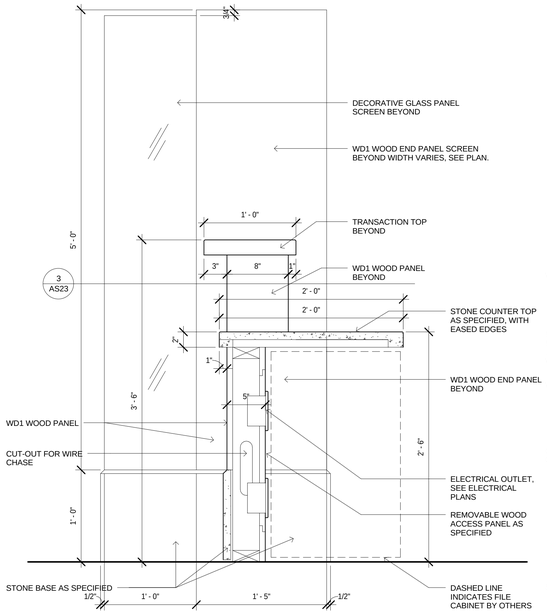
7 CASEWORK SECTION AT WHEELCHAIR STORAGE
1" = 1'-0"



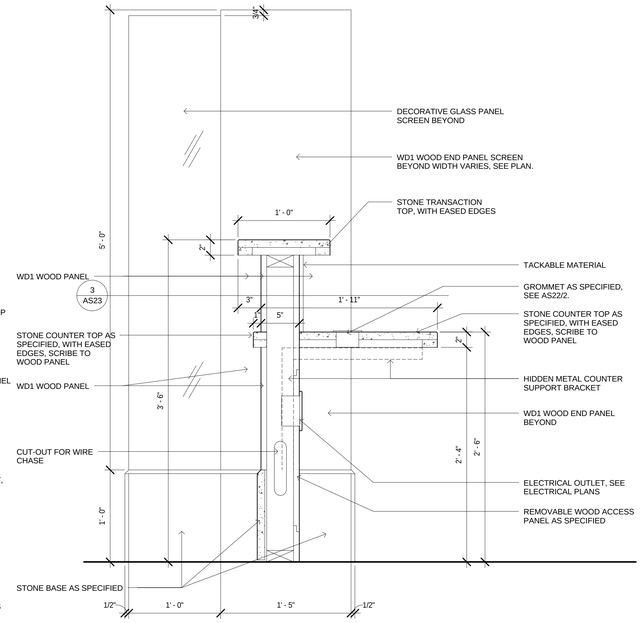
9 CASEWORK DETAIL AT WHEELCHAIR STORAGE
3" = 1'-0"



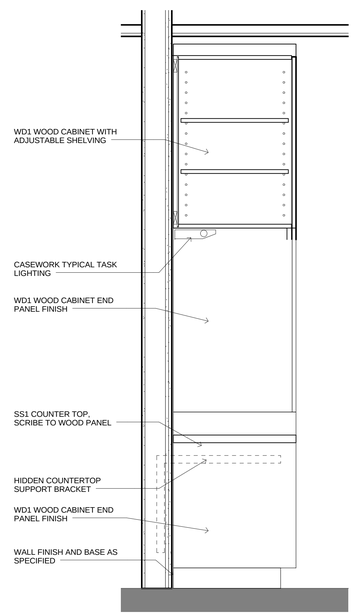
10 CASEWORK DETAIL AT METAL DOOR
12" = 1'-0"



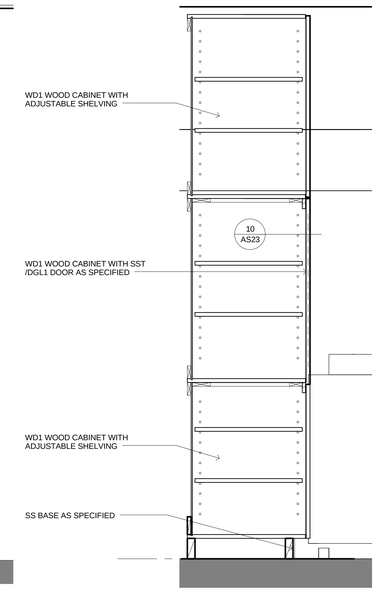
11 CASEWORK CHECK IN DESK SECTION A
1 1/2" = 1'-0"



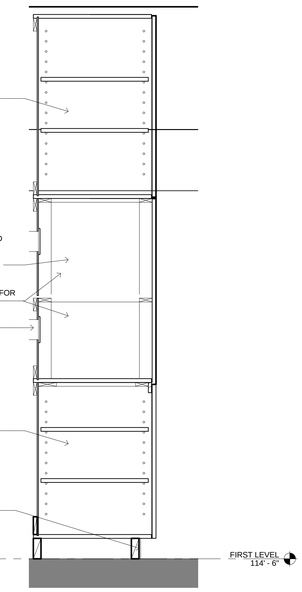
12 CASEWORK CHECK IN DESK SECTION B
1 1/2" = 1'-0"



13 CASEWORK - CHECK IN DESK BACKWALL A
1" = 1'-0"



14 CASEWORK - CHECK IN DESK BACKWALL B
1" = 1'-0"



15 CASEWORK - CHECK IN DESK BACKWALL C
1" = 1'-0"

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Minneapolis, Minnesota 55402-1540
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FAX 612.465.7551
WEB dunhameng.com
mechanical + electrical consulting engineering

TRUE NORTH

PLAN NORTH

Drawing Title: INTERIOR DETAILS, CASEWORK DETAILS	Project Title: VA MINNEAPOLIS ED RENOVATION 13441	Project Number: 618-14-104	Office of Facilities Management
Drawing Scale: AS NOTED	Approved:	Location: ONE VETERANS DRIVE MINNEAPOLIS, MN 55417	Building Number: 70
Plot Scale: 12" = 1'-0"	Approved:	Date: 01/02/2014 / Checked: PR / Drawn: EB/TD	Drawing Number: 1272-70-AS23
			Dwg. 27 of 73

Department of Veterans Affairs

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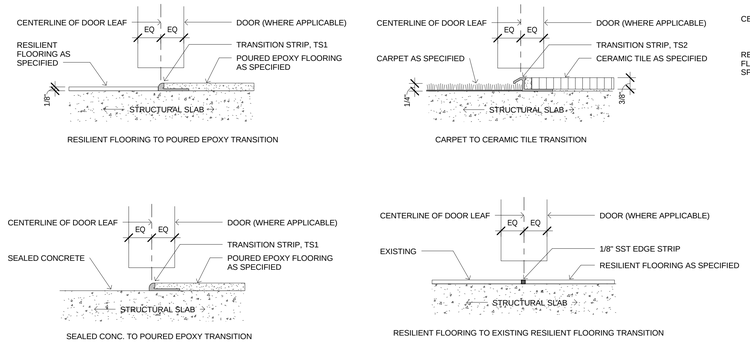
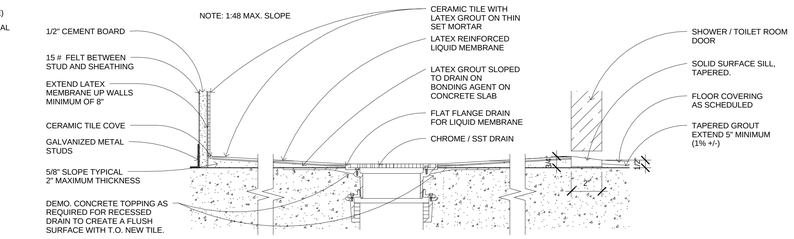
one-eighth in = one foot | one-quarter inch = one foot | three-eighth inch = one foot | one-half inch = one foot | three-quarters inch = one foot | one inch = one foot | one and one half inch = one foot | three inches = one foot



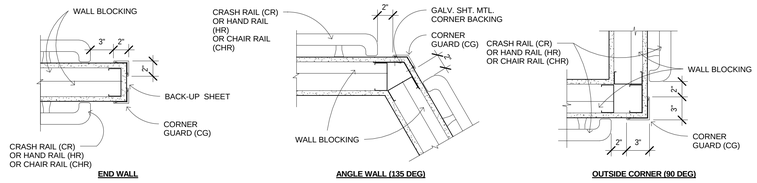
1 FINISH TRANSITIONS - VA
6" = 1'-0"



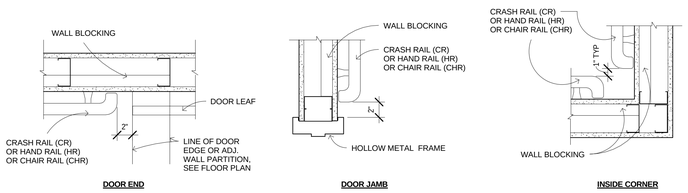
2 FINISH TRANSITION AT BATHROOM SHOWER DRAIN
3" = 1'-0"

FLOOR PLAN GENERAL NOTES

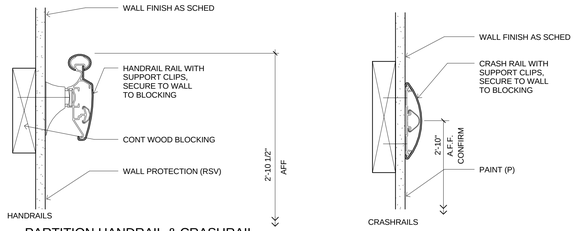
1. FOR GENERAL NOTES, ABBREVIATIONS, SYMBOLS AND MATRERIALS, ETC SEE GI02 AND GI03.



CORNER GUARD AND HANDRAIL DETAIL NOTES :
1. SEE PLANS FOR SPECIFIC CORNER GUARD AND HANDRAIL TYPES.
3. SEE PLANS FOR PARTITION TYPES.
4. CORNER GUARD EXTEND FROM TOP OF BASE TO 7' - 2" A.F.F., UNO.
5. SEE 4/AS24 FOR TYPICAL INSTALLATION DETAILS.



3 PARTITION CORNER GUARD, HANDRAIL PLAN DETAILS
1 1/2" = 1'-0"



4 PARTITION HANDRAIL & CRASHRAIL BLOCKING
3" = 1'-0"

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mechanical + electrical consulting engineering

TRUE NORTH

PLAN NORTH

Drawing Title
INTERIOR DETAILS, FINISHES AND WALL PROTECTION

Drawing Scale: AS NOTED

Plot Scale: 12" = 1'-0"

Approved:

Approved:

Project Title
VA MINNEAPOLIS ED RENOVATION 13441

Location ONE VETERANS DRIVE MINNEAPOLIS, MN 55417

Date 01/02/2014 | Checked PR | Drawn EB/TD

Project Number 618-14-104

Building Number 70

Drawing Number **1272-70-AS24**

Dwg. 28 of 73

Office of Facilities Management

Department of Veterans Affairs

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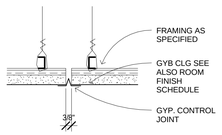
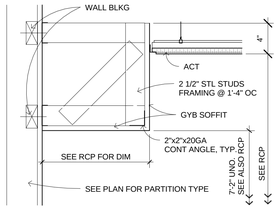
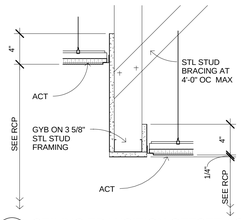


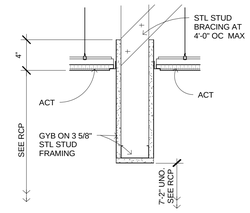
1 CEILING GYB. CONTROL JOINT
3" = 1'-0"



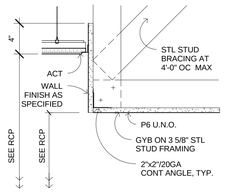
2 CEILING SOFFITS AT WALL
1 1/2" = 1'-0"



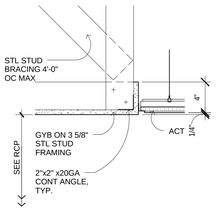
3 CEILING TRANSITION OFFSET ACT/ACT
1 1/2" = 1'-0"



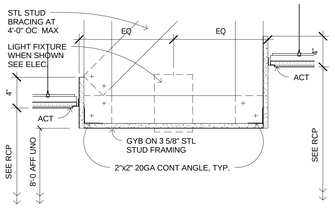
4 CEILING TRANSITION ACT/ACT
1 1/2" = 1'-0"



5 CEILING TRANSITION ACT/GYB
1 1/2" = 1'-0"



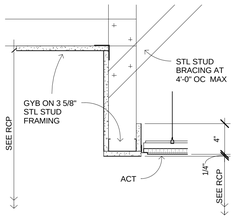
6 CEILING TRANSITION FLUSH
1 1/2" = 1'-0"



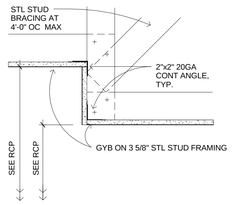
7 CEILING SOFFIT WITH LIGHT FIXTURE
1 1/2" = 1'-0"

FLOOR PLAN GENERAL NOTES

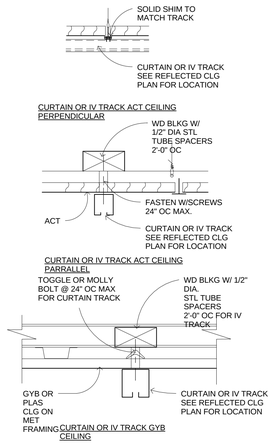
1. FOR GENERAL NOTES, ABBREVIATIONS, SYMBOLS AND MATRERIALS, ETC SEE GI02 AND GI03.



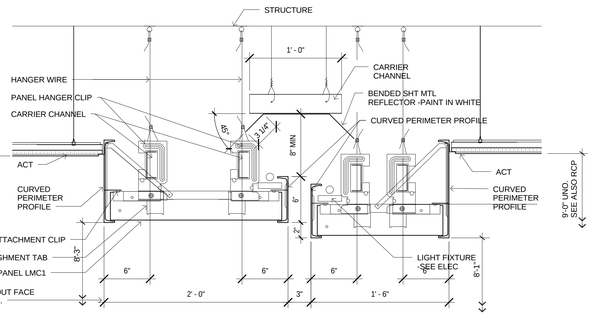
8 CEILING TRANSITION OFFSET ACT/GYB
1 1/2" = 1'-0"



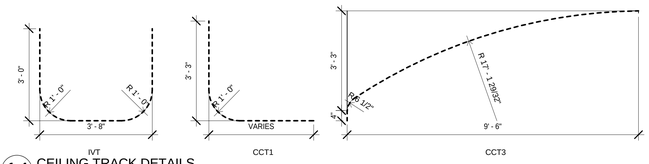
9 CEILING TRANSITION GYB/GYB
1 1/2" = 1'-0"



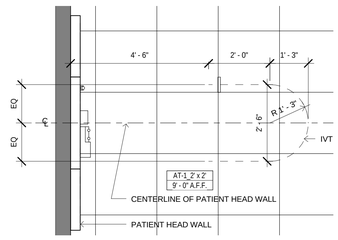
10 CEILING CCT & IV TRACKS
1 1/2" = 1'-0"



13 CEILING SOFFITS AT CHECK-IN DESK
1 1/2" = 1'-0"



14 CEILING TRACK DETAILS
1/2" = 1'-0"



15 IV TRACK (IVT) DETAILS
1/2" = 1'-0"

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No.	Revisions	Date

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mechanical • electrical
consulting engineering

TRUE NORTH

PLAN NORTH

Drawing Scale: AS NOTED

Plot Scale: 12" = 1'-0"

Drawing Title: **INTERIOR DETAILS, CEILINGS**

Approved:

Approved:

Project Title: **VA MINNEAPOLIS ED RENOVATION 13441**

Location: ONE VETERANS DRIVE MINNEAPOLIS, MN 55417

Date: 01/02/2014 | Checked: PR | Drawn: EB/TD

Project Number: 618-14-104

Building Number: 70

Drawing Number: 1272-70-AS25

Dwg. 29 of 73

Office of Facilities Management

Department of Veterans Affairs

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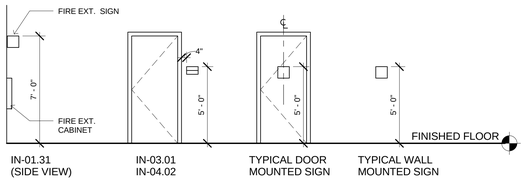
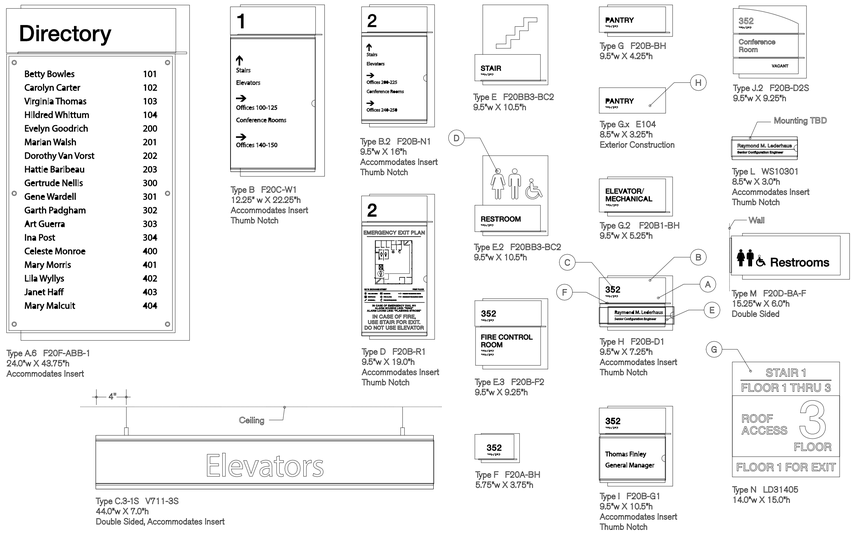
FLOOR PLAN GENERAL NOTES

1. FOR GENERAL NOTES, ABBREVIATIONS, SYMBOLS AND MATERIALS, ETC SEE GI02 AND GI03.



1 SIGNAGE - TYPICAL MOUNTING HEIGHTS
1/4" = 1'-0"



BLK

Face Finish
(A) LS337 Graphite

Backer Finish
(B) SV201 Bear Grass 50%

Raised Copy
(C) CC104 White
Font: Helvetica (ADA)

Raised Copy
(D) CC101 Black
Font: Helvetica (ADA)

Insert
(E) Media: White Paper;
Font: Helvetica Neue Regular;
Graphics/Copy Color: Black;
Background Image: Shutterstock 57804238.jpg

Metal Accent
(F) Natural

ACM (D5)
(G) Direct Print: TKF 411;
Copy: TKF White

Painted Acrylic
(H) PTM: GGP #1252

2 SIGNAGE TYPES
NTS

FULLY SPRINKLERED

No.	Revisions	Date

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Drawing Title: INTERIOR DETAILS, SIGNAGE	Project Title: VA MINNEAPOLIS ED RENOVATION 13441	Project Number: 618-14-104	Office of Facilities Management
Drawing Scale: AS NOTED	Approved:	Location: ONE VETERANS DRIVE MINNEAPOLIS, MN 55417	Building Number: 70
Plot Scale: 12" = 1'-0"	Approved:	Date: 01/02/2014 · Checked: PR · Drawn: EB/TD	Drawing Number: 1272-70-AS26 Dwg. 30 of 73

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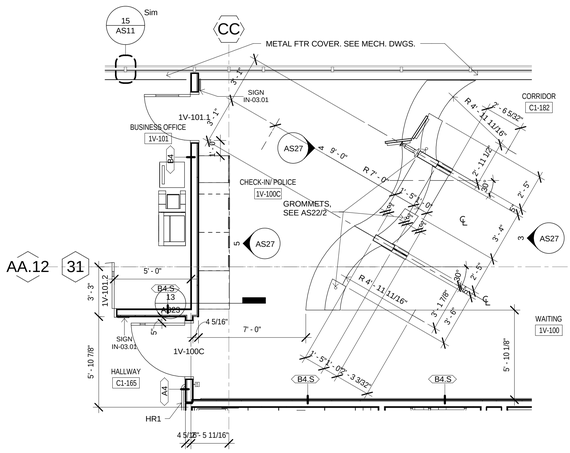
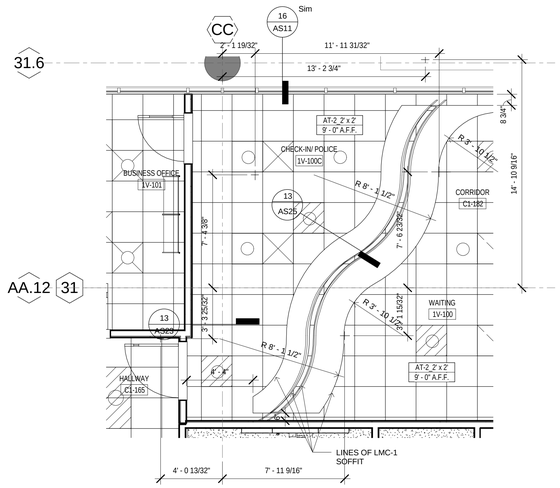
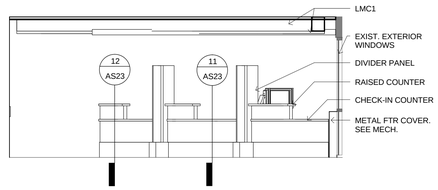


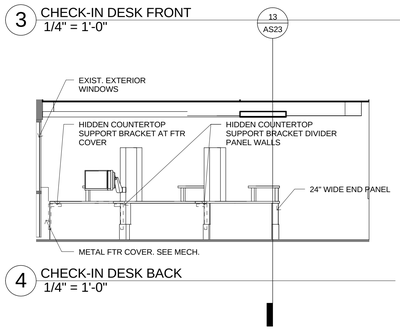
1 ENLARGED PLAN CHECK IN/POLICE ADD OPTION #3
1/4" = 1'-0"



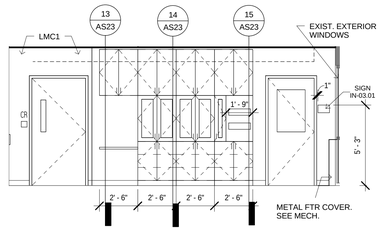
2 ENLARGED REFLECTED CEILING PLAN
CHECK IN/POLICE ADD OPTION #3
1/4" = 1'-0"



3 CHECK-IN DESK FRONT
1/4" = 1'-0"



4 CHECK-IN DESK BACK
1/4" = 1'-0"



5 CHECK IN/POLICE BACK WALL
1/4" = 1'-0"

FULLY SPRINKLERED

No.	Revisions	Date

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TRUE NORTH

PLAN NORTH

Drawing Title: ENLARGED PLANS AND ELEVATIONS ADD OPTIONS	Project Title: VA MINNEAPOLIS ED RENOVATION 13441	Project Number: 618-14-104	Office of Facilities Management
		Building Number: 70	
Drawing Scale: AS NOTED	Approved:	Location: ONE VETERANS DRIVE MINNEAPOLIS, MN 55417	Drawing Number: 1272-70-AS27
Plot Scale: 12" = 1'-0"	Approved:	Date: 01/02/2014 · Checked: Checker · Drawn: Author	Dwg. 31 of 73

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three inches = one foot · one and one half inch = one foot · one inch = one foot · three-quarters inch = one foot · one-half inch = one foot · three-eighth inch = one foot · one-quarter inch = one foot · one-eighth in = one foot

GENERAL DESIGN AND CONSTRUCTION NOTES

A. BUILDING CODE

1. 2007 MINNESOTA STATE BUILDING CODE (MSBC).
2. 2006 INTERNATIONAL BUILDING CODE (IBC).

B. DESIGN LOADS

1. FLOOR LIVE LOAD:

	UNIFORM (PSF)	CONCENTRATED (LB)
HOSPITAL TREATMENT ROOMS:	50*	1000
HOSPITAL PATIENT ROOMS:	50	1000
MECHANICAL:	125	ACTUAL
INTERSITIAL SPACE:	40	1000
STAIRS, PUBLIC CORRIDORS, LOBBIES:	100	1000
CORRIDORS ABOVE FIRST FLOOR:	80	1000

* ADD 15 PSF PARTITION LOADING FOR OFFICES.

LIVE LOAD REDUCTION WAS NOT UTILIZED IN THE DESIGN.

2. ROOF LIVE LOAD: 20 PSF
3. ROOF SNOW LOAD: 50 PSF GROUND SNOW PLUS SNOW ACCUMULATION PER IBC AND ASCE 7-05.
   a. FLAT ROOF SNOW LOAD, Pf = 42.0 PSF
   b. SNOW EXPOSURE FACTOR, Ce = 1.0
   c. SNOW IMPORTANCE FACTOR, I = 1.1
   d. THERMAL FACTOR, Ct (ATTIC) = 1.0
4. WIND LOAD: 90 MPH (3 SEC. GUST), EXPOSURE B, IMPORTANCE FACTOR 1.15 INTERNAL PRESSURE COEFFICIENT +/-0.18
5. EARTHQUAKE DESIGN DATA: NOT APPLICABLE (MSBC).
6. LOADS PROVIDED ON DRAWINGS ARE UNFACTORED ALLOWABLE STRESS DESIGN LOADS. 1.33 ALLOWABLE STRESS INCREASE FOR SHORT-TERM LOADING IS NOT ALLOWED.

GENERAL CONSTRUCTION NOTES

A. FOOTINGS AND FOUNDATION

1. SOIL DESIGN ASSUMED NET ALLOWABLE BEARING CAPACITY IS 2000 PSF IN ACCORDANCE IBC TABLE 1804.4, TO BE VERIFIED IN THE FILED BY GEOTECHNICAL ENGINEER. NOTIFY ENGINEER OF REIOF ANY POOR SOIL CONDITIONS ENCOUNTERED.
2. MINIMUM DEPTH FROM EXTERIOR GRADE TO BOTTOM OF BUILDING PERIMETER FOOTINGS SHALL BE 42". ALL OPEN AIR FOUNDATIONS SHALL HAVE A MINIMUM OF 60" OF FROST PROTECTION.
3. BOTH SIDES OF FOUNDATION WALLS SHALL BE BACKFILLED SIMULTANEOUSLY SO AS TO PREVENT OVERTURNING OR LATERAL MOVEMENT OF WALLS. BACKFILLING OF BASEMENT WALLS SHALL NOT COMMENCE UNTIL FLOOR SYSTEMS TOP AND BOTTOM ARE IN PLACE, CURED 7 DAYS, AND ALL NECESSARY BRACING HAS BEEN INSTALLED.
4. FOUNDATIONS SHALL BEAR ON UNDISTURBED, UNFROZEN SUBGRADE, EXCEPT WHERE COMPACTED SUBGRADE OR FILL IS OTHERWISE SPECIFIED, OR FOUNDATIONS BEAR ON ROCK.
5. PROVIDE STANDARD 90 DEGREE HOOK DOWELS BETWEEN FOUNDATIONS AND WALLS EQUAL TO THE SIZE AND SPACING OF THE VERTICAL REINFORCING UNLESS SPECIFICALLY NOTED OTHERWISE.

B. CONSTRUCTION NOTES

1. ALL DIMENSIONS INVOLVING COORDINATION OF NEW WORK WITH EXISTING CONSTRUCTION SHALL BE FIELD-CHECKED BY THE CONTRACTOR AND FURNISHED TO THE SUBCONTRACTORS PRIOR TO FABRICATION OF ANY WORK. THE VERIFIED DIMENSIONS SHALL APPEAR AND BE NOTED ON THE SHOP DRAWINGS SUBMITTED.
2. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF EXISTING BUILDINGS, UTILITIES, STREETS, ETC. DURING CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR DESIGN AND INSTALLATION OF ALL NECESSARY TEMPORARY BRACING.
3. ANY HOLES CUT IN NEW OR EXISTING CONSTRUCTION THAT ARE NOT DETAILED ON THE STRUCTURAL DRAWINGS SHALL BE REVIEWED WITH THE STRUCTURAL ENGINEER. COORDINATE ALL HOLES AND PENETRATIONS WITH OTHER DISCIPLINES.
4. THE STRUCTURE SHALL BE ADEQUATELY BRACED AND SHORED DURING CONSTRUCTION AGAINST WIND, ERECTION AND OTHER LOADS. STRUCTURAL MEMBERS ARE DESIGNED FOR IN-PLACE LOADS BASED ON FINAL SUPPORT CONDITIONS.
5. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY OF DISCREPANCIES FOUND BETWEEN CONSTRUCTION DOCUMENTS AND ACTUAL FIELD CONDITIONS.

C. FACILITY CONSIDERATIONS

1. CONTRACTOR SHALL FOLLOW ALL CURRENT VA HEALTH, SAFETY, AND FACILITY REQUIREMENTS.

CAST-IN-PLACE CONCRETE

A. MATERIAL PROPERTIES

1. CONCRETE PROPERTIES:

	f'c (PSI) 28 DAYS	MAX. SLUMP INCHES	MAX AGGR.	ENTR. AIR (%)	MAX. W/C
FOOTINGS:	3,000	4	1 1/2"	0	-
WALLS, COLUMNS:	5,000	4	3/4"	0*	-
INT. SLAB ON GRADE (NW):	4,000	4	3/4"	0	0.45
TOPPING:	3,000	6	3/8"**	0	-
STOOPS, APRONS:	4,500	4	3/4"	6 ± 1.5	0.45

* USE 6%±1.5% ENTRAINED AIR IF EXTERIOR CONCRETE.
** USE WELL-GRADED AGGREGATE AND LOW CEMENT CONTENT IN MIX.

2. REINFORCING PROPERTIES:

	FY (PSI)	ASTM
ALL BARS UNLESS NOTED OTHERWISE:	60,000	A615
TIES & STIRRUPS:	60,000	A615
WELDED WIRE FABRIC (SMOOTH, SHEETS):	65,000	A185
WELDABLE REINFORCEMENT:	60,000	A706
EPOXY COATING:	N/A	A775
SYNTHETIC FIBERS (SEE NOTE 3):	1.5 LB/CY (MIN.)	

3. SYNTHETIC FIBERS, WHERE NOTED ON PLANS, SHALL BE CAPROLAN RC (NYLON), FIBERMESH 150 OF 300 (POLYPROPYLENE) OR APPROVED SIMILAR PRODUCT.
4. CHAIRS AND BOLSTERS SHALL BE PLASTIC OR EPOXY COATED.
5. IF CONCRETE SUPPORT BLOCKS ARE USED, THEIR STRENGTH SHALL BE EQUAL OR GREATER THAN THAT OF THE CONCRETE BEING PLACED.
6. THE FOLLOWING MATERIALS SHALL NOT EXCEED THE FOLLOWING PERCENT OF TOTAL CEMENTITIOUS MATERIAL BY WEIGHT:

   FLY ASH: ..... 15% SLABS, 25% ELSEWHERE
   SOLUBLE CHLORIDE: 0.1%

7. CONCRETE COMPONENTS SHALL MEET THE FOLLOWING ASTM:

   PORTLAND CEMENT: ..... C150, TYPE I OR III
   FINE AND COARSE AGGREGATES: C33
   LIGHTWEIGHT AGGREGATES: C330
   FLYASH: ..... C618, CLASS C OR F
   GROUND GRANULATED BLAST FURNACE SLAG ..... ASTM C989, GRADE 100 OR 120
   AIR ENTRAINING ADMIXTURES: C260
   OTHER CHEMICAL ADMIXTURES: ..... C494, TYPE A-G
   WATER, CLEAN & NOT DETRIMENTAL TO CONCRETE: ..... *N/A*

B. CONCRETE NOTES

1. PERFORM WORK IN ACCORDANCE WITH ACI 301-05 AND ACI 318-05.
2. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCEMENT:

	MINIMUM COVER (IN.)
CONCRETE CAST AGAINST & PERMANENTLY EXPOSED TO EARTH:	3
CONCRETE EXPOSED TO EARTH OR WEATHER:	
#6 THRU #11 BARS:	2
#5 & SMALLER BARS:	1 1/2
CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND:	
SLABS AND WALLS:	3/4
BEAMS AND COLUMNS:	1 1/2

3. PROVIDE A 3/4" CHAMFER ON ALL EXPOSED CONCRETE CORNERS.
4. PROVIDE LAP SPLICES AT ALL CORNERS AND INTERSECTIONS, SAME SIZE AND SPACING AS HORIZONTAL REINFORCING.
5. ALL HORIZONTAL WALL REINFORCING SHALL RUN CONTINUOUS THROUGH PIERS.
6. PROVIDE SUPPORTS AND SPACERS FOR ALL REINFORCING, INCLUDING WWF.
7. SEE ARCHITECTURAL PLANS FOR DEPRESSED AND SLOPED AREAS IN FLOORS NOT SHOWN ON STRUCTURAL DRAWINGS.
8. ALL CONCRETE SHOWN SHALL BE REINFORCED. PLANS, SECTIONS AND DETAILS SHOWN WITHOUT REINFORCEMENT ARE INTENDED TO SHOW DIMENSIONS AND DETAILS OF CONSTRUCTION ONLY. REINFORCEMENT OF THESE SECTIONS SHALL BE PROVIDED IN ACCORDANCE WITH THE DETAILS SHOWING REINFORCEMENT.
9. COORDINATE GROUNDING REQUIREMENTS BETWEEN FOUNDATION CONSTRUCTION AND ELECTRICAL WORK.
10. CONSOLIDATE ALL CONCRETE, INCLUDING SLABS, BY VIBRATING.
11. MIX DESIGNS SHALL INCORPORATE ADMIXTURES AS APPROPRIATE FOR ENVIRONMENTAL CONDITIONS.
12. ALL REINFORCING SHALL BE DETAILED, FABRICATED & PLACED IN ACCORDANCE WITH ACI SP-66 (04), ACI DETAILING MANUAL - 2004, AND CRSI MANUAL OF STANDARD PRACTICE.
13. CONCRETE SLABS SHALL NOT DEVIATE MORE THAN 1/8" IN FLATNESS IN ANY DIRECTION WHEN CHECKED WITH A 10 FOOT STRAIGHTEDGE.
14. COMPLETE SAWING OF ALL CONTROL JOINTS WITHIN 12 HOURS OF PLACEMENT. CONSTRUCTION AND CONTROL JOINTS SHALL BE AS INDICATED ON THE DRAWINGS.
15. JOINT SEALANT FOR INTERIOR SLABS SHALL BE POLYURETHANE, SELF-LEVELING; ASTM C920, CLASS 25, USES T, M, AND A. UNLESS NOTED OTHERWISE.
16. ALL SLABS SHALL HAVE STEEL TROWEL FINISH. EXTERIOR SURFACES TO BE BROOM FINISHED. SEE ARCHITECTURAL FOR SPECIAL FINISHES.
17. FORMED CONCRETE SURFACES SHALL BE SMOOTH-FORM FINISH. EXPOSED SURFACES SHALL BE SMOOTH-RUBBED FINISH.

STRUCTURAL STEEL

A. MATERIAL PROPERTIES

1. STEEL PROPERTIES:

	Fy (PSI)	Fu (PSI)	ASTM
W SHAPES:	50,000	65,000	A992, A572
OTHER SHAPES, PLATES:	36,000	58,000	A36
HOLLOW STRUCTURAL SECTIONS:	46,000	58,000	A500, GR B
STEEL PIPES:	35,000	60,000	A53, GR B
HIGH STRENGTH BOLTS, U.N.O.:	-	-	
NUTS:	-	-	A563 HEAVY HEX*
WASHERS:	-	-	F436 HARDENED STL
ANCHOR RODS:	36,000	58,000	F1554 GR 36
WELDING ELECTRODES:	-	E70XX	A233

* GRADE DH WHEN GALVANIZED

2. GROUT: NON-SHRINK, NON-METALLIC AGGREGATE TYPE, COMPLYING WITH ASTM C1107 AND CAPABLE OF DEVELOPING A MINIMUM COMPRESSIVE STRENGTH OF 7,000 PSI AT 28 DAYS.

B. STRUCTURAL STEEL NOTES

1. STRUCTURAL STEEL DESIGN AND CONSTRUCTION SHALL CONFORM TO AISC STEEL CONSTRUCTION MANUAL & SPECIFICATIONS (AISC 360-05), THIRTEENTH EDITION.
2. THE CONTRACTOR AND FABRICATOR SHALL REVIEW THE CONTRACT DOCUMENTS AND INCORPORATE ANY ADDITIONAL PROVISIONS NECESSARY TO MEET APPLICABLE SAFETY REGULATIONS.
3. THIS STRUCTURE IS A NON-SELF SUPPORTING STEEL FRAME REQUIRING INTERACTION WITH OTHER ELEMENTS TO PROVIDE THE REQUIRED STABILITY. THE STEEL ERECTOR SHALL PROVIDE TEMPORARY SUPPORTS UNTIL FINAL STABILITY IS PROVIDED. AT A MINIMUM, TEMPORARY SUPPORTS SHALL BE PROVIDED AT EACH GRID IN BOTH DIRECTIONS.
4. PROVIDE (2) COATS PROTECTIVE ASPHALTIC COATING OF SONNEBORN HYDROCIDE MASTIC OR EQUAL AROUND STRUCTURAL STEEL BELOW GRADE.
5. ALL SHOP CONNECTIONS SHALL BE WELDED AND FIELD CONNECTIONS BOLTED UNLESS NOTED OTHERWISE. ALL WELDING SHALL BE BY AN AWS CERTIFIED WELDER.
6. UNLESS NOTED OTHERWISE, CONNECTIONS SHALL BE DESIGNED BY THE FABRICATOR. ALL DETAILING SHALL CONFORM TO AISC AND OSHA ERECTION STANDARDS. COMPLIANCE IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
7. CONNECTIONS SHALL BE DESIGNED AS FOLLOWS:
   a. CONNECTIONS SHALL BE DESIGNED FOR ON HALF THE TOTAL UNIFORM LOAD CAPACITY
   b. ALL SHOP CONNECTIONS SHALL BE WELDED OR BOLTED.
   c. ALL FIELD CONNECTIONS SHALL BE BOLTED UNLESS WELDS ARE SPECIFIED.
   d. BOLTS SHALL BE ASTM A325 IN ACCORDANCE WITH AISC 329.
   e. MINIMUM BOLT DIAMETER SHALL BE 3/4"
   f. MINIMUM CONNECTIONS ANGLE THICKNESS SHALL BE 3/8"
   g. MINIMUM GUSSET PLATE THICKNESS SHALL BE 3/8".
   h. BOLT DIAMETER FOR SECONDARY MEMBERS (GIRTS, STAIRS) MAY BE 5/8" (MIN.).
   i. ALL CONNECTIONS SHALL BE SYMMETRICAL ONE SIDED CONNECTIONS ARE NOT ALLOWED, UNLESS SPECIFICALLY NOTED OTHERWISE.
   j. ALL CONNECTIONS SHALL BE 2-BOLT MINIMUM.

NON-COMPOSITE STEEL DECK

A. ALL STEEL DECK SHALL BE DESIGNED AND SELECTED IN ACCORDANCE WITH THE SDI DESIGN MANUAL NO. 30.

B. STEEL DECK SHALL BE MANUFACTURED FROM STEEL CONFORMING TO ASTM A1008 OR ASTM A653, GRADE 33 OR HIGHER (33 KSI YIELD STRENGTH).

C. DECK ANCHORAGE SHALL BE MADE WITH 3/4" DIAMETER PUDDLE WELDS AT SUPPORTS AND EDGES AND WELDED SIDELAPS. FASTENER PATTERNS SHALL BE AS FOLLOWS UNLESS NOTED OTHERWISE:

1. 1-1/2" ROOF DECK: 36/4 PATTERN AT SUPPORTS AND 6" ON CENTER AT EDGES. PROVIDE (2) TWO SIDELAP FASTENERS PER DECK SPAN.

D. ROOF DECK SHALL BE PAINTED TYPE B. WIDE RIB, DEPTH AND GAUGE AS INDICATED ON THE DRAWINGS.

E. SUBMIT SHOP DRAWINGS FOR DECK PLACEMENT SHOWING DECK CHARACTERISTICS, ANCHORAGE DETAILS AND ACCESSORIES.

STRUT FRAMING

A. STRUT FRAMING SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH 2001 AISI SPECIFICATIONS WITH 2004 SUPPLEMENT AND 2002 AISI DESIGN MANUAL.

B. SUBMITTALS:

1. SUBMIT STRUCTURAL CALCULATIONS FOR APPROVAL BY THE PROJECT ENGINEER. CALCULATIONS MAY INCLUDE BUT ARE NOT LIMITED TO:
   a. DESCRIPTION OF DESIGN CRITERIA.
   b. STRESS AND DEFLECTION ANALYSIS.
   c. SELECTION OF FRAMING MEMBERS, FITTINGS AND ACCESSORIES.
2. SUBMIT ALL SHOP/ASSEMBLY DRAWINGS NECESSARY TO COMPLETELY INSTALL THE STRUT SYSTEM IN COMPLIANCE WITH THE CONTRACT DRAWINGS.
3. SUBMIT ALL PERTINENT MANUFACTURER'S PUBLISHED DATA.

C. PRODUCTS:

1. STRUT SYSTEM COMPONENTS ARE BASED ON UNISTRUT PRODUCTS.
2. CHANNEL MEMBERS SHALL BE FABRICATED FROM STRUCTURAL GRADE STEEL CONFORMING TO ONE OF THE FOLLOWING ASTM SPECIFICATIONS: A570 GR33 OR A653 GR33.
3. FITTINGS SHALL BE FABRICATED FROM STEEL CONFORMING TO ONE OF THE FOLLOWING ASTM SPECIFICATIONS: A575, A576, A36 OR A635.
4. STRUT SYSTEM COMPONENTS SHALL BE FINISHED WITH RUST INHIBITING ACRYLIC ENAMEL PAINT APPLIED BY ELECTRO-DEPOSITION. AFTER CLEANING AND PHOSPHATING, AND THOROUGHLY BAKED. FINISH TO WITHSTAND A MINIMUM OF 400 HOURS SALT SPRAY WHEN TESTED IN ACCORDANCE WITH ASTM B117.
5. PROVIDE STRUT COVER STRIPS FOR EXPOSED STRUT.
6. APPROVED PRODUCT: UNISTRUT.

C. INSTALLATION:

1. THE INSTALLATION SHALL BE ACCOMPLISHED BY A FULLY TRAINED, MANUFACTURER AUTHORIZED INSTALLER.
2. SET STRUT SYSTEM COMPONENTS INTO FINAL POSITION TRUE TO LINE, LEVEL AND PLUMB. IN ACCORDANCE WITH THE EQUIPMENT REQUIREMENTS AND APPROVED SHOP DRAWINGS.
3. ANCHOR MATERIAL FIRMLY IN PLACE, TIGHTEN CONNECTIONS TO THEIR RECOMMENDED TORQUE.

D. QUALITY REQUIREMENTS: INSPECTOR SHALL REVIEW CONSTRUCTION FOR CONFORMANCE WITH CONTRACT DOCUMENTS AND REVIEWED SHOP DRAWINGS.

FASTENER NOTES

A. FASTENERS ARE BASED ON HILTI NORTH AMERICA. (1-800-879-8000, www.US.HILTI.COM) UNLESS NOTED OTHERWISE.

B. SUBSTITUTIONS WILL BE CONSIDERED PROVIDED CONTRACTOR SUPPLIES DATA WHICH SHOWS EQUIVALENT FASTENER CAPACITY, EMBEDMENT DEPTH, FASTENER SPACING AND EDGE DISTANCES MUST BE CONSIDERED.

C. FASTENER TYPES:

ADHESIVE ANCHOR IN HOLLOW CMU:	HIT HY70 W/SCREEN TUBE
ADHESIVE ANCHOR IN GROUTED CMU:	HIT HY70 W/HAS-E ROD
ADHESIVE ANCHOR IN CONCRETE:	HIT RE 500-SD W/HAS-E ROD
EXPANSION ANCHOR IN CONCRETE:	KWIK BOLT TZ
EXPANSION ANCHOR IN SOLID GROUT CMU:	KWIK BOLT 3
SLEEVE ANCHOR:	HLC SLEEVE ANCHOR
CONCRETE SCREW ANCHOR:	KWIK-CON II +
DROP IN ANCHORS:	MULTI-SET II, RX TYPE BY ITW RED HEAD

No.	Revisions	Date

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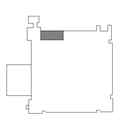

I hereby verify that this plan, specifications, or report was prepared by me or under my direct supervisions and that I am a duly licensed Engineer under the laws of the State of Minnesota

Stephen W. Hearn
Date: 01/02/2014 Reg. No 25409

Drawing Title: STRUCTURAL GENERAL NOTES

Project Title: VA EMERGENCY DEPARTMENT REMODEL

Location: ONE VETERANS DRIVE MINNEAPOLIS,MN 55417

Project Number: 618-14-104

Building Number: 70

Drawing Number: 1272-70-SS1 (Dwg. 32 of 73)

Drawing Scale: AS NOTED

Plot Scale: 12" = 1'-0"

Approved:

Approved:

Date: 01/02/2014 | Checked: . | Drawn: SWH

FULLY SPRINKLERED

Office of Facilities Management

Department of Veterans Affairs

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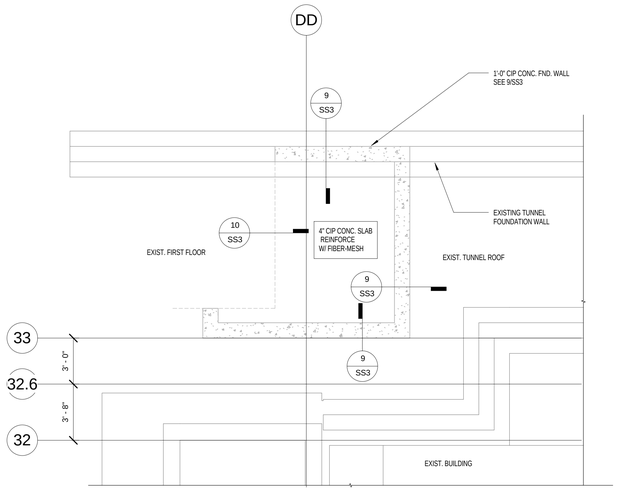


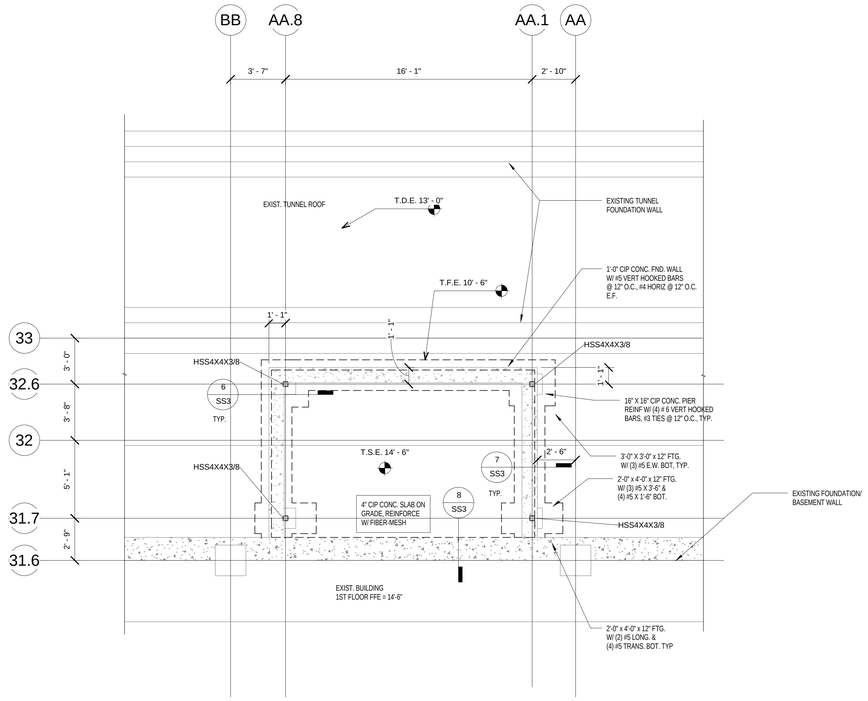
5 FOUNDATION PLAN - DECONTAMINATION
1/4" = 1'-0"

WALL LEGEND:

CIP WALL

FOUNDATION PLAN NOTES:

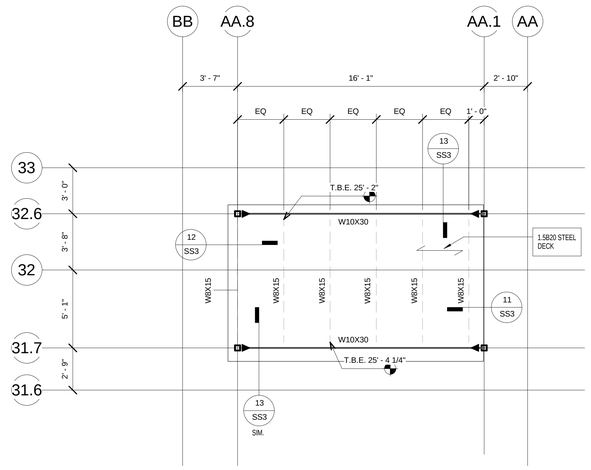
1. SEE 1272-70-SS1 FOR GENERAL STRUCTURAL NOTES.
2. WORK THESE PLANS IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS.
3. SEE DETAIL 9/1272-70-SS3 FOR TYPICAL ANCHOR BOLT DETAIL.
4. SEE ARCHITECTURAL (1/1272-70-AS09) FOR LOCATION OF FLOOR RECESSES.
5. COLUMNS ARE CENTERED ON GRID LINES U.N.O.
6. PROVIDE 3-1/2" CIP CONCRETE EQUIP. PAD ON TOP OF EXISTING SLAB AT DECONTAMINATION TANK, SEE 4/M02 FOR SIZE AND LOCATION. REINFORCE W/ #4 @ 12" O.C. E.W. CENTERED IN SLAB



1 FOUNDATION PLAN - VESTIBULE
1/4" = 1'-0"

ROOF FRAMING PLAN NOTES:

1. SEE 1272-70-SS1 FOR GENERAL STRUCTURAL NOTES.
2. WORK THESE PLANS IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS.
3. ▶ INDICATES MOMENT CONNECTION, SEE 13/1272-70-SS3.



2 ROOF FRAMING PLAN - VESTIBULE
1/4" = 1'-0"

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No.	Revisions	Date

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consulting engineering

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PLAN NORTH

I hereby verify that this plan, specifications, or report was prepared by me or under my direct supervisions and that I am a duly licensed Engineer under the laws of the State of Minnesota

Stephen W. Hearn
Date: 01/02/2014 Reg. No 25409

Drawing Title
FND. & FRAMING PLANS

Project Title
VA EMERGENCY DEPARTMENT REMODEL

Location ONE VETERANS DRIVE MINNEAPOLIS,MN 55417

Project Number 618-14-104

Building Number **70**

Drawing Number **1272-70-SS2**

Dwg. 33 of 73

Drawing Scale: AS NOTED

Plot Scale: 12" = 1'-0"

Approved:

Approved:

Date 01/02/2014 | Checked - | Drawn SWH

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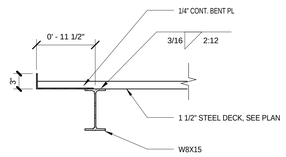
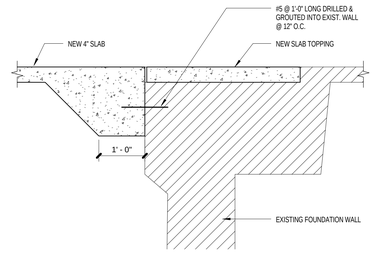
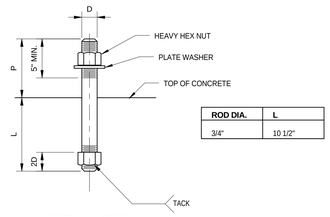


11 SECTION - DECK EDGE
1" = 1'-0"



8 SECTION - NEW TO EX. SLAB
3/4" = 1'-0"

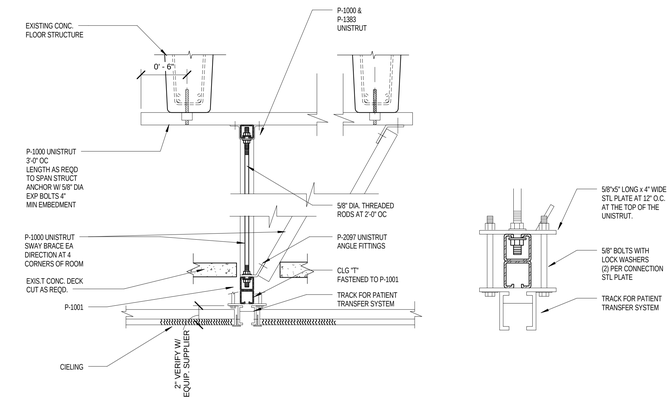


ROD DIA.	L
3/4"	10 1/2"

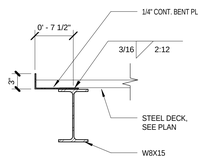
TYPE 1 ANCHOR ROD

ALL ANCHOR ROD TO BE ASTM F1554 GRADE 36, GALVANIZED WITH HEAVY HEX NUTS & WASHERS UNLESS NOTED OTHERWISE

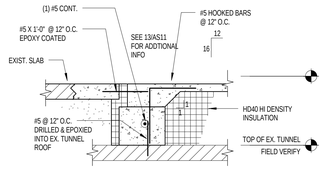
4 TYPICAL ANCH ROD
1" = 1'-0"



1 EQUIPMENT PATIENT TRANSFER SYSTEM
1 1/2" = 1'-0"

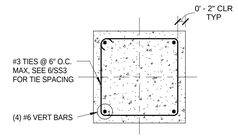


12 SECTION - DECK EDGE 2
1" = 1'-0"

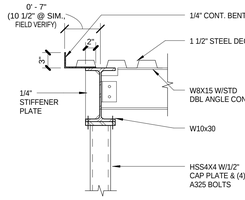


NOTE: SAW CUT AND REMOVE EXISTING SLAB AS NEEDED FOR NEW FOUNDATION WALL AND SLAB, PATCH W/NEW 4" SLAB TO MATCH EXISTING

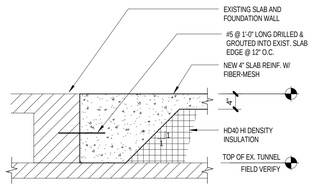
9 SECTION - DECONTAMINATION ROOF FND
3/4" = 1'-0"



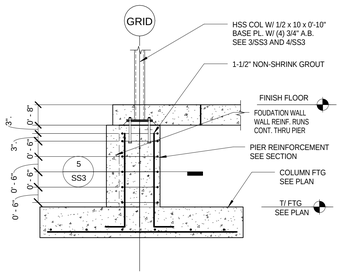
5 TYPICAL PIER
3/4" = 1'-0"



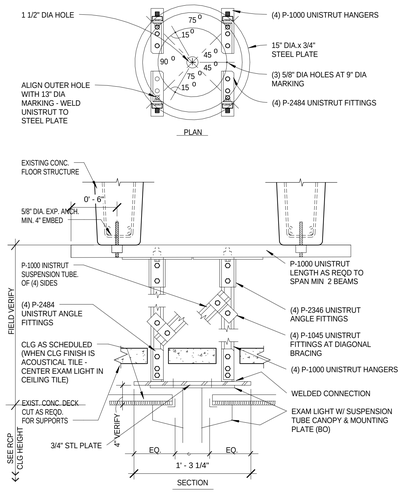
13 SECTION - BEAM TO COL.
1" = 1'-0"



10 SECTION - NEW SLAB TO EX. WALL 2 DECONTAMINATION
3/4" = 1'-0"



6 SECTION - FOOTING & PIER
1/2" = 1'-0"



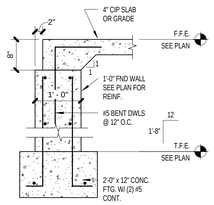
NOTE:
1. THIS SUPPORT SYSTEM SHALL BE DESIGNED TO SUPPORT THE DEAD LOAD & THE MOMENT LOAD AS DETERMINED BY EXAM LIGHT SUPPLIER.

2. VERIFY ALL MOUNTING HOLE DIMENSIONS W/ EXAM LIGHT SUPPLIER.

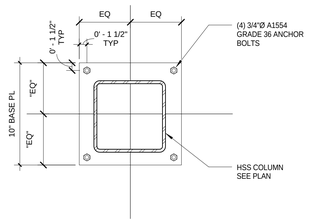
NOTES:
1. WELD ALL CONNECTIONS AFTER FINAL ADJUSTMENTS PER UNISTRUT MFR'S RECOMMENDATIONS.

2. METAL SUPPORT SYSTEM 05 5000

2 EQUIPMENT BOOM LIGHT SUPPORT
1 1/2" = 1'-0"



7 SECTION - TYP. FND WALL
3/4" = 1'-0"



3 TYPICAL BASE PLATES
1" = 1'-0"

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No.	Revisions	Date

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Stephen W. Hearn
Date 01/02/2014 Reg. No 25409

Drawing Title: SECTIONS AND DETAILS	Project Title: VA EMERGENCY DEPARTMENT REMODEL	Project Number: 618-14-104
		Building Number: 70
Drawing Scale: AS NOTED	Approved:	Location: ONE VETERANS DRIVE MINNEAPOLIS,MN 55417
Plot Scale: 12" = 1'-0"	Approved:	Date: 01/02/2014 · Checked: · Drawn: SWH
		Drawing Number: 1272-70-SS3
		Dwg. 34 of 73

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Department of Veterans Affairs

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three inches = one foot · one and one half inch = one foot · one inch = one foot · three-quarters inch = one foot · one-half inch = one foot · three-eighth inch = one foot · one-quarter inch = one foot · one-eighth in = one foot

ABBREVIATIONS

AC	AIR CONDITIONING UNIT
ACC	AIR COOLED CONDENSER
ACCU	AIR COOLED CONDSENSING UNIT
ACRCU	AIR COOLED RECIPROCATING CHILLER UNIT
ACU	ABSORPTION CHILLER UNIT
AD	ACCESS DOOR
AF	AFTER FILTER
AFCE	AIR FLOW CONTROL VALVE
AFM	AIR FLOW MEASURING DEVICE
AFW	AIR FOIL WHEEL
AHU	AIR HANDLING UNIT
AP	ACCESS PANEL
BD	BACKDRAFT DAMPER
BIW	BACKWARD INCLINED WHEEL
BG	BOTTOM GRILLE (WALL TYPE)
BR	BOTTOM REGISTER (WALL TYPE)
C	CONVERTOR
C	AIR COMPRESSED AIR
CC	COOLING COIL
CCF	CENTRIFUGAL CEILING FAN
CCU	CENTRIFUGAL OR HELICAL ROTARY SCREW CHILLER UNIT
CD	CEILING DIFFUSER
CF	CENTRIFUGAL FAN
CG	CEILING GRILLE
CO	CLEAN OUT
COMP.	COMPRESSOR
CONV.	CONVECTOR
COTR.	CONTRACT OFFICER TECHNICAL REPRESENTATIVE
CP	CONDENSATE PUMP
CR	CEILING REGISTER
CU	CONDENSING UNIT
CUH	CABINET UNIT HEATER
CW	COLD WATER
D	AUTOMATIC DAMPER
Db	DRY BULB TEMPERATURE
dB	DECIBELS
DD	DISCHARGE DAMPERS
Dp	DEWPOINT TEMPERATURE
DX	DIRECT EXPANSION
E/A	EXHAUST AIR
EC	EVAPORATIVE CONDENSER
ECC	ENGINEERING CONTROL CENTER
EDH	ELECTRIC COIL DUCT HEATER
EER	ENERGY EFFICIENCY RATIO
EF	EXHAUST FAN
EGW	ETHYLENE GLYCOL-WATER SOLUTION (% BY VOLUME)
EMD	END OF MAIN DRIP (STEAM)
ERC	ENERGY RECOVERY COIL
ERP	ELECTRIC RADIANT CEILING PANEL
EUH	EXPANSION TANK ET ELECTRIC UNIT HEATER
EWC	EVAPORATIVE WATER COOLER
EX.	EXISTING
FC	FLEXIBLE CONNECTION
FCU	FAN COIL UNIT
FD	FLOOR DRAIN
FLR.	FLOOR
F.DPR.	FIRE DAMPER
FS	FLOOR SINK
FTR	FIN TUBE RADIATION
GH	GRAVITY HOOD
HC	HEATING COIL
HD	HOOD
HE	HEAT EXCHANGER
HF	HEPA FILTER
HP	HORSEPOWER
HPR	HIGH PRESSURE STEAM CONDENSATE RETURN
HPS	HIGH PRESSURE STEAM
HRP	HYDRONIC RADIANT CEILING PANEL
HV	HEATING AND VENTILATING UNIT
HWS	HOT WATER SUPPLY
ICF	IN-LINE CENTRIFUGAL FAN
IEF	INDUSTRIAL EXHAUST FAN
IFB	INTEGRAL FACE AND BYPASS
IU	INDUCTION UNIT
LCD	LINEAR CEILING DIFFUSER
IV	INLET VANES
LPR	LOW PRESSURE STEAM CONDENSATE RETURN
LPS	LOW PRESSURE STEAM
LTCP	LOCAL TEMPERATURE CONTROL PANEL
LBS/HR	POUNDS PER HOUR
MB	MIXING BOX
MD	MOTORIZED DAMPER
MER	MECHANICAL ROOM
MPR	MEDIUM PRESSURE STEAM CONDENSATE RETURN
MPS	MEDIUM PRESSURE STEAM
MAX.	MAXIMUM
MIN.	MINIMUM
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
O/A	NOMINAL NOM. OUTDOOR AIR
P	PUMP
PC	PUMPED CONDENSATE
PD	PRESSURE DROP
PEF	PROPELLER TYPE EXHAUST FAN
PF	PRE-FILTER
PFW	PUMPED FEED WATER
PGW	PROPYLENE GLYCOL-WATER SOLUTION
PH	PREHEAT
POD	POWER OPERATED, OPPOSED BLADE DAMPER
PPD	POWER OPERATED, PARALLEL BLADE DAMPER
PRV	PRESSURE REDUCING VALVE
R/A	RETURN AIR
RCU	RECIPROCATING CHILLER UNIT
RF	RETURN FAN
RH	REHEAT COIL
Rh	RELATIVE HUMIDITY
RV	POWER TYPE ROOF VENTILATOR
S/A	SUPPLY AIR
SA	SOUND ATTENUATING UNIT
SCD	SMOKE CONTROL DAMPER
SCR	SILICON CONTROLLED RECTIFIER
SD.	SMOKE DAMPER
Sp. Gr.	SPECIFIC GRAVITY

ABBREVIATIONS

SH	STEAM HUMIDIFIER
SP	STATIC PRESSURE
SPS	STATIC PRESSURE SENSOR
TMV	THERMOSTATIC MIXING VALVE
TSE	TEMPERATURE SENSING ELEMENT
TWU	THRU WALL UNIT
UC	UNIT COOLER
UH	UNIT HEATER
URV	UPBLAST POWER TYPE ROOF VENTILATOR
UV	UNIT VENTILATOR
V	VALVE
VAF	VANE AXIAL FAN
VCC	VOLUMETRIC CONTROL CENTER
VD	VOLUME DAMPER (MANUAL OPPOSED BLADE)
VE	VOLUME EXTRACTOR
VFD	VARIABLE FREQUENCY DRIVE
VI	VIBRATION ISOLATOR
VIV	VARIABLE INLET VANES
VP	VACUUM PUMP
VR	VACUUM STEAM CONDENSATE RETURN
VSMC	VARIABLE SPEED MOTOR CONTROLLER
Wb	WET BULB TEMPERATURE
WEF	WALL TYPE EXHAUST FAN
WF	WATER FILTER
WFMD	WATER FLOW MEASURING DEVICE
WFMS	WATER FLOW MEASURING STATION

EQUIPMENT SYMBOLS

- EXISTING EQUIPMENT TO REMAIN
- EXISTING EQUIPMENT TO BE REMOVED OR RELOCATED

GENERAL SYMBOLS

- DIRECTION OF PIPE PITCH (DOWN)
- DIRECTION OF FLOW
- ANCHOR
- REDUCER OR INCREASER
- ECCENTRIC REDUCER
- TOP CONNECTION, 45° OR 90°
- BOTTOM CONNECTION, 45° OR 90°
- SIDE CONNECTION
- CAPPED OUTLET
- RISE OR DROP IN PIPE
- UNION
- ORIFICE UNION
- POINT OF CONNECTION BETWEEN NEW AND EXISTING WORK
- LIMIT OF DEMOLITION
- BLAST THERMOSTATIC TRAP
- INVERTED BUCKET TRAP SET INCLUDING PIPING ACCESSORIES
- FLOAT & THERMOSTATIC TRAP SET INCLUDING PIPING ACCESSORIES
- THERMOSTATIC TRAP
- STRAINER
- THERMOMETER
- PRESSURE GAGE
- WATER FLOW MEASURING DEVICE
- EXISTING PIPE TO REMAIN
- EXISTING PIPE TO BE REMOVED

DRAWING SYMBOLS

- 2 / H4 — DETAIL NUMBER; DRAWING NUMBER WHERE DRAWN
- A / H7 — SECTION LETTER; DRAWING NUMBER WHERE SHOWN
- TYPICAL UNIT NO.
- 26-SF 3 — SUPPLY FAN NO.3 IN BUILDING NO.26; BUILDING NO. WHERE EQUIPMENT IS LOCATED.; EQUIPMENT ABBREVIATION (SUPPLY FAN)
- ITEM (TERMINAL UNIT SHOWN)
- TU-I-I — ITEM NUMBER (TERMINAL UNIT NO.1); SERVED BY SUPPLY FAN NO.1

LEGENDS

ECC	ENGINEERING CONTROL CENTER	WORK STATION FOR MONITORING OF SYSTEMS OPERATIONS, CONNECTED TO ECC.
F SD	DUCT SMOKE DETECTORS (FURNISHED AND WIRED TO FIRE ALARM PANEL BY ELECTRICAL)	PROVIDE SMOKE SIGNAL TO DCP.
	PRESSURE GAUGE	FILTER CONDITION INDICATOR (LOCAL)

AIR TERMINAL SYMBOLS

- CONSTANT VOLUME TERMINAL UNIT WITH HEATING COIL. LETTER INDICATES SIZE.
- VARIABLE VOLUME TERMINAL UNIT WITH HEATING COIL. LETTER INDICATES SIZE.
- MB — DOUBLE DUCT MIXING BOX. LETTER INDICATES UNIT SIZE.
- FAN POWERED VARIABLE VOLUME TERMINAL UNIT WITH HEATING COIL. LETTER INDICATES SIZE.

PLUMBING

2#	2 PSIG NATURAL GAS
AV	ACID VENT – BELOW GRADE
AV	ACID VENT – ABOVE GRADE
AW	ACID WASTE – BELOW GRADE
AW	ACID WASTE – ABOVE GRADE
C AIR	COMPRESSED AIR
DI	DEIONIZED WATER
	DOMESTIC COLD WATER
	DOMESTIC HOT WATER
180	DOMESTIC HOT WATER (TEMP. INDICATED)
	DOMESTIC RECIRCULATING HOT WATER
HARD	HARD COLD WATER
OSD	OVERFLOW STORM DRAIN – BELOW GRADE
OSD	OVERFLOW STORM DRAIN – ABOVE GRADE
RO	REVERSE OSMOSIS WATER
V	SANITARY VENT – BELOW GRADE
V	SANITARY VENT – ABOVE GRADE
SS	SANITARY WASTE – BELOW GRADE
W	SANITARY WASTE – ABOVE GRADE
SDT	SOIL DRAINAGE TILE
SOFT	SOFTENED COLD WATER (SCW)
SHW	SOFTENED HOT WATER
TW	TEMPERED WATER
	STORM DRAIN – BELOW GRADE
SD	STORM DRAIN – ABOVE GRADE WELL
WWR	WATER RETURN WELL
WWS	WATER SUPPLY
NPW	NON-POTABLE WATER
	EXISTING PLUMBING TO REMAIN
	EXISTING PLUMBING TO REMOVED

VALVE SYMBOLS

- GATE VALVE
- GLOBE VALVE
- GATE VALVE WITH 3/4 " HOSE ADAPTER
- CHECK VALVE
- ANGLE GLOBE VALVE
- BUTTERFLY VALVE
- BALL VALVE
- BALANCING VALVE
- SHUT-OFF VALVE
- CIRCUIT SETTER
- STRAIGHT-THRU MODULATING CONTROL VALVE
- STRAIGHT-THRU TWO POSITION CONTROL VALVE
- THREE-WAY MODULATING CONTROL VALVE
- AUTOMATIC FLOW CONTROL VALVE
- SAFETY OR PRESSURE RELIEF VALVE
- PRESSURE REDUCING VALVE
- MANUAL AIR VENT
- TEST PLUG (PRESSURE/TEMPERATURE)
- BACKFLOW PREVENTER

PIPING SYMBOLS

HEATING

	HIGH PRESSURE STEAM (60 PSIG AND ABOVE)
	HIGH PRESSURE STEAM CONDENSATE RETURN
	MEDIUM PRESSURE STEAM (16 PSIG THRU 59 PSIG)
	MEDIUM PRESSURE STEAM CONDENSATE RETURN
LPS	LOW PRESSURE STEAM (15 PSIG AND BELOW)
LPR	LOW PRESSURE STEAM CONDENSATE RETURN
	CONDENSATE PUMP DISCHARGE
	FEED WATER PUMP DISCHARGE
HWH	HOT WATER HEATING SUPPLY
HWHR	HOT WATER HEATING RETURN
V	VENT LINE

AIR CONDITIONING

CWT	CONDENSER WATER TO TOWER
CWFT	CONDENSER WATER FROM TOWER
HWS	HOT WATER HEATING SUPPLY
HWR	HOT WATER HEATING RETURN
CHS	CHILLED WATER SUPPLY
CHR	CHILLED WATER RETURN
RL	REFRIGERANT LIQUID
RS	REFRIGERANT SUCTION
RHG	REFRIGERANT HOT GAS
IWS	IRRIGATION WATER SUPPLY
	MAKE-UP WATER
D	DRAIN
	HEAT TRACED PIPING

TERMINAL UNIT SYMBOLS

- 15.0MBH — CONVECTOR OR RADIATOR (RECESSED) NUMBER INDICATES 1 MBH=THOUSAND BTUH.
- 15.0MBH — CONVECTOR OR RADIATOR (WALL HUNG) NUMBER INDICATES 1 MBH=THOUSAND BTUH.
- A FCU — FLOOR MOUNTED VERTICAL RECESSED FAN COIL UNIT. LETTER INDICATES UNIT SIZE.
- A FCU — FLOOR MOUNTED VERTICAL CABINET FAN COIL UNIT. LETTER INDICATES UNIT SIZE.
- A TWU — THRU WALL AIR CONDITIONING UNIT. LETTER INDICATES UNIT SIZE.
- A WU — WINDOW TYPE AIR CONDITIONING UNIT. LETTER INDICATES UNIT SIZE.
- A HP — FLOOR MOUNTED CABINET WATER TO AIR REVERSE CYCLE HEAT PUMP. LETTER INDICATES UNIT SIZE.
- AIR CURTAIN
- UNIT HEATER (HORIZONTAL)
- UNIT HEATER (VERTICAL)
- 2' x 2' RADIANT CEILING PANEL
- 2' x 4' RADIANT CEILING PANEL

DUCTWORK SYMBOLS

- FC — FLEXIBLE CONNECTION
- VANED ELBOW (PROVIDE ALL SQUARE OR RECTANGULAR ELBOWS WITH VANES EVEN IF SYMBOL IS MISSING)
- VANED ELBOW (SHORT RADIUS)
- STANDARD RADIUS ELBOW
- 10x8 — NEW DUCT (WIDTH X DEPTH)
- EXISTING DUCT TO BE REMOVED
- LOUVER (LOUVER SPECIFIED IN ARCHITECTURAL SECTION.)
- FLEXIBLE DUCTWORK (INSULATED)

DUCTWORK SYMBOLS

- DUCT WITH SOUND LINING
- MD — MOTORIZED DAMPER
- MANUAL VOLUME DAMPER
- VD, FD — FIRE DAMPER
- BDD — BACK DRAFT DAMPER
- UP / DN — SUPPLY DUCT (UP & DOWN)
- UP / DN — EXHAUST DUCT (UP & DOWN)
- CEILING DIFFUSERS
- SUPPLY TOP REGISTER OR GRILLE (WALL TYPE)
- EXHAUST OR RETURN CEILING REGISTER OR GRILLE
- EXHAUST OR RETURN BOTTOM REGISTER OR GRILLE (WALL TYPE)
- EXHAUST OR RETURN REGISTER OR TOP GRILLE (WALL TYPE)
- VANED ELBOW & AIR SPLIT TYPE DUCT TAKE-OFF
- CONNECT NEW DUCT TO EXISTING DUCT
- R — INCLINED RISE, IN DIRECTION OF AIR FLOW
- D — INCLINED DROP, IN DIRECTION OF AIR FLOW
- LIMIT OF DEMOLITION
- S. DPR, N — SMOKE DAMPER
- STAINLESS STEEL DUCT
- OR — DOUBLE WALL CASING PANEL
- MANUAL SPLITTER DAMPER
- 45° SUPPLY / 45° RETURN — STANDARD BRANCH SUPPLY OR RETURN, NO SPLITTER (45° TAP)
- DUCT MOUNTED COIL (HOT WATER OR STEAM COIL)
- DUCT MOUNTED COIL (ELECTRIC)
- DUCT WITH 1-HOUR SHAFT

SHEET INDEX

DWG ORDER	SHEET NUMBER	SHEET TITLE
35 OF 73	1272-70-M01	MECHANICAL TITLE SHEET
36 OF 73	1272-70-PL01	BASEMENT INTERSTITIAL PLUMBING DEMOLITION PLAN
37 OF 73	1272-70-PL02	FIRST FLOOR PLUMBING DEMOLITION PLAN
38 OF 73	1272-70-PL03	FIRST FLOOR INTERSTITIAL PLUMBING DEMOLITION PLAN
39 OF 73	1272-70-PL04	BASEMENT INTERSTITIAL PLUMBING PLAN
40 OF 73	1272-70-PL05	FIRST FLOOR PLUMBING PLAN
41 OF 73	1272-70-PL06	FIRST FLOOR INTERSTITIAL PLUMBING PLAN
42 OF 73	1272-70-MG01	FIRST FLOOR MEDICAL GAS DEMOLITION PLAN
43 OF 73	1272-70-MG02	FIRST FLOOR INTERSTITIAL MEDICAL GAS DEMOLITION PLAN
44 OF 73	1272-70-MG03	FIRST FLOOR MEDICAL GAS PLAN
45 OF 73	1272-70-MG04	FIRST FLOOR INTERSTITIAL MEDICAL GAS PLAN
46 OF 73	1272-70-MH01	FIRST FLOOR MECHANICAL DEMOLITION PLAN
47 OF 73	1272-70-MH02	FIRST FLOOR INTERSTITIAL MECHANICAL DEMOLITION PLAN
48 OF 73	1272-70-MH03	FIRST FLOOR MECHANICAL PLAN
49 OF 73	1272-70-MH04	FIRST FLOOR MECHANICAL PLAN (BID OPTION #8)
50 OF 73	1272-70-MH05	FIRST FLOOR INTERSTITIAL MECHANICAL PLAN
51 OF 73	1272-70-MH06	FIRST FLOOR INTERSTITIAL MECHANICAL PLAN (BID OPTION#8)
52 OF 73	1272-70-MP01	FIRST FLOOR INTERSTITIAL MECHANICAL PIPING DEMOLITION PLAN
53 OF 73	1272-70-MP02	FIRST FLOOR INTERSTITIAL MECHANICAL PIPING PLAN
54 OF 73	1272-70-MP03	FIRST FLOOR INTERSTITIAL MECHANICAL PIPING PLAN (BID OPTION #8)
55 OF 73	1272-70-M02	ENLARGED DECONTAMINATION ROOM PLANS
56 OF 73	1272-70-M03	ENLARGED FIRST FLOOR MECHANICAL ROOM PLANS
57 OF 73	1272-70-P01	PLUMBING WASTE AND VENT RISER DIAGRAM
58 OF 73	1272-70-P02	PLUMBING DOMESTIC WATER RISER DIAGRAM
59 OF 73	1272-70-M04	MECHANICAL DETAILS
60 OF 73	1272-70-M05	MECHANICAL DETAILS
61 OF 73	1272-70-M06	MECHANICAL SCHEDULES
62 OF 73	1272-70-M07	MECHANICAL SCHEDULES
63 OF 73	1272-70-M08	MECHANICAL AND ELECTRICAL SCHEDULES

GENERAL NOTES:

1. PROVIDE VALVED DRAINS WITH HOSE END CONNECTION AT PIPING LOW END POINTS SO EACH SYSTEM CAN BE THOROUGHLY DRAINED. PROVIDE AIR VENTS WITH MANUAL VENT VALVES AT PIPING HIGH POINTS SO AIR IN PIPING CAN BE THOROUGHLY PURGED.
2. THE FIRST FIGURE OF DUCT SIZE INDICATES DIMENSION OF FACE SHOWN OR INDICATED.
3. ACCESS PANELS IN SUSPENDED CEILINGS ARE REQUIRED FOR ALL VALVES, TRAPS, DAMPERS, CLEANOUTS, CONTROLS, ETC. ACCESS PANELS SHALL BE FURNISHED AND INSTALLED UNDER THE ARCHITECTURAL SPECIFICATIONS.
4. TOTAL STATIC PRESSURE NOTED IN THE SCHEDULES INCLUDES DUCT SYSTEM, TERMINAL UNITS, FILTERS, COILS, ETC.
5. DIFFUSER, REGISTER AND GRILLE SIZES SHOWN ON FLOOR PLANS ARE NECK SIZES.
6. WATER PIPE CONNECTIONS TO AIR HEATING AND COOLING COILS SHALL BE MADE TO PROVIDE COUNTER FLOW BETWEEN WATER AND AIR. USE COMBINATION VALVE KITS WHEN POSSIBLE.
7. ALL PIPE AND DUCT HANGERS MUST ATTACH TO STEEL STRUCTURE OF INTERSTITIAL SPACE LIGHTWEIGHT CONC. DECK.
8. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATIONS OF CEILING DEVICES.
9. ALL ITEMS THAT REQUIRE ACCESS, SUCH AS FOR OPERATING, CLEANING, SERVICING, MAINTENANCE, AND CALIBRATION, SHALL BE EASILY AND SAFELY ACCESSIBLE BY PERSONS STANDING AT FLOOR LEVEL, OR STANDING ON PERMANENT PLATFORMS, WITHOUT THE USE OF PORTABLE LADDERS. EXAMPLES OF THESE ITEMS INCLUDE, BUT ARE NOT LIMITED TO: ALL TYPES OF VALVES, FILTERS AND STRAINERS, TRANSMITTERS, CONTROL DEVICES. PRIOR TO COMMENCING INSTALLATION WORK, REFER CONFLICTS BETWEEN THIS REQUIREMENT AND CONTRACT DRAWINGS TO THE COTR FOR RESOLUTION.
10. FIRE CAULK DUCT AND PIPE PENETRATIONS THROUGH INTERSTITIAL FLOOR DECK.
11. COORDINATE INTERSTITIAL DECK REPAIR WITH GENERAL CONTRACTOR.
12. FIRE CAULK DUCT AND PIPE PENETRATIONS THROUGH INTERSTITIAL FLOOR DECK. SEAL PENETRATIONS SMOKE TIGHT.
13. 10. PROVIDE MINIMUM OF 30 DAY NOTICE TO CONTRACT OFFICER TECHNICAL REPRESENTATIVE (COR) FOR EXISTING MECHANICAL/ELECTRICAL SYSTEM SHUT-DOWNS.
14. HOT TAPS ARE NOT ALLOWED EXCEPT FOR WELDED WELDOLETS.
15. USE COMBINATION VALVE KITS WHEN POSSIBLE IN SUCH LOCATIONS AS VAV BOX HEATING COILS.

CONTROLS SYMBOLS

- H1 N — CONTROL CIRCUIT CONNECTION
- R — PRESSURE REGULATOR
- T H — ROOM CONTROL: THERMOSTAT. HUMIDISTAT
- REMOTE BULB THERMOSTAT
- DUCT OR PIPE THERMOSTAT WITH AVERAGING ELEMENT. PROVIDE 12" (300 MM) MIN. LENGTH IN DUCT WHEN SPACE PERMITS.
- DUCT THERMOSTAT WITH AVERAGING ELEMENT
- T H — ROOM SENSOR: TEMPERATURE, HUMIDITY
- DUCT OR PIPE TEMPERATURE SENSOR. PROVIDE 12" (300 MM) MIN. LENGTH IN DUCT WHEN SPACE PERMITS.
- H — DUCT HUMIDITY SENSOR
- DP — DUCT DEW POINT SENSOR
- P — HYDRONIC DIFFERENTIAL PRESSURE SENSOR
- T — DUCT TEMPERATURE SENSOR WITH AVERAGING ELEMENT
- FS — SMOKE DETECTOR (SEE ELECTRICAL SPECIFICATIONS)
- TEMPERATURE SENSING ELEMENT FOR TRANSMITTING TEMPERATURE TO INDICATOR ON LTCP. (PROVIDE 12 INCHES (205 MM) MINIMUM LENGTH IN DUCT WHEN SPACE PERMITS.)
- A — SENSOR WITH AVERAGING ELEMENT TO TRANSMIT TEMPERATURE TO LTCP
- M — CONTROL AIR MAIN
- EP — ELECTRO-PNEUMATIC (EP) SWITCH
- C — HOLDING COIL IN MOTOR STARTER
- R2 — RELAY COIL
- R2-A — CONTACT, NORMALLY OPEN (N.O.)
- R2-B — CONTACT, NORMALLY CLOSED (N.C.)
- SWITCH
- R — PILOT LIGHT (RED)

FULLY SPRINKLERED

REVISIONS	DATE

GENERAL NOTES:

GENERAL CONTRACTOR AND/OR ALL SUBCONTRACTORS SHALL FIELD VERIFY ALL DIMENSIONS SHOWN ON THESE PLANS AND SHALL BE RESPONSIBLE FOR VARIATIONS BETWEEN PLAN DIMENSIONS AND ACTUAL FIELD DIMENSIONS. WHERE VARIATIONS ARE FOUND TO OCCUR, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING PRIOR TO PROCEEDING WITH CONSTRUCTION; NO ADJUSTMENT TO THE WORK WILL BE MADE WITHOUT THE PRIOR APPROVAL OF THE PROJECT ENGINEER.

GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR GENERAL DEMOLITION INCLUDING REMOVAL OF WALLS, PARTITIONS, DOORS & CEILING & FLOORS. ANY AND ALL CUTTING OF CONCRETE FLOORS, WALLS OR STRUCTURE SHALL BE THE GENERAL CONTRACTOR'S RESPONSIBILITY. CORE DRILLING THROUGH CONCRETE WALLS, FLOORS OR STRUCTURE FOR PIPING OR CONDUIT SHALL BE THE RESPONSIBILITY OF THE SUBCONTRACTOR BY TRADE; FIRESTOPPING OF THESE OPENINGS SHALL BE DONE BY THE RESPECTIVE SUBCONTRACTOR. REMOVAL OF DEBRIS RESULTING FROM DEMOLITION, CUTTING, AND/OR DRILLING IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. PATCHING AND REPAIR OF CONCRETE WALLS, FLOOR, OR STRUCTURE SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR; THIS WILL BE ACCOMPLISHED UPON COMPLETION OF THE INSTALLATION OF ANY AND ALL UTILITIES INSTALLED BY THE VARIOUS SUBCONTRACTORS.

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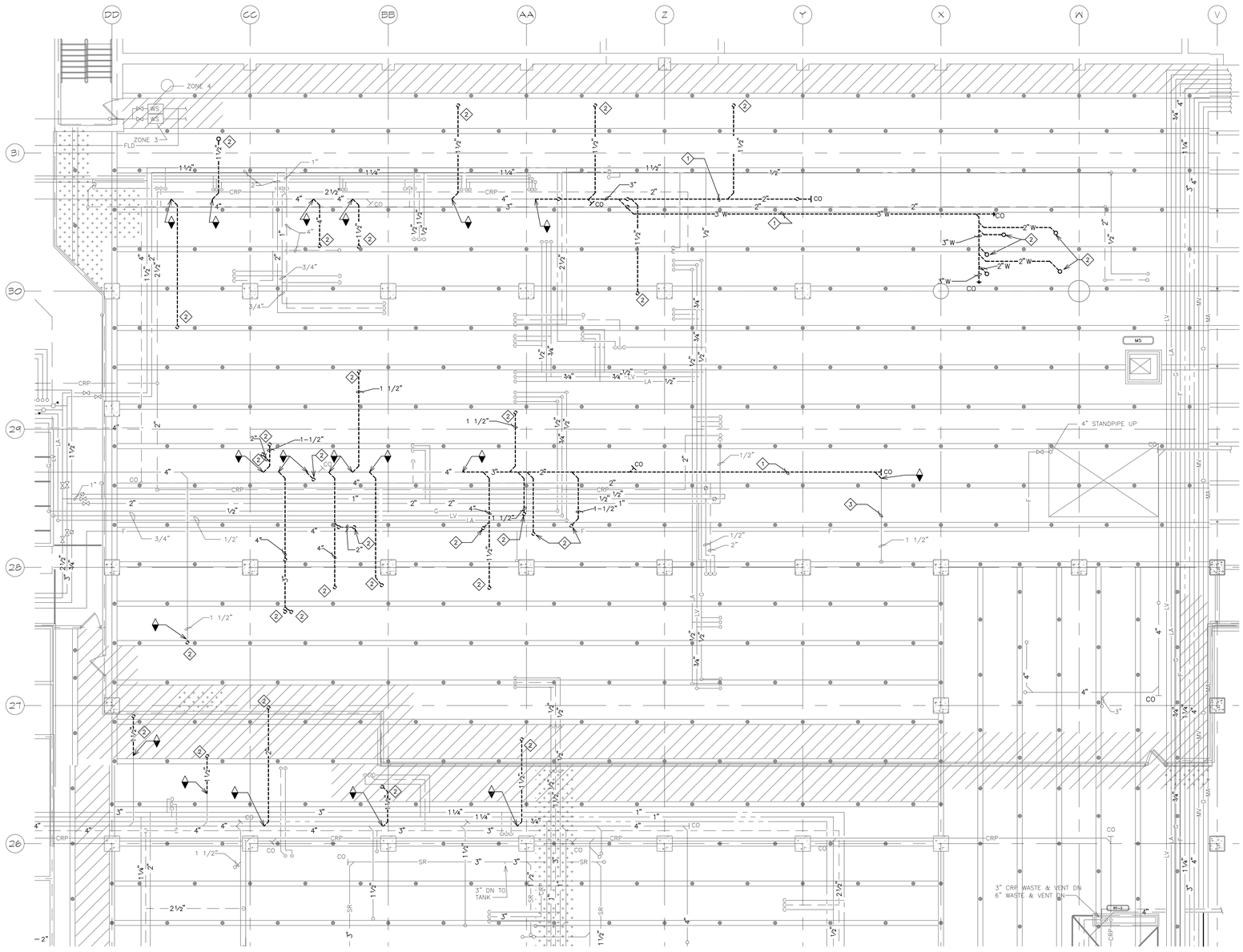
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed Architect under the laws of the State of Minnesota.

JASON GOTTWALT, PE
Date 01/02/2014 Reg. No. 41360

Drawing Title: MECHANICAL TITLE SHEET	Project Title: VA MINNEAPOLIS ED RENOVATION	Project No. 618-14-104	Office of Facilities Management
		Building Number 70	
Drawing Scale: AS NOTED	Approved: Catherine Joyce, Chief, Projects Section	Location: V.A. MEDICAL CENTER ONE VETERANS DRIVE MINNEAPOLIS, MN 55417	DRAWING NO. 1272-70-M01
Plot Scale: 12" = 1'-0"	Approved: Steven Challeen, Director, Facilities Engineering	Date 01/02/2014 / Checked JG / Drawn RFOLIN	Dwg. 35 OF 73

Department of Veterans Affairs



1 BASEMENT INTERSTITIAL PLUMBING DEMOLITION PLAN
1/8"=1'-0"

GENERAL NOTES:

A. PLUMBING CONTRACTOR SHALL REFER TO THE VA MASTER SPECIFICATION MANUAL EDITED FOR THIS PROJECT ALONG WITH ANY APPLICABLE STANDARDS WITHIN THE 2011 PLUMBING DESIGN GUIDE. ALL REQUIREMENTS OF THOSE MANUALS SHALL BE MAINTAINED IN ADDITION TO ALL NOTES AND DESCRIPTIONS INDICATED WITHIN THESE DRAWINGS. ANY CONFLICTS BETWEEN THOSE DOCUMENTS SHOULD BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR INTERPRETATION.

B. PLUMBING CONTRACTOR WILL BE RESPONSIBLE TO REVIEW ACCESSIBILITY TO AREAS OUTSIDE THE CONSTRUCTION LIMITS TO DETERMINE APPROXIMATE AMOUNT OF OVERTIME REQUIRED TO PERFORM ALL MECHANICAL WORK INDICATED. COORDINATION OF SCHEDULES WITH ADJACENT DEPARTMENTS AND CLEANING OF ALL DEBRIS AFTER EACH WORK SHIFT SHOULD BE ASSUMED IN THE BASE BID SCOPE.

C. ANY MAJOR OUTAGES INDICATED ON THESE DRAWINGS SHALL BE SCHEDULED TO BE PERFORMED AFTER NORMAL BUSINESS HOURS OR DURING WEEKEND PERIODS TO MINIMIZE HOSPITAL DISRUPTION. VA HOSPITAL FACILITIES WILL REQUIRE A MINIMUM OF TWO(2) WEEKS NOTICE PRIOR TO ANY SUCH OUTAGE AFFECTING MORE THAN ONE ADJACENT FLOOR.

D. COORDINATE ALL NEW PLUMBING ROUTING WITH ALL OTHER TRADES TO INSURE ADEQUATE CLEARANCES FOR DUCTWORK, ELECTRICAL CONDUIT, STRUCTURAL SUPPORTS, PIPING, ETC. ANY UNAVOIDABLE CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER OF RECORD. PROVIDE ALL OFFSETS AND TRANSITIONS AS REQUIRED FOR A CLEAN INSTALLATION.

E. THE EXACT LOCATION OF EQUIPMENT ROUGH-INS SHALL BE VERIFIED WITH THE STAMPED APPROVED SHOP DRAWINGS PRIOR TO ANY FIELD INSTALLATION.

F. SUPPORT ALL PIPING DIRECTLY TO STRUCTURE. DO NOT SUPPORT ANY PIPING FROM DUCTWORK, CONDUIT, OR OTHER PIPING ENCOUNTERED.

G. WHERE MECHANICAL SYSTEMS TO REMAIN ARE DAMAGED, OR DISTURBED, DURING THE COURSE OF CONSTRUCTION THE CONTRACTOR WILL BE RESPONSIBLE TO REMOVE DAMAGED PORTIONS AND INSTALL NEW PRODUCTS OF EQUAL QUALITY AND FUNCTIONALITY.

H. ALL EXISTING PIPING THROUGH NEW FIRE RATED WALLS SHALL BE ADEQUATELY FIRE SEALED AS REQUIRED. PIPING PENETRATIONS THROUGH INTERSTITIAL FLOOR SHALL BE DRILLED, OR CUT, BY THE CONTRACTOR AND FIRE SEALED AS REQUIRED.

I. ALL CORE DRILLING OR ANY ACTIVITIES CAUSING EXTREME VIBRATION OR NOISE SHALL BE COORDINATED TO BE PERFORMED AFTER BUSINESS HOURS TO NOT AFFECT CRITICAL HOSPITAL FUNCTIONS WITHIN ADJACENT AREAS. COORDINATE WITH VAMC COR REPRESENTATIVE AS REQUIRED.

J. ALL PLUMBING WORK PERFORMED ON THE FLOOR BELOW SHALL BE CLOSELY COORDINATED WITH VA HOSPITAL REPRESENTATIVE. CRITICAL AREAS THAT MAY BE ADVERSELY IMPACTED BY NOISE OR VIBRATIONS MAY BE REQUESTED TO BE PERFORMED AFTER REGULAR BUSINESS HOURS OR ON WEEKENDS. CONTRACTOR TO NOTE THAT ANY AREA OUTSIDE THE CONSTRUCTION LIMITS SHALL BE CLEANED TO THEIR ORIGINAL CONDITION AT THE COMPLETION OF EACH WORK SHIFT.

K. FIELD VERIFY EXISTING WATER, WASTE, VENT, OR OTHER PIPING SYSTEMS FOR CONNECTIONS TO FIXTURES THAT MAY NOT BE IDENTIFIED ON PLANS PRIOR TO SERVICE OUTAGES, DEMOLITION, OR ALTERATIONS OF EXISTING PIPE ROUTING. COORDINATE UNKNOWN SERVICE WITH VAMC FACILITIES AND ENGINEER OF RECORD.

L. THE MECHANICAL CONTRACTOR SHALL MAINTAIN ACCURATE RECORD DRAWINGS SHOWING ALL DISCREPANCIES WITH ANY EXISTING PIPING INDICATED OR REVISIONS TO THE NEW PLUMBING LAYOUTS. ALL CHANGES WILL BE UPDATED WITHIN THE FINAL RECORD DRAWING SET.

M. ALL CONTRACTORS TO REFERENCE THE INFECTION CONTROL NOTES IDENTIFIED WITHIN THE VENTILATION GENERAL NOTES ON THESE DRAWINGS. CONFORM TO ALL ICRA REQUIREMENTS.

KEY NOTES:

1. DEMOLISH WASTE BACK TO 4" MAIN AND EXTEND NEW 4" MAIN TO NEW FIXTURES.
2. DEMOLISH WASTE FROM FIXTURE BACK TO MAIN AND CAP.
3. EXISTING WASTE SERVING FIXTURE TO REMAIN. RECONNECT WASTE TO NEW WASTE MAIN.

FULLY SPRINKLERED

REVISIONS	DATE

GENERAL NOTES:

GENERAL CONTRACTOR AND/OR ALL SUBCONTRACTORS SHALL FIELD VERIFY ALL DIMENSIONS SHOWN ON THESE PLANS AND SHALL BE RESPONSIBLE FOR VARIATIONS BETWEEN PLAN DIMENSIONS AND ACTUAL FIELD DIMENSIONS. WHERE VARIATIONS ARE FOUND TO OCCUR, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING PRIOR TO PROCEEDING WITH CONSTRUCTION; NO ADJUSTMENT TO THE WORK WILL BE MADE WITHOUT THE PRIOR APPROVAL OF THE PROJECT ENGINEER.

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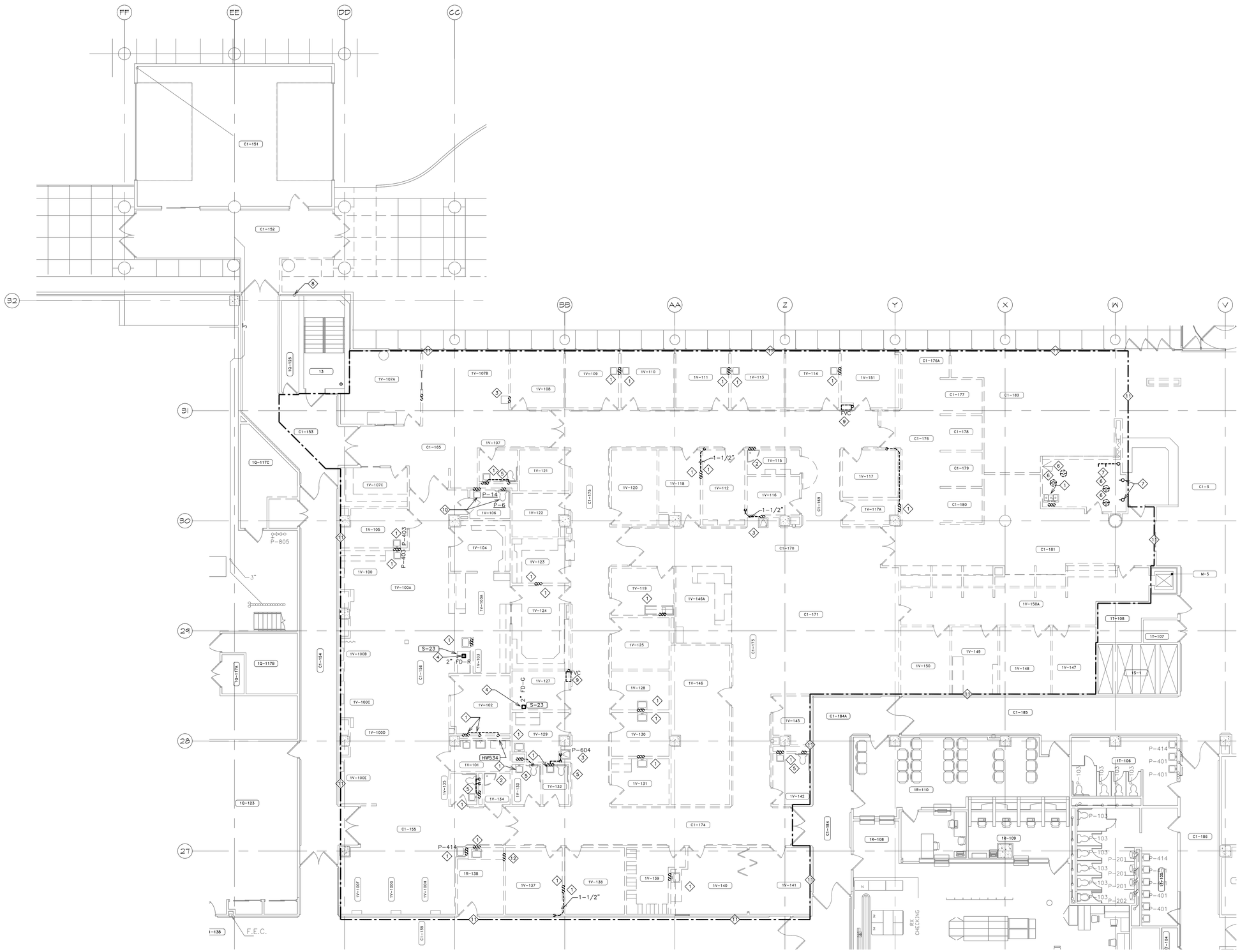
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed Architect under the laws of the State of Minnesota.
JASON GOTTWALT, PE
Date 01/02/2014 Reg. No. 41360

Drawing Title	BASEMENT INTERSTITIAL PLUMBING DEMOLITION PLAN
Drawing Scale	AS NOTED
Plot Scale	12" = 1'-0"
Approved: Catherine Joyce, Chief, Projects Section	
Approved: Steven Challeen, Director, Facilities Engineering	
Project Title	VA MINNEAPOLIS ED RENOVATION
Location	V.A. MEDICAL CENTER ONE VETERANS DRIVE MINNEAPOLIS, MN 55417
Date	01/02/2014
Checked	JG
Drawn	RFOLIN
Project No.	618-14-104
Building Number	70
DRAWING NO.	1272-70-PL01
Dwg. 36 of 73	

Office of Facilities Management
Department of Veterans Affairs



1 FIRST FLOOR PLUMBING DEMOLITION PLAN
1/8"=1'-0"

GENERAL NOTES:

A. PLUMBING CONTRACTOR SHALL REFER TO THE VA MASTER SPECIFICATION MANUAL EDITED FOR THIS PROJECT ALONG WITH ANY APPLICABLE STANDARDS WITHIN THE 2011 PLUMBING DESIGN GUIDE. ALL REQUIREMENTS OF THOSE MANUALS SHALL BE MAINTAINED IN ADDITION TO ALL NOTES AND DESCRIPTIONS INDICATED WITHIN THESE DRAWINGS. ANY CONFLICTS BETWEEN THOSE DOCUMENTS SHOULD BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR INTERPRETATION.

B. PLUMBING CONTRACTOR WILL BE RESPONSIBLE TO REVIEW ACCESSIBILITY TO AREAS OUTSIDE THE CONSTRUCTION LIMITS TO DETERMINE APPROXIMATE AMOUNT OF OVERTIME REQUIRED TO PERFORM ALL MECHANICAL WORK INDICATED. COORDINATION OF SCHEDULES WITH ADJACENT DEPARTMENTS AND CLEANING OF ALL DEBRIS AFTER EACH WORK SHIFT SHOULD BE ASSUMED IN THE BASE BID SCOPE.

C. ANY MAJOR OUTAGES INDICATED ON THESE DRAWINGS SHALL BE SCHEDULED TO BE PERFORMED AFTER NORMAL BUSINESS HOURS OR DURING WEEKEND PERIODS TO MINIMIZE HOSPITAL DISRUPTION. VA HOSPITAL FACILITIES WILL REQUIRE A MINIMUM OF TWO(2) WEEKS NOTICE PRIOR TO ANY SUCH OUTAGE AFFECTING MORE THAN ONE ADJACENT FLOOR.

D. COORDINATE ALL NEW PLUMBING ROUTING WITH ALL OTHER TRADES TO INSURE ADEQUATE CLEARANCES FOR DUCTWORK, ELECTRICAL CONDUIT, STRUCTURAL SUPPORTS, PIPING, ETC. ANY UNAVOIDABLE CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER OF RECORD. PROVIDE ALL OFFSETS AND TRANSITIONS AS REQUIRED FOR A CLEAN INSTALLATION.

E. THE EXACT LOCATION OF EQUIPMENT ROUGH-INS SHALL BE VERIFIED WITH THE STAMPED APPROVED SHOP DRAWINGS PRIOR TO ANY FIELD INSTALLATION.

F. SUPPORT ALL PIPING DIRECTLY TO STRUCTURE. DO NOT SUPPORT ANY PIPING FROM DUCTWORK, CONDUIT, OR OTHER PIPING ENCOUNTERED.

G. WHERE MECHANICAL SYSTEMS TO REMAIN ARE DAMAGED, OR DISTURBED, DURING THE COURSE OF CONSTRUCTION THE CONTRACTOR WILL BE RESPONSIBLE TO REMOVE DAMAGED PORTIONS AND INSTALL NEW PRODUCTS OF EQUAL QUALITY AND FUNCTIONALITY.

H. ALL EXISTING PIPING THROUGH NEW FIRE RATED WALLS SHALL BE ADEQUATELY FIRE SEALED AS REQUIRED. PIPING PENETRATIONS THROUGH INTERSTITIAL FLOOR SHALL BE DRILLED, OR CUT, BY THE CONTRACTOR AND FIRE SEALED AS REQUIRED.

I. ALL CORE DRILLING OR ANY ACTIVITIES CAUSING EXTREME VIBRATION OR NOISE SHALL BE COORDINATED TO BE PERFORMED AFTER BUSINESS HOURS TO NOT AFFECT CRITICAL HOSPITAL FUNCTIONS WITHIN ADJACENT AREAS. COORDINATE WITH VAMC COR REPRESENTATIVE AS REQUIRED.

J. ALL PLUMBING WORK PERFORMED ON THE FLOOR BELOW SHALL BE CLOSELY COORDINATED WITH VA HOSPITAL REPRESENTATIVE. CRITICAL AREAS THAT MAY BE ADVERSELY IMPACTED BY NOISE OR VIBRATIONS MAY BE REQUESTED TO BE PERFORMED AFTER REGULAR BUSINESS HOURS OR ON WEEKENDS. CONTRACTOR TO NOTE THAT ANY AREA OUTSIDE THE CONSTRUCTION LIMITS SHALL BE CLEANED TO THEIR ORIGINAL CONDITION AT THE COMPLETION OF EACH WORK SHIFT.

K. FIELD VERIFY EXISTING WATER, WASTE, VENT, OR OTHER PIPING SYSTEMS FOR CONNECTIONS TO FIXTURES THAT MAY NOT BE IDENTIFIED ON PLANS PRIOR TO SERVICE OUTAGES, DEMOLITION, OR ALTERATIONS OF EXISTING PIPE ROUTING. COORDINATE UNKNOWN SERVICE WITH VAMC FACILITIES AND ENGINEER OF RECORD.

L. THE MECHANICAL CONTRACTOR SHALL MAINTAIN ACCURATE RECORD DRAWINGS SHOWING ALL DISCREPANCIES WITH ANY EXISTING PIPING INDICATED OR REVISIONS TO THE NEW PLUMBING LAYOUTS. ALL CHANGES WILL BE UPDATED WITHIN THE FINAL RECORD DRAWING SET.

M. ALL CONTRACTORS TO REFERENCE THE INFECTION CONTROL NOTES IDENTIFIED WITHIN THE VENTILATION GENERAL NOTES ON THESE DRAWINGS. CONFORM TO ALL ICRA REQUIREMENTS.

KEY NOTES:

1. DEMOLISH EXISTING SINK AND ASSOCIATED VENT, COLD WATER, HOT WATER, AND WASTE BACK TO PIPE MAINS.
2. DEMOLISH EXISTING MOP SINK AND ASSOCIATED VENT, COLD WATER, HOT WATER, AND WASTE BACK TO PIPE MAINS.
3. DEMOLISH EXISTING DRINKING FOUNTAIN AND ASSOCIATED VENT, COLD WATER, AND WASTE BACK TO PIPE MAINS.
4. DEMOLISH EXISTING FLOOR DRAIN AND ICE MACHINE. PATCH AND REPAIR FLOOR TO MATCH SURROUNDING HEIGHT. DEMOLISH ASSOCIATED COLD WATER, WASTE, AND VENT BACK TO MAINS AND CAP.
5. DEMOLISH EXISTING TOILET AND ASSOCIATED VENT, COLD WATER, AND WASTE BACK TO PIPE MAINS.
6. DEMOLISH EXISTING FLOOR DRAIN. PATCH AND REPAIR FLOOR.
7. DEMOLISH EXISTING COLD WATER DROPS TO COFFEE EQUIPMENT.
8. EXISTING WALL HOSE BIBB TO REMAIN.
9. DEMOLISH EXISTING FIRE VALVE CABINET.
10. INSTALL FIXTURES FOR PHASE 1A. MODIFY EXISTING ROUGH-IN FOR HOT WATER, COLD WATER, VENT, AND WASTE. CONSULT VA PLUMBING SHOP FOR ATTIC STOCK FIXTURES. IF ATTIC STOCK IS NOT AVAILABLE, SUPPLY AND INSTALL P-6 AND P-14. REUSE FIXTURES P-6 AND P-14 AFTER PHASE 1A FOR NEW CONSTRUCTION. DEMOLISH HOT WATER, COLD WATER, VENT, AND WASTE BACK TO MAIN AND CAP UPON COMPLETION OF PHASE 1A.
11. FIRE PROTECTION CONTRACTOR SHALL REMOVE ALL EXISTING SPRINKLER HEADS WITHIN THE CONSTRUCTION BOUNDARY LIMITS. INSTALL TEMPORARY UPRIGHT HEADS THROUGHOUT THE ENTIRE AREA. COORDINATE INSTALLATION AND RELOCATION OF HEADS WITH PROJECT PHASING. CONTRACTOR SHALL ALSO PROVIDE SOME ALLOWANCE FOR SPRINKLER HEAD ADJUSTMENTS BASED ON NEW WALLS, OR MECHANICAL SYSTEMS, INSTALLATIONS THAT OCCUR DURING CONSTRUCTION THAT MAY BECOME OBSTACLES THAT PREVENT FULL COVERAGE FROM THESE TEMPORARY UPRIGHT HEADS. POST SAFETY SIGNAGE AT EACH CONSTRUCTION BARRIER ENTRY POINT TO CLEARLY INDICATE ALL SPRINKLER PIPING IS ACTIVE AND APPROPRIATE CAUTION SHALL BE APPLIED. REFER TO NEW INSTALLATION PLANS FOR FIRE WATCH PLANNING DURING EACH SCHEDULED OUTAGE FOR FINAL CEILING HEAD INSTALLATION NEAR END OF PROJECT SCHEDULE.
12. DEMOLISH EXISTING SAFE ROOM SECURITY STYLE SINK AND ASSOCIATED HOT WATER, COLD WATER, WASTE, AND VENT BACK TO MAINS AND CAP.

FULLY SPRINKLERED

REVISIONS	DATE

GENERAL NOTES:

GENERAL CONTRACTOR AND/OR ALL SUBCONTRACTORS SHALL FIELD VERIFY ALL DIMENSIONS SHOWN ON THESE PLANS AND SHALL BE RESPONSIBLE FOR VARIATIONS BETWEEN PLAN DIMENSIONS AND ACTUAL FIELD DIMENSIONS. WHERE VARIATIONS ARE FOUND TO OCCUR, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING PRIOR TO PROCEEDING WITH CONSTRUCTION; NO ADJUSTMENT TO THE WORK WILL BE MADE WITHOUT THE PRIOR APPROVAL OF THE PROJECT ENGINEER.

GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR GENERAL DEMOLITION INCLUDING REMOVAL OF WALLS, PARTITIONS, DOORS & CEILING & FLOORS. ANY AND ALL CUTTING OF CONCRETE FLOORS, WALLS OR STRUCTURE SHALL BE THE GENERAL CONTRACTOR'S RESPONSIBILITY. CORE DRILLING THROUGH CONCRETE WALLS, FLOORS OR STRUCTURE FOR PIPING OR CONDUIT SHALL BE THE RESPONSIBILITY OF THE SUBCONTRACTOR BY TRADE; FIRESTOPPING OF THESE OPENINGS SHALL BE DONE BY THE RESPECTIVE SUBCONTRACTOR. REMOVAL OF DEBRIS RESULTING FROM DEMOLITION, CUTTING, AND/OR DRILLING IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. PATCHING AND REPAIR OF CONCRETE WALLS, FLOOR, OR STRUCTURE SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR; THIS WILL BE ACCOMPLISHED UPON COMPLETION OF THE INSTALLATION OF ANY AND ALL UTILITIES INSTALLED BY THE VARIOUS SUBCONTRACTORS.

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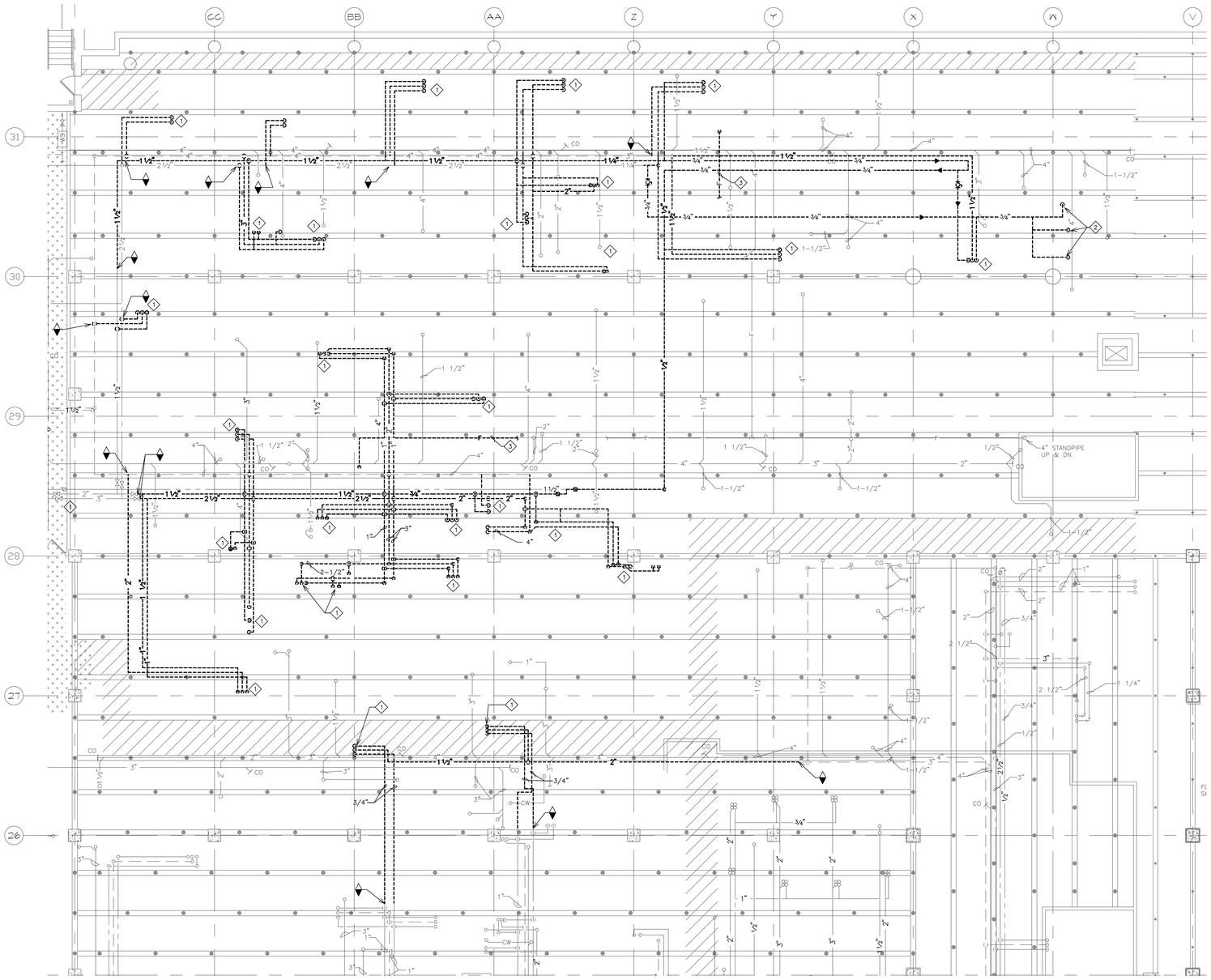
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed Architect under the laws of the State of Minnesota.
JASON GOTTWALT, PE
Date 01/02/2014 Reg. No. 41360

Drawing Title	FIRST FLOOR PLUMBING DEMOLITION PLAN
Drawing Scale	AS NOTED
Plot Scale	12" = 1'-0"
Approved: Catherine Joyce, Chief, Projects Section	
Approved: Steven Challeen, Director, Facilities Engineering	
Project Title	VA MINNEAPOLIS ED RENOVATION
Location	V.A. MEDICAL CENTER ONE VETERANS DRIVE MINNEAPOLIS, MN 55417
Date	01/02/2014
Checked	JG
Drawn	RFOLIN
Project No.	618-14-104
Building Number	70
DRAWING NO.	1272-70-PL02
Dwg.	37 of 73

Office of Facilities Management
Department of Veterans Affairs



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KEY NOTES:

1. DEMOLISH EXISTING PIPES FROM FIXTURE BACK TO MAINS AND CAP.
2. DEMOLISH EXISTING PIPES SERVING KITCHEN EQUIPMENT BACK TO MAINS AND CAP.
3. DEMOLISH EXISTING SPRINKLER PIPE FROM FIRE VALVE CABINET BACK TO MAIN CAP.

FULLY SPRINKLERED

REVISIONS	DATE

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suite dunhameng.com
mechanical + electrical
consulting engineering

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I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed Architect under the laws of the State of Minnesota.
JASON GOTTWALT, PE
Date 01/02/2014 Reg. No. 41360

Drawing Title: FIRST FLOOR INTERSTITIAL PLUMBING DEMOLITION PLAN

Project Title: VA MINNEAPOLIS ED RENOVATION

Project No. 618-14-104
Building Number 70

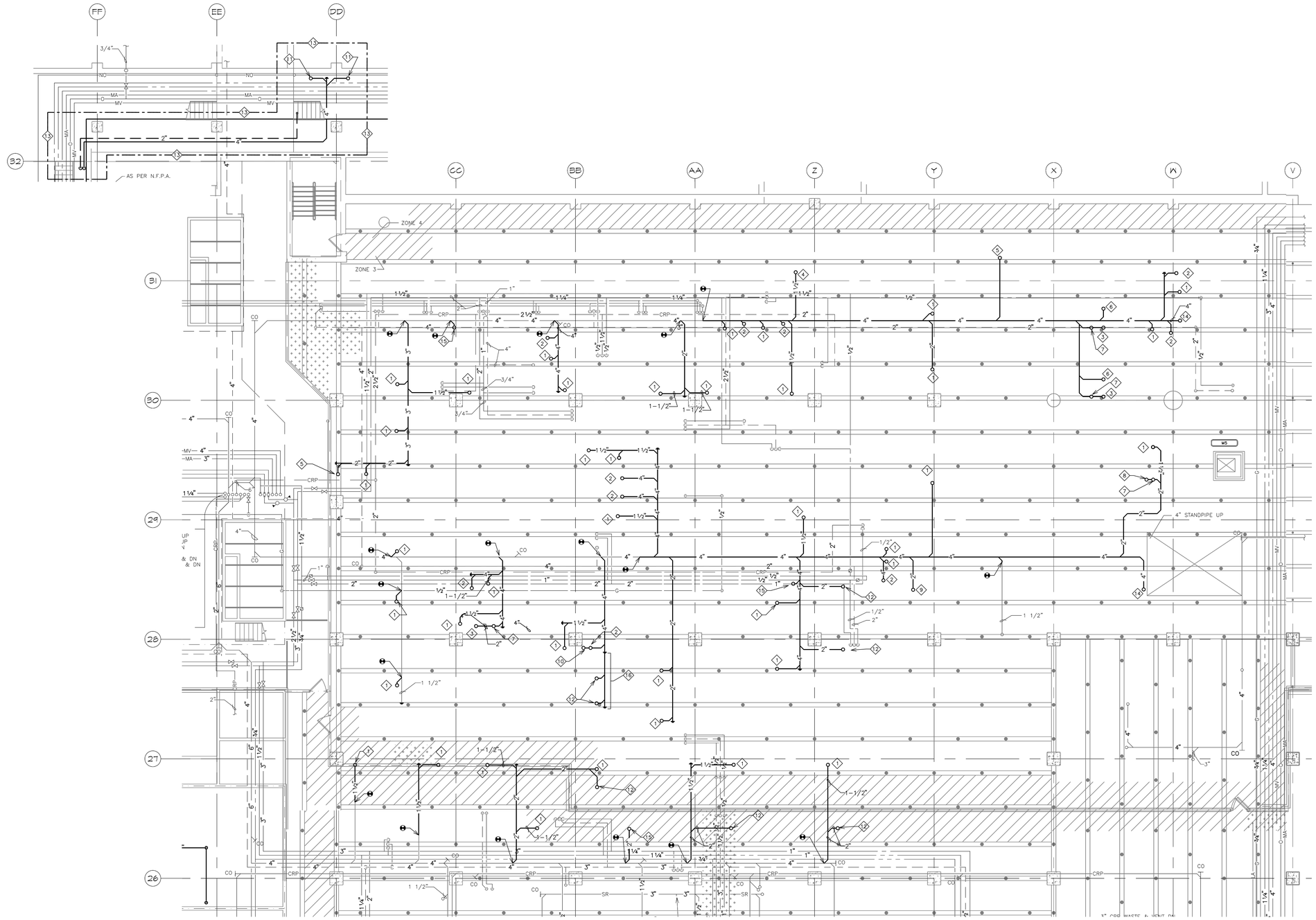
Drawing Scale: AS NOTED
Plot Scale: 12" = 1'-0"

Approved: Catherine Joyce, Chief, Projects Section
Approved: Steven Challeen, Director, Facilities Engineering

Location: V.A. MEDICAL CENTER, ONE VETERANS DRIVE, MINNEAPOLIS, MN 55417
Date 01/02/2014 | Checked JG | Drawn RFOLIN

DRAWING NO. 1272-70-PL03
Dwg. 38 of 73

Office of Facilities Management
Department of Veterans Affairs



1 BASEMENT INTERSTITIAL PLUMBING PLAN
1/8" = 1'-0"

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M. ALL CONTRACTORS TO REFERENCE THE INFECTION CONTROL NOTES IDENTIFIED WITHIN THE VENTILATION GENERAL NOTES ON THESE DRAWINGS. CONFORM TO ALL ICRA REQUIREMENTS.

KEY NOTES:

1. 1-1/2" WASTE UP TO HAND SINK.
2. 4" WASTE UP TO WATER CLOSET.
3. 2" WASTE UP TO SHOWER.
4. 1-1/2" WASTE UP TO DRINKING FOUNTAINS.
5. 1-1/2" WASTE UP TO SINK.
6. 2" WASTE UP TO FLOOR DRAIN.
7. 1-1/2" VENT UP.
8. 2" WASTE UP TO MOP SINK.
9. 2" WASTE UP TO SOILED UTILITY SINK.
10. 2" WASTE UP TO STANDPIPE.
11. 4" WASTE UP TO FLOOR DRAIN.
12. 2" WASTE UP TO DIALYSIS WALL BOX. INCLUDE ALL WORK RELATED TO DIALYSIS BOXES AS PART OF BID OPTION #9.
13. INCLUDE WORK IN AREA INDICATED AS PART OF BID OPTION #2.
14. UP TO WALL CLEAN OUT.
15. 2" WASTE UP TO DIALYSIS WALL BOX.
16. EXTEND 4" WASTE TO PICK UP DIALYSIS BOXES AS PART OF BID OPTION #9.

FULLY SPRINKLERED

REVISIONS	DATE

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JASON GOTTWALT, PE
Date 01/02/2014 Reg. No. 41360

Drawing Title: BASEMENT INTERSTITIAL PLUMBING PLAN

Drawing Scale: AS NOTED

Plot Scale: 12" = 1'-0"

Approved: Catherine Joyce, Chief, Projects Section

Approved: Steven Challeen, Director, Facilities Engineering

Project Title: VA MINNEAPOLIS ED RENOVATION

Location: V.A. MEDICAL CENTER, ONE VETERANS DRIVE, MINNEAPOLIS, MN 55417

Date: 01/02/2014 | Checked: JG | Drawn: RFOLIN

Project No. 618-14-104

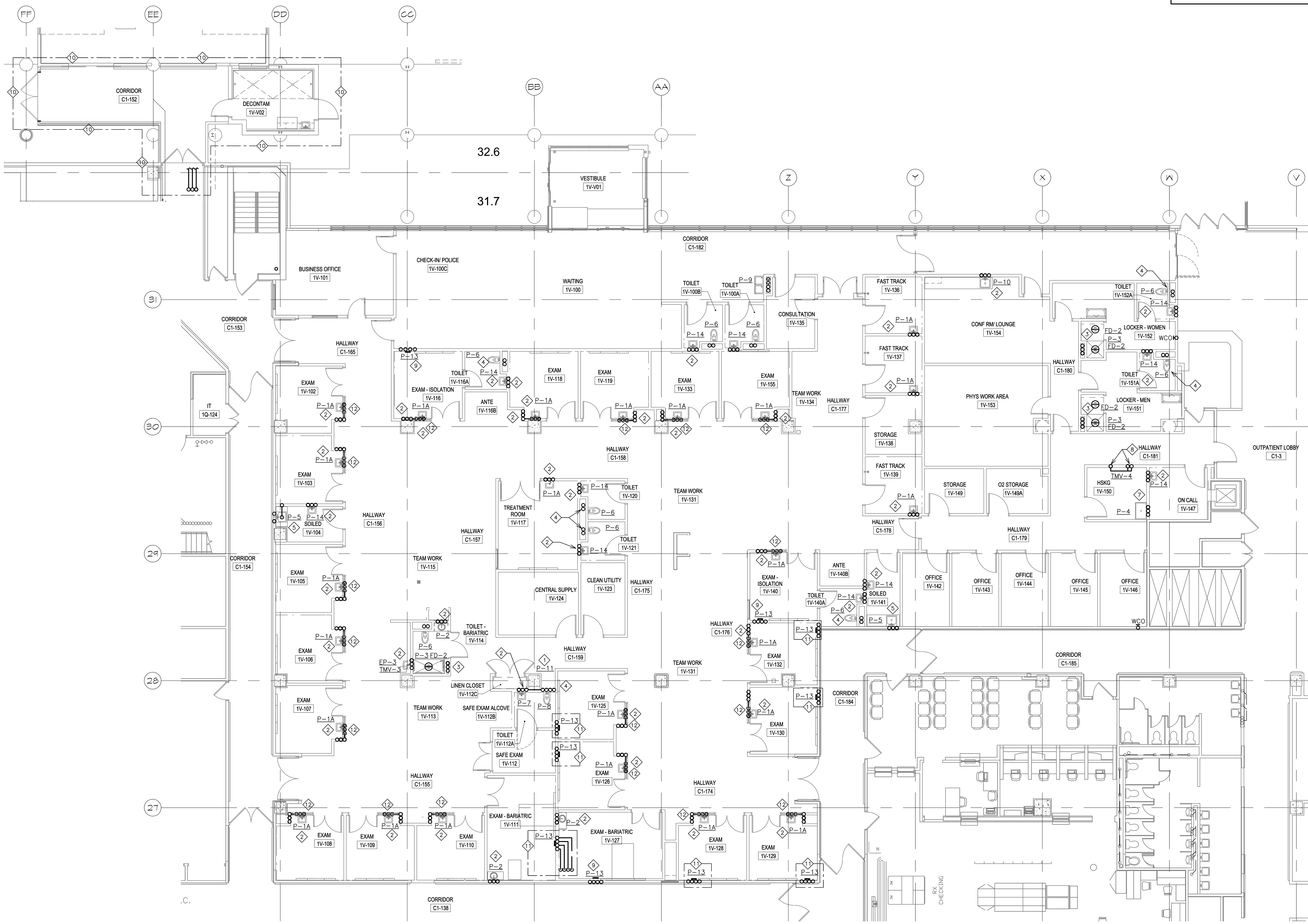
Building Number 70

DRAWING NO. 1272-70-PL04

Dwg. 39 Of 73

Office of Facilities Management

Department of Veterans Affairs



1 FIRST FLOOR PLUMBING PLAN
1/8"=1'-0"

BID NOTES:

A. FOR BID OPTION #7 PROVIDE PRICE TO SUBSTITUTE FIXTURE P-1B FOR P-1A.

GENERAL NOTES:

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B. PLUMBING CONTRACTOR WILL BE RESPONSIBLE TO REVIEW ACCESSIBILITY TO AREAS OUTSIDE THE CONSTRUCTION LIMITS TO DETERMINE APPROXIMATE AMOUNT OF OVERTIME REQUIRED TO PERFORM ALL MECHANICAL WORK INDICATED. COORDINATION OF SCHEDULES WITH ADJACENT DEPARTMENTS AND CLEANING OF ALL DEBRIS AFTER EACH WORK SHIFT SHOULD BE ASSUMED IN THE BASE BID SCOPE.

C. ANY MAJOR OUTAGES INDICATED ON THESE DRAWINGS SHALL BE SCHEDULED TO BE PERFORMED AFTER NORMAL BUSINESS HOURS OR DURING WEEKEND PERIODS TO MINIMIZE HOSPITAL DISRUPTION. VA HOSPITAL FACILITIES WILL REQUIRE A MINIMUM OF TWO(2) WEEKS NOTICE PRIOR TO ANY SUCH OUTAGE AFFECTING MORE THAN ONE ADJACENT FLOOR.

D. COORDINATE ALL NEW PLUMBING ROUTING WITH ALL OTHER TRADES TO INSURE ADEQUATE CLEARANCES FOR DUCTWORK, ELECTRICAL CONDUIT, STRUCTURAL SUPPORTS, PIPING, ETC. ANY UNAVOIDABLE CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER OF RECORD. PROVIDE ALL OFFSETS AND TRANSITIONS AS REQUIRED FOR A CLEAN INSTALLATION.

E. THE EXACT LOCATION OF EQUIPMENT ROUGH-INS SHALL BE VERIFIED WITH THE STAMPED APPROVED SHOP DRAWINGS PRIOR TO ANY FIELD INSTALLATION.

F. SUPPORT ALL PIPING DIRECTLY TO STRUCTURE. DO NOT SUPPORT ANY PIPING FROM DUCTWORK, CONDUIT, OR OTHER PIPING ENCOUNTERED.

G. WHERE MECHANICAL SYSTEMS TO REMAIN ARE DAMAGED, OR DISTURBED, DURING THE COURSE OF CONSTRUCTION THE CONTRACTOR WILL BE RESPONSIBLE TO REMOVE DAMAGED PORTIONS AND INSTALL NEW PRODUCTS OF EQUAL QUALITY AND FUNCTIONALITY.

H. ALL EXISTING PIPING THROUGH NEW FIRE RATED WALLS SHALL BE ADEQUATELY FIRE SEALED AS REQUIRED. PIPING PENETRATIONS THROUGH INTERSTITIAL FLOOR SHALL BE DRILLED, OR CUT, BY THE CONTRACTOR AND FIRE SEALED AS REQUIRED.

I. ALL CORE DRILLING OR ANY ACTIVITIES CAUSING EXTREME VIBRATION OR NOISE SHALL BE COORDINATED TO BE PERFORMED AFTER BUSINESS HOURS TO NOT AFFECT CRITICAL HOSPITAL FUNCTIONS WITHIN ADJACENT AREAS. COORDINATE WITH VA REPRESENTATIVE AS REQUIRED.

J. ALL PLUMBING WORK PERFORMED ON THE FLOOR BELOW SHALL BE CLOSELY COORDINATED WITH VA HOSPITAL REPRESENTATIVE. CRITICAL AREAS THAT MAY BE ADVERSELY IMPACTED BY NOISE OR VIBRATIONS MAY BE REQUESTED TO BE PERFORMED AFTER REGULAR BUSINESS HOURS OR ON WEEKENDS. CONTRACTOR TO NOTE THAT ANY AREA OUTSIDE THE CONSTRUCTION LIMITS SHALL BE CLEANED TO THEIR ORIGINAL CONDITION AT THE COMPLETION OF EACH WORK SHIFT.

K. FIELD VERIFY EXISTING WATER, WASTE, VENT, OR OTHER PIPING SYSTEMS FOR CONNECTIONS TO FIXTURES THAT MAY NOT BE IDENTIFIED ON PLANS PRIOR TO SERVICE OUTAGES, DEMOLITION, OR ALTERATIONS OF EXISTING PIPE ROUTING. COORDINATE UNKNOWN SERVICE WITH VA FACILITIES AND ENGINEER OF RECORD.

L. THE MECHANICAL CONTRACTOR SHALL MAINTAIN ACCURATE RECORD DRAWINGS SHOWING ALL DISCREPANCIES WITH ANY EXISTING PIPING INDICATED OR REVISIONS TO THE NEW PLUMBING LAYOUTS. ALL CHANGES WILL BE UPDATED WITHIN THE FINAL RECORD DRAWING SET.

M. ALL CONTRACTORS TO REFERENCE THE INFECTION CONTROL NOTES IDENTIFIED WITHIN THE VENTILATION GENERAL NOTES ON THESE DRAWINGS. CONFORM TO ALL ICRA REQUIREMENTS.

KEY NOTES:

1. 1/2" COLD WATER DOWN TO ICE MAKER WITH RPZ. INSTALL FILTER AND RPZ ON WALL BELOW ICE MAKER. INSTALL 2" STANDPIPE UNDER COUNTER. 1-1/2" VENT UP AND 2" WASTE DOWN. FILTER TO BE #10 BLUE VIH WITH PRESSURE RELEASE. CONTACT VA PLUMBING SHOP FOR MORE DETAILS IF NEEDED.

2. 1/2" HOT WATER, 1/2" COLD WATER, AND 1-1/2" VENT DOWN TO SINK. 1-1/2" WASTE DOWN.

3. 3/4" HOT WATER, 3/4" COLD WATER, AND 1-1/2" VENT DOWN TO SHOWER. 2" WASTE DOWN.

4. 1-1/2" COLD WATER DOWN, AND 2" VENT DOWN TO TOILET. 4" WASTE DOWN.

5. 3/4" HOT WATER, 3/4" COLD WATER, AND 1-1/2" VENT DOWN TO SOILED UTILITY SINK. 2" WASTE DOWN.

6. 3/4" HOT WATER, 3/4" COLD WATER, AND 2" VENT DOWN TO BACK TO BACK SINKS. 2" WASTE DOWN.

7. 3/4" HOT WATER, 3/4" COLD WATER, AND 1-1/2" VENT DOWN TO MOP SINK. 2" WASTE DOWN.

8. 3/4" HOT WATER DOWN TO RPZ MOUNTED ON WALL. 3/4" COLD WATER DOWN TO RPZ MOUNTED ON WALL. 3/4" NON-POTABLE COLD AND 3/4" NON-POTABLE HOT WATER TO TMV-4. 1" NON-POTABLE WATER UP TO INTERSTITIAL SPACE ABOVE. ROUTE RPZ WASTE TO MOP SINK. LABEL MIXING VALVE NON-POTABLE AND LIST ROOMS NON-POTABLE TEMPERED WATER SERVES.

9. 1" NON-POTABLE WATER LOOP DOWN TO DIALYSIS BOX. ROUTE LOOP TO WITHIN 6" OF DIALYSIS BOX. TO LIMIT DEAD LEG PIPING. REFER TO DETAIL M1272-70-M05/11 FOR PIPING DETAIL. FULLY INSULATE PIPING. 1/2" NON-POTABLE TEPID WATER DOWN TO TRAP PRIMER/FLUSH CONNECTION. 1-1/2" VENT UP.

10. SEE SHEET 1272-70-M02 FOR ENLARGED DECONTAMINATION ROOM PLANS. INCLUDE ALL WORK RELATED TO DECONTAMINATION ROOM AS PART OF BID OPTION #2.

11. 1" NON-POTABLE WATER LOOP DOWN TO DIALYSIS BOX. ROUTE LOOP TO WITHIN 6" OF DIALYSIS BOX. TO LIMIT DEAD LEG PIPING. REFER TO DETAIL M1272-70-M05/11 FOR PIPING DETAIL. FULLY INSULATE PIPING. 1/2" NON-POTABLE TEPID WATER DOWN TO TRAP PRIMER/FLUSH CONNECTION. 1-1/2" VENT UP. INCLUDE ALL WORK RELATED TO THIS DIALYSIS BOX AS PART OF BID OPTION #9.

12. COORDINATE HOT WATER, COLD WATER, AND VENT PIPING WITH WINDOW AND ASSOCIATED FRAMING. VENT TO NOT EXCEED 45° FROM THE VERTICAL UNTIL IT HAS RISEN A MINIMUM OF 6" ABOVE THE FIXTURE SPILL LINE. COORDINATE ALL TRADES TO INSURE PROPER FIXTURE MOUNTING HEIGHT AND PROPER VENT ROUTING.

FULLY SPRINKLERED

REVISIONS		DATE

GENERAL NOTES:

GENERAL CONTRACTOR AND/OR ALL SUBCONTRACTORS SHALL FIELD VERIFY ALL DIMENSIONS SHOWN ON THESE PLANS AND SHALL BE RESPONSIBLE FOR VARIATIONS BETWEEN PLAN DIMENSIONS AND ACTUAL FIELD DIMENSIONS. WHERE VARIATIONS ARE FOUND TO OCCUR, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING PRIOR TO PROCEEDING WITH CONSTRUCTION; NO ADJUSTMENT TO THE WORK WILL BE MADE WITHOUT THE PRIOR APPROVAL OF THE PROJECT ENGINEER.

GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR GENERAL DEMOLITION INCLUDING REMOVAL OF WALLS, PARTITIONS, DOORS & CEILING & FLOORS. ANY AND ALL CUTTING OF CONCRETE FLOORS, WALLS OR STRUCTURE SHALL BE THE GENERAL CONTRACTOR'S RESPONSIBILITY. CORE DRILLING THROUGH CONCRETE WALLS, FLOORS OR STRUCTURE FOR PIPING OR CONDUIT SHALL BE THE RESPONSIBILITY OF THE SUBCONTRACTOR BY TRADE; FIRESTOPPING OF THESE OPENINGS SHALL BE DONE BY THE RESPECTIVE SUBCONTRACTOR. REMOVAL OF DEBRIS RESULTING FROM DEMOLITION, CUTTING, AND/OR DRILLING IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. PATCHING AND REPAIR OF CONCRETE WALLS, FLOOR, OR STRUCTURE SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR; THIS WILL BE ACCOMPLISHED UPON COMPLETION OF THE INSTALLATION OF ANY AND ALL UTILITIES INSTALLED BY THE VARIOUS SUBCONTRACTORS.

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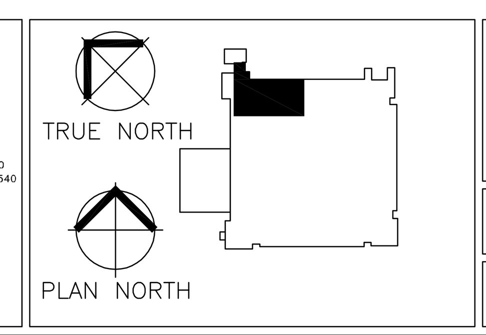
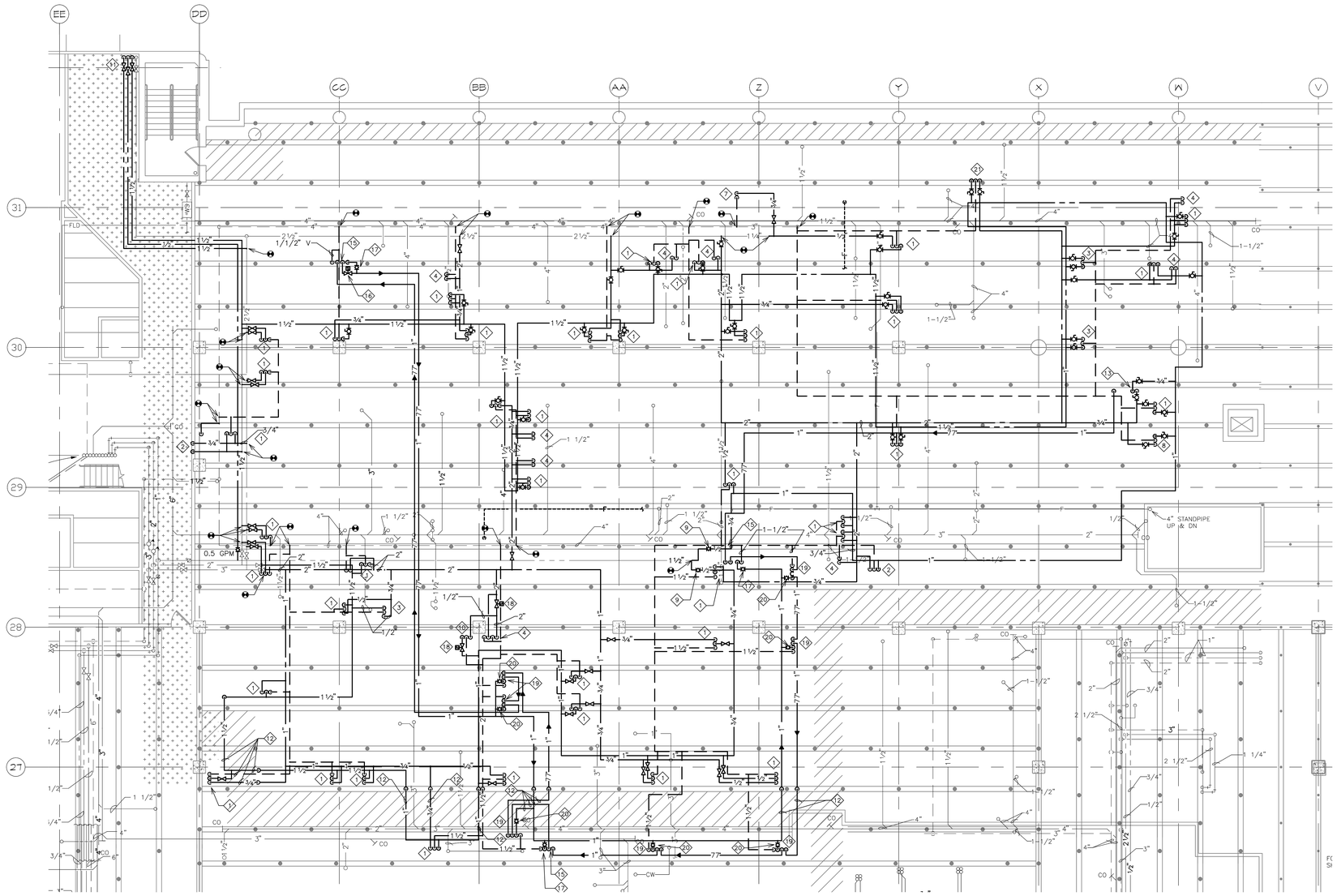


I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed Architect under the laws of the State of Minnesota.

JASON GOTTWALT, PE
Date 01/02/2014 Reg. No. 41360

Drawing Title	FIRST FLOOR PLUMBING PLAN
Project Title	VA MINNEAPOLIS ED RENOVATION
Project No.	618-14-104
Building Number	70
Drawing Scale	AS NOTED
Plot Scale	12" = 1'-0"
Approved:	Catherine Joyce, Chief, Projects Section
Approved:	Steven Challeen, Director, Facilities Engineering
Location	V.A. MEDICAL CENTER, ONE VETERANS DRIVE, MINNEAPOLIS, MN 55417
Date	01/02/2014
Checked	JG
Drawn	RFOLIN
DRAWING NO.	1272-70-PL05
Dwg.	40 Of 73

Office of Facilities Management
Department of Veterans Affairs



1 FIRST FLOOR INTERSTITIAL PLUMBING PLAN
1/8"=1'-0"

KEY NOTES:

1. 1/2" HOT WATER, 1/2" COLD WATER, AND 1-1/2" VENT DOWN TO HAND WASHING SINK.
2. 1/2" HOT WATER, 1/2" COLD WATER, AND 1-1/2" VENT DOWN TO HAND SOILED UTILITY SINK SINK.
3. 1/2" HOT WATER, 1/2" COLD WATER, AND 1-1/2" VENT DOWN TO SHOWER.
4. 1-1/2" COLD WATER, AND 2" VENT DOWN TO TOILET.
5. 3/4" HOT WATER, 3/4" COLD WATER, AND 2" VENT DOWN TO BACK TO BACK SINKS.
6. 1/2" COLD WATER DOWN TO ICE MAKER. 1-1/2" VENT DOWN TO STANDPIPE.
7. 1/2" COLD WATER DOWN TO DUAL DRINKING FOUNTAIN.
8. 3/4" HOT WATER, 3/4" COLD WATER, AND 2" VENT DOWN TO MOP SINK.
9. INSTALL NEW BALANCING VALVE, BALANCE TO 0.5 GPM.
10. 1/2" HOT WATER, 1/2" COLD WATER, AND 1-1/4" VENT DOWN TO SAFE ROOM HAND WASHING SINK.
11. HOT WATER, COLD WATER AND RECIRCULATING HOT WATER OUT TO DECONTAMINATION ROOM.
12. ROUTE PIPING HIGH OVER WALKWAY.
13. 3/4" HOT WATER AND 3/4" COLD WATER DOWN TO RPZ'S.
14. 1" NON-POTABLE TEMPERED WATER FROM MIXING VALVE BELOW. FULLY INSULATE PIPE. LABEL PIPE NON-POTABLE.
15. 1" NON-POTABLE TEMPERED WATER LOOP DOWN TO DIALYSIS BOX BELOW. SEE DETAIL 1272-70-M05/11.
16. PROVIDE 3/4" SOLENOID VALVE WITH OPEN/CLOSE COMMAND FROM CENTRAL AUTOMATION SYSTEM AND BUTTON LOCATED IN NURSING STATION. ONCE OPEN, THIS SOLENOID SHALL PROVIDE WATER FLOW TO ALL TRAP FLUSHING CONNECTIONS TO EACH DIALYSIS BOX. REFER TO DETAIL M1272-70-M05/11. TRAP PRIMER/FLUSH SYSTEM SHALL ALSO SERVE TO KEEP LINE CIRCULATED ON A REGULAR BASIS.
17. PROVIDE 1/2" CIRCUIT SETTER BALANCING VALVE TO EACH TRAP PRIMER/FLUSH CONNECTION. BALANCE EACH VALVE TO APPROXIMATELY 1.0 GPM TO EACH INDIVIDUAL TRAP WHEN SOLENOID VALVE IS FULLY OPEN.
18. INSTALL SHUT-OFF SOLENOID VALVE. VALVES TO BE NORMALLY OPEN AND FAIL OPEN. SOLENOID VALVES TO BE CONTROLLED BY KEYED SWITCH.
19. 1" NON-POTABLE TEMPERED WATER LOOP DOWN TO DIALYSIS BOX BELOW. SEE DETAIL 1272-70-M05/11. INCLUDE WORK RELATED TO THIS BOX AS PART OF BID OPTION #9.
20. PROVIDE 1/2" CIRCUIT SETTER BALANCING VALVE TO EACH TRAP PRIMER/FLUSH CONNECTION. BALANCE EACH VALVE TO APPROXIMATELY 1.0 GPM TO EACH INDIVIDUAL TRAP WHEN SOLENOID VALVE IS FULLY OPEN. SEE DETAIL 1272-70-M05/11. INCLUDE WORK RELATED TO THIS BOX AS PART OF BID OPTION #9.
21. 1/2" HOT WATER, 1/2" COLD WATER, AND 1-1/2" VENT DOWN TO KITCHEN SINK.

GENERAL NOTES:

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L. THE MECHANICAL CONTRACTOR SHALL MAINTAIN ACCURATE RECORD DRAWINGS SHOWING ALL DISCREPANCIES WITH ANY EXISTING PIPING INDICATED OR REVISIONS TO THE NEW PLUMBING LAYOUTS. ALL CHANGES WILL BE UPDATED WITHIN THE FINAL RECORD DRAWING SET.

M. ALL CONTRACTORS TO REFERENCE THE INFECTION CONTROL NOTES IDENTIFIED WITHIN THE VENTILATION GENERAL NOTES ON THESE DRAWINGS. CONFORM TO ALL ICRA REQUIREMENTS.

FULLY SPRINKLERED

REVISIONS	DATE

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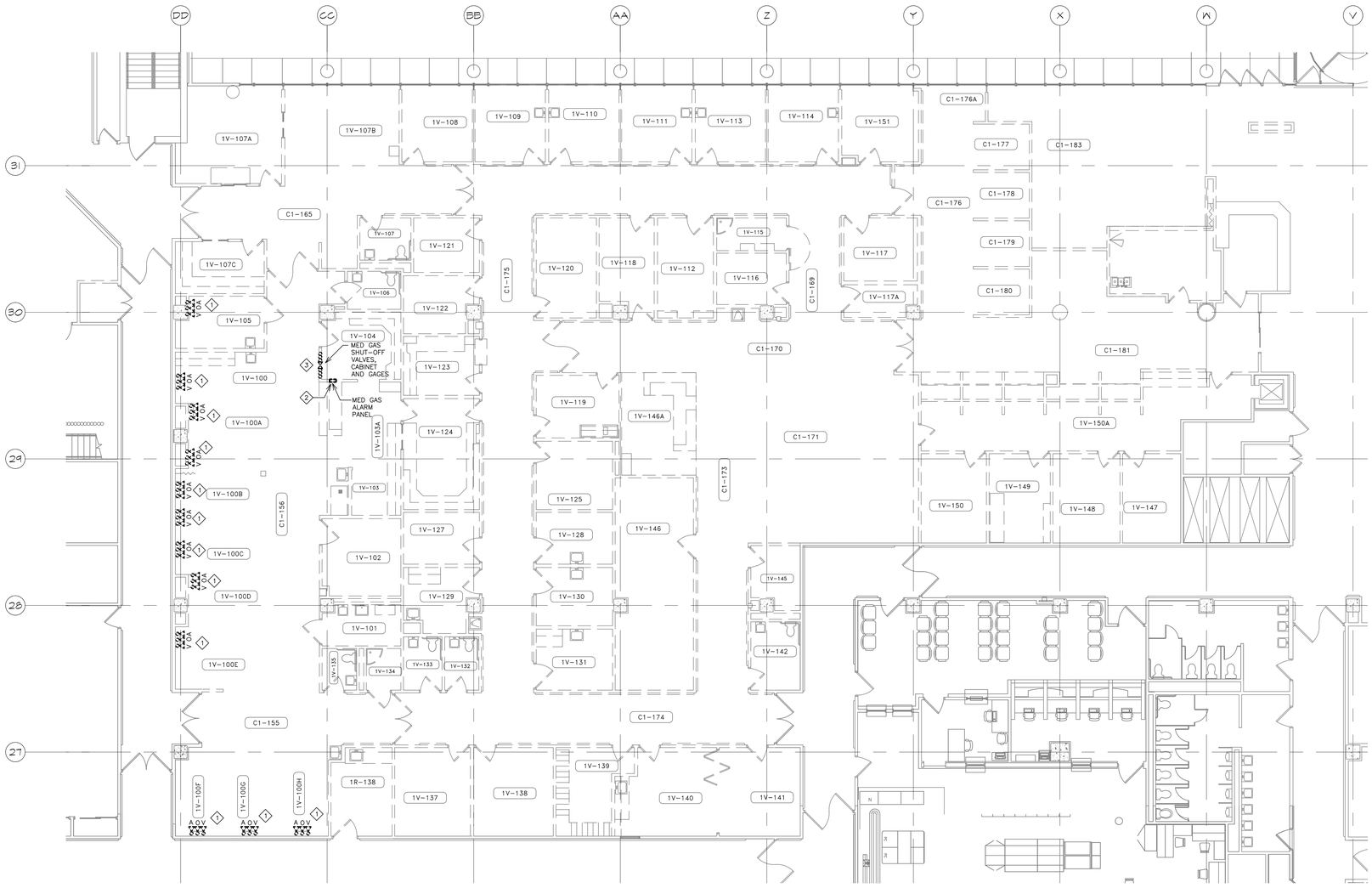
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed Architect under the laws of the State of Minnesota.
JASON GOTTWALT, PE
Date 01/02/2014 Reg. No. 41360

Drawing Title: FIRST FLOOR INTERSTITIAL PLUMBING PLAN	Project Title: VA MINNEAPOLIS ED RENOVATION	Project No. 618-14-104	Office of Facilities Management
Drawing Scale: AS NOTED	Approved: Catherine Joyce, Chief, Projects Section	Building Number 70	
Plot Scale: 12" = 1'-0"	Approved: Steven Challeen, Director, Facilities Engineering	Location: V.A. MEDICAL CENTER, ONE VETERANS DRIVE, MINNEAPOLIS, MN 55417	DRAWING NO. 1272-70-PL06
		Date 01/02/2014 · Checked JG · Drawn RFOLIN	Dwg. 41 of 73

Department of Veterans Affairs



1 FIRST FLOOR MEDICAL GAS DEMOLITION PLAN
1/8" = 1'-0"

GENERAL NOTES:

A. MECHANICAL CONTRACTOR SHALL REFER TO THE VA MASTER SPECIFICATION MANUAL EDITED FOR THIS PROJECT ALONG WITH ANY APPLICABLE STANDARDS WITHIN THE 2011 HVAC DESIGN GUIDE. ALL REQUIREMENTS OF THOSE MANUALS SHALL BE MAINTAINED IN ADDITION TO ALL NOTES AND DESCRIPTIONS INDICATED WITHIN THESE DRAWINGS. ANY CONFLICTS BETWEEN THOSE DOCUMENTS SHOULD BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR INTERPRETATION.

B. MECHANICAL CONTRACTOR WILL BE RESPONSIBLE TO REVIEW ACCESSIBILITY TO AREAS OUTSIDE THE CONSTRUCTION LIMITS TO DETERMINE APPROXIMATE AMOUNT OF OVERTIME REQUIRED TO PERFORM ALL MECHANICAL WORK INDICATED. COORDINATION OF SCHEDULES WITH ADJACENT DEPARTMENTS AND CLEANING OF ALL DEBRIS AFTER EACH SHIFT SHOULD BE ASSUMED IN THE BASE BID.

C. ANY MAJOR OUTAGES INDICATED ON THESE DRAWINGS SHALL BE SCHEDULED TO BE PERFORMED AFTER NORMAL BUSINESS HOURS OR DURING WEEKEND PERIODS TO MINIMIZE HOSPITAL DISRUPTION. VA HOSPITAL FACILITIES WILL REQUIRE A MINIMUM OF TWO(2) WEEKS NOTICE PRIOR TO ANY SUCH OUTAGE AFFECTING MORE THAN ONE ADJACENT FLOOR.

D. COORDINATE ALL NEW MEDICAL GAS PIPE ROUTING WITH ALL OTHER TRADES TO INSURE ADEQUATE CLEARANCES FOR DUCTWORK, ELECTRICAL CONDUIT, STRUCTURAL SUPPORTS, PIPING, ETC. ANY UNAVOIDABLE CONFLICTS SHALL BE BROUGHT THE THE ATTENTION OF THE ARCHITECT/ENGINEER OF RECORD. PROVIDE ALL OFFSETS AND TRANSITIONS FOR A CLEAN INSTALLATION. ALL PIPING SHALL BE CONCEALED UNLESS SPECIFICALLY NOTED OTHERWISE.

E. PROVIDE LOCKABLE ISOLATION VALVES AT RISER TAKE-OFFS IF REQUIRED TO MINIMIZE OUTAGES BETWEEN PROJECT PHASES. COORDINATE ANY ADDITIONAL ISOLATION VALVES WITH THE ENGINEER OF RECORD TO REVIEW WITH HOSPITAL FACILITIES FOR APPROVAL.

F. THE EXACT LOCATION OF EQUIPMENT ROUGH-INS SHALL BE VERIFIED WITH THE STAMPED APPROVED SHOP DRAWINGS PRIOR TO ANY FIELD INSTALLATION.

G. SUPPORT ALL PIPING DIRECTLY TO STRUCTURE. DO NOT SUPPORT ANY PIPING FROM DUCTWORK, CONDUIT, OR OTHER PIPING ENCOUNTERED.

H. WHERE MECHANICAL SYSTEMS TO REMAIN ARE DAMAGED, OR DISTURBED, DURING THE COURSE OF CONSTRUCTION THE CONTRACTOR WILL BE RESPONSIBLE TO REMOVE DAMAGED PORTIONS AND INSTALL NEW PRODUCTS OF EQUAL QUALITY AND FUNCTIONALITY.

I. ALL EXISTING PIPING THROUGH NEW FIRE RATED WALLS SHALL BE ADEQUATELY FIRE SEALED AS REQUIRED. PIPING PENETRATIONS THROUGH INTERSTITIAL FLOOR SHALL BE DRILLED, OR CUT, BY THE CONTRACTOR AND FIRE SEALED AS REQUIRED.

J. CLEARLY LABEL ALL NEW MEDICAL GAS PIPES AS DIRECTED WITHIN THE SPECIFICATIONS. ALL NEW PIPING ENCOUNTERED THAT IS NOT CURRENTLY IDENTIFIED SHALL BE LABELED ACCORDINGLY.

K. ALL BRAZERS SHALL BE FULLY CERTIFIED WITH BRAZER QUALIFICATION RECORDS FOR INSTALLATION OF MEDICAL GAS SYSTEMS. REFER TO SPECIFICATION REQUIREMENTS.

L. CLEAN ALL PIPING AND COMPONENTS AS OUTLINED WITHIN SPECIFICATION PRIOR TO INSTALLATION. BLOW DOWN ALL COMPLETED SYSTEMS WITH DRY NITROGEN AND PERFORM ALL INITIAL PRESSURE TESTS AS REQUIRED PER NFPA 99.

M. UPON COMPLETION OF WORK AND AS REQUIRED BY PROJECT PHASING THE MECHANICAL CONTRACTOR SHALL HIRE A THIRD PARTY CONTRACT TO CERTIFY ALL NEW GAS PIPING SYSTEMS AS OUTLINED WITHIN NFPA 99 AND ALSO RE-CERTIFY ANY MEDICAL GAS INLETS/OUTLETS AFFECTED BY THE MEDICAL GAS SERVICE OUTAGE. PROVIDE FINAL CERTIFICATION REPORT TO BE INCLUDED WITHIN THE OPERATION AND MAINTENANCE MANUALS FOR THIS PROJECT.

N. THE MECHANICAL CONTRACTOR SHALL MAINTAIN ACCURATE RECORD DRAWINGS SHOWING ALL DISCREPANCIES WITH ANY EXISTING PIPING INDICATED OR REVISIONS TO THE NEW PLUMBING LAYOUTS. ALL CHANGES WILL BE UPDATED WITHIN THE FINAL RECORD DRAWING SET.

O. ALL CONTRACTORS TO REFERENCE THE INFECTION CONTROL NOTES IDENTIFIED WITHIN THE VENTILATION GENERAL NOTES ON THESE DRAWINGS. CONFORM TO ALL ICRA REQUIREMENTS.

KEY NOTES:

1. DEMOLISH EXISTING MEDICAL GAS AND VACUUM OUTLETS. COORDINATE DEMOLITION WITH PHASING PLAN.
2. DEMOLISH EXISTING MEDICAL GAS ALARM PANEL. ALARM PANEL TO REMAIN IN USE THROUGH PHASE 1.
3. DEMOLISH EXISTING MEDICAL GAS VALVE BOX. COORDINATE OUTAGE WITH FACILITIES AND NURSING STAFF TO PROVIDE APPROPRIATE TEMPORARY SERVICES. REFER TO GENERAL NOTES. MEDICAL GAS VALVE BOX TO REMAIN IN OPERATION FOR PHASE 1.

FULLY SPRINKLERED

REVISIONS	DATE

GENERAL NOTES:

GENERAL CONTRACTOR AND/OR ALL SUBCONTRACTORS SHALL FIELD VERIFY ALL DIMENSIONS SHOWN ON THESE PLANS AND SHALL BE RESPONSIBLE FOR VARIATIONS BETWEEN PLAN DIMENSIONS AND ACTUAL FIELD DIMENSIONS. WHERE VARIATIONS ARE FOUND TO OCCUR, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING PRIOR TO PROCEEDING WITH CONSTRUCTION; NO ADJUSTMENT TO THE WORK WILL BE MADE WITHOUT THE PRIOR APPROVAL OF THE PROJECT ENGINEER.

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I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed Architect under the laws of the State of Minnesota.

JASON GOTTWALT, PE
Date 01/02/2014 Reg. No. 41360

Drawing Title: FIRST FLOOR MEDICAL GAS DEMOLITION PLAN

Drawing Scale: AS NOTED

Plot Scale: 12" = 1'-0"

Approved: Catherine Joyce, Chief, Projects Section

Approved: Steven Challeen, Director, Facilities Engineering

Project Title: VA MINNEAPOLIS ED RENOVATION

Location: V.A. MEDICAL CENTER, ONE VETERANS DRIVE, MINNEAPOLIS, MN 55417

Date: 01/02/2014 | Checked: JG | Drawn: RFOLIN

Project No. 618-14-104

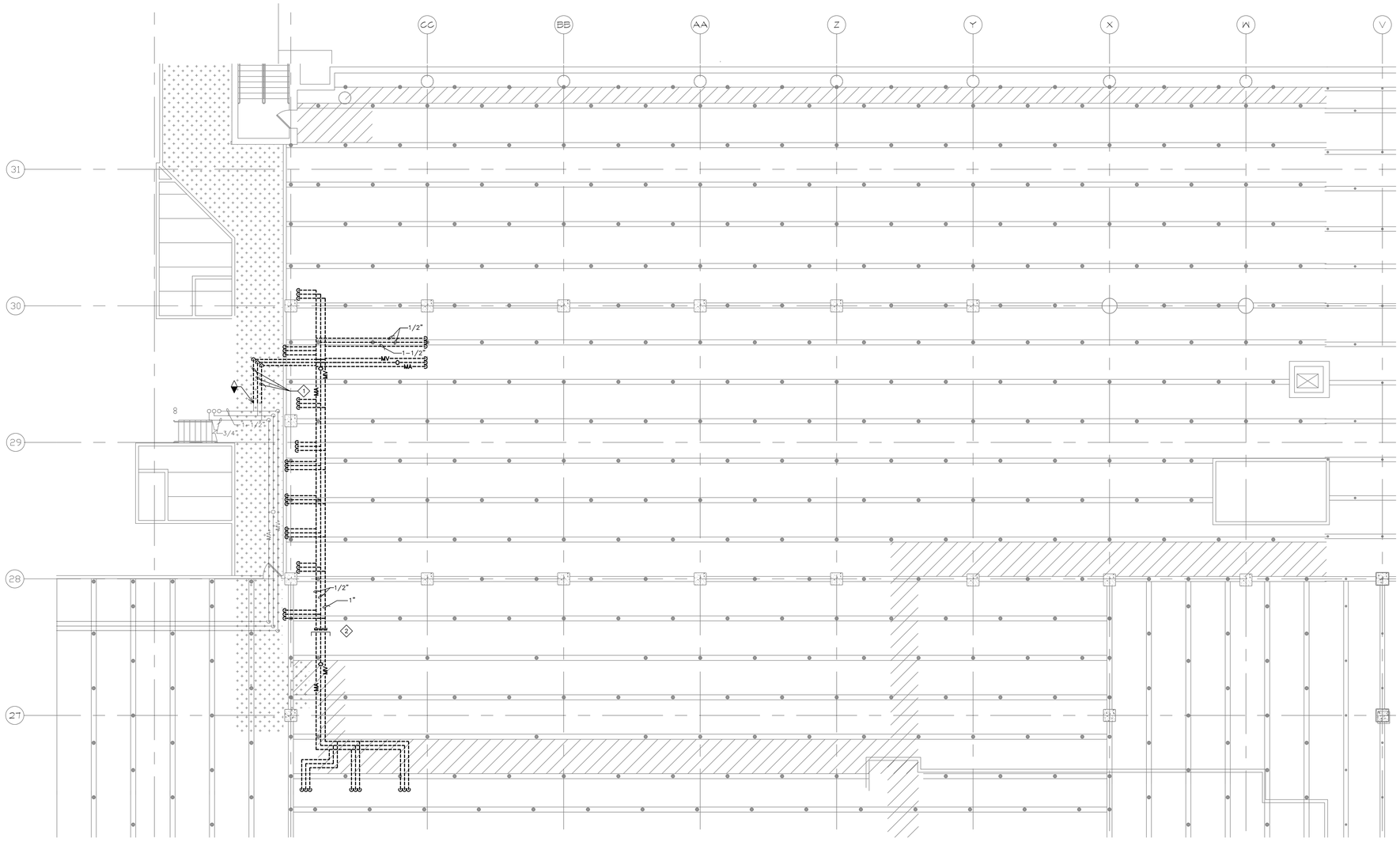
Building Number 70

DRAWING NO. 1272-70-MG01

Dwg. 42 of 73

Office of Facilities Management

Department of Veterans Affairs



1 FIRST FLOOR INTERSTITIAL MEDICAL GAS DEMOLITION PLAN
1/8"=1'-0"

GENERAL NOTES:

A. MECHANICAL CONTRACTOR SHALL REFER TO THE VA MASTER SPECIFICATION MANUAL EDITED FOR THIS PROJECT ALONG WITH ANY APPLICABLE STANDARDS WITHIN THE 2011 HVAC DESIGN GUIDE. ALL REQUIREMENTS OF THOSE MANUALS SHALL BE MAINTAINED IN ADDITION TO ALL NOTES AND DESCRIPTIONS INDICATED WITHIN THESE DRAWINGS. ANY CONFLICTS BETWEEN THOSE DOCUMENTS SHOULD BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR INTERPRETATION.

B. MECHANICAL CONTRACTOR WILL BE RESPONSIBLE TO REVIEW ACCESSIBILITY TO AREAS OUTSIDE THE CONSTRUCTION LIMITS TO DETERMINE APPROXIMATE AMOUNT OF OVERTIME REQUIRED TO PERFORM ALL MECHANICAL WORK INDICATED. COORDINATION OF SCHEDULES WITH ADJACENT DEPARTMENTS AND CLEANING OF ALL DEBRIS AFTER EACH SHIFT SHOULD BE ASSUMED IN THE BASE BID.

C. ANY MAJOR OUTAGES INDICATED ON THESE DRAWINGS SHALL BE SCHEDULED TO BE PERFORMED AFTER NORMAL BUSINESS HOURS OR DURING WEEKEND PERIODS TO MINIMIZE HOSPITAL DISRUPTION. VA HOSPITAL FACILITIES WILL REQUIRE A MINIMUM OF TWO(2) WEEKS NOTICE PRIOR TO ANY SUCH OUTAGE AFFECTING MORE THAN ONE ADJACENT FLOOR.

D. COORDINATE ALL NEW MEDICAL GAS PIPE ROUTING WITH ALL OTHER TRADES TO INSURE ADEQUATE CLEARANCES FOR DUCTWORK, ELECTRICAL CONDUIT, STRUCTURAL SUPPORTS, PIPING, ETC. ANY UNAVOIDABLE CONFLICTS SHALL BE BROUGHT THE THE ATTENTION OF THE ARCHITECT/ENGINEER OF RECORD. PROVIDE ALL OFFSETS AND TRANSITIONS FOR A CLEAN INSTALLATION. ALL PIPING SHALL BE CONCEALED UNLESS SPECIFICALLY NOTED OTHERWISE.

E. PROVIDE LOCKABLE ISOLATION VALVES AT RISER TAKE-OFFS IF REQUIRED TO MINIMIZE OUTAGES BETWEEN PROJECT PHASES. COORDINATE ANY ADDITIONAL ISOLATION VALVES WITH THE ENGINEER OF RECORD TO REVIEW WITH HOSPITAL FACILITIES FOR APPROVAL.

F. THE EXACT LOCATION OF EQUIPMENT ROUGH-INS SHALL BE VERIFIED WITH THE STAMPED APPROVED SHOP DRAWINGS PRIOR TO ANY FIELD INSTALLATION.

G. SUPPORT ALL PIPING DIRECTLY TO STRUCTURE. DO NOT SUPPORT ANY PIPING FROM DUCTWORK, CONDUIT, OR OTHER PIPING ENCOUNTERED.

H. WHERE MECHANICAL SYSTEMS TO REMAIN ARE DAMAGED, OR DISTURBED, DURING THE COURSE OF CONSTRUCTION THE CONTRACTOR WILL BE RESPONSIBLE TO REMOVE DAMAGED PORTIONS AND INSTALL NEW PRODUCTS OF EQUAL QUALITY AND FUNCTIONALITY.

I. ALL EXISTING PIPING THROUGH NEW FIRE RATED WALLS SHALL BE ADEQUATELY FIRE SEALED AS REQUIRED. PIPING PENETRATIONS THROUGH INTERSTITIAL FLOOR SHALL BE DRILLED, OR CUT, BY THE CONTRACTOR AND FIRE SEALED AS REQUIRED.

J. CLEARLY LABEL ALL NEW MEDICAL GAS PIPES AS DIRECTED WITHIN THE SPECIFICATIONS. ALL NEW PIPING ENCOUNTERED THAT IS NOT CURRENTLY IDENTIFIED SHALL BE LABELED ACCORDINGLY.

K. ALL BRAZERS SHALL BE FULLY CERTIFIED WITH BRAZER QUALIFICATION RECORDS FOR INSTALLATION OF MEDICAL GAS SYSTEMS. REFER TO SPECIFICATION REQUIREMENTS.

L. CLEAN ALL PIPING AND COMPONENTS AS OUTLINED WITHIN SPECIFICATION PRIOR TO INSTALLATION. BLOW DOWN ALL COMPLETED SYSTEMS WITH DRY NITROGEN AND PERFORM ALL INITIAL PRESSURE TESTS AS REQUIRED PER NFPA 99.

M. UPON COMPLETION OF WORK AND AS REQUIRED BY PROJECT PHASING THE MECHANICAL CONTRACTOR SHALL HIRE A THIRD PARTY CONTRACT TO CERTIFY ALL NEW GAS PIPING SYSTEMS AS OUTLINED WITHIN NFPA 99 AND ALSO RE-CERTIFY ANY MEDICAL GAS INLETS/OUTLETS AFFECTED BY THE MEDICAL GAS SERVICE OUTAGE. PROVIDE FINAL CERTIFICATION REPORT TO BE INCLUDED WITHIN THE OPERATION AND MAINTENANCE MANUALS FOR THIS PROJECT.

N. THE MECHANICAL CONTRACTOR SHALL MAINTAIN ACCURATE RECORD DRAWINGS SHOWING ALL DISCREPANCIES WITH ANY EXISTING PIPING INDICATED OR REVISIONS TO THE NEW PLUMBING LAYOUTS. ALL CHANGES WILL BE UPDATED WITHIN THE FINAL RECORD DRAWING SET.

O. ALL CONTRACTORS TO REFERENCE THE INFECTION CONTROL NOTES IDENTIFIED WITHIN THE VENTILATION GENERAL NOTES ON THESE DRAWINGS. CONFORM TO ALL ICRA REQUIREMENTS.

KEY NOTES:

1. DEMOLISH MEDICAL GAS PIPING BACK TO MAIN IN MECHANICAL ROOM. VALVE AND CAP FOR FUTURE. THIS PORTION OF WORK WILL CREATE A MEDICAL GAS OUTAGE FOR ALL FLOORS IN THIS QUADRANT OF THE HOSPITAL. REFER TO THE GENERAL NOTES TO PLAN APPROPRIATELY FOR THIS OUTAGE.

2. DEMOLISH MEDICAL GASES SERVING OUTLETS DEMOLISHED IN PHASE 1. INSTALL PIPE CAPS AND RE-CERTIFY OUTLETS TO REMAIN IN OPERATION DURING PHASE 1. COORDINATE WITH FINAL PHASING PLAN.

FULLY SPRINKLERED

REVISIONS	DATE

GENERAL NOTES:

GENERAL CONTRACTOR AND/OR ALL SUBCONTRACTORS SHALL FIELD VERIFY ALL DIMENSIONS SHOWN ON THESE PLANS AND SHALL BE RESPONSIBLE FOR VARIATIONS BETWEEN PLAN DIMENSIONS AND ACTUAL FIELD DIMENSIONS. WHERE VARIATIONS ARE FOUND TO OCCUR, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING PRIOR TO PROCEEDING WITH CONSTRUCTION; NO ADJUSTMENT TO THE WORK WILL BE MADE WITHOUT THE PRIOR APPROVAL OF THE PROJECT ENGINEER.

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I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed Architect under the laws of the State of Minnesota.

JASON GOTTWALT, PE
Date 01/02/2014 Reg. No. 41360

Drawing Scale: AS NOTED
Plot Scale: 12" = 1'-0"

Drawing Title: FIRST FLOOR INTERSTITIAL MEDICAL GAS DEMOLITION PLAN

Approved: Catherine Joyce, Chief, Projects Section
Approved: Steven Challeen, Director, Facilities Engineering

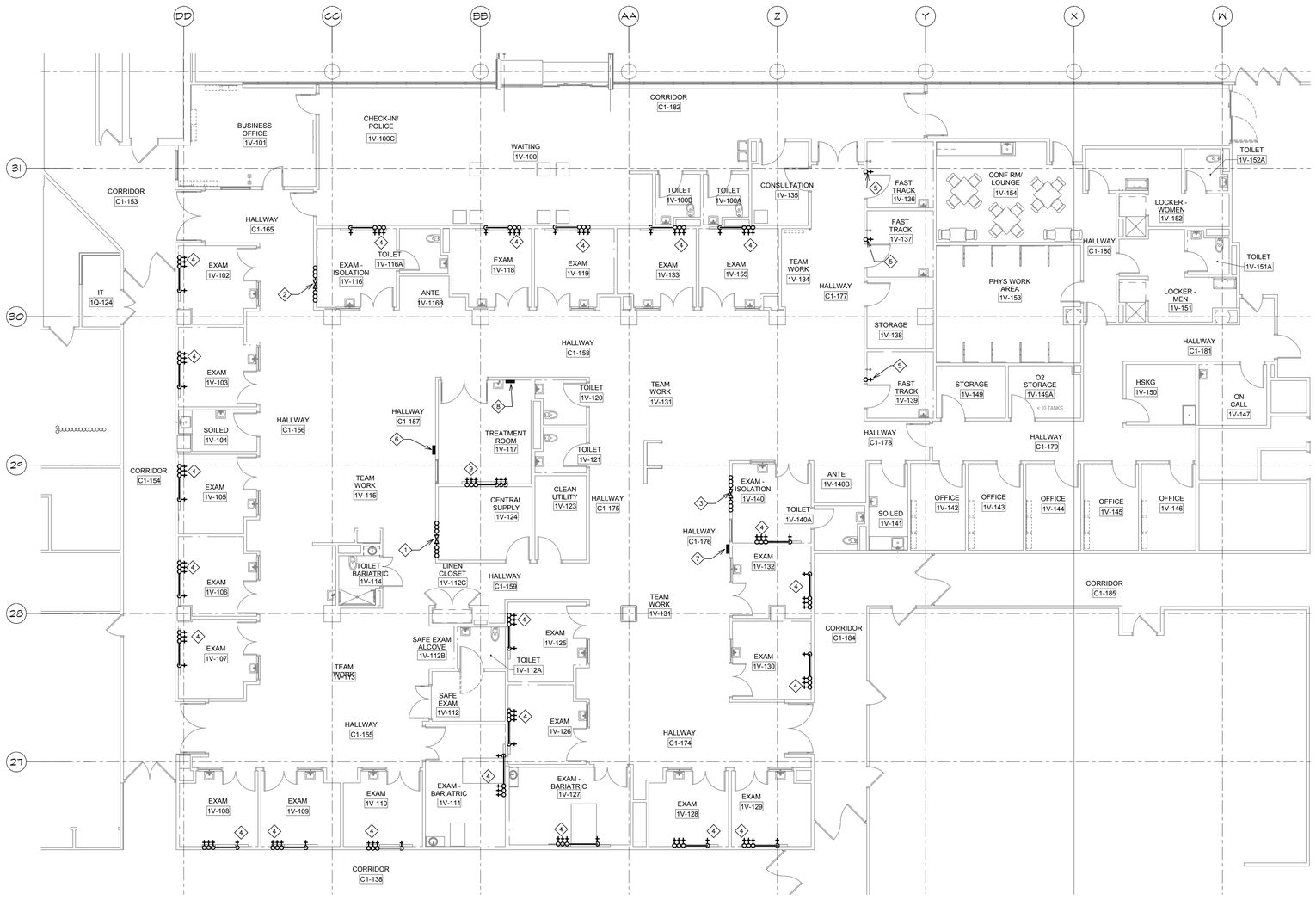
Project Title: VA MINNEAPOLIS ED RENOVATION

Location: V.A. MEDICAL CENTER, ONE VETERANS DRIVE, MINNEAPOLIS, MN 55417

Date: 01/02/2014 | Checked: JG | Drawn: RFOLIN

Project No. 618-14-104
Building Number 70
DRAWING NO. 1272-70-MG02
Dwg. 43 of 73

Office of Facilities Management
Department of Veterans Affairs



1 FIRST FLOOR MEDICAL GAS PLAN
1/8" = 1'-0"

GENERAL NOTES:

A. MECHANICAL CONTRACTOR SHALL REFER TO THE VA MASTER SPECIFICATION MANUAL EDITED FOR THIS PROJECT ALONG WITH ANY APPLICABLE STANDARDS WITHIN THE 2011 HVAC DESIGN GUIDE. ALL REQUIREMENTS OF THOSE MANUALS SHALL BE MAINTAINED IN ADDITION TO ALL NOTES AND DESCRIPTIONS INDICATED WITHIN THESE DRAWINGS. ANY CONFLICTS BETWEEN THOSE DOCUMENTS SHOULD BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR INTERPRETATION.

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F. THE EXACT LOCATION OF EQUIPMENT ROUGH-INS SHALL BE VERIFIED WITH THE STAMPED APPROVED SHOP DRAWINGS PRIOR TO ANY FIELD INSTALLATION.

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K. ALL BRAZERS SHALL BE FULLY CERTIFIED WITH BRAZER QUALIFICATION RECORDS FOR INSTALLATION OF MEDICAL GAS SYSTEMS. REFER TO SPECIFICATION REQUIREMENTS.

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M. ALL CONTRACTORS TO REFERENCE THE INFECTION CONTROL NOTES IDENTIFIED WITHIN THE VENTILATION GENERAL NOTES ON THESE DRAWINGS. CONFORM TO ALL ICRA REQUIREMENTS.

KEY NOTES:

1. INSTALL NEW TREATMENT ROOM VALVE BOX. 1/2" OXYGEN, 1/2" MEDICAL AIR, AND 3/4" MEDICAL VACUUM TO AND FROM BOX. COORDINATE VALVE BOX LOCATION WITH WALL MOUNTED EQUIPMENT.
2. INSTALL NEW POD #1 VALVE BOX. 1/2" OXYGEN, 1/2" MEDICAL AIR, AND 3/4" MEDICAL VACUUM TO AND FROM BOX. COORDINATE VALVE BOX LOCATION WITH WALL MOUNTED EQUIPMENT.
3. INSTALL NEW POD#2 VALVE BOX. 1/2" OXYGEN, 1/2" MEDICAL AIR, AND 3/4" MEDICAL VACUUM TO AND FROM BOX. COORDINATE VALVE BOX LOCATION WITH WALL MOUNTED EQUIPMENT.
4. 1/2" MEDICAL AIR, 1/2" OXYGEN, AND 3/4" MEDICAL VACUUM DOWN TO MEDICAL HEADWALL OUTLETS. ONE (1) MEDICAL VACUUM, ONE (1) MEDICAL AIR, AND TWO (2) OXYGEN OUTLETS. SEE ARCHITECTURAL PLANS FOR ELEVATION.
5. 1/2" OXYGEN DOWN TO ONE (1) OXYGEN WALL OUTLET. SEE ARCHITECTURAL PLANS FOR ELEVATION.
6. INSTALL MEDICAL GAS ALARM PANEL MONITORING POD #1. COORDINATE ALARM PANEL LOCATION WITH WALL MOUNTED EDIS SCREEN.
7. INSTALL MEDICAL GAS ALARM PANEL MONITORING POD #2. COORDINATE WITH WALL MOUNTED EQUIPMENT.
8. INSTALL MEDICAL GAS ALARM PANEL MONITORING TREATMENT ROOM. COORDINATE WITH WALL MOUNTED EQUIPMENT.
9. 1/2" MEDICAL AIR, 1/2" OXYGEN, AND 3/4" MEDICAL VACUUM DOWN TO HEADWALL OUTLETS. TWO (2) MEDICAL AIR, TWO (2) OXYGEN, AND TWO (2) MEDICAL VACUUM OUTLETS.

FULLY SPRINKLERED

REVISIONS	DATE

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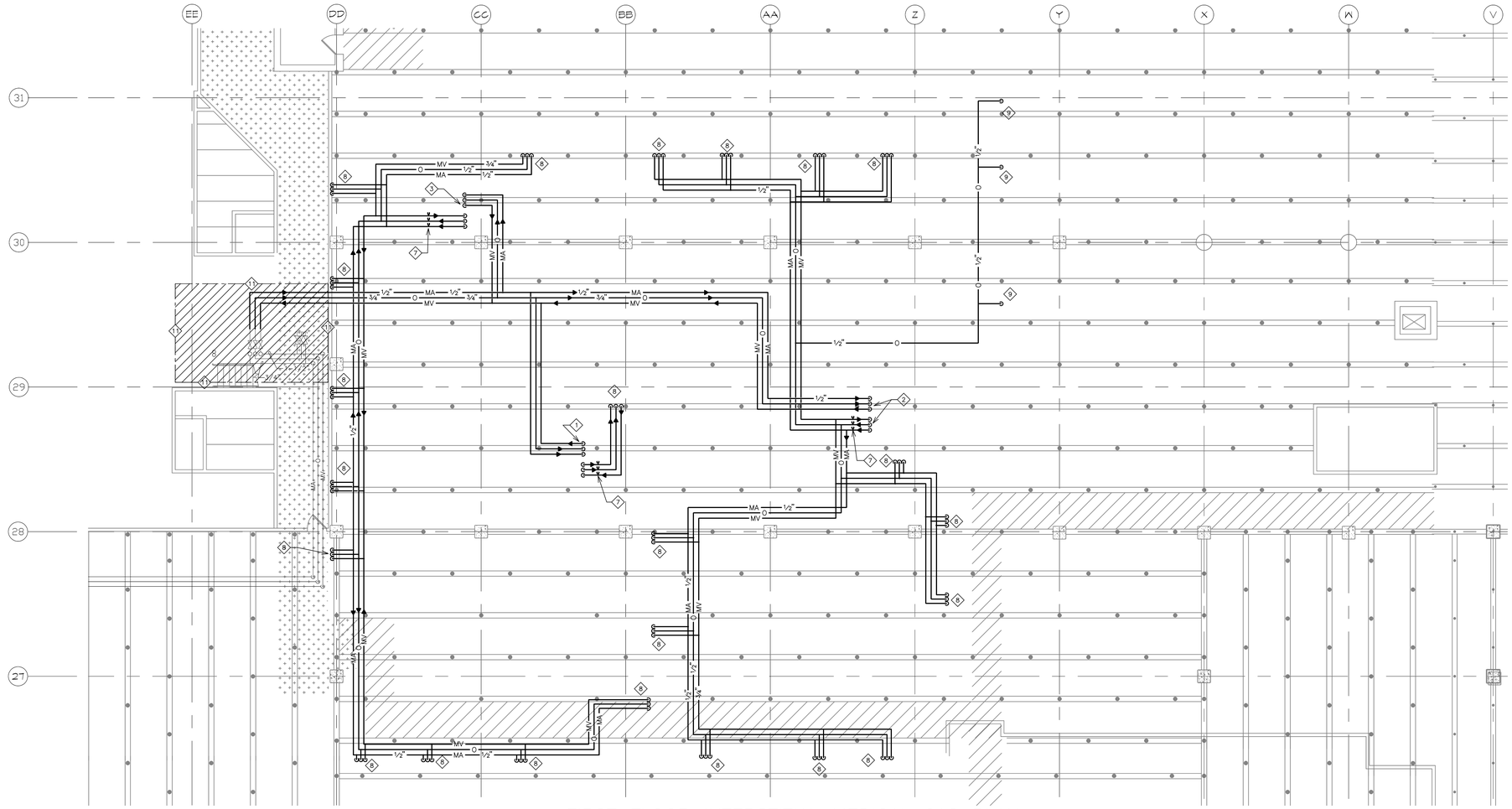
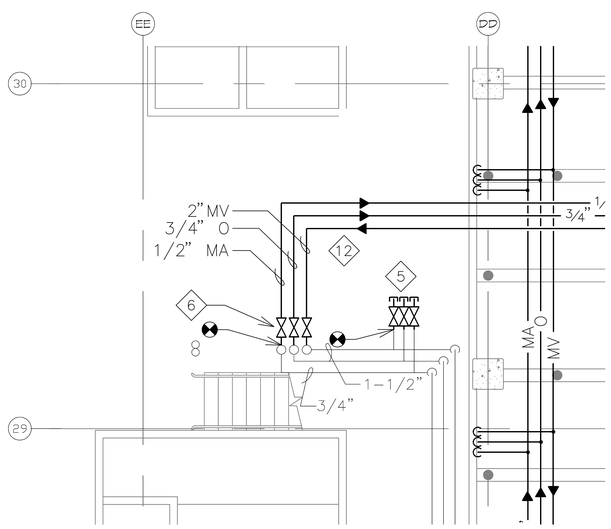
JASON GOTTWALT, PE
Date 01/02/2014 Reg. No. 41360

Drawing Title: FIRST FLOOR MEDICAL GAS PLAN	Project Title: VA MINNEAPOLIS ED RENOVATION	Project No. 618-14-104	
		Building Number 70	
Drawing Scale: AS NOTED	Approved: Catherine Joyce, Chief, Projects Section	Location: V.A. MEDICAL CENTER, ONE VETERANS DRIVE, MINNEAPOLIS, MN 55417	DRAWING NO. 1272-70-MG03
Plot Scale: 12" = 1'-0"	Approved: Steven Challeen, Director, Facilities Engineering	Date 01/02/2014 · Checked JG · Drawn RFOLIN	Dwg. 44 of 73

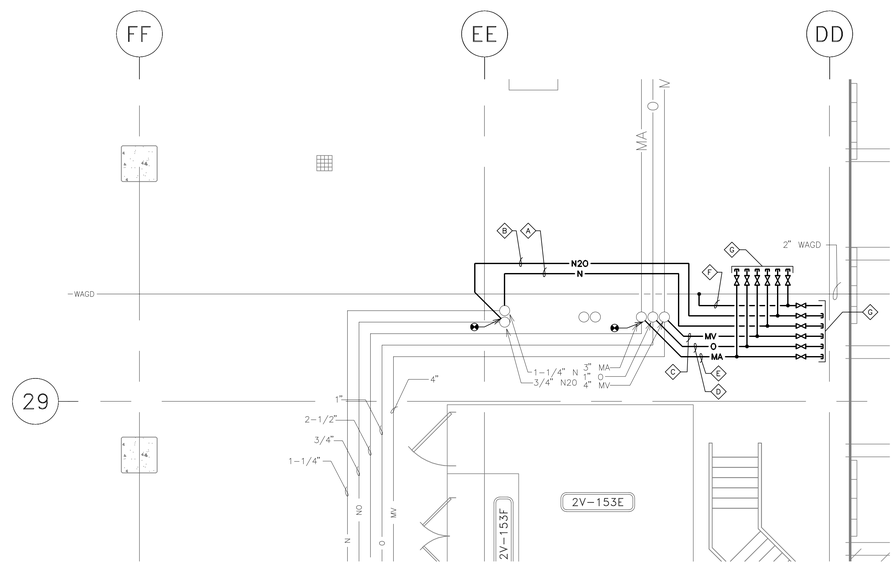
Office of Facilities Management
Department of Veterans Affairs



1 FIRST FLOOR INTERSTITIAL MEDICAL GAS PLAN
1/8"=1'-0"



2 FIRST FLOOR MECHANICAL ROOM MEDICAL GAS PLAN
1/8"=1'-0"



3 SECOND FLOOR MECHANICAL ROOM MEDICAL GAS PLAN (BID OPTION #10)
1/8"=1'-0"

GENERAL NOTES:

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F. THE EXACT LOCATION OF EQUIPMENT ROUGH-INS SHALL BE VERIFIED WITH THE STAMPED APPROVED SHOP DRAWINGS PRIOR TO ANY FIELD INSTALLATION.

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O. ALL CONTRACTORS TO REFERENCE THE INFECTION CONTROL NOTES IDENTIFIED WITHIN THE VENTILATION GENERAL NOTES ON THESE DRAWINGS. CONFORM TO ALL ICRA REQUIREMENTS.

KEY NOTES:

1. DOWN TO TREATMENT ROOM VALVE BOX.
2. DOWN TO POD #1 VALVE BOX.
3. DOWN TO POD #2 VALVE BOX.
4. 1/2" OXYGEN, 1/2' MEDICAL AIR, AND 3/4" MEDICAL VACUUM DOWN TO HEADWALL.
5. INSTALL LOCKABLE SERVICE VALVES AND CAP FOR FUTURE USE.
6. INSTALL LOCKABLE SERVICE VALVES.
7. INSTALL PRESSURE TRANSDUCERS.
8. 1/2" MEDICAL AIR, 1/2" OXYGEN, AND 3/4" MEDICAL VACUUM DOWN TO HEAD WALL. SEE FLOOR PLAN FOR OUTLET QUANTITIES.
9. 1/2" OXYGEN DOWN TO WALL OUTLET.
10. EXTEND 2" MEDICAL VACUUM, 3/4" OXYGEN, AND 1/2" MEDICAL AIR FROM EXISTING CAPS.
11. SEE 2/MG04 AND 3/MG04 FOR ENLARGED MECHANICAL ROOM MEDICAL GAS PLANS.
12. INCLUDE ALL WORK IN AREA INDICATED RELATING TO TAPPING OFF OF SECOND FLOOR MEDICAL GAS RISERS AND CAPPING FOR FUTURE AS PART OF BID OPTION #10.

BID OPTION#10

A. EXTEND NEW 3/4" NITROGEN FROM EXISTING 3/4" NITROGEN RISER.
B. EXTEND NEW 3/4" NITROUS OXIDE FROM EXISTING 1-1/4" NITROUS OXIDE RISER.
C. EXTEND NEW 3" MEDICAL VACUUM FROM EXISTING 4" MEDICAL VACUUM RISER.
D. EXTEND NEW 3/4" OXYGEN FROM EXISTING 1" RISER.
E. EXTEND NEW 2" MEDICAL AIR FROM EXISTING 2-1/2" MEDICAL AIR RISER.
F. EXTEND NEW 2" WAGD FROM EXISTING 3" WAGD MAIN.
G. INSTALL FULL SIZE TAKE OFF WITH LOCKABLE SERVICE VALVE AND CAP FOR FUTURE CONNECTION FOR WAGD, NITROGEN, NITROUS OXIDE, OXYGEN, MEDICAL VACUUM, AND MEDICAL AIR.

FULLY SPRINKLERED

REVISIONS	DATE

GENERAL NOTES:

GENERAL CONTRACTOR AND/OR ALL SUBCONTRACTORS SHALL FIELD VERIFY ALL DIMENSIONS SHOWN ON THESE PLANS AND SHALL BE RESPONSIBLE FOR VARIATIONS BETWEEN PLAN DIMENSIONS AND ACTUAL FIELD DIMENSIONS. WHERE VARIATIONS ARE FOUND TO OCCUR, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING PRIOR TO PROCEEDING WITH CONSTRUCTION; NO ADJUSTMENT TO THE WORK WILL BE MADE WITHOUT THE PRIOR APPROVAL OF THE PROJECT ENGINEER.

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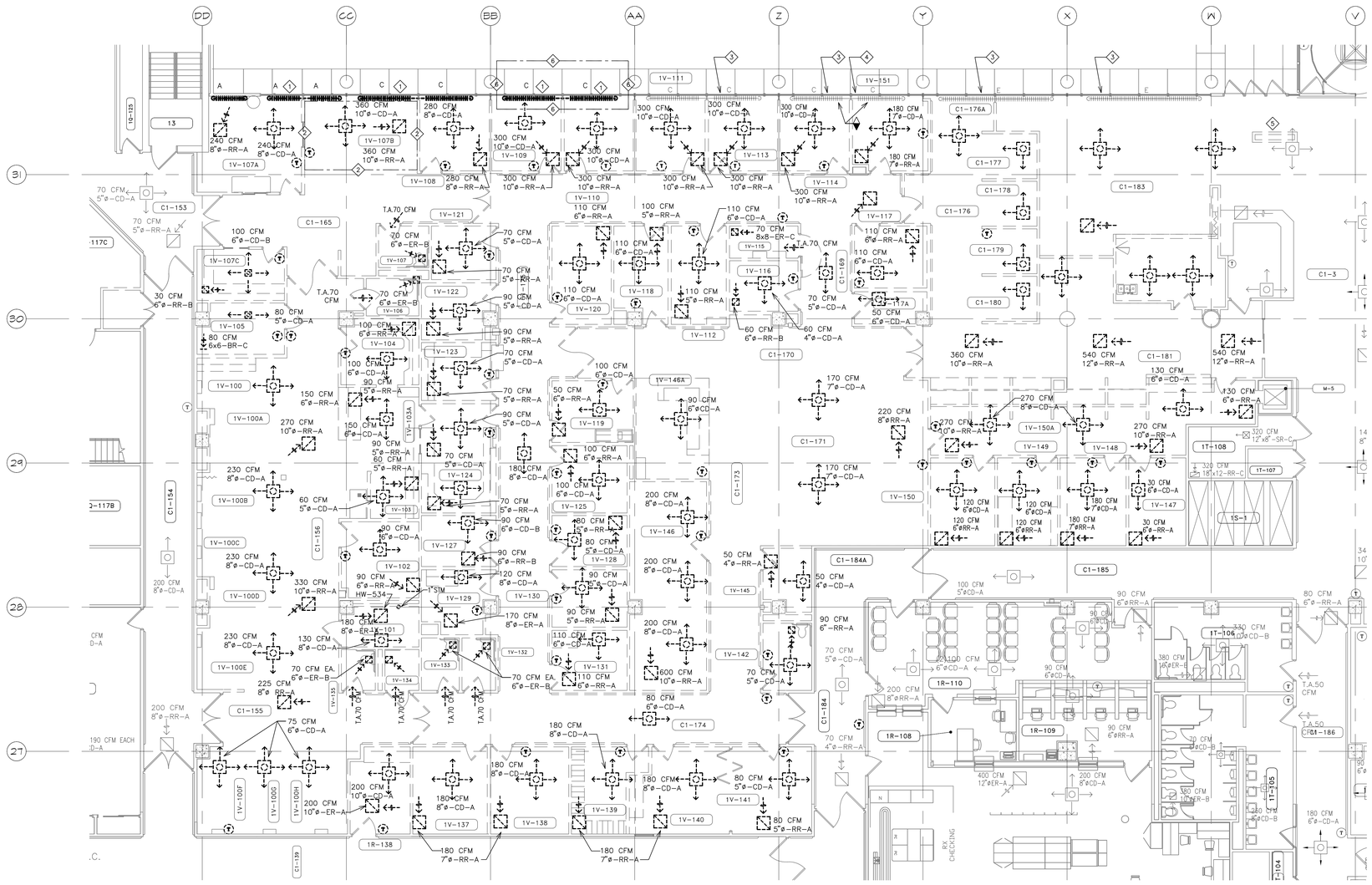
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed Architect under the laws of the State of Minnesota.

JASON GOTTWALT, PE
Date 01/02/2014 Reg. No. 41360

Drawing Title: FIRST FLOOR INTERSTITIAL MEDICAL GAS PLAN	Project Title: VA MINNEAPOLIS ED RENOVATION	Project No. 618-14-104	Office of Facilities Management
Drawing Scale: AS NOTED	Approved: Catherine Joyce, Chief, Projects Section	Building Number 70	Department of Veterans Affairs
Plot Scale: 12" = 1'-0"	Approved: Steven Challeen, Director, Facilities Engineering	Location: V.A. MEDICAL CENTER, ONE VETERANS DRIVE, MINNEAPOLIS, MN 55417	DRAWING NO. 1272-70-MG04
		Date 01/02/2014 · Checked JG · Drawn RFOLIN	Dwg. 45 Of 73



1 FIRST FLOOR MECHANICAL DEMOLITION PLAN
1/8" = 1'-0"

GENERAL NOTES:

A. MECHANICAL CONTRACTOR SHALL REFER TO THE VA MASTER SPECIFICATION MANUAL EDITED FOR THIS PROJECT ALONG WITH ANY APPLICABLE STANDARDS WITHIN THE 2011 HVAC DESIGN GUIDE. ALL REQUIREMENTS OF THOSE MANUALS SHALL BE MAINTAINED IN ADDITION TO ALL NOTES AND DESCRIPTIONS INDICATED WITHIN THESE DRAWINGS. ANY CONFLICTS BETWEEN THOSE DOCUMENTS SHOULD BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR INTERPRETATION.

B. MECHANICAL CONTRACTOR WILL BE RESPONSIBLE TO REVIEW ACCESSIBILITY TO AREAS OUTSIDE THE CONSTRUCTION LIMITS TO DETERMINE APPROXIMATE AMOUNT OF OVERTIME REQUIRED TO PERFORM ALL MECHANICAL WORK INDICATED. COORDINATION OF SCHEDULES WITH ADJACENT DEPARTMENTS AND CLEANING OF ALL DEBRIS AFTER EACH SHIFT SHOULD BE ASSUMED IN THE BASE BID.

C. ANY MAJOR VENTILATION OUTAGES INDICATED ON THESE DRAWINGS SHALL BE SCHEDULED TO BE PERFORMED AFTER NORMAL BUSINESS HOURS OR DURING WEEKEND PERIODS TO MINIMIZE DISRUPTION. VA HOSPITAL FACILITIES WILL REQUIRE A MINIMUM OF TWO(2) WEEKS NOTICE PRIOR TO ANY SUCH OUTAGE AFFECTING MORE THAN ONE ADJACENT AREA.

D. COORDINATE ALL NEW DUCTWORK ROUTING WITH ALL OTHER TRADES TO INSURE ADEQUATE CLEARANCES FOR PLUMBING, ELECTRICAL CONDUIT, STRUCTURAL SUPPORTS, PIPING, ETC. ANY UNAVOIDABLE CONFLICTS SHALL BE BROUGHT THE THE ATTENTION OF THE ARCHITECT/ENGINEER OF RECORD. PROVIDE ALL OFFSETS AND TRANSITIONS AS REQUIRED FOR A CLEAN INSTALLATION.

E. THE EXACT LOCATION OF EQUIPMENT ROUGH-INS SHALL BE VERIFIED WITH THE STAMPED APPROVED SHOP DRAWINGS PRIOR TO ANY FIELD INSTALLATION.

F. SUPPORT ALL DUCTWORK DIRECTLY TO STRUCTURE. DO NOT SUPPORT ANY DUCTS FROM DUCTWORK, CONDUIT, OR OTHER PIPING ENCOUNTERED.

G. WHERE MECHANICAL SYSTEMS TO REMAIN ARE DAMAGED, OR DISTURBED, DURING THE COURSE OF CONSTRUCTION THE CONTRACTOR WILL BE RESPONSIBLE TO REMOVE DAMAGED PORTIONS AND INSTALL NEW PRODUCTS OF EQUAL QUALITY AND FUNCTIONALITY.

H. ALL EXISTING DUCTWORK THROUGH NEW FIRE RATED WALLS SHALL BE ADEQUATELY FIRE SEALED AS REQUIRED. PIPING PENETRATIONS THROUGH INTERSTITIAL FLOOR SHALL BE DRILLED, OR CUT, BY THE CONTRACTOR AND FIRE SEALED AS REQUIRED.

I. THE MECHANICAL CONTRACTOR WILL BE RESPONSIBLE TO MAINTAIN EACH PROJECT SPACE IN A NEGATIVE PRESSURIZATION AND PROVIDE HEPA FILTRATION UNITS AS REQUIRED BY INFECTION CONTROL. IF NECESSARY CONSULT WITH VA, OR ENGINEER OF RECORD, FOR SUGGESTED METHODS THAT MAY BE UTILIZED TO ELIMINATE CONTAMINATED AIR TO OUTSIDE. VISUAL PRESSURIZATION INDICATORS SHALL BE PROVIDED AT EACH ENTRANCE TO THE CONSTRUCTION ZONE AND MONITORED DAILY TO INSURE A CONSTANT NEGATIVE PRESSURE IS MAINTAINED THROUGHOUT EACH PHASE. COORDINATE PRESSURIZATION PLANNING WITH VA FACILITIES AND INFECTION CONTROL REPRESENTATIVE PRIOR TO EACH CONSTRUCTION PHASE.

J. ALL EXISTING RETURN/EXHAUST DUCTWORK NOT TEMPORARILY CAPPED SHALL BE PROTECTED WITH REMOVABLE FILTER MEDIA TO PROTECT EXISTING DUCT SYSTEMS FROM CONSTRUCTION DEBRIS. ALL NEW DUCTWORK SHALL BE PROTECTED AS REQUIRED AND CLEANED PRIOR TO START-UP. IF CONSTRUCTION DEBRIS IS FOUND INSIDE UNPROTECTED DUCTWORK THAN DUCT CLEANING OF THE ENTIRE SYSTEM SHALL BE PERFORMED AT THE CONTRACTOR'S EXPENSE.

K. PROVIDE EACH NEW SUPPLY DIFFUSER WITH A SINGLE BLADE TAKE-OFF DAMPER WITH QUADRANT LOCKING DEVICE. PERFORM ALL BALANCING OF NEW DIFFUSERS THROUGH THOSE TAKE-OFF DAMPERS. ALL NEW RETURN/EXHAUST GRILLES WILL BE PROVIDED WITH OPPOSED BLADE BALANCING DAMPERS POSITIONED UPSTREAM PAST A MINIMUM OF ONE TRANSITION FOR SOUND ABATEMENT. BALANCING ANY DIFFUSERS/GRILLES USING INTEGRAL DAMPERS WILL NOT BE AN APPROVED METHOD OF BALANCING.

L. THE FOLLOWING NOTES BELOW ARE SPECIFIC TO INFECTION CONTROL AND APPLY TO ALL SUBCONTRACTORS INVOLVED WITH THE PROJECT. ALL CONTRACTORS AND SUBCONTRACTORS SHALL FOLLOW THE INFECTION CONTROL RISK ASSESSMENT (ICRA) AND FGI GUIDELINES THROUGHOUT THE CONSTRUCTION PROCESS. ALL CONTRACTED WORKERS MUST RECEIVE INFORMATION/TRAINING ON INFECTION CONTROL RISKS AND PRACTICES PRIOR TO STARTING ANY ON SITE WORK.

M. ALL BALANCING REPORTS WILL BE MADE AVAILABLE TO VA HOSPITAL INFECTION CONTROL PERSONNEL ON REQUEST. SUBMIT THESE REPORTS ONLY AFTER THEY HAVE BEEN REVIEWED, AND APPROVED, BY THE ENGINEER OF RECORD.

N. ALL WORK OUTSIDE THE PROTECTED PROJECT BOUNDARIES ABOVE EXISTING CEILING SHALL BE COMPLETED WITH CEILINGS REPLACED IN THE SAME DAY UNLESS FULLY COORDINATED THROUGH INFECTION CONTROL. CLEAN AREA TO ORIGINAL CONDITION ON COMPLETION.

O. CEILING TILES WITH VISIBLE WATER DAMAGE SHALL BE SPRAYED TO DISINFECT AND ENCAPSULATE POTENTIAL MOLD PRIOR TO REMOVAL.

P. CONTRACTOR TO INSTALL TEMPORARY BARRIERS FOR EACH PROJECT PHASE AND/OR AREA. THESE BARRIERS SHALL BE COORDINATED WITH VA HOSPITAL AND, IN MOST CASES, CONTAIN SOME FORM OF AIRLOCK VESTIBULE PRIOR TO ENTERING THE CONSTRUCTION AREA.

Q. FLUTTER STRIPS OR AIR PRESSURE GAUGES SHALL BE PROVIDED AT THE ENTRANCES TO EACH CONSTRUCTION AREA. ALL CONTRACTED WORKERS SHALL BE TRAINED TO VISUALLY MONITOR THESE DEVICES FOR ADEQUATE NEGATIVE PRESSURIZATION AS THEY ENTER/EXIT THE CONSTRUCTION AREA. DAILY LOGS SHALL BE KEPT BY THE MECHANICAL CONTRACTOR TO INSURE CONSTANT PRESSURIZATION HAS BEEN MAINTAINED.

R. PORTABLE HEPA FILTER UNITS SHALL BE UTILIZED DIRECTLY OUTSIDE EACH CONSTRUCTION AREA. UNITS WILL BE PROVIDED BY AND MAINTAINED BY MECHANICAL CONTRACTOR.

S. NEGATIVE PRESSURIZATION SHALL BE MAINTAINED IN EACH CONSTRUCTION AREA. IF LOCATED ON AN EXTERIOR WALL FANS SHOULD BE UTILIZED TO EXHAUST AIR DIRECTLY OUT A NEARBY WINDOW, TAKING PRECAUTIONS TO NOT INTERFERE WITH EXISTING BUILDING AIR INTAKES, PUBLIC AREAS, ETC. IF NO EXTERIOR WALL IS AVAILABLE THEN NEGATIVE AIR MACHINES WITH INTERNAL FILTRATION SHALL BE PROVIDED AND CONNECTION TO THE NEAREST EXHAUST OR RETURN DUCT AVAILABLE (CONTACT ENGINEER TO VERIFY EXISTING DUCTWORK CAPACITY PRIOR TO EXHAUST CONNECTION).

T. COORDINATE DEBRIS REMOVAL WITH VA PROJECT MANAGER. IF AN ACCEPTABLE EXIT PATH IS NOT AVAILABLE FROM THE PROJECT SITE THEN AFTER HOURS REMOVAL OF DEMOLISHED MATERIAL WILL BE PERFORMED. COVER ALL CARTS WITH SEALED COVERS TO MAINTAIN DUST CONTROL.

KEY NOTES:

1. DEMOLISH SECTION OF FIN TUBE RADIATION. CAP PIPES AT MAINS BELOW.
2. AS PART OF PROJECT PHASING. REBALANCE NEW SATELLITE SPS ROOM TO 150 CFM SUPPLY AND 100 CFM RETURN FOR PHASE 1A.
3. REPLACE EXISTING PNEUMATIC CONTROL VALVE SERVING FIN TUBE RADIATION WITH NEW DIGITAL CONTROL VALVE. DEMOLISH EXISTING FIN TUBE RADIATION COVER. INSTALL NEW COVER.
4. DEMOLISH SECTION OF FIN TUBE RADIATION. RE-PIPE FIN TUBE RADIATION TO COORDINATE WITH NEW DOOR.
5. DEMOLISH EXISTING CABINET UNIT HEATER AND ASSOCIATED CONTROLS. DEMOLISH PIPING BACK TO MAINS AND CAP.
6. INCLUDE DEMOLITION OF SECTION OF FIN TUBE RADIATION IN AREA INDICATED AS PART OF BID OPTION #1.
7. AS PART OF PROJECT PHASING. REBALANCE NEW SATELLITE SPS ROOM TO 150 CFM SUPPLY AND 100 CFM RETURN FOR PHASE 1A.

FULLY SPRINKLERED

REVISIONS	DATE

GENERAL NOTES:

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I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed Architect under the laws of the State of Minnesota.

JASON GOTTWALT, PE
Date 01/02/2014 Reg. No. 41360

Drawing Title: FIRST FLOOR MECHANICAL DEMOLITION PLAN

Drawing Scale: AS NOTED

Plot Scale: 12" = 1'-0"

Approved: Catherine Joyce, Chief, Projects Section

Approved: Steven Challeen, Director, Facilities Engineering

Project Title: VA MINNEAPOLIS ED RENOVATION

Location: V.A. MEDICAL CENTER, ONE VETERANS DRIVE, MINNEAPOLIS, MN 55417

Date: 01/02/2014 | Checked: JG | Drawn: RFOLIN

Project No. 618-14-104

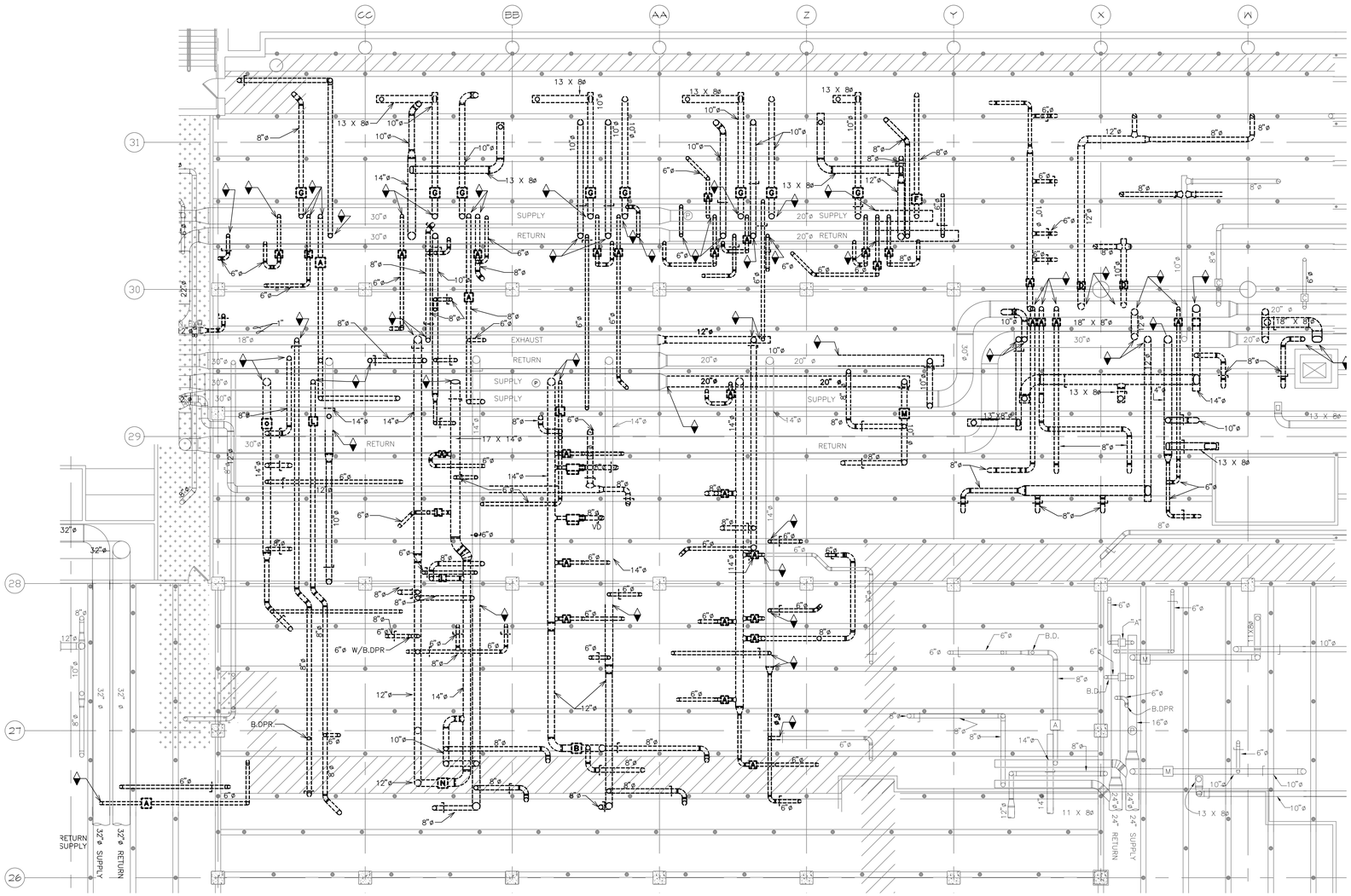
Building Number 70

DRAWING NO. 1272-70-MH01

Dwg. 46 of 73

Office of Facilities Management

Department of Veterans Affairs



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KEY NOTES:

1. PROVIDE TEMPORARY CONNECTION TO RETURN DUCT WHILE WORK ON RETURN DUCT MAINS IS BEING COMPLETED.
2. PROVIDE TEMPORARY CONNECTION TO SUPPLY DUCT WHILE WORK ON SUPPLY DUCT MAINS IS BEING COMPLETED.
3. DEMOLISH EXISTING PNEUMATICALLY CONTROLLED VAV BOX. INSTALL NEW DIGITALLY CONTROLLED VAV BOX. MODIFY EXISTING DUCT CONNECTIONS AS REQUIRED.

FULLY SPRINKLERED

REVISIONS	DATE

GENERAL NOTES:

GENERAL CONTRACTOR AND/OR ALL SUBCONTRACTORS SHALL FIELD VERIFY ALL DIMENSIONS SHOWN ON THESE PLANS AND SHALL BE RESPONSIBLE FOR VARIATIONS BETWEEN PLAN DIMENSIONS AND ACTUAL FIELD DIMENSIONS. WHERE VARIATIONS ARE FOUND TO OCCUR, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING PRIOR TO PROCEEDING WITH CONSTRUCTION; NO ADJUSTMENT TO THE WORK WILL BE MADE WITHOUT THE PRIOR APPROVAL OF THE PROJECT ENGINEER.

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I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed Architect under the laws of the State of Minnesota.
JASON GOTTWALT, PE
Date 01/02/2014 Reg. No. 41360

Drawing Title: FIRST FLOOR INTERSTITIAL MECHANICAL DEMOLITION PLAN

Project Title: VA MINNEAPOLIS ED RENOVATION

Project No. 618-14-104
Building Number 70

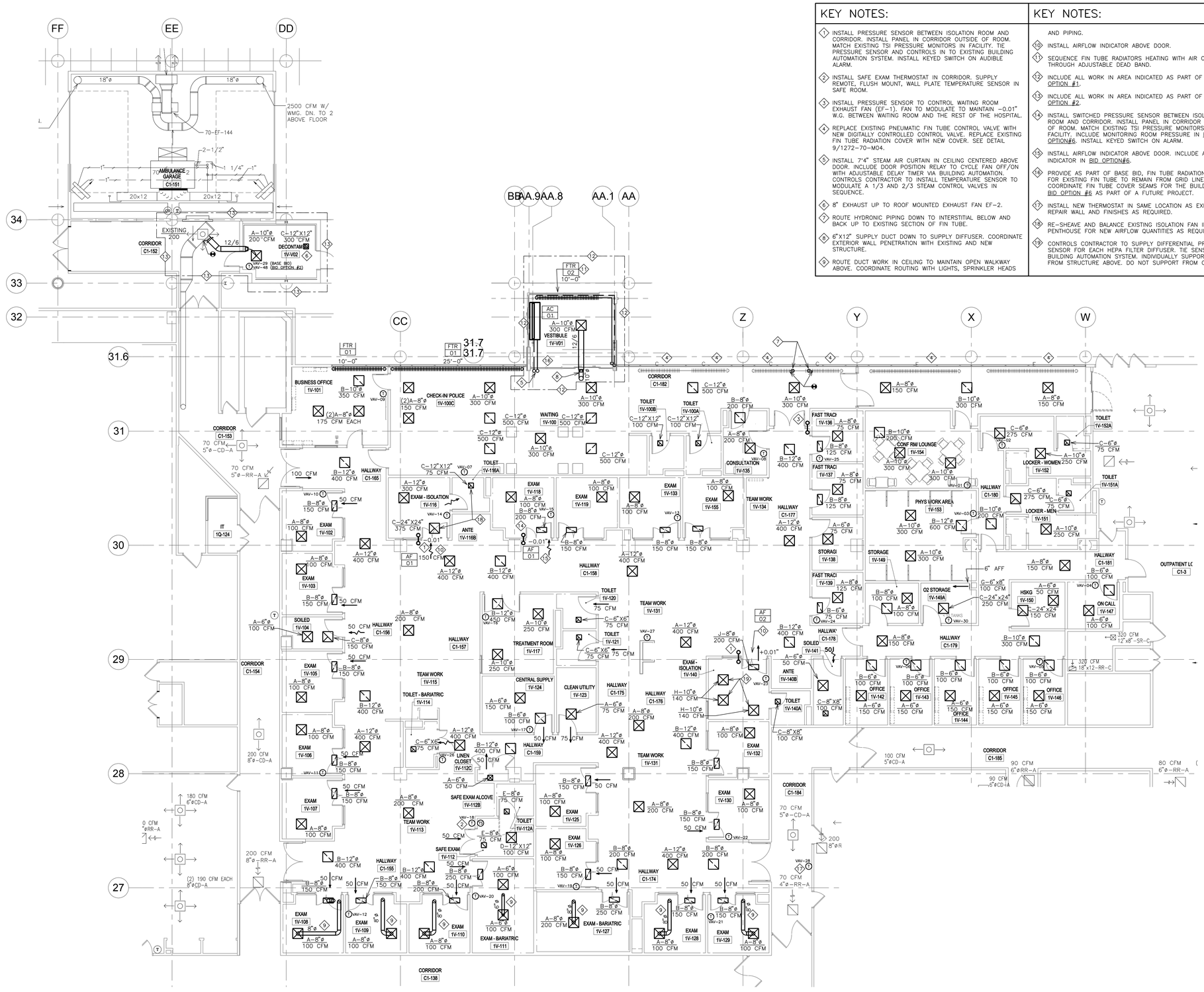
Drawing Scale: AS NOTED
Plot Scale: 12" = 1'-0"

Approved: Catherine Joyce, Chief, Projects Section
Approved: Steven Challeen, Director, Facilities Engineering

Location: V.A. MEDICAL CENTER, ONE VETERANS DRIVE, MINNEAPOLIS, MN 55417
Date 01/02/2014 | Checked JG | Drawn RFOLIN

DRAWING NO. 1272-70-MH02
Dwg. 47 of 73

Office of Facilities Management
Department of Veterans Affairs



KEY NOTES:

1. INSTALL PRESSURE SENSOR BETWEEN ISOLATION ROOM AND CORRIDOR. INSTALL PANEL IN CORRIDOR OUTSIDE OF ROOM. MATCH EXISTING TSI PRESSURE MONITORS IN FACILITY. TIE PRESSURE SENSOR AND CONTROLS IN TO EXISTING BUILDING AUTOMATION SYSTEM. INSTALL KEYED SWITCH ON AUDIBLE ALARM.
2. INSTALL SAFE EXAM THERMOSTAT IN CORRIDOR. SUPPLY REMOTE, FLUSH MOUNT, WALL PLATE TEMPERATURE SENSOR IN SAFE ROOM.
3. INSTALL PRESSURE SENSOR TO CONTROL WAITING ROOM EXHAUST FAN (EF-1). FAN TO MODULATE TO MAINTAIN -0.01" W.G. BETWEEN WAITING ROOM AND THE REST OF THE HOSPITAL.
4. REPLACE EXISTING PNEUMATIC FIN TUBE CONTROL VALVE WITH NEW DIGITALLY CONTROLLED CONTROL VALVE. REPLACE EXISTING FIN TUBE RADIATION COVER WITH NEW COVER. SEE DETAIL 9/1272-70-M04.
5. INSTALL 7'4" STEAM AIR CURTAIN IN CEILING CENTERED ABOVE DOOR. INCLUDE DOOR POSITION RELAY TO CYCLE FAN OFF/ON WITH ADJUSTABLE DELAY TIMER VIA BUILDING AUTOMATION. CONTROLS CONTRACTOR TO INSTALL TEMPERATURE SENSOR TO MODULATE A 1/3 AND 2/3 STEAM CONTROL VALVES IN SEQUENCE.
6. 8" EXHAUST UP TO ROOF MOUNTED EXHAUST FAN EF-2.
7. ROUTE HYDRONIC PIPING DOWN TO INTERSTITIAL BELOW AND BACK UP TO EXISTING SECTION OF FIN TUBE.
8. 6"X12" SUPPLY DUCT DOWN TO SUPPLY DIFFUSER. COORDINATE EXTERIOR WALL PENETRATION WITH EXISTING AND NEW STRUCTURE.
9. ROUTE DUCT WORK IN CEILING TO MAINTAIN OPEN WALKWAY ABOVE. COORDINATE ROUTING WITH LIGHTS, SPRINKLER HEADS AND PIPING.

KEY NOTES:

10. INSTALL AIRFLOW INDICATOR ABOVE DOOR.
11. SEQUENCE FIN TUBE RADIATORS HEATING WITH AIR CURTAIN THROUGH ADJUSTABLE DEAD BAND.
12. INCLUDE ALL WORK IN AREA INDICATED AS PART OF BID OPTION #1.
13. INCLUDE ALL WORK IN AREA INDICATED AS PART OF BID OPTION #2.
14. INSTALL SWITCHED PRESSURE SENSOR BETWEEN ISOLATION ROOM AND CORRIDOR. INSTALL PANEL IN CORRIDOR OUTSIDE OF ROOM. MATCH EXISTING TSI PRESSURE MONITORS IN FACILITY. INCLUDE MONITORING ROOM PRESSURE IN BID OPTION#6. INSTALL KEYED SWITCH ON ALARM.
15. INSTALL AIRFLOW INDICATOR ABOVE DOOR. INCLUDE AIRFLOW INDICATOR IN BID OPTION#6.
16. PROVIDE AS PART OF BASE BID, FIN TUBE RADIATION COVER FOR EXISTING FIN TUBE TO REMAIN FROM GRID LINE BB TO AA. COORDINATE FIN TUBE COVER SEAMS FOR THE BUILD OUT OF BID OPTION #6 AS PART OF A FUTURE PROJECT.
17. INSTALL NEW THERMOSTAT IN SAME LOCATION AS EXISTING. REPAIR WALL AND FINISHES AS REQUIRED.
18. RE-SHEAVE AND BALANCE EXISTING ISOLATION FAN IN PENTHOUSE FOR NEW AIRFLOW QUANTITIES AS REQUIRED.
19. CONTROLS CONTRACTOR TO SUPPLY DIFFERENTIAL PRESSURE SENSOR FOR EACH HEPA FILTER DIFFUSER. TIE SENSOR IN TO BUILDING AUTOMATION SYSTEM. INDIVIDUALLY SUPPORT DIFFUSER FROM STRUCTURE ABOVE. DO NOT SUPPORT FROM CEILING.

GENERAL NOTES:

A. MECHANICAL CONTRACTOR SHALL REFER TO THE VA MASTER SPECIFICATION MANUAL EDITED FOR THIS PROJECT ALONG WITH ANY APPLICABLE STANDARDS WITHIN THE 2011 HVAC DESIGN GUIDE. ALL REQUIREMENTS OF THOSE MANUALS SHALL BE MAINTAINED IN ADDITION TO ALL NOTES AND DESCRIPTIONS INDICATED WITHIN THESE DRAWINGS. ANY CONFLICTS BETWEEN THOSE DOCUMENTS SHOULD BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR INTERPRETATION.

B. MECHANICAL CONTRACTOR WILL BE RESPONSIBLE TO REVIEW ACCESSIBILITY TO AREAS OUTSIDE THE CONSTRUCTION LIMITS TO DETERMINE APPROXIMATE AMOUNT OF OVERTIME REQUIRED TO PERFORM ALL MECHANICAL WORK INDICATED. COORDINATION OF SCHEDULES WITH ADJACENT DEPARTMENTS AND CLEANING OF ALL DEBRIS AFTER EACH SHIFT SHOULD BE ASSUMED IN THE BASE BID.

C. ANY MAJOR VENTILATION OUTAGES INDICATED ON THESE DRAWINGS SHALL BE SCHEDULED TO BE PERFORMED AFTER NORMAL BUSINESS HOURS OR DURING WEEKEND PERIODS TO MINIMIZE DISRUPTION. VA HOSPITAL FACILITIES WILL REQUIRE A MINIMUM OF TWO(2) WEEKS NOTICE PRIOR TO ANY SUCH OUTAGE AFFECTING MORE THAN ONE ADJACENT AREA.

D. COORDINATE ALL NEW DUCTWORK ROUTING WITH ALL OTHER TRADES TO INSURE ADEQUATE CLEARANCES FOR PLUMBING, ELECTRICAL CONDUIT, STRUCTURAL SUPPORTS, PIPING, ETC. ANY UNAVOIDABLE CONFLICTS SHALL BE BROUGHT THE THE ATTENTION OF THE ARCHITECT/ENGINEER OF RECORD. PROVIDE ALL OFFSETS AND TRANSITIONS AS REQUIRED FOR A CLEAN INSTALLATION.

E. THE EXACT LOCATION OF EQUIPMENT ROUGH-INS SHALL BE VERIFIED WITH THE STAMPED APPROVED SHOP DRAWINGS PRIOR TO ANY FIELD INSTALLATION.

F. SUPPORT ALL DUCTWORK DIRECTLY TO STRUCTURE. DO NOT SUPPORT ANY DUCTS FROM DUCTWORK, CONDUIT, OR OTHER PIPING ENCOUNTERED.

G. WHERE MECHANICAL SYSTEMS TO REMAIN ARE DAMAGED, OR DISTURBED, DURING THE COURSE OF CONSTRUCTION THE CONTRACTOR WILL BE RESPONSIBLE TO REMOVE DAMAGED PORTIONS AND INSTALL NEW PRODUCTS OF EQUAL QUALITY AND FUNCTIONALITY.

H. ALL EXISTING DUCTWORK THROUGH NEW FIRE RATED WALLS SHALL BE ADEQUATELY FIRE SEALED AS REQUIRED. PIPING PENETRATIONS THROUGH INTERSTITIAL FLOOR SHALL BE DRILLED, OR CUT, BY THE CONTRACTOR AND FIRE SEALED AS REQUIRED.

I. THE MECHANICAL CONTRACTOR WILL BE RESPONSIBLE TO MAINTAIN EACH PROJECT SPACE IN A NEGATIVE PRESSURIZATION AND PROVIDE HEPA FILTRATION UNITS AS REQUIRED BY INFECTION CONTROL. IF NECESSARY CONSULT WITH VA, OR ENGINEER OF RECORD, FOR SUGGESTED METHODS THAT MAY BE UTILIZED TO ELIMINATE CONTAMINATED AIR TO OUTSIDE. VISUAL PRESSURIZATION INDICATORS SHALL BE PROVIDED AT EACH ENTRANCE TO THE CONSTRUCTION ZONE AND MONITORED DAILY TO INSURE A CONSTANT NEGATIVE PRESSURE IS MAINTAINED THROUGHOUT EACH PHASE. COORDINATE PRESSURIZATION PLANNING WITH VA FACILITIES AND INFECTION CONTROL REPRESENTATIVE PRIOR TO EACH CONSTRUCTION PHASE.

J. ALL EXISTING RETURN/EXHAUST DUCTWORK NOT TEMPORARILY CAPPED SHALL BE PROTECTED WITH REMOVABLE FILTER MEDIA TO PROTECT EXISTING DUCT SYSTEMS FROM CONSTRUCTION DEBRIS. ALL NEW DUCTWORK SHALL BE PROTECTED AS REQUIRED AND CLEANED PRIOR TO START-UP. IF CONSTRUCTION DEBRIS IS FOUND INSIDE UNPROTECTED DUCTWORK THAN DUCT CLEANING OF THE ENTIRE SYSTEM SHALL BE PERFORMED AT THE CONTRACTOR'S EXPENSE.

K. PROVIDE EACH NEW SUPPLY DIFFUSER WITH A SINGLE BLADE TAKE-OFF DAMPER WITH QUADRANT LOCKING DEVICE. PERFORM ALL BALANCING OF NEW DIFFUSERS THROUGH THOSE TAKE-OFF DAMPERS. ALL NEW RETURN/EXHAUST GRILLES WILL BE PROVIDED WITH OPPOSED BLADE BALANCING DAMPERS POSITIONED UPSTREAM PAST A MINIMUM OF ONE TRANSITION FOR SOUND ABATEMENT. BALANCING ANY DIFFUSERS/GRILLES USING INTEGRAL DAMPERS WILL NOT BE AN APPROVED METHOD OF BALANCING.

L. THE FOLLOWING NOTES BELOW ARE SPECIFIC TO INFECTION CONTROL AND APPLY TO ALL SUBCONTRACTORS INVOLVED WITH THE PROJECT. ALL CONTRACTORS AND SUBCONTRACTORS SHALL FOLLOW THE INFECTION CONTROL RISK ASSESSMENT (ICRA) AND FGI GUIDELINES THROUGHOUT THE CONSTRUCTION PROCESS. ALL CONTRACTED WORKERS MUST RECEIVE INFORMATION/TRAINING ON INFECTION CONTROL RISKS AND PRACTICES PRIOR TO STARTING ANY ON SITE WORK.

M. ALL BALANCING REPORTS WILL BE MADE AVAILABLE TO VA HOSPITAL INFECTION CONTROL PERSONNEL ON REQUEST. SUBMIT THESE REPORTS ONLY AFTER THEY HAVE BEEN REVIEWED, AND APPROVED, BY THE ENGINEER OF RECORD.

N. ALL WORK OUTSIDE THE PROTECTED PROJECT BOUNDARIES ABOVE EXISTING CEILING SHALL BE COMPLETED WITH CEILINGS REPLACED IN THE SAME DAY UNLESS FULLY COORDINATED THROUGH INFECTION CONTROL. CLEAN AREA TO ORIGINAL CONDITION ON COMPLETION.

O. CEILING TILES WITH VISIBLE WATER DAMAGE SHALL BE SPRAYED TO DISINFECT AND ENCAPSULATE POTENTIAL MOLD PRIOR TO REMOVAL.

P. CONTRACTOR TO INSTALL TEMPORARY BARRIERS FOR EACH PROJECT PHASE AND/OR AREA. THESE BARRIERS SHALL BE COORDINATED WITH VA HOSPITAL AND, IN MOST CASES, CONTAIN SOME FORM OF AIRLOCK VESTIBULE PRIOR TO ENTERING THE CONSTRUCTION AREA.

Q. FLUTTER STRIPS OR AIR PRESSURE GAUGES SHALL BE PROVIDED AT THE ENTRANCES TO EACH CONSTRUCTION AREA. ALL CONTRACTED WORKERS SHALL BE TRAINED TO VISUALLY MONITOR THESE DEVICES FOR ADEQUATE NEGATIVE PRESSURIZATION AS THEY ENTER/EXIT THE CONSTRUCTION AREA. DAILY LOGS SHALL BE KEPT BY THE MECHANICAL CONTRACTOR TO INSURE CONSTANT PRESSURIZATION HAS BEEN MAINTAINED.

R. PORTABLE HEPA FILTER UNITS SHALL BE UTILIZED DIRECTLY OUTSIDE EACH CONSTRUCTION AREA. UNITS WILL BE PROVIDED BY AND MAINTAINED BY MECHANICAL CONTRACTOR.

S. NEGATIVE PRESSURIZATION SHALL BE MAINTAINED IN EACH CONSTRUCTION AREA. IF LOCATED ON AN EXTERIOR WALL FANS SHOULD BE UTILIZED TO EXHAUST AIR DIRECTLY OUT A NEARBY WINDOW, TAKING PRECAUTIONS TO NOT INTERFERE WITH EXISTING BUILDING AIR INTAKES, PUBLIC AREAS, ETC. IF NO EXTERIOR WALL IS AVAILABLE THEN NEGATIVE AIR MACHINES WITH INTERNAL FILTRATION SHALL BE PROVIDED AND CONNECTION TO THE NEAREST EXHAUST OR RETURN DUCT AVAILABLE (CONTACT ENGINEER TO VERIFY EXISTING DUCTWORK CAPACITY PRIOR TO EXHAUST CONNECTION).

T. COORDINATE DEBRIS REMOVAL WITH VA PROJECT MANAGER. IF AN ACCEPTABLE EXIT PATH IS NOT AVAILABLE FROM THE PROJECT SITE THEN AFTER HOURS REMOVAL OF DEMOLISHED MATERIAL WILL BE PERFORMED. COVER ALL CARTS WITH SEALED COVERS TO MAINTAIN DUST CONTROL.

1 FIRST FLOOR MECHANICAL PLAN
1/8"=1'-0"

FULLY SPRINKLERED

REVISIONS	DATE

GENERAL NOTES:

GENERAL CONTRACTOR AND/OR ALL SUBCONTRACTORS SHALL FIELD VERIFY ALL DIMENSIONS SHOWN ON THESE PLANS AND SHALL BE RESPONSIBLE FOR VARIATIONS BETWEEN PLAN DIMENSIONS AND ACTUAL FIELD DIMENSIONS. WHERE VARIATIONS ARE FOUND TO OCCUR, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING PRIOR TO PROCEEDING WITH CONSTRUCTION; NO ADJUSTMENT TO THE WORK WILL BE MADE WITHOUT THE PRIOR APPROVAL OF THE PROJECT ENGINEER.

GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR GENERAL DEMOLITION INCLUDING REMOVAL OF WALLS, PARTITIONS, DOORS & CEILING & FLOORS. ANY AND ALL CUTTING OF CONCRETE FLOORS, WALLS OR STRUCTURE SHALL BE THE GENERAL CONTRACTOR'S RESPONSIBILITY. CORE DRILLING THROUGH CONCRETE WALLS, FLOORS OR STRUCTURE FOR PIPING OR CONDUIT SHALL BE THE RESPONSIBILITY OF THE SUBCONTRACTOR BY TRADE; FIRESTOPPING OF THESE OPENINGS SHALL BE DONE BY THE RESPECTIVE SUBCONTRACTOR. REMOVAL OF DEBRIS RESULTING FROM DEMOLITION, CUTTING, AND/OR DRILLING IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. PATCHING AND REPAIR OF CONCRETE WALLS, FLOOR, OR STRUCTURE SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR; THIS WILL BE ACCOMPLISHED UPON COMPLETION OF THE INSTALLATION OF ANY AND ALL UTILITIES INSTALLED BY THE VARIOUS SUBCONTRACTORS.

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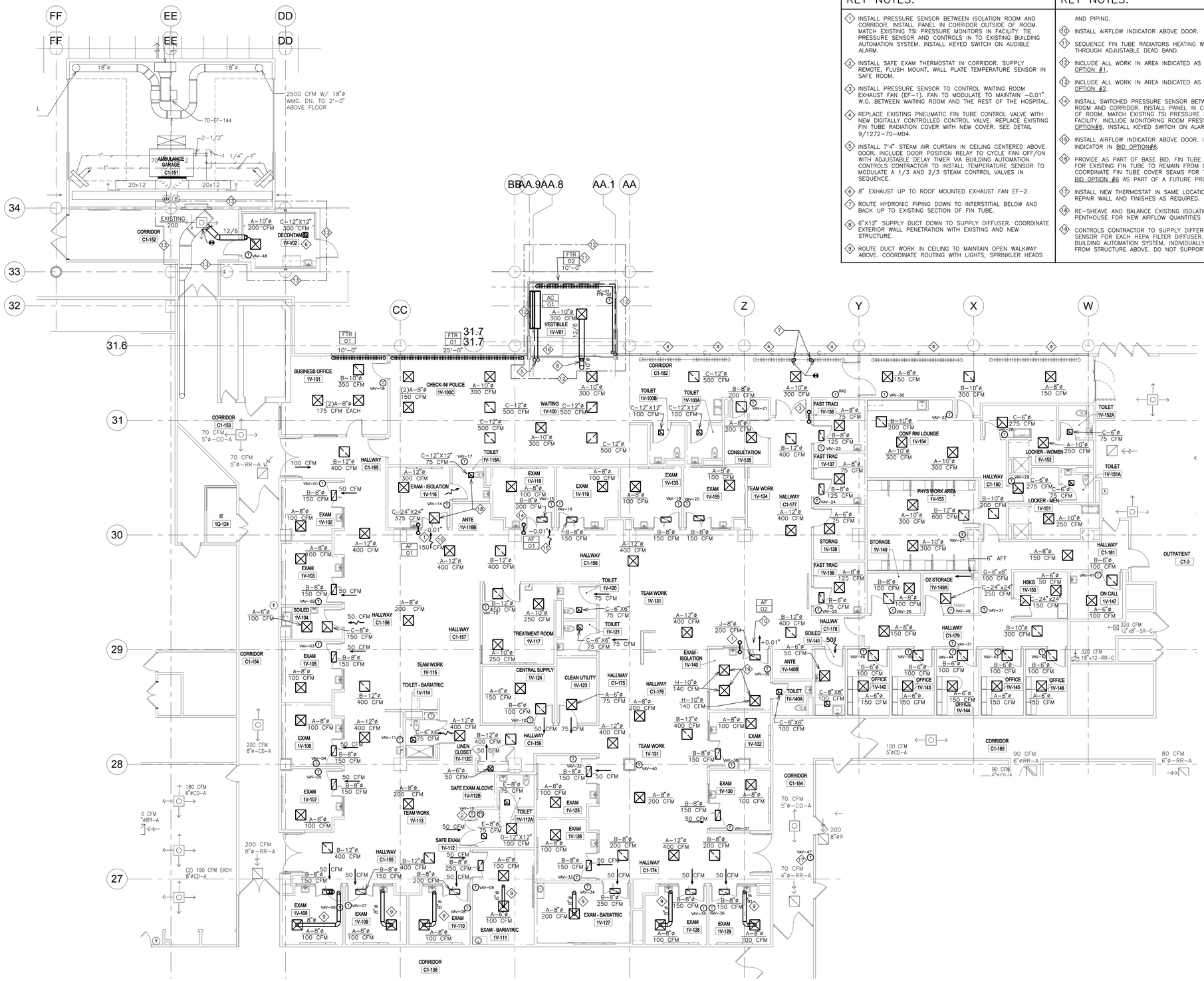
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed Architect under the laws of the State of Minnesota.

JASON GOTTWALT, PE
Date 01/02/2014 Reg. No. 41360

Drawing Title: FIRST FLOOR MECHANICAL PLAN	Project Title: VA MINNEAPOLIS ED RENOVATION	Project No. 618-14-104	
		Building Number 70	
Drawing Scale: AS NOTED	Approved: Catherine Joyce, Chief, Projects Section	Location: V.A. MEDICAL CENTER, ONE VETERANS DRIVE, MINNEAPOLIS, MN 55417	DRAWING NO. 1272-70-MH03
Plot Scale: 12" = 1'-0"	Approved: Steven Challeen, Director, Facilities Engineering	Date 01/02/2014 / Checked JG / Drawn RFOLIN	Dwg. 48 of 73

Office of Facilities Management

Department of Veterans Affairs



1 FIRST FLOOR MECHANICAL PLAN (BID OPTION #8)
1/8" = 1'-0"

KEY NOTES:

1. INSTALL PRESSURE SENSOR BETWEEN ISOLATION ROOM AND CORRIDOR. INSTALL PANEL IN CORRIDOR OUTSIDE OF ROOM. MATCH EXISTING TSI PRESSURE MONITORS IN FACILITY. TIE PRESSURE SENSOR AND CONTROLS IN TO EXISTING BUILDING AUTOMATION SYSTEM. INSTALL KEYED SWITCH ON AUDIBLE ALARM.
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17. INSTALL NEW THERMOSTAT IN SAME LOCATION AS EXISTING. REPAIR WALL AND FINISHES AS REQUIRED.
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J. ALL EXISTING RETURN/EXHAUST DUCTWORK NOT TEMPORARILY CAPPED SHALL BE PROTECTED WITH REMOVABLE FILTER MEDIA TO PROTECT EXISTING DUCT SYSTEMS FROM CONSTRUCTION DEBRIS. ALL NEW DUCTWORK SHALL BE PROTECTED AS REQUIRED AND CLEANED PRIOR TO START-UP. IF CONSTRUCTION DEBRIS IS FOUND INSIDE UNPROTECTED DUCTWORK THAN DUCT CLEANING OF THE ENTIRE SYSTEM SHALL BE PERFORMED AT THE CONTRACTOR'S EXPENSE.

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M. ALL BALANCING REPORTS WILL BE MADE AVAILABLE TO VA HOSPITAL INFECTION CONTROL PERSONNEL ON REQUEST. SUBMIT THESE REPORTS ONLY AFTER THEY HAVE BEEN REVIEWED, AND APPROVED, BY THE ENGINEER OF RECORD.

N. ALL WORK OUTSIDE THE PROTECTED PROJECT BOUNDARIES ABOVE EXISTING CEILING SHALL BE COMPLETED WITH CEILINGS REPLACED IN THE SAME DAY UNLESS FULLY COORDINATED THROUGH INFECTION CONTROL. CLEAN AREA TO ORIGINAL CONDITION ON COMPLETION.

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R. PORTABLE HEPA FILTER UNITS SHALL BE UTILIZED DIRECTLY OUTSIDE EACH CONSTRUCTION AREA. UNITS WILL BE PROVIDED BY AND MAINTAINED BY MECHANICAL CONTRACTOR.

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T. COORDINATE DEBRIS REMOVAL WITH VA PROJECT MANAGER. IF AN ACCEPTABLE EXIT PATH IS NOT AVAILABLE FROM THE PROJECT SITE THEN AFTER HOURS REMOVAL OF DEMOLISHED MATERIAL WILL BE PERFORMED. COVER ALL CARTS WITH SEALED COVERS TO MAINTAIN DUST CONTROL.

FULLY SPRINKLERED

REVISIONS	DATE

GENERAL NOTES:

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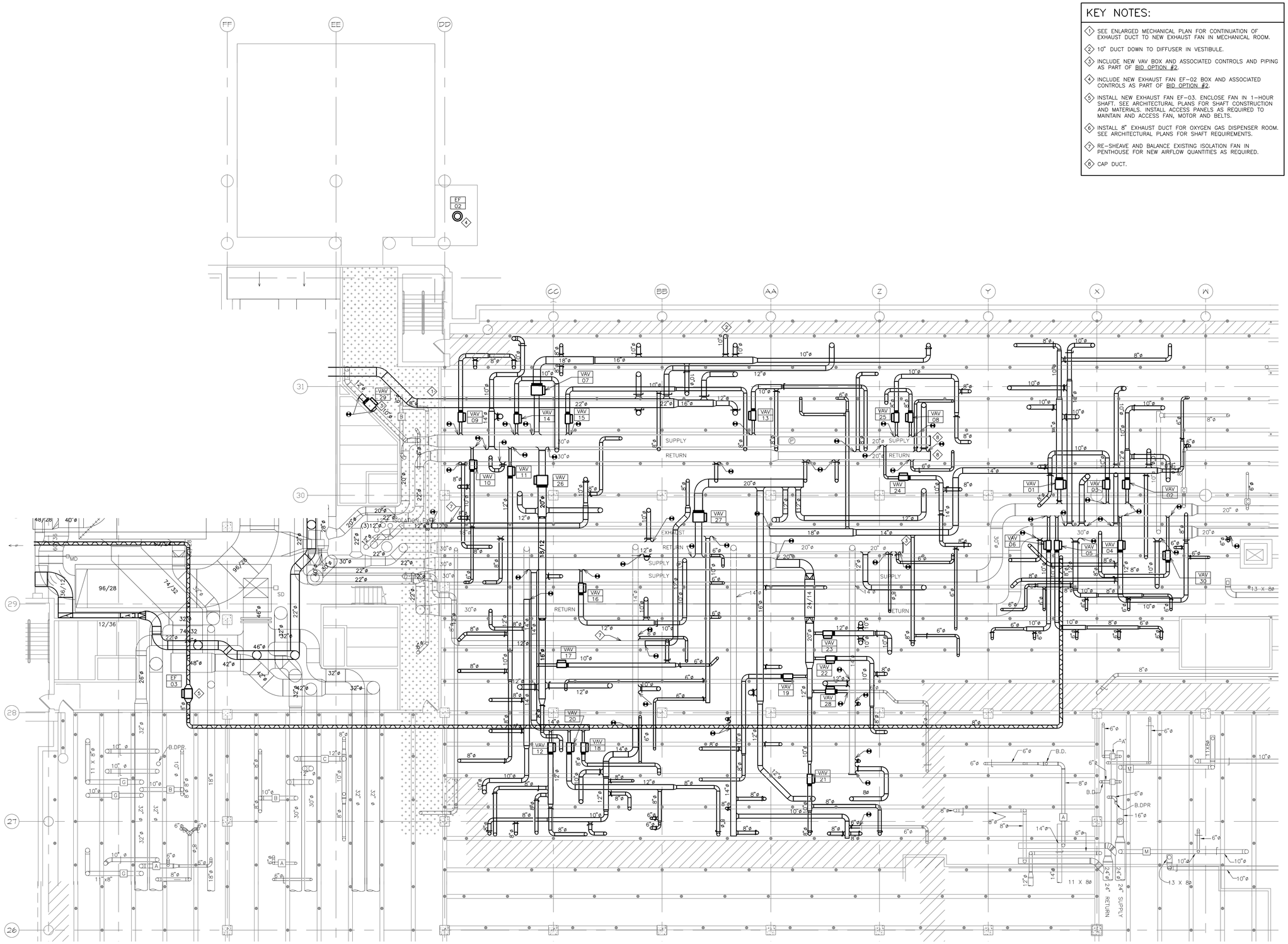
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed Architect under the laws of the State of Minnesota.

JASON GOTTWALT, PE
Date 01/02/2014 Reg. No. 41360

Drawing Title: FIRST FLOOR MECHANICAL PLAN (BID OPTION #8)	Project Title: VA MINNEAPOLIS ED RENOVATION	Project No. 618-14-104	
		Building Number 70	
Drawing Scale: AS NOTED	Approved: Catherine Joyce, Chief, Projects Section	Location: V.A. MEDICAL CENTER, ONE VETERANS DRIVE, MINNEAPOLIS, MN 55417	DRAWING NO. 1272-70-MH04
Plot Scale: 12" = 1'-0"	Approved: Steven Challeen, Director, Facilities Engineering	Date 01/02/2014 / Checked JG / Drawn RFOLIN	Dwg. 49 of 73

Office of Facilities Management
Department of Veterans Affairs



1 FIRST FLOOR INTERSTITIAL MECHANICAL PLAN
1/8"=1'-0"

KEY NOTES:

1. SEE ENLARGED MECHANICAL PLAN FOR CONTINUATION OF EXHAUST DUCT TO NEW EXHAUST FAN IN MECHANICAL ROOM.
2. 10" DUCT DOWN TO DIFFUSER IN VESTIBULE.
3. INCLUDE NEW VAV BOX AND ASSOCIATED CONTROLS AND PIPING AS PART OF BID OPTION #2.
4. INCLUDE NEW EXHAUST FAN EF-02 BOX AND ASSOCIATED CONTROLS AS PART OF BID OPTION #2.
5. INSTALL NEW EXHAUST FAN EF-03. ENCLOSE FAN IN 1-HOUR SHAFT. SEE ARCHITECTURAL PLANS FOR SHAFT CONSTRUCTION AND MATERIALS. INSTALL ACCESS PANELS AS REQUIRED TO MAINTAIN AND ACCESS FAN, MOTOR AND BELTS.
6. INSTALL 8" EXHAUST DUCT FOR OXYGEN GAS DISPENSER ROOM. SEE ARCHITECTURAL PLANS FOR SHAFT REQUIREMENTS.
7. RE-SHEAVE AND BALANCE EXISTING ISOLATION FAN IN PENTHOUSE FOR NEW AIRFLOW QUANTITIES AS REQUIRED.
8. CAP DUCT.

GENERAL NOTES:

A. MECHANICAL CONTRACTOR SHALL REFER TO THE VA MASTER SPECIFICATION MANUAL EDITED FOR THIS PROJECT ALONG WITH ANY APPLICABLE STANDARDS WITHIN THE 2011 HVAC DESIGN GUIDE. ALL REQUIREMENTS OF THOSE MANUALS SHALL BE MAINTAINED IN ADDITION TO ALL NOTES AND DESCRIPTIONS INDICATED WITHIN THESE DRAWINGS. ANY CONFLICTS BETWEEN THOSE DOCUMENTS SHOULD BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR INTERPRETATION.

B. MECHANICAL CONTRACTOR WILL BE RESPONSIBLE TO REVIEW ACCESSIBILITY TO AREAS OUTSIDE THE CONSTRUCTION LIMITS TO DETERMINE APPROXIMATE AMOUNT OF OVERTIME REQUIRED TO PERFORM ALL MECHANICAL WORK INDICATED. COORDINATION OF SCHEDULES WITH ADJACENT DEPARTMENTS AND CLEANING OF ALL DEBRIS AFTER EACH SHIFT SHOULD BE ASSUMED IN THE BASE BID.

C. ANY MAJOR VENTILATION OUTAGES INDICATED ON THESE DRAWINGS SHALL BE SCHEDULED TO BE PERFORMED AFTER NORMAL BUSINESS HOURS OR DURING WEEKEND PERIODS TO MINIMIZE DISRUPTION. VA HOSPITAL FACILITIES WILL REQUIRE A MINIMUM OF TWO(2) WEEKS NOTICE PRIOR TO ANY SUCH OUTAGE AFFECTING MORE THAN ONE ADJACENT AREA.

D. COORDINATE ALL NEW DUCTWORK ROUTING WITH ALL OTHER TRADES TO INSURE ADEQUATE CLEARANCES FOR PLUMBING, ELECTRICAL CONDUIT, STRUCTURAL SUPPORTS, PIPING, ETC. ANY UNAVOIDABLE CONFLICTS SHALL BE BROUGHT THE THE ATTENTION OF THE ARCHITECT/ENGINEER OF RECORD. PROVIDE ALL OFFSETS AND TRANSITIONS AS REQUIRED FOR A CLEAN INSTALLATION.

E. THE EXACT LOCATION OF EQUIPMENT ROUGH-INS SHALL BE VERIFIED WITH THE STAMPED APPROVED SHOP DRAWINGS PRIOR TO ANY FIELD INSTALLATION.

F. SUPPORT ALL DUCTWORK DIRECTLY TO STRUCTURE. DO NOT SUPPORT ANY DUCTS FROM DUCTWORK, CONDUIT, OR OTHER PIPING ENCOUNTERED.

G. WHERE MECHANICAL SYSTEMS TO REMAIN ARE DAMAGED, OR DISTURBED, DURING THE COURSE OF CONSTRUCTION THE CONTRACTOR WILL BE RESPONSIBLE TO REMOVE DAMAGED PORTIONS AND INSTALL NEW PRODUCTS OF EQUAL QUALITY AND FUNCTIONALITY.

H. ALL EXISTING DUCTWORK THROUGH NEW FIRE RATED WALLS SHALL BE ADEQUATELY FIRE SEALED AS REQUIRED. PIPING PENETRATIONS THROUGH INTERSTITIAL FLOOR SHALL BE DRILLED, OR CUT, BY THE CONTRACTOR AND FIRE SEALED AS REQUIRED.

I. THE MECHANICAL CONTRACTOR WILL BE RESPONSIBLE TO MAINTAIN EACH PROJECT SPACE IN A NEGATIVE PRESSURIZATION AND PROVIDE HEPA FILTRATION UNITS AS REQUIRED BY INFECTION CONTROL. IF NECESSARY CONSULT WITH VA, OR ENGINEER OF RECORD, FOR SUGGESTED METHODS THAT MAY BE UTILIZED TO ELIMINATE CONTAMINATED AIR TO OUTSIDE. VISUAL PRESSURIZATION INDICATORS SHALL BE PROVIDED AT EACH ENTRANCE TO THE CONSTRUCTION ZONE AND MONITORED DAILY TO INSURE A CONSTANT NEGATIVE PRESSURE IS MAINTAINED THROUGHOUT EACH PHASE. COORDINATE PRESSURIZATION PLANNING WITH VA FACILITIES AND INFECTION CONTROL REPRESENTATIVE PRIOR TO EACH CONSTRUCTION PHASE.

J. ALL EXISTING RETURN/EXHAUST DUCTWORK NOT TEMPORARILY CAPPED SHALL BE PROTECTED WITH REMOVABLE FILTER MEDIA TO PROTECT EXISTING DUCT SYSTEMS FROM CONSTRUCTION DEBRIS. ALL NEW DUCTWORK SHALL BE PROTECTED AS REQUIRED AND CLEANED PRIOR TO START-UP. IF CONSTRUCTION DEBRIS IS FOUND INSIDE UNPROTECTED DUCTWORK THAN DUCT CLEANING OF THE ENTIRE SYSTEM SHALL BE PERFORMED AT THE CONTRACTOR'S EXPENSE.

K. PROVIDE EACH NEW SUPPLY DIFFUSER WITH A SINGLE BLADE TAKE-OFF DAMPER WITH QUADRANT LOCKING DEVICE. PERFORM ALL BALANCING OF NEW DIFFUSERS THROUGH THOSE TAKE-OFF DAMPERS. ALL NEW RETURN/EXHAUST GRILLES WILL BE PROVIDED WITH OPPOSED BLADE BALANCING DAMPERS POSITIONED UPSTREAM PAST A MINIMUM OF ONE TRANSITION FOR SOUND ABATEMENT. BALANCING ANY DIFFUSERS/GRILLES USING INTEGRAL DAMPERS WILL NOT BE AN APPROVED METHOD OF BALANCING.

L. THE FOLLOWING NOTES BELOW ARE SPECIFIC TO INFECTION CONTROL AND APPLY TO ALL SUBCONTRACTORS INVOLVED WITH THE PROJECT. ALL CONTRACTORS AND SUBCONTRACTORS SHALL FOLLOW THE INFECTION CONTROL RISK ASSESSMENT (ICRA) AND FGI GUIDELINES THROUGHOUT THE CONSTRUCTION PROCESS. ALL CONTRACTED WORKERS MUST RECEIVE INFORMATION/TRAINING ON INFECTION CONTROL RISKS AND PRACTICES PRIOR TO STARTING ANY ON SITE WORK.

M. ALL BALANCING REPORTS WILL BE MADE AVAILABLE TO VA HOSPITAL INFECTION CONTROL PERSONNEL ON REQUEST. SUBMIT THESE REPORTS ONLY AFTER THEY HAVE BEEN REVIEWED, AND APPROVED, BY THE ENGINEER OF RECORD.

N. ALL WORK OUTSIDE THE PROTECTED PROJECT BOUNDARIES ABOVE EXISTING CEILING SHALL BE COMPLETED WITH CEILINGS REPLACED IN THE SAME DAY UNLESS FULLY COORDINATED THROUGH INFECTION CONTROL. CLEAN AREA TO ORIGINAL CONDITION ON COMPLETION.

O. CEILING TILES WITH VISIBLE WATER DAMAGE SHALL BE SPRAYED TO DISINFECT AND ENCAPSULATE POTENTIAL MOLD PRIOR TO REMOVAL.

P. CONTRACTOR TO INSTALL TEMPORARY BARRIERS FOR EACH PROJECT PHASE AND/OR AREA. THESE BARRIERS SHALL BE COORDINATED WITH VA HOSPITAL AND, IN MOST CASES, CONTAIN SOME FORM OF AIRLOCK VESTIBULE PRIOR TO ENTERING THE CONSTRUCTION AREA.

Q. FLUTTER STRIPS OR AIR PRESSURE GAUGES SHALL BE PROVIDED AT THE ENTRANCES TO EACH CONSTRUCTION AREA. ALL CONTRACTED WORKERS SHALL BE TRAINED TO VISUALLY MONITOR THESE DEVICES FOR ADEQUATE NEGATIVE PRESSURIZATION AS THEY ENTER/EXIT THE CONSTRUCTION AREA. DAILY LOGS SHALL BE KEPT BY THE MECHANICAL CONTRACTOR TO INSURE CONSTANT PRESSURIZATION HAS BEEN MAINTAINED.

R. PORTABLE HEPA FILTER UNITS SHALL BE UTILIZED DIRECTLY OUTSIDE EACH CONSTRUCTION AREA. UNITS WILL BE PROVIDED BY AND MAINTAINED BY MECHANICAL CONTRACTOR.

S. NEGATIVE PRESSURIZATION SHALL BE MAINTAINED IN EACH CONSTRUCTION AREA. IF LOCATED ON AN EXTERIOR WALL FANS SHOULD BE UTILIZED TO EXHAUST AIR DIRECTLY OUT A NEARBY WINDOW, TAKING PRECAUTIONS TO NOT INTERFERE WITH EXISTING BUILDING AIR INTAKES, PUBLIC AREAS, ETC. IF NO EXTERIOR WALL IS AVAILABLE THEN NEGATIVE AIR MACHINES WITH INTERNAL FILTRATION SHALL BE PROVIDED AND CONNECTION TO THE NEAREST EXHAUST OR RETURN DUCT AVAILABLE (CONTACT ENGINEER TO VERIFY EXISTING DUCTWORK CAPACITY PRIOR TO EXHAUST CONNECTION).

T. COORDINATE DEBRIS REMOVAL WITH VA PROJECT MANAGER. IF AN ACCEPTABLE EXIT PATH IS NOT AVAILABLE FROM THE PROJECT SITE THEN AFTER HOURS REMOVAL OF DEMOLISHED MATERIAL WILL BE PERFORMED. COVER ALL CARTS WITH SEALED COVERS TO MAINTAIN DUST CONTROL.

FULLY SPRINKLERED

REVISIONS	DATE

GENERAL NOTES:

GENERAL CONTRACTOR AND/OR ALL SUBCONTRACTORS SHALL FIELD VERIFY ALL DIMENSIONS SHOWN ON THESE PLANS AND SHALL BE RESPONSIBLE FOR VARIATIONS BETWEEN PLAN DIMENSIONS AND ACTUAL FIELD DIMENSIONS. WHERE VARIATIONS ARE FOUND TO OCCUR, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING PRIOR TO PROCEEDING WITH CONSTRUCTION; NO ADJUSTMENT TO THE WORK WILL BE MADE WITHOUT THE PRIOR APPROVAL OF THE PROJECT ENGINEER.

GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR GENERAL DEMOLITION INCLUDING REMOVAL OF WALLS, PARTITIONS, DOORS & CEILING & FLOORS. ANY AND ALL CUTTING OF CONCRETE FLOORS, WALLS OR STRUCTURE SHALL BE THE GENERAL CONTRACTOR'S RESPONSIBILITY. CORE DRILLING THROUGH CONCRETE WALLS, FLOORS OR STRUCTURE FOR PIPING OR CONDUIT SHALL BE THE RESPONSIBILITY OF THE SUBCONTRACTOR BY TRADE; FIRESTOPPING OF THESE OPENINGS SHALL BE DONE BY THE RESPECTIVE SUBCONTRACTOR. REMOVAL OF DEBRIS RESULTING FROM DEMOLITION, CUTTING, AND/OR DRILLING IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. PATCHING AND REPAIR OF CONCRETE WALLS, FLOOR, OR STRUCTURE SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR; THIS WILL BE ACCOMPLISHED UPON COMPLETION OF THE INSTALLATION OF ANY AND ALL UTILITIES INSTALLED BY THE VARIOUS SUBCONTRACTORS.

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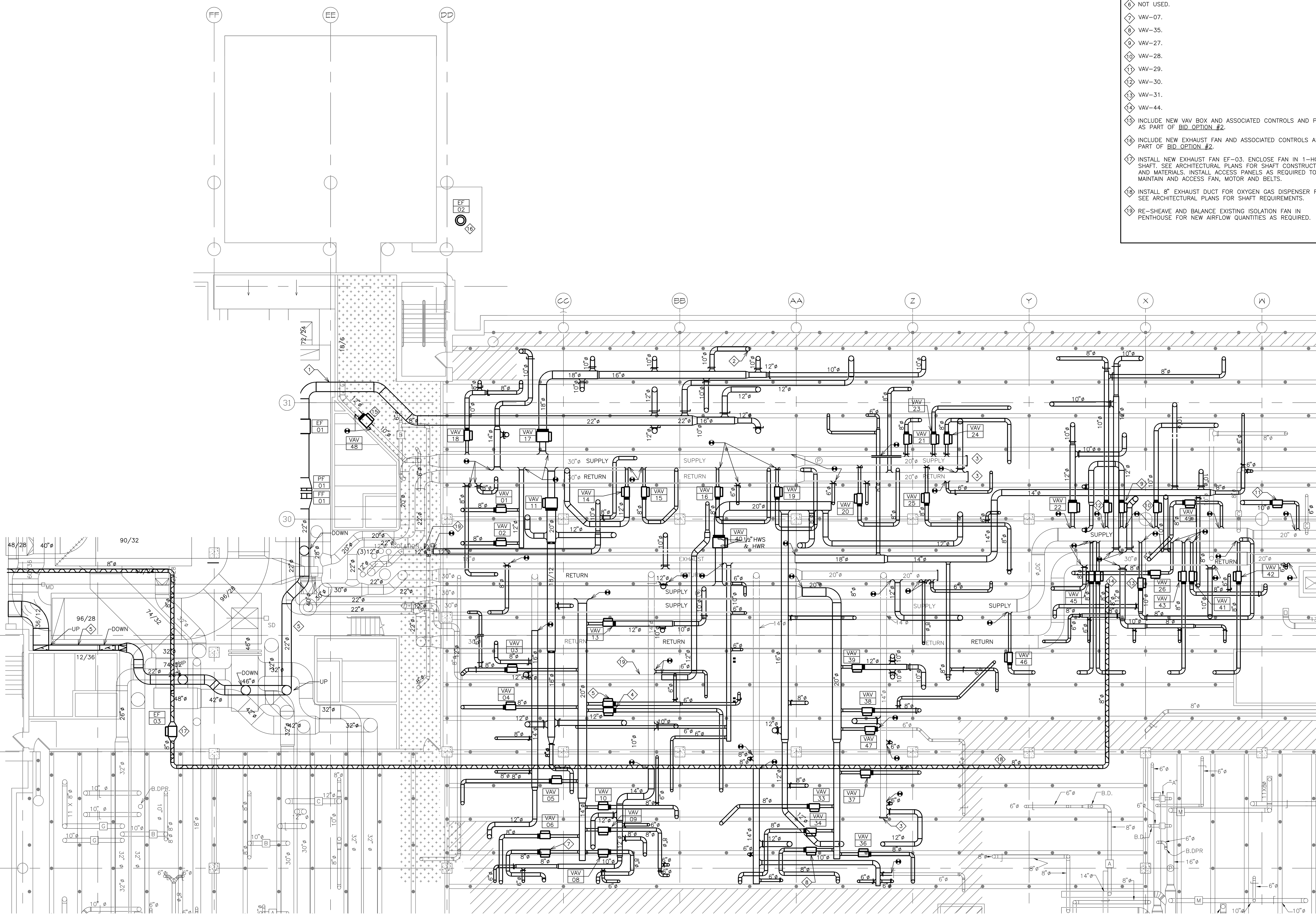
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Architect under the laws of the State of Minnesota.

JASON GOTTWALT, PE
Date 01/02/2014 Reg. No. 41360

Drawing Title: FIRST FLOOR INTERSTITIAL MECHANICAL PLAN	Project Title: VA MINNEAPOLIS ED RENOVATION	Project No. 618-14-104	Office of Facilities Management
Drawing Scale: AS NOTED	Approved: Catherine Joyce, Chief, Projects Section	Building Number 70	
Plot Scale: 12" = 1'-0"	Approved: Steven Challeen, Director, Facilities Engineering	Location: V.A. MEDICAL CENTER, ONE VETERANS DRIVE, MINNEAPOLIS, MN 55417	Department of Veterans Affairs
		Date 01/02/2014 · Checked JG · Drawn RFOLIN	
		DRAWING NO. 1272-70-MH05 · Dwg. 50 of 73	



1 FIRST FLOOR INTERSTITIAL MECHANICAL PLAN (BID OPTION #8)
1/8"=1'-0"

KEY NOTES:

1. SEE ENLARGED MECHANICAL PLAN FOR CONTINUATION OF EXHAUST DUCT TO NEW EXHAUST FAN IN MECHANICAL ROOM.
2. 10" DUCT DOWN TO DIFFUSER IN VESTIBULE.
3. CAP DUCT.
4. VAV–32.
5. VAV–12.
6. NOT USED.
7. VAV–07.
8. VAV–35.
9. VAV–27.
10. VAV–28.
11. VAV–29.
12. VAV–30.
13. VAV–31.
14. VAV–44.
15. INCLUDE NEW VAV BOX AND ASSOCIATED CONTROLS AND PIPING AS PART OF BID OPTION #2.
16. INCLUDE NEW EXHAUST FAN AND ASSOCIATED CONTROLS AS PART OF BID OPTION #2.
17. INSTALL NEW EXHAUST FAN EF–03. ENCLOSE FAN IN 1–HOUR SHAFT. SEE ARCHITECTURAL PLANS FOR SHAFT CONSTRUCTION AND MATERIALS. INSTALL ACCESS PANELS AS REQUIRED TO MAINTAIN AND ACCESS FAN, MOTOR AND BELTS.
18. INSTALL 8" EXHAUST DUCT FOR OXYGEN GAS DISPENSER ROOM. SEE ARCHITECTURAL PLANS FOR SHAFT REQUIREMENTS.
19. RE–SHEAVE AND BALANCE EXISTING ISOLATION FAN IN PENTHOUSE FOR NEW AIRFLOW QUANTITIES AS REQUIRED.

GENERAL NOTES:

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B. MECHANICAL CONTRACTOR WILL BE RESPONSIBLE TO REVIEW ACCESSIBILITY TO AREAS OUTSIDE THE CONSTRUCTION LIMITS TO DETERMINE APPROXIMATE AMOUNT OF OVERTIME REQUIRED TO PERFORM ALL MECHANICAL WORK INDICATED. COORDINATION OF SCHEDULES WITH ADJACENT DEPARTMENTS AND CLEANING OF ALL DEBRIS AFTER EACH SHIFT SHOULD BE ASSUMED IN THE BASE BID.

C. ANY MAJOR VENTILATION OUTAGES INDICATED ON THESE DRAWINGS SHALL BE SCHEDULED TO BE PERFORMED AFTER NORMAL BUSINESS HOURS OR DURING WEEKEND PERIODS TO MINIMIZE DISRUPTION. VA HOSPITAL FACILITIES WILL REQUIRE A MINIMUM OF TWO(2) WEEKS NOTICE PRIOR TO ANY SUCH OUTAGE AFFECTING MORE THAN ONE ADJACENT AREA.

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E. THE EXACT LOCATION OF EQUIPMENT ROUGH–INS SHALL BE VERIFIED WITH THE STAMPED APPROVED SHOP DRAWINGS PRIOR TO ANY FIELD INSTALLATION.

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H. ALL EXISTING DUCTWORK THROUGH NEW FIRE RATED WALLS SHALL BE ADEQUATELY FIRE SEALED AS REQUIRED. PIPING PENETRATIONS THROUGH INTERSTITIAL FLOOR SHALL BE DRILLED, OR CUT, BY THE CONTRACTOR AND FIRE SEALED AS REQUIRED.

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K. PROVIDE EACH NEW SUPPLY DIFFUSER WITH A SINGLE BLADE TAKE–OFF DAMPER WITH QUADRANT LOCKING DEVICE. PERFORM ALL BALANCING OF NEW DIFFUSERS THROUGH THOSE TAKE–OFF DAMPERS. ALL NEW RETURN/EXHAUST GRILLES WILL BE PROVIDED WITH OPPOSED BLADE BALANCING DAMPERS POSITIONED UPSTREAM PAST A MINIMUM OF ONE TRANSITION FOR SOUND ABATEMENT. BALANCING ANY DIFFUSERS/GRILLES USING INTEGRAL DAMPERS WILL NOT BE AN APPROVED METHOD OF BALANCING.

L. THE FOLLOWING NOTES BELOW ARE SPECIFIC TO INFECTION CONTROL AND APPLY TO ALL SUBCONTRACTORS INVOLVED WITH THE PROJECT. ALL CONTRACTORS AND SUBCONTRACTORS SHALL FOLLOW THE INFECTION CONTROL RISK ASSESSMENT (ICRA) AND FGI GUIDELINES THROUGHOUT THE CONSTRUCTION PROCESS. ALL CONTRACTED WORKERS MUST RECEIVE INFORMATION/TRAINING ON INFECTION CONTROL RISKS AND PRACTICES PRIOR TO STARTING ANY ON SITE WORK.

M. ALL BALANCING REPORTS WILL BE MADE AVAILABLE TO VA HOSPITAL INFECTION CONTROL PERSONNEL ON REQUEST. SUBMIT THESE REPORTS ONLY AFTER THEY HAVE BEEN REVIEWED, AND APPROVED, BY THE ENGINEER OF RECORD.

N. ALL WORK OUTSIDE THE PROTECTED PROJECT BOUNDARIES ABOVE EXISTING CEILING SHALL BE COMPLETED WITH CEILINGS REPLACED IN THE SAME DAY UNLESS FULLY COORDINATED THROUGH INFECTION CONTROL. CLEAN AREA TO ORIGINAL CONDITION ON COMPLETION.

O. CEILING TILES WITH VISIBLE WATER DAMAGE SHALL BE SPRAYED TO DISINFECT AND ENCAPSULATE POTENTIAL MOLD PRIOR TO REMOVAL.

P. CONTRACTOR TO INSTALL TEMPORARY BARRIERS FOR EACH PROJECT PHASE AND/OR AREA. THESE BARRIERS SHALL BE COORDINATED WITH VA HOSPITAL AND, IN MOST CASES, CONTAIN SOME FORM OF AIRLOCK VESTIBULE PRIOR TO ENTERING THE CONSTRUCTION AREA.

Q. FLUTTER STRIPS OR AIR PRESSURE GAUGES SHALL BE PROVIDED AT THE ENTRANCES TO EACH CONSTRUCTION AREA. ALL CONTRACTED WORKERS SHALL BE TRAINED TO VISUALLY MONITOR THESE DEVICES FOR ADEQUATE NEGATIVE PRESSURIZATION AS THEY ENTER/EXIT THE CONSTRUCTION AREA. DAILY LOGS SHALL BE KEPT BY THE MECHANICAL CONTRACTOR TO INSURE CONSTANT PRESSURIZATION HAS BEEN MAINTAINED.

R. PORTABLE HEPA FILTER UNITS SHALL BE UTILIZED DIRECTLY OUTSIDE EACH CONSTRUCTION AREA. UNITS WILL BE PROVIDED BY AND MAINTAINED BY MECHANICAL CONTRACTOR.

S. NEGATIVE PRESSURIZATION SHALL BE MAINTAINED IN EACH CONSTRUCTION AREA. IF LOCATED ON AN EXTERIOR WALL FANS SHOULD BE UTILIZED TO EXHAUST AIR DIRECTLY OUT A NEARBY WINDOW, TAKING PRECAUTIONS TO NOT INTERFERE WITH EXISTING BUILDING AIR INTAKES, PUBLIC AREAS, ETC. IF NO EXTERIOR WALL IS AVAILABLE THEN NEGATIVE AIR MACHINES WITH INTERNAL FILTRATION SHALL BE PROVIDED AND CONNECTION TO THE NEAREST EXHAUST OR RETURN DUCT AVAILABLE (CONTACT ENGINEER TO VERIFY EXISTING DUCTWORK CAPACITY PRIOR TO EXHAUST CONNECTION).

T. COORDINATE DEBRIS REMOVAL WITH VA PROJECT MANAGER. IF AN ACCEPTABLE EXIT PATH IS NOT AVAILABLE FROM THE PROJECT SITE THEN AFTER HOURS REMOVAL OF DEMOLISHED MATERIAL WILL BE PERFORMED. COVER ALL CARTS WITH SEALED COVERS TO MAINTAIN DUST CONTROL.

FULLY SPRINKLERED

REVISIONS	DATE

GENERAL NOTES:

GENERAL CONTRACTOR AND/OR ALL SUBCONTRACTORS SHALL FIELD VERIFY ALL DIMENSIONS SHOWN ON THESE PLANS AND SHALL BE RESPONSIBLE FOR VARIATIONS BETWEEN PLAN DIMENSIONS AND ACTUAL FIELD DIMENSIONS. WHERE VARIATIONS ARE FOUND TO OCCUR, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING PRIOR TO PROCEEDING WITH CONSTRUCTION; NO ADJUSTMENT TO THE WORK WILL BE MADE WITHOUT THE PRIOR APPROVAL OF THE PROJECT ENGINEER.

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I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed Architect under the laws of the State of Minnesota.

JASON GOTTWALT, PE
Date 01/02/2014 Reg. No. 41360

Drawing Title: FIRST FLOOR INTERSTITIAL MECHANICAL PLAN (BID OPTION #8)

Project Title: VA MINNEAPOLIS ED RENOVATION

Project No. 618-14-104

Building Number: 70

Office of Facilities Management

Department of Veterans Affairs

Drawing Scale: AS NOTED

Plot Scale: 12" = 1'-0"

Approved: Catherine Joyce, Chief, Projects Section

Approved: Steven Challeen, Director, Facilities Engineering

Location: V.A. MEDICAL CENTER, ONE VETERANS DRIVE, MINNEAPOLIS, MN 55417

Date: 01/02/2014

Checked: JG

Drawn: RFOLIN

DRAWING NO. 1272-70-MH06

KEY NOTES:

1. DEMOLISH HEATING WATER SUPPLY AND RETURN BACK TO MAIN AND CAP.

GENERAL NOTES:

A. MECHANICAL CONTRACTOR SHALL REFER TO THE MASTER SPECIFICATION MANUAL EDITED FOR THIS PROJECT ALONG WITH ANY APPLICABLE STANDARDS. ALL REQUIREMENTS OF THOSE MANUALS SHALL BE MAINTAINED IN ADDITION TO ALL NOTES AND DESCRIPTIONS INDICATED WITHIN THESE DRAWINGS. ANY CONFLICTS BETWEEN THOSE DOCUMENTS SHOULD BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR INTERPRETATION.

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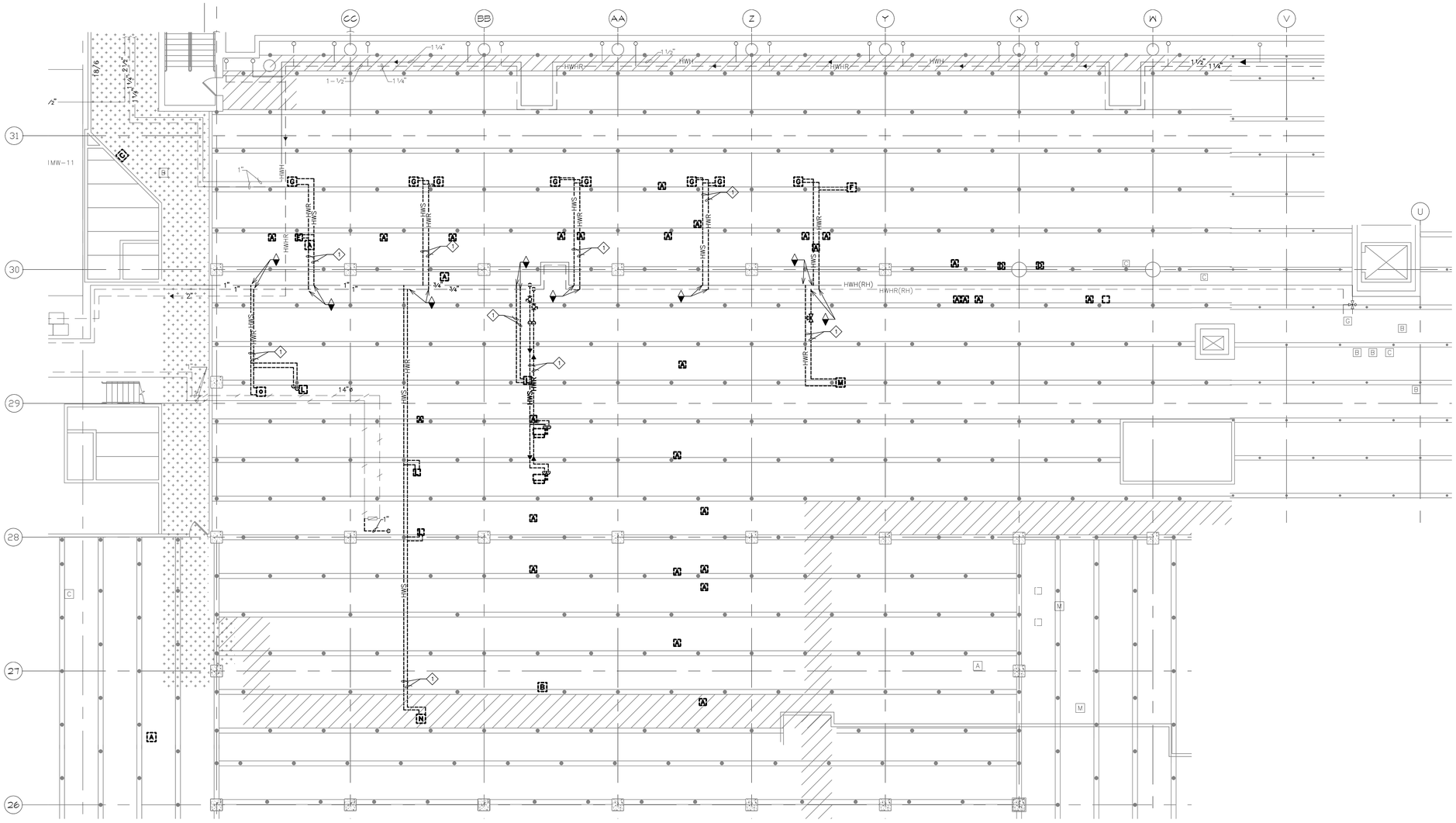

1 FIRST FLOOR INTERSTITIAL MECHANICAL DEMOLITION PLAN
1/8" = 1'-0"

REVISIONS	DATE

GENERAL NOTES:

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fax 612.465.7551
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I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed Architect under the laws of the State of Minnesota.

JASON GOTTWALT, PE
Date 01/02/2014 Reg. No. 41360

Drawing Title: FIRST FLOOR INTERSTITIAL MECHANICAL PIPING DEMOLITION PLAN

Project Title: VA MINNEAPOLIS ED RENOVATION

Project No. 618-14-104

Building Number 70

Drawing Scale: AS NOTED

Plot Scale: 12" = 1'-0"

Approved: Catherine Joyce, Chief, Projects Section

Approved: Steven Challeen, Director, Facilities Engineering

Location: V.A. MEDICAL CENTER, ONE VETERANS DRIVE, MINNEAPOLIS, MN 55417

Date 01/02/2014 | Checked JG | Drawn RFOLIN

DRAWING NO. 1272-70-MP01

Dwg. 52 of 73

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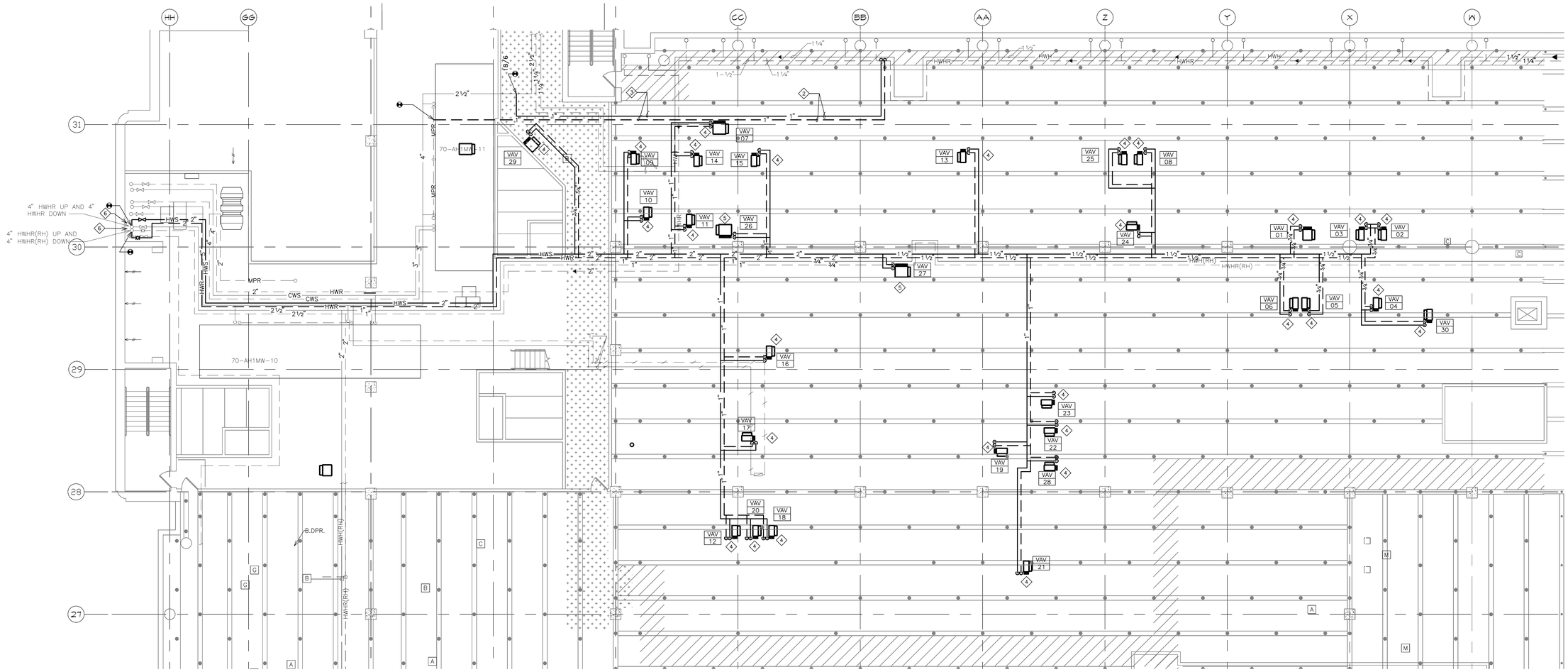
Office of Facilities Management

Department of Veterans Affairs



1 FIRST FLOOR INTERSTITIAL MECHANICAL DEMOLITION PLAN
1/8" = 1'-0"

GENERAL NOTES:

A. MECHANICAL CONTRACTOR SHALL REFER TO THE MASTER SPECIFICATION MANUAL EDITED FOR THIS PROJECT ALONG WITH ANY APPLICABLE STANDARDS. ALL REQUIREMENTS OF THOSE MANUALS SHALL BE MAINTAINED IN ADDITION TO ALL NOTES AND DESCRIPTIONS INDICATED WITHIN THESE DRAWINGS. ANY CONFLICTS BETWEEN THOSE DOCUMENTS SHOULD BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR INTERPRETATION.

B. MECHANICAL CONTRACTOR WILL BE RESPONSIBLE TO REVIEW ACCESSIBILITY TO AREAS OUTSIDE THE CONSTRUCTION LIMITS TO DETERMINE APPROXIMATE AMOUNT OF OVERTIME REQUIRED TO PERFORM ALL MECHANICAL WORK INDICATED. COORDINATION OF SCHEDULES WITH ADJACENT DEPARTMENTS AND CLEANING OF ALL DEBRIS AFTER EACH SHIFT SHOULD BE ASSUMED IN THE BASE BID.

C. ANY MAJOR OUTAGES INDICATED ON THESE DRAWINGS SHALL BE SCHEDULED TO BE PERFORMED AFTER NORMAL BUSINESS HOURS OR DURING WEEKEND PERIODS TO MINIMIZE DISRUPTION. VAMC HOSPITAL FACILITIES WILL REQUIRE A MINIMUM OF TWO(2) WEEKS NOTICE PRIOR TO ANY SUCH OUTAGE AFFECTING MORE THAN ONE ADJACENT AREA.

D. COORDINATE ALL NEW PIPING ROUTING WITH ALL OTHER TRADES TO INSURE ADEQUATE CLEARANCES FOR PLUMBING, ELECTRICAL CONDUIT, STRUCTURAL SUPPORTS, PIPING, ETC. ANY UNAVOIDABLE CONFLICTS SHALL BE BROUGHT THE THE ATTENTION OF THE ARCHITECT/ENGINEER OF RECORD. PROVIDE ALL OFFSETS AND TRANSITIONS AS REQUIRED FOR A CLEAN INSTALLATION.

E. THE EXACT LOCATION OF EQUIPMENT ROUGH-INS SHALL BE VERIFIED WITH THE STAMPED APPROVED SHOP DRAWINGS PRIOR TO ANY FIELD INSTALLATION.

F. SUPPORT ALL PIPING DIRECTLY TO STRUCTURE. DO NOT SUPPORT ANY PIPES FROM DUCTWORK, CONDUIT, OR OTHER PIPING ENCOUNTERED.

G. WHERE MECHANICAL SYSTEMS TO REMAIN ARE DAMAGED, OR DISTURBED, DURING THE COURSE OF CONSTRUCTION THE CONTRACTOR WILL BE RESPONSIBLE TO REMOVE DAMAGED PORTIONS AND INSTALL NEW PRODUCTS OF EQUAL QUALITY AND FUNCTIONALITY.

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K. ALL WORK OUTSIDE THE PROTECTED PROJECT BOUNDARIES ABOVE EXISTING CEILING SHALL BE COMPLETED WITH CEILINGS REPLACED IN THE SAME DAY UNLESS FULLY COORDINATED THROUGH INFECTION CONTROL. CLEAN AREA TO ORIGINAL CONDITION ON COMPLETION.

L. CEILING TILES WITH VISIBLE WATER DAMAGE SHALL BE SPRAYED TO DISINFECT AND ENCAPSULATE POTENTIAL MOLD PRIOR TO REMOVAL.

M. CONTRACTOR TO INSTALL TEMPORARY BARRIERS FOR EACH PROJECT PHASE AND/OR AREA. THESE BARRIERS SHALL BE COORDINATED WITH VAMC HOSPITAL AND, IN MOST CASES, CONTAIN SOME FORM OF AIRLOCK VESTIBULE PRIOR TO ENTERING THE CONSTRUCTION AREA.

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KEY NOTES:

1. EXTEND NEW 2" HEATING WATER SUPPLY AND RETURN MAINS FROM MECHANICAL ROOM. SEE SHEET 1272-70-M03 FOR ENLARGED MECHANICAL ROOM PLAN.
2. 1" MPS AND 1" CONDENSATE TO AIR CURTAIN.
3. SEE SHEET 1272-70-M03 FOR CONTINUATION OF 1" MPS AND 1" CONDENSATE.
4. 3/4" HEATING WATER SUPPLY AND RETURN TO VAV BOX.
5. 1" HEATING WATER SUPPLY AND RETURN TO VAV BOX.
6. COORDINATE HYDRONIC SYSTEM SHUTDOWN WITH VA FACILITIES AND PROJECT COR.

FULLY SPRINKLERED

REVISIONS	DATE

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I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed Architect under the laws of the State of Minnesota.
JASON GOTTWALT, PE
Date 01/02/2014 Reg. No. 41360

Drawing Title
FIRST FLOOR INTERSTITIAL MECHANICAL PIPING PLAN

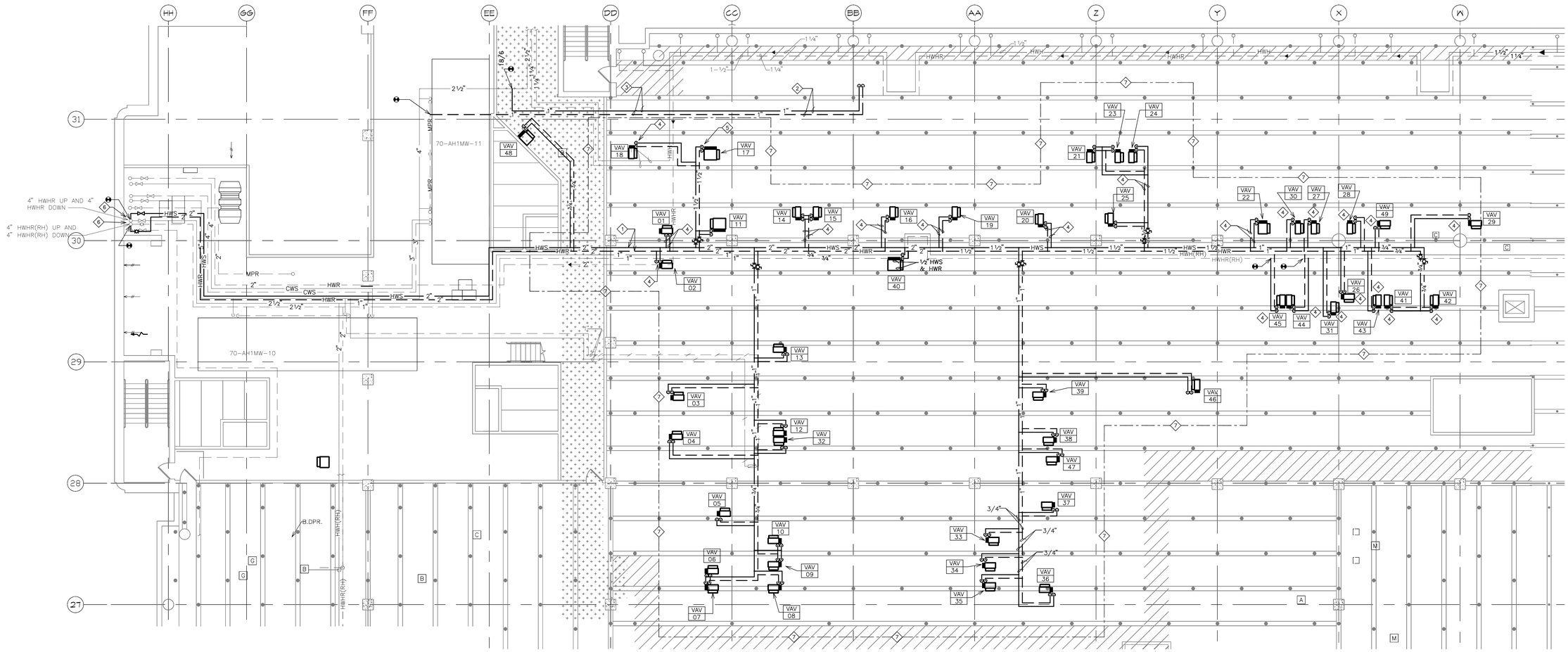
Drawing Scale: AS NOTED
Plot Scale: 12" = 1'-0"

Approved: Catherine Joyce, Chief, Projects Section
Approved: Steven Challeen, Director, Facilities Engineering

Project Title: VA MINNEAPOLIS ED RENOVATION
Location: V.A. MEDICAL CENTER, ONE VETERANS DRIVE, MINNEAPOLIS, MN 55417
Date: 01/02/2014 | Checked: JG | Drawn: RFOLIN

Project No. 618-14-104
Building Number 70
DRAWING NO. 1272-70-MP02
Dwg. 53 Of 73

Office of Facilities Management
Department of Veterans Affairs



1 FIRST FLOOR INTERSTITIAL MECHANICAL PLAN (BID OPTION #8)
1/8" = 1'-0"

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I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Architect under the laws of the State of Minnesota.

JASON GOTTWALT, PE
Date 01/02/2014 Reg. No. 41360

Drawing Title	FIRST FLOOR INTERSTITIAL MECHANICAL PIPING PLAN (BID OPTION #8)
Drawing Scale	AS NOTED
Plot Scale	12" = 1'-0"
Approved:	Catherine Joyce, Chief, Projects Section
Approved:	Steven Challeen, Director, Facilities Engineering
Project Title	VA MINNEAPOLIS ED RENOVATION
Location	V.A. MEDICAL CENTER ONE VETERANS DRIVE MINNEAPOLIS, MN 55417
Date	01/02/2014
Checked	JG
Drawn	RFOLIN
Project No.	618-14-104
Building Number	70
DRAWING NO.	1272-70-MP03
Dwg.	54 of 73

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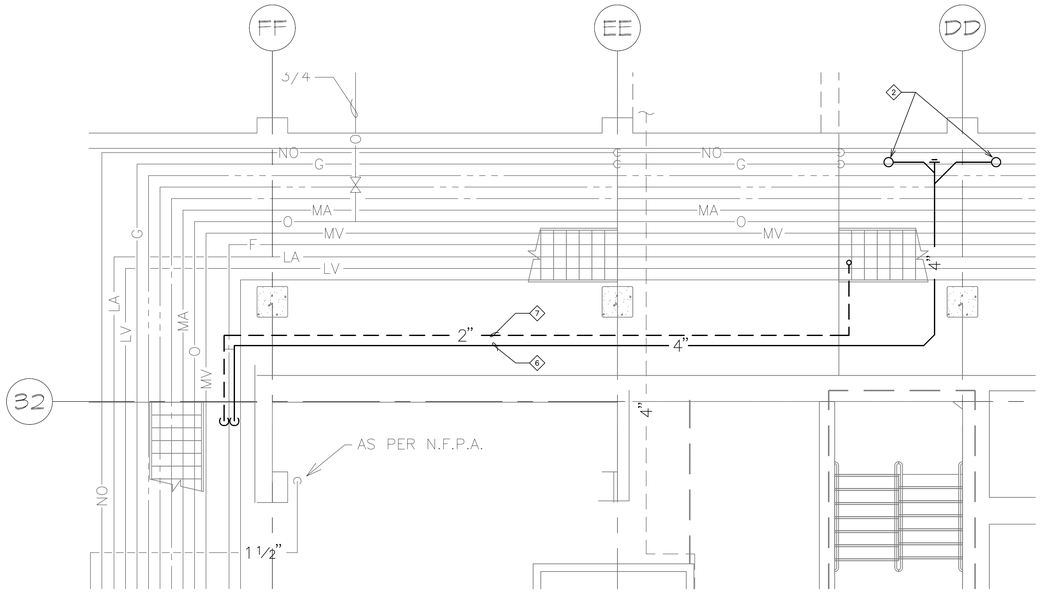
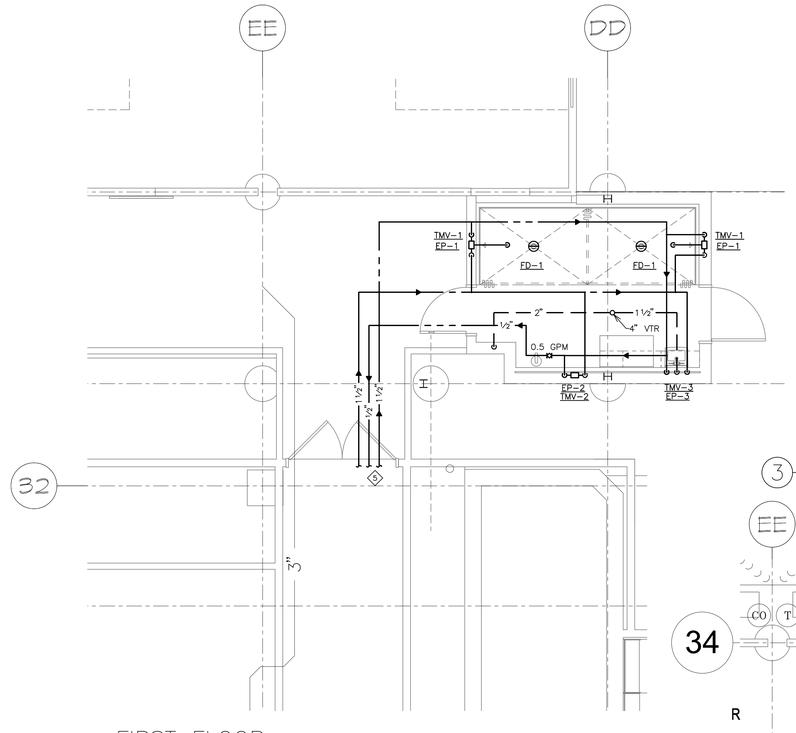
Office of Facilities Management

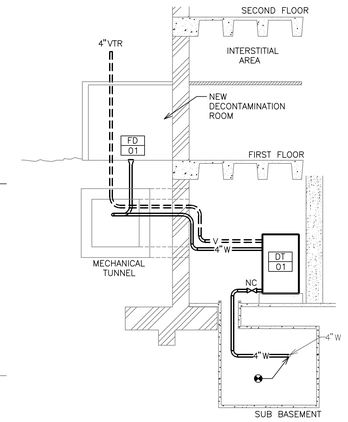
Department of Veterans Affairs



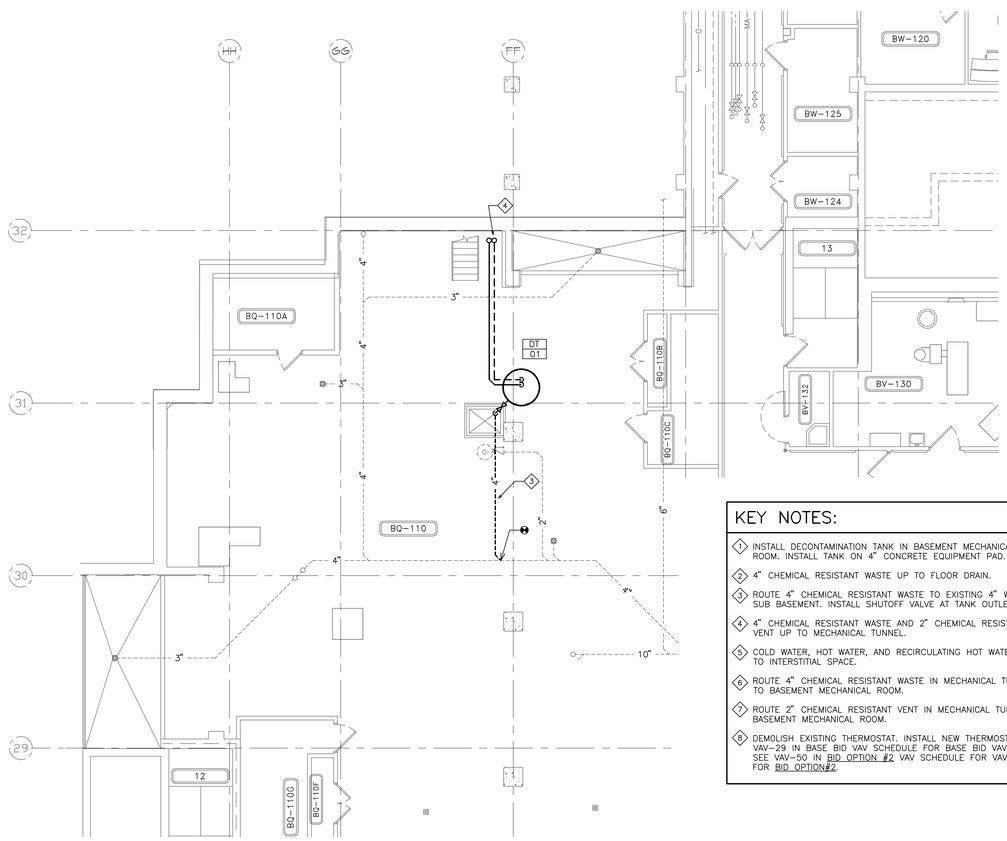
1 BASEMENT INTERSTITIAL DECONTAMINATION ROOM PLUMBING PLANS
1/4" = 1'-0"



2 FIRST FLOOR DECONTAMINATION ROOM PLUMBING PLANS
1/4" = 1'-0"



3 DECONTAMINATION TANK SECTION
1/8" = 1'-0"



4 BASEMENT DECONTAMINATION ROOM PLUMBING PLANS
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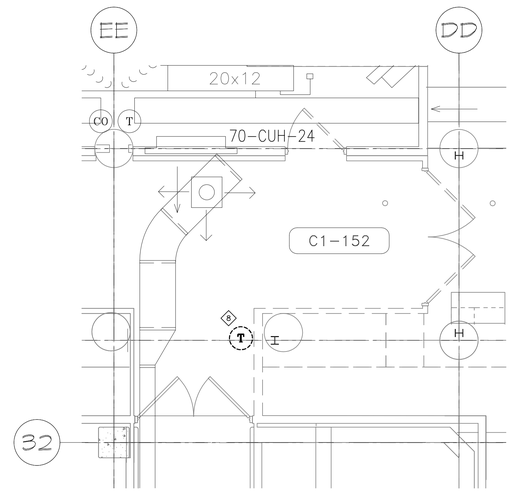
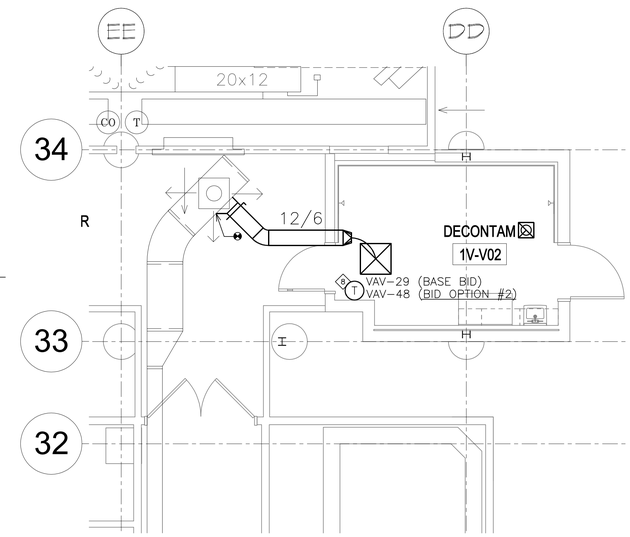
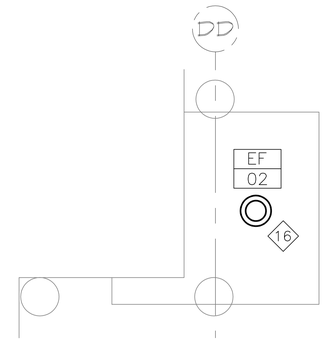


5 DECONTAMINATION ROOM MECHANICAL DEMOLITION PLANS
1/4" = 1'-0"



6 DECONTAMINATION ROOM MECHANICAL PLANS
1/4" = 1'-0"



7 DECONTAMINATION ROOM ROOF PLANS
1/4" = 1'-0"

KEY NOTES:

1. INSTALL DECONTAMINATION TANK IN BASEMENT MECHANICAL ROOM. INSTALL TANK ON 4" CONCRETE EQUIPMENT PAD.
2. 4" CHEMICAL RESISTANT WASTE UP TO FLOOR DRAIN.
3. ROUTE 4" CHEMICAL RESISTANT WASTE TO EXISTING 4" WASTE IN SUB BASEMENT. INSTALL SHUTOFF VALVE AT TANK OUTLET.
4. 4" CHEMICAL RESISTANT WASTE AND 2" CHEMICAL RESISTANT VENT UP TO MECHANICAL TUNNEL.
5. COLD WATER, HOT WATER, AND RECIRCULATING HOT WATER UP TO INTERSTITIAL SPACE.
6. ROUTE 4" CHEMICAL RESISTANT WASTE IN MECHANICAL TUNNEL TO BASEMENT MECHANICAL ROOM.
7. ROUTE 2" CHEMICAL RESISTANT VENT IN MECHANICAL TUNNEL TO BASEMENT MECHANICAL ROOM.
8. DEMOLISH EXISTING THERMOSTAT. INSTALL NEW THERMOSTAT. SEE VAV-29 IN BASE BID VAV SCHEDULE FOR BASE BID VAV SIZING. SEE VAV-50 IN BID OPTION #2 VAV SCHEDULE FOR VAV SIZING FOR BID OPTION#2.

GENERAL NOTES:

A. SEE COMPLETE GENERAL NOTES FROM PLUMBING AND HVAC ON EACH RESPECTIVE HVAC AND PLUMBING SHEETS.

B. ALL WORK ON THIS SHEET TO BE INCLUDED AS PART OF BID OPTION #2. ALL WORK ASSOCIATED WITH THE DECONTAMINATION ROOM 1V-V02 TO BI INCLUDED AS PART OF BID OPTION #2.

FULLY SPRINKLERED

REVISIONS	DATE

GENERAL NOTES:

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JASON GOTTWALT, PE
Date 01/02/2014 Reg. No. 41360

Drawing Title: ENLARGED DECONTAMINATION ROOM PLANS (BID OPTION #2)

Project Title: VA MINNEAPOLIS ED RENOVATION

Project No. 618-14-104

Building Number 70

Drawing Scale: AS NOTED

Plot Scale: 12" = 1'-0"

Approved: Catherine Joyce, Chief, Projects Section

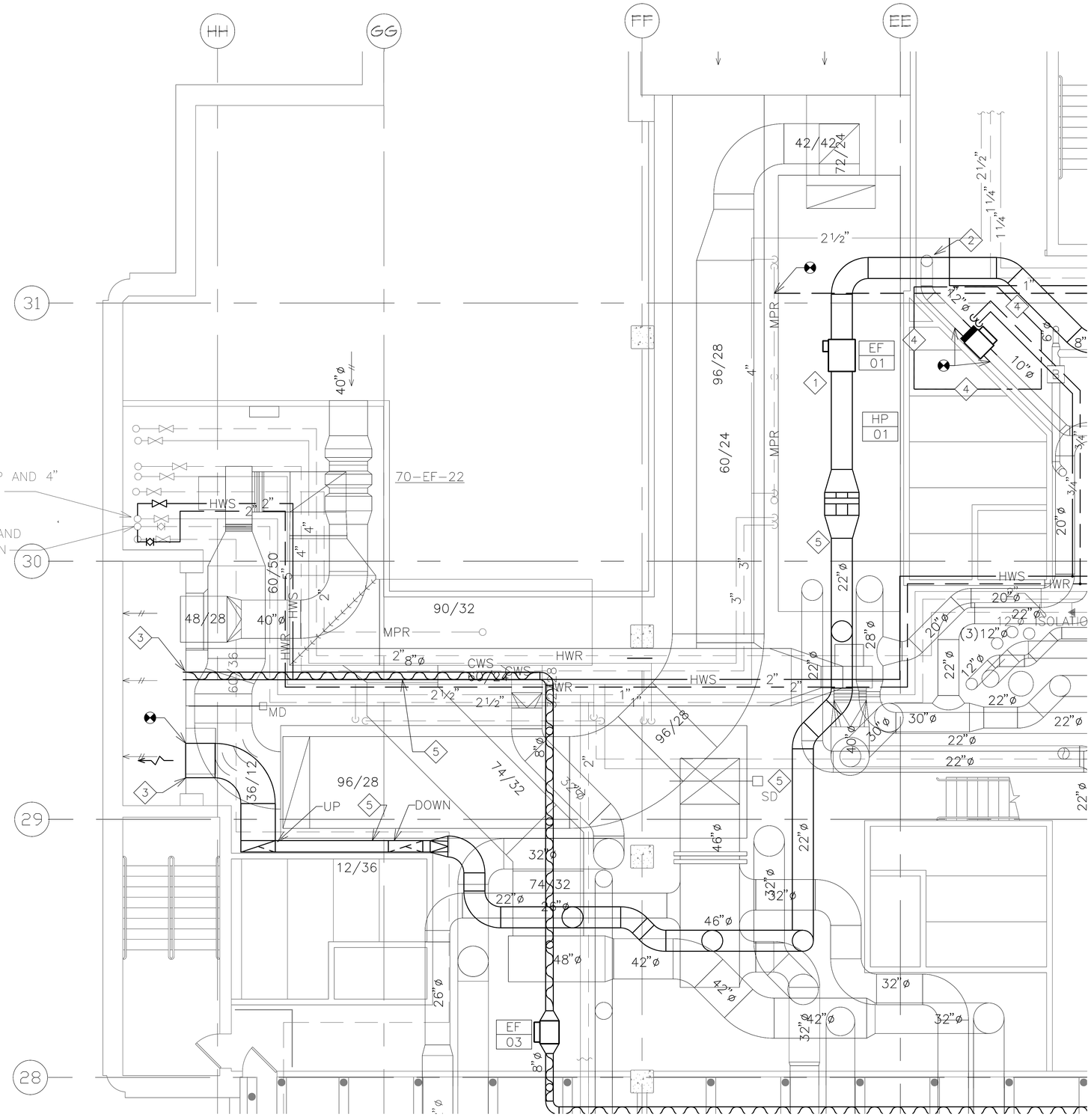
Approved: Steven Challeen, Director, Facilities Engineering

Location: V.A. MEDICAL CENTER, ONE VETERANS DRIVE, MINNEAPOLIS, MN 55417

Date 01/02/2014 | Checked JG | Drawn RFOLIN

DRAWING NO. 1272-70-M02
Dwg. 55 of 73

Office of Facilities Management
Department of Veterans Affairs



1 ENLARGED FIRST FLOOR MECHANICAL ROOM PLAN
1/4"=1'-0"

GENERAL NOTES:

A. MECHANICAL CONTRACTOR SHALL REFER TO THE MASTER SPECIFICATION MANUAL EDITED FOR THIS PROJECT ALONG WITH ANY APPLICABLE STANDARDS. ALL REQUIREMENTS OF THOSE MANUALS SHALL BE MAINTAINED IN ADDITION TO ALL NOTES AND DESCRIPTIONS INDICATED WITHIN THESE DRAWINGS. ANY CONFLICTS BETWEEN THOSE DOCUMENTS SHOULD BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR INTERPRETATION.

B. MECHANICAL CONTRACTOR WILL BE RESPONSIBLE TO REVIEW ACCESSIBILITY TO AREAS OUTSIDE THE CONSTRUCTION LIMITS TO DETERMINE APPROXIMATE AMOUNT OF OVERTIME REQUIRED TO PERFORM ALL MECHANICAL WORK INDICATED. COORDINATION OF SCHEDULES WITH ADJACENT DEPARTMENTS AND CLEANING OF ALL DEBRIS AFTER EACH SHIFT SHOULD BE ASSUMED IN THE BASE BID.

C. ANY MAJOR OUTAGES INDICATED ON THESE DRAWINGS SHALL BE SCHEDULED TO BE PERFORMED AFTER NORMAL BUSINESS HOURS OR DURING WEEKEND PERIODS TO MINIMIZE DISRUPTION. VAMC HOSPITAL FACILITIES WILL REQUIRE A MINIMUM OF TWO(2) WEEKS NOTICE PRIOR TO ANY SUCH OUTAGE AFFECTING MORE THAN ONE ADJACENT AREA.

D. COORDINATE ALL NEW PIPING ROUTING WITH ALL OTHER TRADES TO INSURE ADEQUATE CLEARANCES FOR PLUMBING, ELECTRICAL CONDUIT, STRUCTURAL SUPPORTS, PIPING, ETC. ANY UNAVOIDABLE CONFLICTS SHALL BE BROUGHT THE THE ATTENTION OF THE ARCHITECT/ENGINEER OF RECORD. PROVIDE ALL OFFSETS AND TRANSITIONS AS REQUIRED FOR A CLEAN INSTALLATION.

E. THE EXACT LOCATION OF EQUIPMENT ROUGH-INS SHALL BE VERIFIED WITH THE STAMPED APPROVED SHOP DRAWINGS PRIOR TO ANY FIELD INSTALLATION.

F. SUPPORT ALL PIPING DIRECTLY TO STRUCTURE. DO NOT SUPPORT ANY PIPES FROM DUCTWORK, CONDUIT, OR OTHER PIPING ENCOUNTERED.

G. WHERE MECHANICAL SYSTEMS TO REMAIN ARE DAMAGED, OR DISTURBED, DURING THE COURSE OF CONSTRUCTION THE CONTRACTOR WILL BE RESPONSIBLE TO REMOVE DAMAGED PORTIONS AND INSTALL NEW PRODUCTS OF EQUAL QUALITY AND FUNCTIONALITY.

H. PIPING PENETRATIONS THROUGH FLOOR SHALL BE DRILLED, OR CUT, BY THE CONTRACTOR AND FIRE SEALED AS REQUIRED.

I. THE MECHANICAL CONTRACTOR WILL BE RESPONSIBLE TO MAINTAIN EACH PROJECT SPACE IN A NEGATIVE PRESSURIZATION AND PROVIDE HEPA FILTRATION UNITS AS REQUIRED BY INFECTION CONTROL. IF NECESSARY CONSULT WITH VAMC, OR ENGINEER OF RECORD, FOR SUGGESTED METHODS THAT MAY BE UTILIZED TO ELIMINATE CONTAMINATED AIR TO OUTSIDE. VISUAL PRESSURIZATION INDICATORS SHALL BE PROVIDED AT EACH ENTRANCE TO THE CONSTRUCTION ZONE AND MONITORED DAILY TO INSURE A CONSTANT NEGATIVE PRESSURE IS MAINTAINED THROUGHOUT EACH PHASE. COORDINATE PRESSURIZATION PLANNING WITH VAMC FACILITIES AND INFECTION CONTROL REPRESENTATIVE PRIOR TO EACH CONSTRUCTION PHASE.

J. THE FOLLOWING NOTES BELOW ARE SPECIFIC TO INFECTION CONTROL AND APPLY TO ALL SUBCONTRACTORS INVOLVED WITH THE PROJECT. ALL CONTRACTORS AND SUBCONTRACTORS SHALL FOLLOW THE INFECTION CONTROL RISK ASSESSMENT (ICRA) AND FGI GUIDELINES THROUGHOUT THE CONSTRUCTION PROCESS. ALL CONTRACTED WORKERS MUST RECEIVE INFORMATION/TRAINING ON INFECTION CONTROL RISKS AND PRACTICES PRIOR TO STARTING ANY ON SITE WORK.

K. ALL WORK OUTSIDE THE PROTECTED PROJECT BOUNDARIES ABOVE EXISTING CEILING SHALL BE COMPLETED WITH CEILINGS REPLACED IN THE SAME DAY UNLESS FULLY COORDINATED THROUGH INFECTION CONTROL. CLEAN AREA TO ORIGINAL CONDITION ON COMPLETION.

L. CEILING TILES WITH VISIBLE WATER DAMAGE SHALL BE SPRAYED TO DISINFECT AND ENCAPSULATE POTENTIAL MOLD PRIOR TO REMOVAL.

M. CONTRACTOR TO INSTALL TEMPORARY BARRIERS FOR EACH PROJECT PHASE AND/OR AREA. THESE BARRIERS SHALL BE COORDINATED WITH VAMC HOSPITAL AND, IN MOST CASES, CONTAIN SOME FORM OF AIRLOCK VESTIBULE PRIOR TO ENTERING THE CONSTRUCTION AREA.

N. FLUTTER STRIPS OR AIR PRESSURE GAUGES SHALL BE PROVIDED AT THE ENTRANCES TO EACH CONSTRUCTION AREA. ALL CONTRACTED WORKERS SHALL BE TRAINED TO VISUALLY MONITOR THESE DEVICES FOR ADEQUATE NEGATIVE PRESSURIZATION AS THEY ENTER/EXIT THE CONSTRUCTION AREA. DAILY LOGS SHALL BE KEPT BY THE MECHANICAL CONTRACTOR TO INSURE CONSTANT PRESSURIZATION HAS BEEN MAINTAINED.

O. PORTABLE HEPA FILTER UNITS SHALL BE UTILIZED DIRECTLY OUTSIDE EACH CONSTRUCTION AREA. UNITS WILL BE PROVIDED BY FACILITIES AND MAINTAINED BY MECHANICAL CONTRACTOR.

P. NEGATIVE PRESSURIZATION SHALL BE MAINTAINED IN EACH CONSTRUCTION AREA. IF LOCATED ON AN EXTERIOR WALL FANS SHOULD BE UTILIZED TO EXHAUST AIR DIRECTLY OUT A NEARBY WINDOW, TAKING PRECAUTIONS TO NOT INTERFERE WITH EXISTING BUILDING AIR INTAKES, PUBLIC AREAS, ETC. IF NO EXTERIOR WALL IS AVAILABLE THEN NEGATIVE AIR MACHINES WITH INTERNAL FILTRATION SHALL BE PROVIDED AND CONNECTION TO THE NEAREST EXHAUST OR RETURN DUCT AVAILABLE (CONTACT ENGINEER TO VERIFY EXISTING DUCTWORK CAPACITY PRIOR TO EXHAUST CONNECTION).

Q. COORDINATE DEBRIS REMOVAL WITH VAMC PROJECT MANAGER. IF AN ACCEPTABLE EXIT PATH IS NOT AVAILABLE FROM THE PROJECT SITE THEN AFTER HOURS REMOVAL OF DEMOLISHED MATERIAL WILL BE PERFORMED. COVER ALL CARTS WITH SEALED COVERS TO MAINTAIN DUST CONTROL.

KEY NOTES:

1. INSTALL NEW EXHAUST FAN. SUPPORT FROM STRUCTURE ABOVE.
2. SEE ENLARGED DECONTAMINATION ROOM PLANS FOR CONTINUATION OF DUCT.
3. CONNECT NEW EXHAUST DUCT TO EXISTING MECHANICAL ROOM EXHAUST LOUVER. MODIFY EXISTING INSULATED PANELS FOR NEW DUCT CONNECTION.
4. INCLUDE NEW VAV AND ASSOCIATED CONTROLS AND PIPING TO SERVE NEW DECONTAMINATION ROOM AS PART OF BID OPTION #2.
5. INSTALL ELBOWS AND OFFSETS AS NEEDED TO ROUTE EXHAUST AIR DUCT WITHOUT ANY MODIFICATIONS TO EXISTING DUCTWORK, PIPES, AND EQUIPMENT. MAINTAIN SERVICEABILITY AND CLEARANCES OF MECHANICAL ROOM AND EQUIPMENT.

FULLY SPRINKLERED

REVISIONS	DATE

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JASON GOTTWALT, PE
Date 01/02/2014 Reg. No. 41360

Drawing Title: ENLARGED FIRST FLOOR MECHANICAL ROOM PLAN

Drawing Scale: AS NOTED
Plot Scale: 12" = 1'-0"

Approved: Catherine Joyce, Chief, Projects Section
Approved: Steven Challeen, Director, Facilities Engineering

Project Title: VA MINNEAPOLIS ED RENOVATION
Location: V.A. MEDICAL CENTER, ONE VETERANS DRIVE, MINNEAPOLIS, MN 55417
Date: 01/02/2014 | Checked: JG | Drawn: RFOLIN

Project No. 618-14-104
Building Number 70
DRAWING NO. 1272-70-M03
Dwg. 56 of 73

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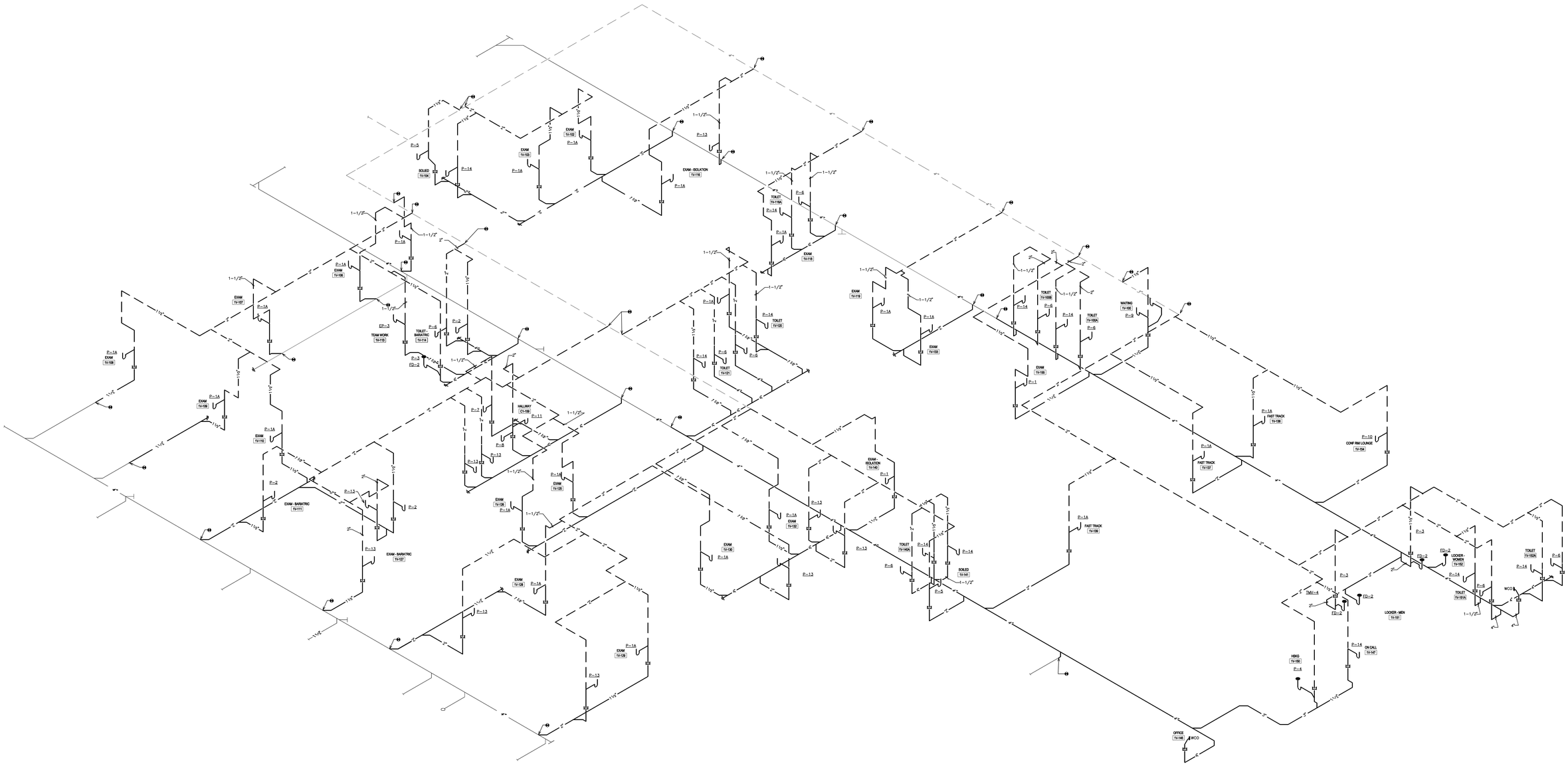
Department of Veterans Affairs



1 PLUMBING WASTE AND VENT RISER DIAGRAM
NO SCALE

FULLY SPRINKLERED

REVISIONS	DATE

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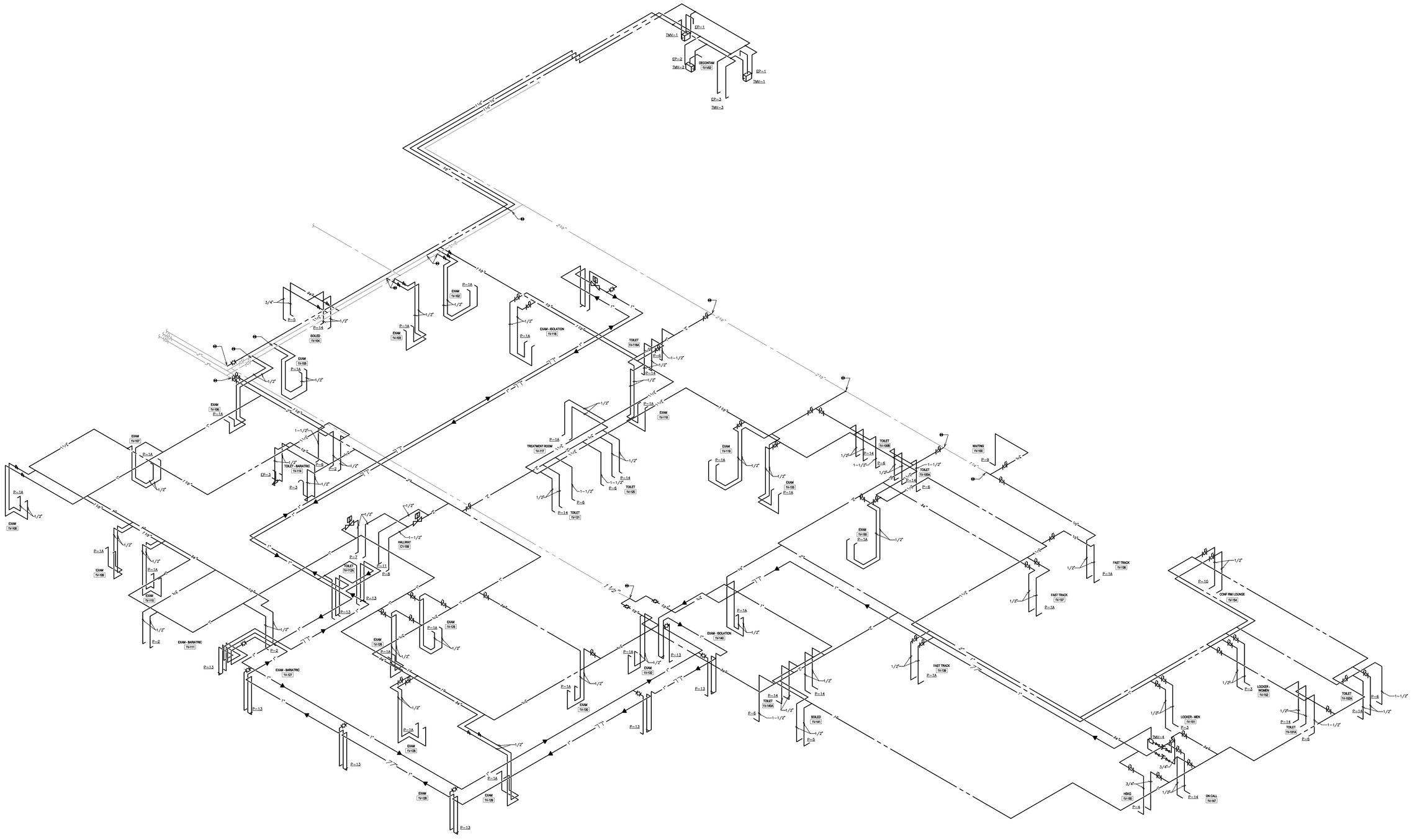
JASON GOTTWALT, PE
Date 01/02/2014 Reg. No. 41360

Drawing Title	PLUMBING WASTE AND VENT RISER DIAGRAM
Drawing Scale	AS NOTED
Plot Scale	12" = 1'-0"
Approved: Catherine Joyce, Chief, Projects Section	
Approved: Steven Challeen, Director, Facilities Engineering	
Project Title	VA MINNEAPOLIS ED RENOVATION
Location	V.A. MEDICAL CENTER ONE VETERANS DRIVE MINNEAPOLIS, MN 55417
Date	01/02/2014
Checked	JG
Drawn	RFOLIN
Project No.	618-14-104
Building Number	70
DRAWING NO.	1272-70-P01
Dwg.	57 of 73

Office of Facilities Management

Department of Veterans Affairs



1 PLUMBING DOMESTIC WATER RISER DIAGRAM
NO SCALE

FULLY SPRINKLERED

REVISIONS	DATE

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JASON GOTTWALT, PE
Date 01/02/2014 Reg. No. 41360

Drawing Title	PLUMBING DOMESTIC WATER RISER DIAGRAM
Drawing Scale	AS NOTED
Plot Scale	12" = 1'-0"
Approved:	Catherine Joyce, Chief, Projects Section
Approved:	Steven Challeen, Director, Facilities Engineering
Project Title	VA MINNEAPOLIS ED RENOVATION
Location	V.A. MEDICAL CENTER ONE VETERANS DRIVE MINNEAPOLIS, MN 55417
Date	01/02/2014
Checked	JG
Drawn	RFOLIN
Project No.	618-14-104
Building Number	70
DRAWING NO.	1272-70-P02
Dwg. 58 Of 73	

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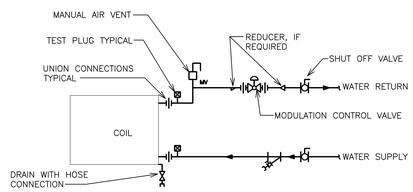
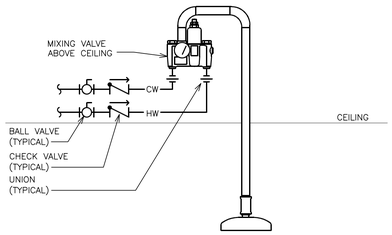
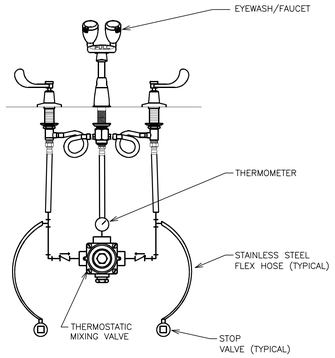
Department of Veterans Affairs



1 TERMINAL UNIT WATER COILS PIPING CONNECTIONS
NO SCALE





2 EYEWASH/FAUCET PIPING DETAIL
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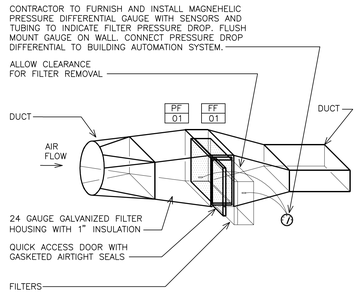

3 INLINE FILTER ASSEMBLY DETAIL
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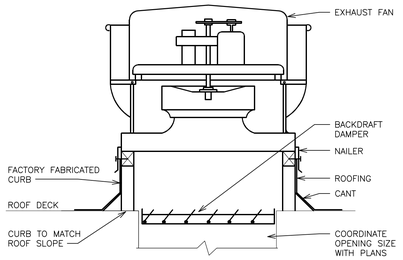

4 UPBLAST PRV FAN DETAIL
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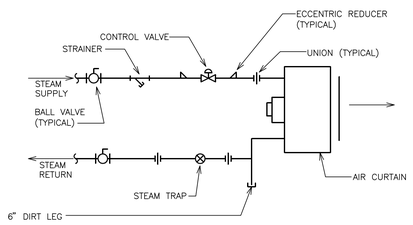
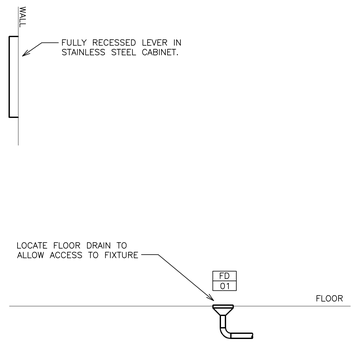


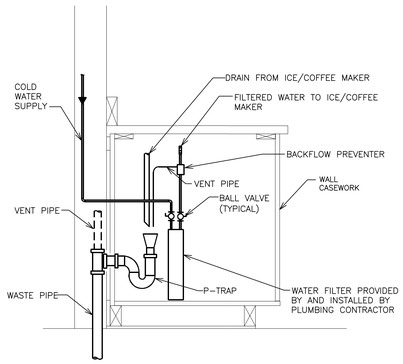
NOTES:

1. REFER TO SPECIFICATIONS FOR CONTROL VALVE REQUIREMENTS.

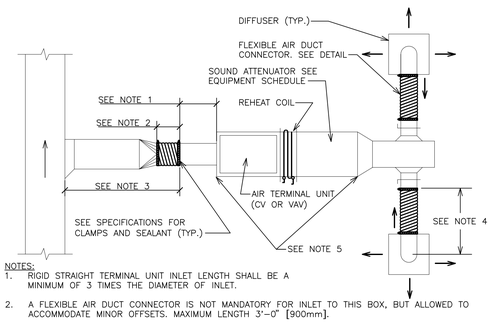
5 STEAM AIR CURTAIN PIPING DETAIL
NO SCALE



6 EMERGENCY SHOWER/EYE WASH DETAIL
NO SCALE



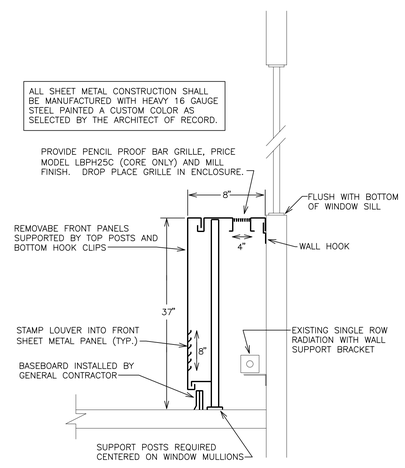
7 ICE/COFFEE SUPPLY AND DRAIN DETAIL
NO SCALE



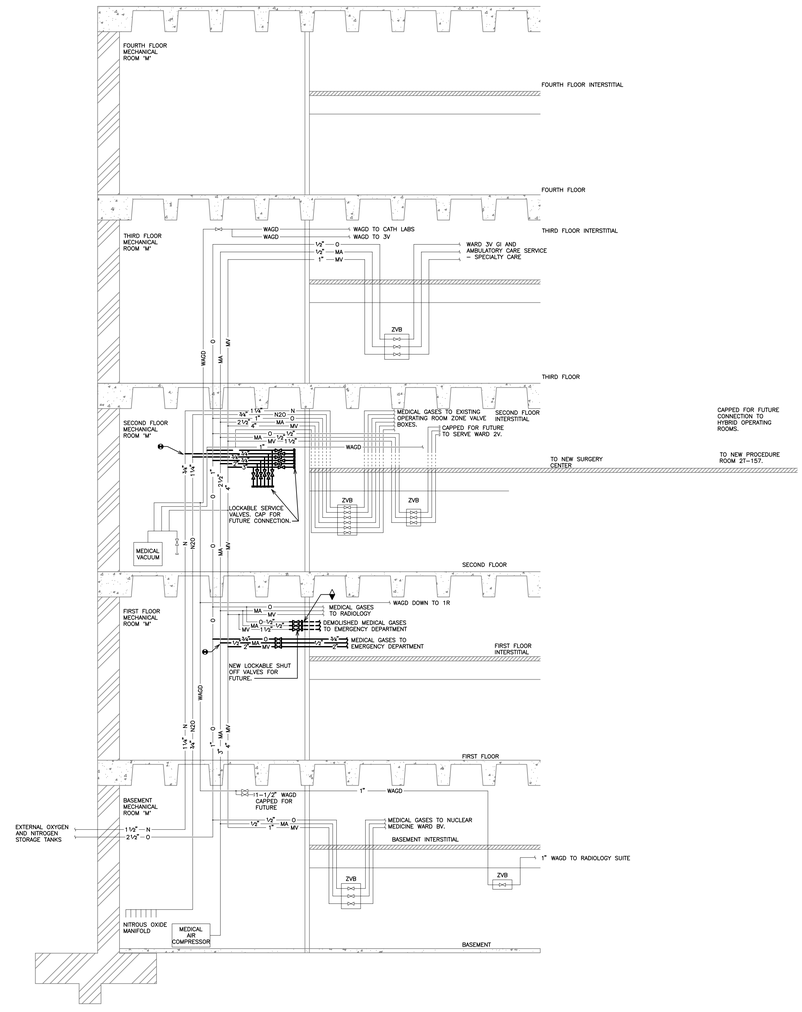
NOTES:

1. RIGID STRAIGHT TERMINAL UNIT INLET LENGTH SHALL BE A MINIMUM OF 3 TIMES THE DIAMETER OF INLET.
2. A FLEXIBLE AIR DUCT CONNECTOR IS NOT MANDATORY FOR INLET TO THIS BOX, BUT ALLOWED TO ACCOMMODATE MINOR OFFSETS. MAXIMUM LENGTH 3'-0" [900mm].
3. A BRANCH DUCT SERVING AN INDIVIDUAL BOX MAY BE THE SAME SIZE AS THE BOX INLET, PROVIDED THE EQUIVALENT LENGTH OF THE BRANCH DUCT, AS SHOWN, DOES NOT EXCEED 10 FEET (3 METERS). FOR LONGER LENGTHS, INCREASE THE DUCT SIZE AND PROVIDE A DUCT TRANSITION TO MAINTAIN THE DUCT STATIC PRESSURE DROP AT OR BELOW 0.2"/100' [1.64Pa/m].
4. FLEXIBLE AIR DUCT CONNECTORS, WHEN USED FROM TERMINAL UNIT SUPPLY AIR DUCT TO DIFFUSER, SHALL NOT EXCEED 5'-0" [1500mm]. USE RIGID ELBOWS FOR CHANGE OF DIRECTION GREATER THAN 45°.
5. COMPONENT ARRANGEMENT MAY VARY BY MANUFACTURER. PROVIDE INSULATION W/VAPOR BARRIER FOR CONNECTING DUCT SECTIONS.
6. USE OF THE FLEXIBLE AIR DUCT CONNECTORS ARE NOT PERMITTED FOR THE DEDICATED AHU SERVING THE SURGICAL SUITE.

8 DUCT CONNECTIONS–AIR TERMINAL UNITS
NO SCALE



9 CUSTOM RADIATION ENCLOSURES – EXISTING FIN TUBE COVER
NO SCALE



10 MEDICAL GAS RISER DIAGRAM
NO SCALE

FULLY SPRINKLERED

REVISIONS	DATE

GENERAL NOTES:

GENERAL CONTRACTOR AND/OR ALL SUBCONTRACTORS SHALL FIELD VERIFY ALL DIMENSIONS SHOWN ON THESE PLANS AND SHALL BE RESPONSIBLE FOR VARIATIONS BETWEEN PLAN DIMENSIONS AND ACTUAL FIELD DIMENSIONS. WHERE VARIATIONS ARE FOUND TO OCCUR, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING PRIOR TO PROCEEDING WITH CONSTRUCTION; NO ADJUSTMENT TO THE WORK WILL BE MADE WITHOUT THE PRIOR APPROVAL OF THE PROJECT ENGINEER.

GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR GENERAL DEMOLITION INCLUDING REMOVAL OF WALLS, PARTITIONS, DOORS & CEILING & FLOORS. ANY AND ALL CUTTING OF CONCRETE FLOORS, WALLS OR STRUCTURE SHALL BE THE GENERAL CONTRACTOR'S RESPONSIBILITY. CORE DRILLING THROUGH CONCRETE WALLS, FLOORS OR STRUCTURE FOR PIPING OR CONDUIT SHALL BE THE RESPONSIBILITY OF THE SUBCONTRACTOR BY TRADE; FIRESTOPPING OF THESE OPENINGS SHALL BE DONE BY THE RESPECTIVE SUBCONTRACTOR. REMOVAL OF DEBRIS RESULTING FROM DEMOLITION, CUTTING, AND/OR DRILLING IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. PATCHING AND REPAIR OF CONCRETE WALLS, FLOOR, OR STRUCTURE SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR; THIS WILL BE ACCOMPLISHED UPON COMPLETION OF THE INSTALLATION OF ANY AND ALL UTILITIES INSTALLED BY THE VARIOUS SUBCONTRACTORS.

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I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed Architect under the laws of the State of Minnesota.

JASON GOTTWALT, PE
Date 01/02/2014 Reg. No. 41360

Drawing Scale: AS NOTED
Plot Scale: 12" = 1'-0"

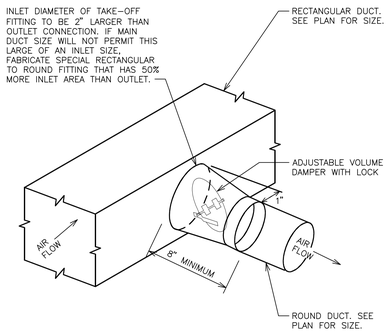
Drawing Title: MECHANICAL DETAILS

Approved: Catherine Joyce, Chief, Projects Section
Approved: Steven Challeen, Director, Facilities Engineering

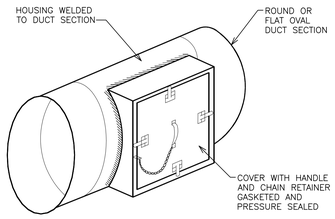
Project Title: VA MINNEAPOLIS ED RENOVATION
Location: V.A. MEDICAL CENTER, ONE VETERANS DRIVE, MINNEAPOLIS, MN 55417
Date: 01/02/2014 | Checked: JG | Drawn: RFOLIN

Project No. 618-14-104
Building Number 70
DRAWING NO. 1272-70-M04
Dwg. 59 of 73

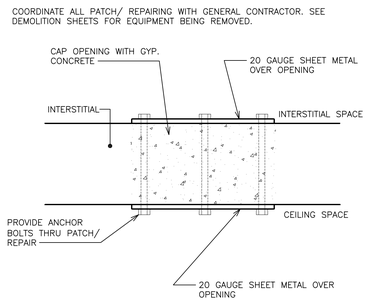
Office of Facilities Management
Department of Veterans Affairs



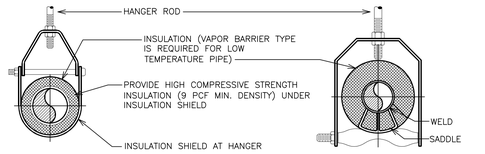
1 DUCT TAKE-OFF TO DIFFUSER DETAIL
NO SCALE



2 DUCTWORK ACCESS PANELS
NO SCALE

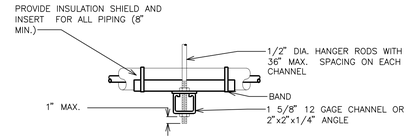


3 INTERSTITIAL DECK REPAIR DETAIL
NO SCALE



ADJUSTABLE CLEVIS HANGER TYPE 1 – SEE SPECIFICATIONS

ADJUSTABLE CLEVIS HANGER TYPE 43 – SEE SPECIFICATIONS



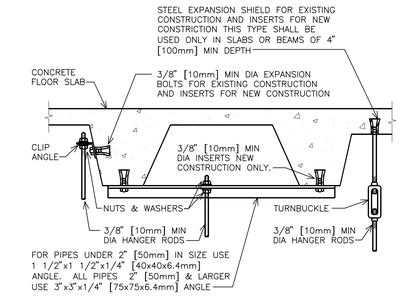
SIDE VIEW
TRAPEZE HANGER FOR UP TO 1000 LB. (453 KG) UNIFORM LOAD

MAXIMUM PIPE/TUBING SUPPORT SPACING

NOM. SIZE	IN. (MM)	THRU 3/4 THRU (20)	1 (25)	1 1/4 (32)	1 1/2 (40)	2 (50)	2 1/2 (65)	3 (75)	4 (100)	5 (125)	6 (150)	8 (200)	10 (250)	12 (300)	14 (350)	16 (400)	18 (450)	20 (500)	24 (600)
PIPE	FT. (M)	7 (2.1)	7 (2.1)	7 (2.1)	9 (2.7)	10 (3.0)	11 (3.4)	12 (3.7)	14 (4.1)	16 (4.9)	17 (5.2)	19 (5.8)	22 (6.7)	23 (7.0)	25 (7.6)	27 (8.2)	28 (8.5)	30 (9.1)	32 (9.8)
TUBING	FT. (M)	5 FT 5 FT	6 (1.8)	7 (2.1)	8 (2.4)	8 (2.4)	9 (2.7)	10 (3.0)	12 (3.7)	13 (4.0)	14 (4.1)	16 (4.9)	– –	– –	– –	– –	– –	– –	– –

NOTE: FOR TRAPEZE HANGER TAKE SPACING OF SMALLEST SIZE ON TRAPEZE.

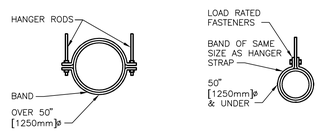
4 PIPE HANGERS DETAIL
NO SCALE



5 SECURING HANGER RODS IN CONCRETE
NO SCALE

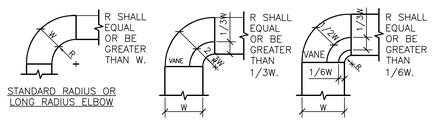
HANGER STRAPS OR RODS

MAX. DUCT ø IN. [mm]	QUANTITY/SIZE IN. [mm]	MAX. LOAD LBS. [kg]	MAX. SPACING IN. [mm]
26 [650]	ONE 1 [25] x 22 GA STRAP	260 [119]	144 [3600]
36 [900]	ONE 1 [25] x 18 GA STRAP	420 [190]	144 [3600]
50 [1250]	ONE 1 [25] x 16 GA STRAP	700 [317]	144 [3600]
60 [1500]	TWO 3/8 [10]ø RODS	1320 [598]	144 [3600]
84 [2100]	TWO 1/2 [13]ø RODS	2500 [1133]	144 [3600]



NOTE:
TABULATED DATA FROM SMACNA ALLOWS FOR DUCT REINFORCING AND INSULATION, BUT NO EXTERNAL LOAD.

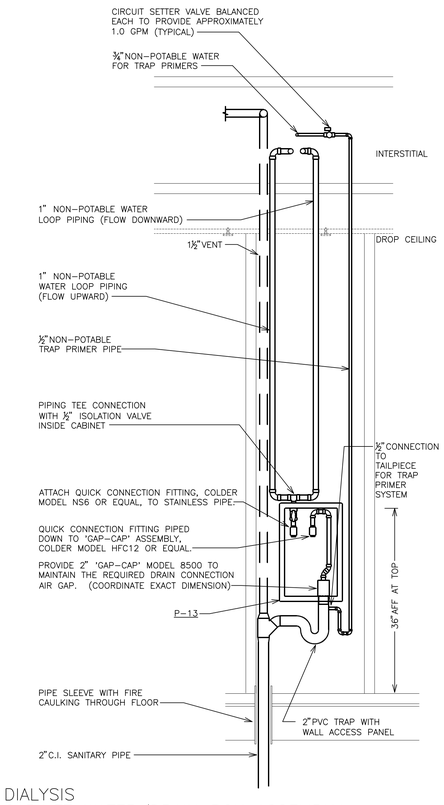
6 ROUND DUCT HANGERS
NO SCALE



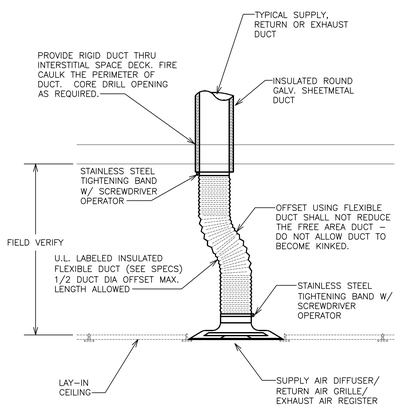
NOTE:

1. THE INTERIOR SURFACE OF ALL RADIUS ELBOWS SHALL BE MADE ROUND.
2. ALL STANDARD RADIUS ELBOWS CAN BE SUBSTITUTED WITH SHORT RADIUS ELBOWS. ALL SHORT RADIUS ELBOWS SHALL HAVE VANES. VANES SHALL BE CONSTRUCTED, SUPPORTED AND FASTENED AS RECOMMENDED BY SMACNA.

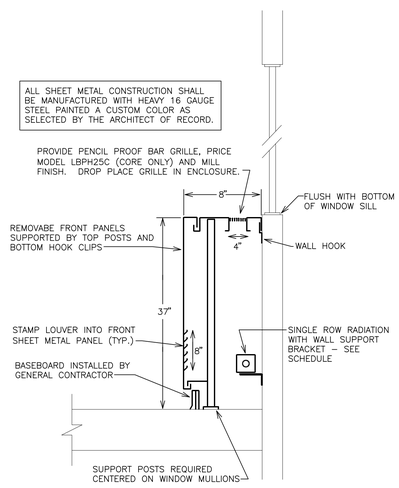
7 DUCTWORK RADIUS ELBOWS
NO SCALE



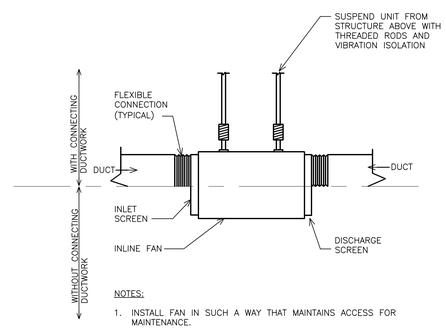
DIALYSIS CABINET WATER/DRAIN BOX ASSEMBLY
NO SCALE



8 FLEXIBLE DUCT CONNECTION
NO SCALE



9 CUSTOM RADIATION ENCLOSURES – ER WAITING
NO SCALE



NOTES:

1. INSTALL FAN IN SUCH A WAY THAT MAINTAINS ACCESS FOR MAINTENANCE.

10 INLINE FAN DETAIL
NO SCALE

REVISIONS	DATE

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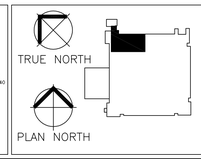

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Architect under the laws of the State of Minnesota.

JASON GOTTWALT, PE
Date 01/02/2014 Reg. No. 41360

Drawing Title: MECHANICAL DETAILS

Project Title: VA MINNEAPOLIS ED RENOVATION

Project No. 618-14-104

Building Number 70

Drawing Scale: AS NOTED

Plot Scale: 12" = 1'-0"

Approved: Catherine Joyce, Chief, Projects Section

Approved: Steven Challeen, Director, Facilities Engineering

Location: V.A. MEDICAL CENTER, ONE VETERANS DRIVE, MINNEAPOLIS, MN 55417

Date 01/02/2014 | Checked JG | Drawn RFOLIN

DRAWING NO. 1272-70-M05

Dwg. 60 of 73

FULLY SPRINKLERED

Office of Facilities Management

Department of Veterans Affairs

PLUMBING FIXTURE AND CONNECTION SCHEDULE (P)

FIXTURE NO.	FIXTURE TYPE	MOUNTING	ADA	FIXTURE	TRIM	STOPS	TRAP	CARRIER	WASTE INCHES	TRAP INCHES	VENT INCHES	CW INCHES	HW INCHES	CW FLUSH VALVE INCHES	TW INCHES	RO INCHES	REMARKS
P-1A	LAVATORY	WALL	NO	AMERICAN STANDARD "LUCERNE" 0356.037, THREE HOLE, WALL HUNG, VITREOUS CHINA, WHITE.	CHICAGO FAUCETS 786-E3-319XKABCP 5-1/4"" GOOSENECK SPOUT, 8" CENTERS, WRIST BLADES, GRID STRAINER.	McGUIRE QUARTER TURN BRASS BALL VALVE POLISHED C.P.CAST BRASS ANGLE VALVE KITS, LOOSE KEY, FLEXIBLE RISERS, ESCUTCHEON	1-1/4"x1-1/4"CAST BRASS, CHROME PLATED,'P' TRAP, EXTEND TO WALL WITH ESCUTCHEON	FLOOR MOUNTED, CONCEALED ARMS, LEVELING AND SECURING SCREWS, STRUCTURAL UPRIGHTS & WELDED FEET.	1-1/4"	1-1/4"	1-1/2"	1/2"	1/2"	NA	1/2"	NA	PROVIDE MOLDED COVERING FOR WATER AND WASTE PIPING, BROCAR PRODUCTS INC. "TRAP WRAP" OR TRUEBRO "HANDILAV GUARD".
P-1B (BID OPTION #7)	LAVATORY	WALL	NO	AMERICAN STANDARD "LUCERNE" 0356.137, SINGLE HOLE, WALL HUNG, VITREOUS CHINA, WHITE.	CHICAGO FAUCETS 626-E35ABCP, DECK MOUNTED, 5-1/4" RIGID GOOSENECK SPOUT, 1.5 GPM LAMINAR FLOW OUTLET, CHROME PLATE FINISH, SUPPLY WITH CHICAGO FAUCETS 834-EPABCP SWEEP STYLE, WALL MOUNTED, FOOT PEDAL CONTROLS WITH QUICK CLOSE CARTRIDGE.	McGUIRE QUARTER TURN BRASS BALL VALVE POLISHED C.P.CAST BRASS ANGLE VALVE KITS, LOOSE KEY, FLEXIBLE RISERS, ESCUTCHEON	1-1/4"x1-1/4"CAST BRASS, CHROME PLATED,'P' TRAP, EXTEND TO WALL WITH ESCUTCHEON	FLOOR MOUNTED, CONCEALED ARMS, LEVELING AND SECURING SCREWS, STRUCTURAL UPRIGHTS & WELDED FEET.	1-1/4"	1-1/4"	1-1/2"	1/2"	1/2"	NA	1/2"	NA	PROVIDE MOLDED COVERING FOR WATER AND WASTE PIPING, BROCAR PRODUCTS INC. "TRAP WRAP" OR TRUEBRO "HANDILAV GUARD".
P-2	LAVATORY	COUNTER	–	INTEGRAL BOWL WITH COUNTER TOP	CHICAGO FAUCETS 786-E3-319XKABCP 5-1/4"" GOOSENECK SPOUT, CHROME PLATED, 8" CENTERS, WRIST BLADES, GRID STRAINER.	McGUIRE QUARTER TURN BRASS BALL VALVE POLISHED C.P.CAST BRASS ANGLE VALVE KITS, LOOSE KEY, FLEXIBLE RISERS, ESCUTCHEON	1-1/4"x1-1/4"CAST BRASS, CHROME PLATED,'P' TRAP, EXTEND TO WALL WITH ESCUTCHEON	FLOOR MOUNTED, CONCEALED ARMS, LEVELING AND SECURING SCREWS, STRUCTURAL UPRIGHTS & WELDED FEET.	1-1/4"	1-1/4"	1-1/2"	1/2"	1/2"	NA	1/2"	NA	PROVIDE MOLDED COVERING FOR WATER AND WASTE PIPING, BROCAR PRODUCTS INC. "TRAP WRAP" OR TRUEBRO "HANDILAV GUARD".
P-3	SHOWER	WALL	–	DELTA R10000UNWS PRESSURE BALANCE VALVE, T13H153 24" GRAB BAR WITH HAND WAND & V.B.	SHOWER BY GC.	INTEGRAL	NA	NA	2"FD FD-2	1-1/2"	NA	1/2"	1/2"	NA	NA	NA	–
P-4	MOP SINK	FLOOR	–	FLOOR MOUNTED MOP SINK	CHICAGO FAUCETS 897-CP WALL MOUNTED SERVICE SINK FAUCET WITH ATMOSPHERIC VACUUM BREAKER SPOUT AND PAIL HOOK	INTEGRAL	3" P-TRAP	NA	3"	2"	1-1/2"	3/4"	3/4"	NA	NA	NA	–
P-5	SERVICE SINK	COUNTER	YES	INTEGRAL BOWL WITH COUNTER TOP	DELTA 27T4844 DECK FAUCET, TWO HANDLES, 4" CENTERS, 6" GOOSENECK SPOUT, 2.2 GPM LAMINAR FLOW OUTLET, GRID STRAINER.	McGUIRE QUARTER TURN BRASS BALL VALVE POLISHED C.P.CAST BRASS ANGLE VALVE KITS, LOOSE KEY, FLEXIBLE RISERS, ESCUTCHEON	1-1/4"x1-1/4"CAST BRASS, CHROME PLATED,'P' TRAP, EXTEND TO WALL WITH ESCUTCHEON	NA	1-1/4"	1-1/4"	1-1/2"	1/2"	1/2"	NA	1/2"	NA	PROVIDE MOLDED COVERING FOR WATER AND WASTE PIPING, BROCAR PRODUCTS INC. "TRAP WRAP" OR TRUEBRO "HANDILAV GUARD".
P-6	WATER CLOSET	WALL	YES	AMERICAN STANDARD "AFWALL" 2257.103, ELONGATED WALL MOUNTED WITH TOP SPUD.	SLOAN FLUSHOMETER MODEL REGAL 111XL 1.6 GPF LOW CONSUMPTION ANGLE STOP, 1" IPS, COUPLING & FLANGE FOR 1½" TOP SPUD, 11-1/2"HIGH, CHROME PLATED, DIAPHRAGM TYPE.	INTEGRAL ANGLE STOP ON FLUSH VALVE	INTEGRAL	FLOOR SET VERTICAL ADJUSTABLE W/ AUXILIARY SUPPORT ASSEMBLY (4 FEET SUPPORTS)	4	NA	2	NA	NA	1	NA	NA	PROVIDE OPEN FRONT WHITE SEAT SIMILAR TO OLSONITE 95SS, WHITE.
P-7	SAFE ROOM SINK	WALL	YES	AMERICAN STANDARD "LUCERNE" 0355.012, 4" CENTERS, WALL HUNG, VITREOUS CHINA, WHITE.	BEHAVIORAL SAFETY PRODUCTS, SENSORFLO, LIGATURE RESISTANT SENSOR FAUCET #SF370. BATTERY POWERED, 2.2 GPM LAMINAR FLOW, WITH UNDER COUNTER MIXER.	McGUIRE QUARTER TURN BRASS BALL VALVE POLISHED C.P.CAST BRASS ANGLE VALVE KITS, LOOSE KEY, FLEXIBLE RISERS, ESCUTCHEON	1-1/4"x1-1/4"CAST BRASS, CHROME PLATED,'P' TRAP, EXTEND TO WALL WITH ESCUTCHEON	FLOOR MOUNTED, CONCEALED ARMS, LEVELING AND SECURING SCREWS, STRUCTURAL UPRIGHTS & WELDED FEET.	1-1/4"	1-1/4"	1-1/2"	1/2"	1/2"	NA	1/2"	NA	PROVIDE SUICIDE RESISTANT STANDARD TRAP COVER BEHAVIORAL SAFETY PRODUCTS #TC230. COORDINATE WASTE PIPING AND MIXING VALVE LOCATION WITH PVC TRAP COVER.
P-8	SAFE ROOM TOILET	WALL	YES	BEHAVIORAL SAFTEY PRODUCTS NEOLO ELONGATED FV TOILET REAR SPUD, WHITE VITREOUS CHINA.	CONCEALED, HYDRAULICALLY OPERATED PUSH BUTTON FLUSH VALVE. SLOAN VALVE MODEL 950. 3.5 GPF. 1-1/2" IPS, COUPLING & FLANGE FOR 1½" BACK SPUD,	INTEGRAL ANGLE STOP ON FLUSH VALVE	INTEGRAL	FLOOR SET VERTICAL ADJUSTABLE W/ AUXILIARY SUPPORT ASSEMBLY (4 FEET SUPPORTS)	4	NA	2	NA	NA	1	NA	NA	INSTALL COLD WATER SHUT OFF VALVE IN VALVE BOX ACCESSIBLE TO ADJACENT CORRIDOR.
P-10	KITCHEN SINK	DROP IN	YES	ELKAY LRAD 2219 18# 304 STAINLESS STEEL DROP IN SELF RIMMING SINK WITH 3 HOLES, 8" CENTERS.	CHICAGO FAUCETS 201-AGN8AE3-317XKABCP DECK MOUNTED 8' FAUCET, POLISHED CHROME, WITH 1.5 GPM LAMINAR FLOW OUTLET AND GRID STRAINER.	McGUIRE QUARTER TURN BRASS BALL VALVE POLISHED C.P.CAST BRASS ANGLE VALVE KITS, LOOSE KEY, FLEXIBLE RISERS, ESCUTCHEON	1-1/4"x1-1/4"CAST BRASS, CHROME PLATED,'P' TRAP, EXTEND TO WALL WITH ESCUTCHEON	NA	1-1/4"	1-1/4"	1-1/2"	1/2"	1/2"	NA	1/2"	NA	PROVIDE MOLDED COVERING FOR WATER AND WASTE PIPING, BROCAR PRODUCTS INC. "TRAP WRAP" OR TRUEBRO "HANDILAV GUARD".
P-11	ICE MAKER WALL BOX.	WALL	NA	IPS WATER TIGHT W9200 MINI ICE MAKER BOX WITH COPPER 1/4 TURN VALVE	NA	NA	NA	NA	NA	NA	NA	1/2	NA	NA	NA	NA	VERIFY BOX HEIGHT WITH EQUIPMENT, PROVIDE CHECK VALVE AFTER BOX BEFORE EQUIPMENT CONNECTION. ALL PIPING VALVES AND CHECK VALVES TO BE NSF PLASTIC.
P-12	SOILED HOLD SINK	WALL	–	KOHLER "BANNON" K-6716, 2 HOLE 8" CENTERS, WHITE ENAMELED CAST IRON, AND METAL RIM GUARDS.	DELTA 28C8183, 8" SINK FAUCET, ADJUSTABLE CENTERS, VACUUM BREAKER SPOUT, 3/4" HOSE THREADED OUTLET, ROUGH CHROME PLATED.	INTEGRAL	K-6673 3" TRAP STAND	NA	3	3	1-1/2"	3/4"	3/4"	NA	NA	NA	–
P-13	DIALYSIS BOX	WALL	NA	AMERIWATER SINGLE PIECE ABS CONSTRUCTION, SINGLE, WATER ONLY CONNECTION, DIALYSIS WALL BOX.	–	–	1-1/2" PVC 'P'-TRAP IN WALL WITH 1-1/2" VENT	NA	2"	1-1/2"	1-1/2"	NA	NA	NA	3/4"	NA	MATCH EXISTING DIALYSIS WALL BOXES IN FACILITY. SUPPLY STAINLESS STEEL ACCESS PANEL IN ISOLATION ROOMS.
P-14	LAVATORY	WALL	YES	AMERICAN STANDARD "LUCERNE" 0356.137, THREE HOLE, WALL HUNG, VITREOUS CHINA, WHITE.	DELTA 27C4844 DECK FAUCET, TWO HANDLES, 4" CENTERS, 6" GOOSENECK SPOUT, GRID STRAINER.	McGUIRE QUARTER TURN BRASS BALL VALVE POLISHED C.P.CAST BRASS ANGLE VALVE KITS, LOOSE KEY, FLEXIBLE RISERS, ESCUTCHEON	1-1/4"x1-1/4"CAST BRASS, CHROME PLATED,'P' TRAP, EXTEND TO WALL WITH ESCUTCHEON	FLOOR MOUNTED, CONCEALED ARMS, LEVELING AND SECURING SCREWS, STRUCTURAL UPRIGHTS & WELDED FEET.	1-1/4"	1-1/4"	1-1/2"	1/2"	1/2"	NA	1/2"	NA	PROVIDE MOLDED COVERING FOR WATER AND WASTE PIPING, BROCAR PRODUCTS INC. "TRAP WRAP" OR TRUEBRO "HANDILAV GUARD".

VARIABLE AIR VOLUME BOX SCHEDULE (HEATING WATER) BASE BID

GENERAL			MECHANICAL															
EQUIPMENT LOCATION								HEATING COIL										
EQUIPMENT TAG	ROOM NUMBER	ROOM NAME	TYPE	NECK SIZE	MAXIMUM CFM	MINIMUM CFM	MAXIMUM APD (IN W.G.)	HEATING CFM	EAT (F)	LAT (F)	MBH	GPM	EWT (F)	LWT (F)	MAXIMUM WPD (FT)	MANUFACTURER	MODEL	MECHANICAL NOTES
VAV-01	IV-154	CONFERENCE ROOM/LOUNGE	PRESSURE INDEPENDENT	10"	900	600	0.5"	900	55	85	29.1	2.9	180	160	0.5"	TITUS	DESV	–
VAV-02	1V-151/1V-152	LOCKER-WOMEN/LOCKER-MEN	PRESSURE INDEPENDENT	8"	500	500	0.5"	500	55	85	16.2	1.6	180	160	0.5"	TITUS	DESV	–
VAV-03	1V-153	PHYSICIANS WORK AREA	PRESSURE INDEPENDENT	8"	400	200	0.5"	400	55	85	12.9	1.3	180	160	0.5"	TITUS	DESV	–
VAV-04	C1-181/1V-147/ 1V-150/1V-149	ON-CALL/HOUSEKEEPING/STORAGE	PRESSURE INDEPENDENT	8"	450	450	0.5"	450	55	85	14.6	1.5	180	160	0.5"	TITUS	DESV	–
VAV-05	1V-144/1V-145/1V-146	OFFICE/OFFICE/OFFICE	PRESSURE INDEPENDENT	8"	450	300	0.5"	450	55	85	14.6	1.5	180	160	0.5"	TITUS	DESV	–
VAV-06	1V-142/1V-143	OFFICE/OFFICE	PRESSURE INDEPENDENT	6"	300	200	0.5"	300	55	85	9.7	1.0	180	160	0.5"	TITUS	DESV	–
VAV-07	1V-100/1V-100C	WAITING/CHECK-IN/POLICE	PRESSURE INDEPENDENT	14"	1500	1500	0.5"	1500	55	95	48.6	4.9	180	160	0.5"	TITUS	DESV	5
VAV-08	1V-135	CONSULTATION	PRESSURE INDEPENDENT	6"	200	100	0.5"	200	55	85	6.5	0.6	180	160	0.5"	TITUS	DESV	–
VAV-09	1V-101	BUSINESS OFFICE	PRESSURE INDEPENDENT	6"	350	250	0.5"	350	55	95	11.3	1.1	180	160	0.5"	TITUS	DESV	1
VAV-10	1V-102/1V-103/1V-104	EXAM/EXAM/SOILED	PRESSURE INDEPENDENT	6"	300	300	0.5"	300	55	85	9.7	1.0	180	160	0.5"	TITUS	DESV	–
VAV-11	1V-105/1V-106/1V-107	EXAM/EXAM/EXAM	PRESSURE INDEPENDENT	6"	300	300	0.5"	300	55	85	9.7	1.0	180	160	0.5"	TITUS	DESV	–
VAV-12	1V-108/1V-109/1V-110	EXAM/EXAM/EXAM	PRESSURE INDEPENDENT	6"	300	300	0.5"	300	55	85	9.7	1.0	180	160	0.5"	TITUS	DESV	–
VAV-13	1V-133/1V-155	EXAM/EXAM	PRESSURE INDEPENDENT	6"	200	200	0.5"	200	55	85	6.5	0.6	180	160	0.5"	TITUS	DESV	–
VAV-14	1V-116	EXAM ISOLATION	PRESSURE INDEPENDENT	6"	300	300	0.5"	300	55	85	9.7	1.0	180	160	0.5"	TITUS	DESV	5
VAV-15	1V-118/1V-119	EXAM/EXAM	PRESSURE INDEPENDENT	6"	200	200	0.5"	200	55	85	6.5	0.6	180	160	0.5"	TITUS	DESV	–
VAV-16	1V-117	TREATMENT ROOM	PRESSURE INDEPENDENT	8"	500	500	0.5"	500	55	85	16.2	1.6	180	160	0.5"	TITUS	DESV	–
VAV-17	1V-123/1V-124	CLEAN UTILITY/CENTRAL SUPPLY	PRESSURE INDEPENDENT	6"	225	225	0.5"	225	55	95	7.3	.7	180	160	0.5"	TITUS	DESV	3
VAV-18	1V-112	SAFE EXAM	PRESSURE INDEPENDENT	6"	100	100	0.5"	100	55	85	3.2	.3	180	160	0.5"	TITUS	DESV	–
VAV-19	1V-125/1V-126	EXAM/EXAM	PRESSURE INDEPENDENT	6"	200	200	0.5"	200	55	85	6.5	0.6	180	160	0.5"	TITUS	DESV	–
VAV-20	1V-111/1V-127	EXAM-BARIATRIC/EXAM-BARIATRIC	PRESSURE INDEPENDENT	8"	400	400	0.5"	400	55	85	12.9	1.3	180	160	0.5"	TITUS	DESV	–
VAV-21	1V-128/1V-129	EXAM/EXAM	PRESSURE INDEPENDENT	6"	200	200	0.5"	200	55	85	6.5	0.6	180	160	0.5"	TITUS	DESV	–
VAV-22	1V-130/1V-132	EXAM/EXAM	PRESSURE INDEPENDENT	6"	200	200	0.5"	200	55	85	6.5	0.6	180	160	0.5"	TITUS	DESV	–
VAV-23	1V-140	EXAM – ISOLATION	PRESSURE INDEPENDENT	6"	420	300	0.5"	300	55	85	9.7	1.0	180	160	0.5"	TITUS	DESV	–
VAV-24	1V-138/1V-139/1V-141	FAST TRACK/STORAGE/SOILED	PRESSURE INDEPENDENT	6"	250	250	0.5"	250	55	85	8.1	0.8	180	160	0.5"	TITUS	DESV	–
VAV-25	1V-136/1V-137	FAST TRACK/FAST TRACK	PRESSURE INDEPENDENT	6"	250	150	0.5"	150	55	85	4.9	0.5	180	160	0.5"	TITUS	DESV	–
VAV-26	1V-113/1V-115	TEAM WORK/TEAM WORK (POD #1)	PRESSURE INDEPENDENT	14"	2000	2000	0.5"	2000	55	85	64.8	6.5	180	160	0.5"	TITUS	DESV	–
VAV-27	1V-131	TEAM WORK (POD #2)	PRESSURE INDEPENDENT	14"	2000	2000	0.5"	2000	55	85	64.8	6.5	180	160	0.5"	TITUS	DESV	–
VAV-28	C1-184	CORRIDOR	PRESSURE INDEPENDENT	6"	100	70	0.5"	100	55	85	3.2	.3	180	160	0.5"	TITUS	DESV	4
VAV-29	1V-V02	DECONTAMINATION	PRESSURE INDEPENDENT	8"	600	600	0.5"	600	55	95	25.9	2.6	180	160	0.5"	TITUS	DESV	–
VAV-30	1V-149A	OXYGEN GAS DISPENSER	PRESSURE INDEPENDENT	6"	100	100	0.5"	100	55	85	3.2	.3	180	160	0.5"	TITUS	DESV	–

MECHANICAL NOTES:
1. VAV-09 HEATING COIL CONTROL VALVE TO BE CONTROLLED IN CONJUNCTION WITH FIN TUBE RADIATION IN SPACE. SUPPLY NEW DIGITAL CONTROL VALVE FOR FIN TUBE RADIATION. PROVIDE THERMOSTAT WITH THE ABILITY TO CONTROL MULTIPLE CONTROL VALVES.
2. SUPPLY VAV BOX WITHOUT HEATING COIL. VAV BOX TO CONTROL EXHAUST AIR FROM ISOLATION EXAM. VAV BOX SHALL BE CONTROLLED BY ROOM PRESSURE MONITOR TO SATISFY PRESSURE RELATIONSHIP TO CORRIDOR.
3. VAV-17 HEATING COIL CONTROL VALVE TO BE CONTROLLED IN CONJUNCTION WITH FIN TUBE RADIATION IN SPACE. SUPPLY NEW DIGITAL CONTROL VALVE FOR FIN TUBE RADIATION. PROVIDE THERMOSTAT WITH THE ABILITY TO CONTROL MULTIPLE CONTROL VALVES.
4. SUPPLY VAV BOX TO REPLACE EXISTING PNEUMATICALLY CONTROLLED BOX. MEASURE EXISTING BOX MAX AND MIN CFM AND BALANCE NEW BOX TO EXISTING VALUES. INSTALL NEW THERMOSTAT IN SAME LOCAITON AS EXISTING. REPAIR WALL TO MATCH SURROUNDING AS REQUIRED.
5. MODULATE SUPPLY CFM AIRFLOW QUANTITY TO MEET PRESSURE RELATIONSHIP. MODULATE HEATING WATER VALVE TO CONTROL TEMPERATURE. SUPPLY DOOR CONTACT SENSOR FOR PRESSURE MONITOR.

ELECTRIC WATER COOLER SCHEDULE

EQUIPMENT TAG	FIXTURE DESCRIPTION	MOUTING	ADA	FIXTURE	WASTE	TRAP	VENT	COLD WATER	NOTES
P-9	DUAL HEIGHT ELECTRIC WATER COOLER	WALL	YES	ELKAY EZH20 BOTTLE FILLING STATION WITH BI-LEVEL WATER COOLER, MODEL LZSTL8WSVRSK. FRONT AND SIDE PUSH CONTROLS	2"	1-1/2"	1-1/2"	1/2"	1

MECHANICAL NOTES:
1. REFER TO ELECTRICAL FLOOR PLANS FOR RECEPTACLE LOCATIONS AND POWER REQUIREMENTS.

TEMPERATURE MIXING VALVE SCHEDULE

EQUIPMENT TAG	MINIMUM FLOW (GPM)	MAXIMUM FLOW (GPM)	COLD WATER BYPASS (GPM)	PRESSURE DROP AT MAXIMUM FLOW (PSI)	OUTLET TEMPERATURE (F)	CW INLET (IN)	HW INLET (IN)	OUTLET (IN)	MANUFACTURER	MODEL NUMBER	NOTES
TMV-1	3.0	44.0	20.0	30	85	1"	1	1-1/4"	GUARDIAN	G3807	2
TMV-2	0.5	6.0	4.0	30	85	1/2"	1/2"	1/2"	GUARDIAN	G3600	–
TMV-3	0.5	7.0	5.0	30	85	1/2"	1/2"	1/2"	SPEAKMAN	SE-370	–
TMV-4	0.5	8.0	1.0	30	77	3/4"	3/4"	1"	SPEAKMAN	SE-370	1

MECHANICAL NOTES:
1. LABEL MIXING VALVE WITH ROOMS SERVED AND NON-POTABLE.
2. SUPPLY WITH RECESSED STAINLESS STEEL CABINET.

EMERGENCY PLUMBING FIXTURE SCHEDULE

EQUIPMENT TAG	FIXTURE DESCRIPTION	MOUNTING	ADA	FIXTURE	TW (IN)	MANUFACTURER	NOTES
EP-1	SHOWER WITH DRENCH HOSE	WALL	YES	G1641	1-1/4"	GUARDIAN	–
EP-2	WALL MOUNTED EYEWASH/DRENCH HOSE	WALL	YES	SE-925-TEW	1/2"	SPEAKMAN	–
EP-3	FAUCET MOUNTED EYEWASH	FAUCET	NO	SEF1800	1/2"	SPEAKMAN	1

MECHANICAL NOTES:
1. EP-3 TO REPLACE TRIM ON PLUMBING FIXTURE P-1.

FULLY SPRINKLERED

REVISIONS	DATE

GENERAL NOTES:

GENERAL CONTRACTOR AND/OR ALL SUBCONTRACTORS SHALL FIELD VERIFY ALL DIMENSIONS SHOWN ON THESE PLANS AND SHALL BE RESPONSIBLE FOR VARIATIONS BETWEEN PLAN DIMENSIONS AND ACTUAL FIELD DIMENSIONS. WHERE VARIATIONS ARE FOUND TO OCCUR, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING PRIOR TO PROCEEDING WITH CONSTRUCTION; NO ADJUSTMENT TO THE WORK WILL BE MADE WITHOUT THE PRIOR APPROVAL OF THE PROJECT ENGINEER.

GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR GENERAL DEMOLITION INCLUDING REMOVAL OF WALLS, PARTITIONS, DOORS & CEILING & FLOORS. ANY AND ALL CUTTING OF CONCRETE FLOORS, WALLS OR STRUCTURE SHALL BE THE GENERAL CONTRACTOR'S RESPONSIBILITY. CORE DRILLING THROUGH CONCRETE WALLS, FLOORS OR STRUCTURE FOR PIPING OR CONDUIT SHALL BE THE RESPONSIBILITY OF THE SUBCONTRACTOR BY TRADE; FIRESTOPPING OF THESE OPENINGS SHALL BE DONE BY THE RESPECTIVE SUBCONTRACTOR. REMOVAL OF DEBRIS RESULTING FROM DEMOLITION, CUTTING, AND/OR DRILLING IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. PATCHING AND REPAIR OF CONCRETE WALLS, FLOOR, OR STRUCTURE SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR; THIS WILL BE ACCOMPLISHED UPON COMPLETION OF THE INSTALLATION OF ANY AND ALL UTILITIES INSTALLED BY THE VARIOUS SUBCONTRACTORS.

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TRUE NORTH

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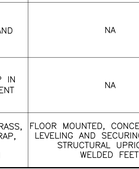

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed Architect under the laws of the State of Minnesota.

JASON GOTTWALT, PE
Date 01/02/2014 Reg. No. 41360

Drawing Title: MECHANICAL SCHEDULES

Drawing Scale: AS NOTED

Plot Scale: 12" = 1'-0"

Approved: Catherine Joyce, Chief, Projects Section

Approved: Steven Challeen, Director, Facilities Engineering

Project Title: VA MINNEAPOLIS ED RENOVATION

Location: V.A. MEDICAL CENTER, ONE VETERANS DRIVE, MINNEAPOLIS, MN 55417

Date: 01/02/2014 | Checked: JG | Drawn: RFOLIN

Project No. 618-14-104

Building Number 70

DRAWING NO. 1272-70-M06

Dwg. 61 of 73

Office of Facilities Management

Department of Veterans Affairs

VARIABLE AIR VOLUME BOX SCHEDULE (HEATING WATER) BID OPTION #2

GENERAL			MECHANICAL															
	EQUIPMENT LOCATION							HEATING COIL										
EQUIPMENT TAG	ROOM NUMBER	ROOM NAME	TYPE	NECK SIZE	MAXIMUM CFM	MINIMUM CFM	MAXIMUM APD (IN W.G.)	HEATING CFM	EAT (F)	LAT (F)	MBH	GPM	EWT (F)	LWT (F)	MAXIMUM WPD (FT)	MANUFACTURER	MODEL	MECHANICAL NOTES
VAV-01	IV-102	EXAM	PRESSURE INDEPENDENT	6"	150	100	0.5"	150	55	85	4.9	0.5	180	160	0.5"	TITUS	DESV	–
VAV-02	IV-103	EXAM	PRESSURE INDEPENDENT	6"	150	100	0.5"	150	55	85	4.9	0.5	180	160	0.5"	TITUS	DESV	–
VAV-03	IV-104/ IV-105	SOILED/ EXAM	PRESSURE INDEPENDENT	6"	200	150	0.5"	200	55	85	6.5	0.6	180	160	0.5"	TITUS	DESV	–
VAV-04	IV-106	EXAM	PRESSURE INDEPENDENT	6"	150	100	0.5"	150	55	85	4.9	0.5	180	160	0.5"	TITUS	DESV	–
VAV-05	IV-107	EXAM	PRESSURE INDEPENDENT	6"	150	100	0.5"	150	55	85	4.9	0.5	180	160	0.5"	TITUS	DESV	–
VAV-06	IV-108	EXAM	PRESSURE INDEPENDENT	6"	150	100	0.5"	150	55	85	4.9	0.5	180	160	0.5"	TITUS	DESV	–
VAV-07	IV-109	EXAM	PRESSURE INDEPENDENT	6"	150	100	0.5"	150	55	85	4.9	0.5	180	160	0.5"	TITUS	DESV	–
VAV-08	IV-110	EXAM	PRESSURE INDEPENDENT	6"	150	100	0.5"	150	55	85	4.9	0.5	180	160	0.5"	TITUS	DESV	–
VAV-09	IV-111	EXAM-BARIATRIC	PRESSURE INDEPENDENT	6"	200	200	0.5"	200	55	85	6.5	0.6	180	160	0.5"	TITUS	DESV	–
VAV-10	IV-112/ 1V-112C	SAFE EXAM/LINEN CLOSET	PRESSURE INDEPENDENT	6"	150	150	0.5"	150	55	85	4.9	0.5	180	160	0.5"	TITUS	DESV	–
VAV-11	IV-113/ IV-115	TEAMWORK/ TEAMWORK	PRESSURE INDEPENDENT	14"	2000	2000	0.5"	2000	55	85	64.8	6.5	180	160	0.5"	TITUS	DESV	–
VAV-12	IV-124/ 1V-123	CENTRAL SUPPLY/CLEAN UTILITY	PRESSURE INDEPENDENT	6"	225	225	0.5"	225	55	85	7.3	0.7	180	160	0.5"	TITUS	DESV	–
VAV-13	IV-117	TREATMENT ROOM	PRESSURE INDEPENDENT	8"	500	450	0.5"	500	55	85	16.2	1.6	180	160	0.5"	TITUS	DESV	–
VAV-14	IV-116	EXAM ISOLATION	PRESSURE INDEPENDENT	6"	300	0	0.5"	275	55	85	8.9	0.9	180	160	0.5"	TITUS	DESV	5
VAV-15	IV-118	EXAM	PRESSURE INDEPENDENT	6"	150	0	0.5"	100	55	85	3.2	0.3	180	160	0.5"	TITUS	DESV	5
VAV-16	IV-119	EXAM	PRESSURE INDEPENDENT	6"	150	100	0.5"	100	55	85	3.2	0.3	180	160	0.5"	TITUS	DESV	–
VAV-17	IV-100/ 1V-100C	CHECKIN/POLICE /WAITING	PRESSURE INDEPENDENT	14"	1500	1500	0.5"	1500	55	95	48.6	4.9	180	160	0.5"	TITUS	DESV	3,5
VAV-18	IV-101	BUSINESS OFFICE	PRESSURE INDEPENDENT	6"	350	250	0.5"	350	55	85	11.3	1.1	180	160	0.5"	TITUS	DESV	1
VAV-19	IV-133	EXAM	PRESSURE INDEPENDENT	6"	150	100	0.5"	100	55	85	3.2	0.3	180	160	0.5"	TITUS	DESV	–
VAV-20	IV-155	EXAM	PRESSURE INDEPENDENT	6"	150	100	0.5"	100	55	85	3.2	0.3	180	160	0.5"	TITUS	DESV	–
VAV-21	IV-135	CONSULTATION	PRESSURE INDEPENDENT	6"	200	100	0.5"	200	55	85	6.5	.6	180	160	0.5"	TITUS	DESV	–
VAV-22	IV-154	CONFERENCE ROOM/ LOUNGE	PRESSURE INDEPENDENT	8"	900	600	0.5"	600	55	85	19.4	1.9	180	160	0.5"	TITUS	DESV	–
VAV-23	IV-136	FAST TRACK	PRESSURE INDEPENDENT	6"	125	75	0.5"	75	55	85	2.4	0.2	180	160	0.5"	TITUS	DESV	–
VAV-24	IV-137	FAST TRACK	PRESSURE INDEPENDENT	6"	125	75	0.5"	75	55	85	2.4	0.2	180	160	0.5"	TITUS	DESV	–
VAV-25	IV-138/1V-139	STORAGE/FAST TRACK	PRESSURE INDEPENDENT	6"	200	200	0.5"	200	55	85	4.1	0.4	180	160	0.5"	TITUS	DESV	–
VAV-26	IV-149	STORAGE	PRESSURE INDEPENDENT	6"	150	100	0.5"	100	55	85	3.2	0.3	180	160	0.5"	TITUS	DESV	–
VAV-27	IV-153	PHYS WORK AREA	PRESSURE INDEPENDENT	6"	400	200	0.5"	400	55	85	13.0	1.3	180	160	0.5"	TITUS	DESV	–
VAV-28	IV-152	LOCKER-WOMEN	PRESSURE INDEPENDENT	6"	250	250	0.5"	250	55	85	8.1	0.8	180	160	0.5"	TITUS	DESV	–
VAV-29	IV-151	LOCKER-MEN	PRESSURE INDEPENDENT	6"	250	250	0.5"	250	55	85	8.1	0.8	180	160	0.5"	TITUS	DESV	–
VAV-30	C1-182	CORRIDOR	PRESSURE INDEPENDENT	6"	300	200	0.5"	250	55	85	8.1	0.8	180	160	0.5"	TITUS	DESV	–
VAV-31	C1-179	HALLWAY	PRESSURE INDEPENDENT	6"	300	200	0.5"	250	55	85	8.1	0.8	180	160	0.5"	TITUS	DESV	–
VAV-32	IV-125	EXAM	PRESSURE INDEPENDENT	6"	150	100	0.5"	150	55	85	4.9	0.5	180	160	0.5"	TITUS	DESV	–
VAV-33	IV-126	EXAM	PRESSURE INDEPENDENT	6"	150	100	0.5"	150	55	85	4.9	0.5	180	160	0.5"	TITUS	DESV	–
VAV-34	IV-127	EXAM-BARIATRIC	PRESSURE INDEPENDENT	6"	200	200	0.5"	200	55	85	6.5	.6	180	160	0.5"	TITUS	DESV	–
VAV-35	IV-128	EXAM	PRESSURE INDEPENDENT	6"	150	100	0.5"	150	55	85	4.9	0.5	180	160	0.5"	TITUS	DESV	–
VAV-36	IV-129	EXAM	PRESSURE INDEPENDENT	6"	150	100	0.5"	150	55	85	4.9	0.5	180	160	0.5"	TITUS	DESV	–
VAV-37	IV-130	EXAM	PRESSURE INDEPENDENT	6"	150	100	0.5"	150	55	85	4.9	0.5	180	160	0.5"	TITUS	DESV	–
VAV-38	IV-132/1V-141	EXAM/SOILED	PRESSURE INDEPENDENT	6"	200	200	0.5"	200	55	85	6.5	.6	180	160	0.5"	TITUS	DESV	–
VAV-39	IV-140	EXAM-ISOLATION	PRESSURE INDEPENDENT	6"	420	300	0.5"	300	55	85	9.7	1.0	180	160	0.5"	TITUS	DESV	–
VAV-40	IV-131	TEAMWORK (POD #2)	PRESSURE INDEPENDENT	14"	2000	2000	0.5"	2000	55	85	64.8	6.5	180	160	0.5"	TITUS	DESV	–
VAV-41	IV-147/1V-150	ON CALL/HSKG	PRESSURE INDEPENDENT	6"	150	100	0.5"	150	55	85	4.9	0.5	180	160	0.5"	TITUS	DESV	–
VAV-42	IV-146	OFFICE	PRESSURE INDEPENDENT	6"	150	100	0.5"	150	55	85	4.9	0.5	180	160	0.5"	TITUS	DESV	–
VAV-43	IV-145	OFFICE	PRESSURE INDEPENDENT	6"	150	100	0.5"	150	55	85	4.9	0.5	180	160	0.5"	TITUS	DESV	–
VAV-44	1V-144	OFFICE	PRESSURE INDEPENDENT	6"	150	100	0.5"	150	55	85	4.9	0.5	180	160	0.5"	TITUS	DESV	–
VAV-45	IV-143	OFFICE	PRESSURE INDEPENDENT	6"	150	100	0.5"	150	55	85	4.9	0.5	180	160	0.5"	TITUS	DESV	–
VAV-46	IV-142	OFFICE	PRESSURE INDEPENDENT	6"	150	100	0.5"	150	55	85	4.9	0.5	180	160	0.5"	TITUS	DESV	–
VAV-47	C1-184	CORRIDOR	PRESSURE INDEPENDENT	6"	100	75	0.5"	100	55	85	3.2	0.3	180	160	0.5"	TITUS	DESV	4
VAV-48	1V-V02	DECONTAM	PRESSURE INDEPENDENT	8"	600	600	0.5"	600	55	85	19.4	1.9	180	160	0.5"	TITUS	DESV	–
VAV-49	1V-V149A	OXYGEN GAS DISPENSER	PRESSURE INDEPENDENT	6"	100	100	0.5"	100	55	85	3.2	.3	180	160	0.5"	TITUS	DESV	–

MECHANICAL NOTES
1. VAV-18 HEATING COIL CONTROL VALVE TO BE CONTROLLED IN CONJUNCTION WITH FIN TUBE RADIATION IN SPACE. SUPPLY NEW DIGITAL CONTROL VALVE FOR FIN TUBE RADIATION. PROVIDE THERMOSTAT WITH THE ABILITY TO CONTROL MULTIPLE CONTROL VALVES.
2. SUPPLY VAV BOX WITHOUT HEATING COIL. VAV BOX TO CONTROL EXHAUST AIR FROM ISOLATION EXAM. VAV BOX SHALL BE CONTROLLED BY ROOM PRESSURE MONITOR TO SATISFY PRESSURE RELATIONSHIP TO CORRIDOR.
3. VAV-17 HEATING COIL CONTROL VALVE TO BE CONTROLLED IN CONJUNCTION WITH FIN TUBE RADIATION IN SPACE. SUPPLY NEW DIGITAL CONTROL VALVE FOR FIN TUBE RADIATION. PROVIDE THERMOSTAT WITH THE ABILITY TO CONTROL MULTIPLE CONTROL VALVES.
4. SUPPLY VAV BOX TO REPLACE EXISTING PNEUMATICALLY CONTROLLED BOX. MEASURE EXISTING BOX MAX AND MIN CFM AND BALANCE NEW BOX TO EXISTING VALUES. INSTALL NEW THERMOSTAT IN SAME LOCAITON AS EXISTING. REPAIR WALL TO MATCH SURROUNDING AS REQUIRED.
5. MODULATE SUPPLY CFM AIRFLOW QUANTITY TO MEET PRESSURE RELATIONSHIP. MODULATE HEATING WATER VALVE TO CONTROL TEMPERATURE. SUPPLY DOOR CONTACT SENSOR FOR PRESSURE MONITOR.

AIR FILTER SCHEDULE

MECHANICAL (234100)

EQUIPMENT TAG	APPLICATION	TYPE	CFM	NUMBER OF MODULES	SIZE PER MODULE (H"xL"xD")	EFFICIENCY (%)	MERV RATING	APD CLEAN (IN W.C.)	APD AT 50% LOADING (IN W.C.)	MANUFACTURER	MODEL NUMBER	MECHANICAL NOTES
PF 01	EXHAUST	PLEATED PRE	2500	3	12"X24"X11.5"	30	8	0.31	0.65	CAMFIL/FARR	30/30	1,2
FF 01	EXHAUST	HEPA FINAL	2500	3	12"X24"X11.5"	99.97	X	X	X	CAMFIL/FARR	13XH-24Z12Z12-1B-3-C-A-00-0/00	1,2

MECHANICAL NOTES:
1. INSTALL FILTER IN EASILY MAINTAINABLE HEIGHT AND LOCATION.
2. INSTALL CAMFIL/FARR MAGNA/PACK FILTER FRAME AND HOUSING WITH 2" PRE-FILTER TRACK FOR 35% PRE-FILTER AND FINAL HEPA FILTER OR APPROVED EQUAL.

FINNED TUBE RADIATOR SCHEDULE

GENERAL			GENERAL										
EQUIPMENT TAG	TYPE	FIN SIZE (IN)	FINS/FT	FIN MATERIAL	PIPE MATERIAL	PIPE SIZE (IN)	NUMBER OF ROWS	EWT (F)	LWT (F)	CAPACITY PER LINEAR FT (BTUH)	MANUFACTURER	MODEL NUMBER	MECHANICAL NOTES
FTR-01	HEATING	3-1/4"X3-1/4"	32	COPPER	COPPER	1-1/4"	1	180	160	640	STERLING	S133	1,3
FTR-02	HEATING	2-3/4"X3-3/4"	32	COPPER	COPPER	1-1/4"	1	180	160	640	STERLING	S133	2

MECHANICAL NOTES:
1. MOUNT FIN TUBE 7" AFF.
2. SUPPLY STERLING SLIM-LINE TOP OUTLET OR EQUAL FIN TUBE RADIATION COVER.
3. PROVIDE CUSTOM FABRICATED FIN TUBE COVER, SEE DETAIL 1272-70-M05/9.

AIRFLOW INDICATOR

EQUIPMENT TAG	SERVICE	MOUNTING TYPE	DESCRIPTION	MANUFACTURER	MODEL NUMBER	MECHANICAL NOTES
AF-01	NEGATIVE	WALL	MECHANICAL AIRFLOW PRESSURE INDICATOR	LAMIFLOW TECHNOLOGIES, LLC	LN-102	1
AF-02	POSITIVE	WALL	MECHANICAL AIRFLOW PRESSURE INDICATOR	LAMIFLOW TECHNOLOGIES, LLC	LP-102	1

MECHANICAL NOTES:
1. INSTALL AIRFLOW INDICATOR ABOVE DOOR.

GRILLES, REGISTERS, AND DIFFUSERS SCHEDULE

EQUIPMENT TAG	SERVICE	MOUNTING TYPE	DESCRIPTION	MATERIAL	ACCESSORIES	FINISH	MANUFACTURER	MODEL NUMBER	MECHANICAL NOTES
A	SUPPLY	LAY-IN	PERFORATED	STEEL	24"X24"	WHITE	TITUS	PAS	5
B	RETURN/EXHAUST	LAY-IN	PERFORATED	STEEL	–	WHITE	TITUS	PAR	5
C	EXHAUST	SURFACE	PERFORATED	ALUMINUM	–	WHITE	TITUS	8F	1
D	SUPPLY	LAY-IN	SAFE ROOM	STEEL	4-WAY THROW	WHITE	PRICE	MSRRCD	3
E	RETURN/EXHAUST	LAY-IN	SAFE ROOM	STEEL	–	WHITE	PRICE	MSRRP	2
F	SUPPLY	LAY-IN	DECONTAMINATION	ALUMINUM	–	WHITE	TITUS	PAS-AA	5
G	SUPPLY	SIDE WALL	OXYGEN GAS DISPENSER	ALUMINUM	–	WHITE	TITUS	300FS	1
H	SUPPLY	SURFACE	HEPA TERMINAL UNIT	ALUMINUM	LED FILTER INDICATOR LIGHT	WHITE	PRICE	LFDC	4, 5
J	RETURN/EXHAUST	SURFACE	PERFORATED	STEEL	–	WHITE	TITUS	PAR	5

MECHANICAL NOTES:
1. SEE PLANS FOR GRILLE OR DIFFUSER SIZE.
2. RISK RESISTANT, ANTI-LIGATURE, PERFORATED FACE.
3. CEILING DIFFUSER WITH ANTI-LIGATURE, RISK RESISTANT CORE.
4. CONTROLS CONTRACTOR TO PROVIDE DIFFERENTIAL PRESSURE SENSOR FOR EACH FILTER DIFFUSER. TIE PRESSURE SENSOR IN TO BUILDING AUTOMATION SYSTEM MONITORING FILTER PRESSURE DROP. SYSTEM TO ALARM AT ADJUSTABLE DIFFERENTIAL PRESSURE VALUE.
5. SEE PLAN FOR NECK SIZE.
6. INSTALL SO THAT FILTERS ARE ROOM SIDE REPLACEABLE.

DECONTAMINATION TANK SCHEDULE

GENERAL									
EQUIPMENT TAG	APPLICATION	TANK LIQUID VOLUME (GAL)	TANK DIAMETER (IN)	TANK HEIGHT (IN)	INLET SIZE (IN)	OUTLET SIZE (IN)	MANUFACTURER	MODEL NUMBER	NOTES
DT-01	DECONTAMINATION	500	57	92-1/2"	4"	4"	SCHIER PRODUCTS	BB-500	1, 2, 3

MECHANICAL NOTES:
1. PROVIDE WITH TELEGLIDE ADJUSTABLE RISERS FOR EXTENDING COVER TO GRADE.
2. PROVIDE MANUAL OUTLET VALVE WITH EXTENDED STAINLESS STEEL VALVE HANDLE.
3. PROVIDE WITH MULIT-LEVEL MONITORING PACKAGE WITH STAINLESS STEEL FLOAT SWITCHES.

FLOOR DRAIN SCHEDULE

EQUIPMENT TAG	LOCATION	SIZE (IN)	MANUFACTURER	MODEL NUMBER	NOTES
FD-1	DECONTAM	4"	JOSAM	30004-9E-ARE	1
FD-2	SHOWER	2"	JOSAM	30002-5A	–

MECHANICAL NOTES:
1. DO NOT INSTALL P-TRAP ON FLOOR DRAIN IN DECONTAMINATION ROOM.

FULLY SPRINKLERED

REVISIONS	DATE

GENERAL NOTES:

GENERAL CONTRACTOR AND/OR ALL SUBCONTRACTORS SHALL FIELD VERIFY ALL DIMENSIONS SHOWN ON THESE PLANS AND SHALL BE RESPONSIBLE FOR VARIATIONS BETWEEN PLAN DIMENSIONS AND ACTUAL FIELD DIMENSIONS. WHERE VARIATIONS ARE FOUND TO OCCUR, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING PRIOR TO PROCEEDING WITH CONSTRUCTION; NO ADJUSTMENT TO THE WORK WILL BE MADE WITHOUT THE PRIOR APPROVAL OF THE PROJECT ENGINEER.

GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR GENERAL DEMOLITION INCLUDING REMOVAL OF WALLS, PARTITIONS, DOORS & CEILING & FLOORS. ANY AND ALL CUTTING OF CONCRETE FLOORS, WALLS OR STRUCTURE SHALL BE THE GENERAL CONTRACTOR'S RESPONSIBILITY. CORE DRILLING THROUGH CONCRETE WALLS, FLOORS OR STRUCTURE FOR PIPING OR CONDUIT SHALL BE THE RESPONSIBILITY OF THE SUBCONTRACTOR BY TRADE; FIRESTOPPING OF THESE OPENINGS SHALL BE DONE BY THE RESPECTIVE SUBCONTRACTOR. REMOVAL OF DEBRIS RESULTING FROM DEMOLITION, CUTTING, AND/OR DRILLING IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. PATCHING AND REPAIR OF CONCRETE WALLS, FLOOR, OR STRUCTURE SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR; THIS WILL BE ACCOMPLISHED UPON COMPLETION OF THE INSTALLATION OF ANY AND ALL UTILITIES INSTALLED BY THE VARIOUS SUBCONTRACTORS.

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I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Architect under the laws of the State of Minnesota.

JASON GOTTWALT, PE
Date 01/02/2014 Reg. No. 41360

Drawing Scale: AS NOTED

Plot Scale: 12" = 1'-0"

Drawing Title: MECHANICAL SCHEDULES

Approved: Catherine Joyce, Chief, Projects Section

Approved: Steven Challeen, Director, Facilities Engineering

Project Title: VA MINNEAPOLIS ED RENOVATION

Location: V.A. MEDICAL CENTER, ONE VETERANS DRIVE, MINNEAPOLIS, MN 55417

Date: 01/02/2014 | Checked: JG | Drawn: RFOLIN

Project No. 618-14-104

Building Number 70

DRAWING NO. 1272-70-M07

Dwg. 62 of 73

Office of Facilities Management

Department of Veterans Affairs

EXHAUST FAN SCHEDULE

GENERAL				MECHANICAL										ELECTRICAL											
	EQUIPMENT LOCATION																	CONTROLLER							
EQUIPMENT TAG	ROOM NUMBER	ROOM NAME	APPLICATION	TYPE	CFM	ESP (IN)	BHP	FAN RPM	DRIVE TYPE (BELT/DIRECT)	VFD (YES/NO)	MANUFACTURER	MODEL NUMBER	MECHANICAL NOTES	EQUIPMENT TAG	HP/LOAD	VOLTAGE	PHASE	PROVIDED BY	SIZE	LOCATION	DISCONNECT SIZE/TYPE	PANEL	CIRCUIT NUMBER	CONDUIT/FEEDER SIZE	NOTES
EF-01	1Q-117	M MECHANICAL ROOM	EMERGENCY ROOM WAITING ROOM EXHAUST	INLINE	2500	2.5"	1.64	1934	BELT	YES	GREENHECK	QEI-15-II	1, 2	EF-01	3	480	3	MECH	VFD	AT UNIT	VFD BY MECH	PP1M3-1	11	3/4" - 3 #12AWG & #12 GND	-
EF-02	1V-V02	DECONTAM	DECONTAMINATION ROOM EXHAUST	ROOF MOUNTED CENT	300	.375"	0.06	1550	DIRECT	NO	GREENHECK	G-085-D	-	EF-02	0.06	120	1	ELEC	SWITCH	AT UNIT	MRSS				1
EF-03	-	M MECHANICAL ROOM	O2 STORAGE	INLINE	250	.5"	0.1	1550	DIRECT	NO	GREENHECK	SQ-95-DGEX-QD	3	EF-03	0.1	120	1	MECH		AT UNIT	MRSS				1

MECHANICAL NOTES:
1. INSTALL FAN AT A ELEVATION SUCH THAT NO PLATFORM, LADDER OR EQUIPMENT IS NEEDED TO REACH FAN FOR REGULAR MAINTENANCE.
2. PROVIDE HEPA FILTER DOWN STREAM OF FAN. LOCATE FILTER AT AN EASILY ACCESSIBLE LOCATION AND HEIGHT FOR FILTER REPLACEMENT.
3. PROVIDE WITH SPEED CONTROLLER. SUPPLY ACCESS PANELS IN SHAFT FOR FAN ACCESS.

ELECTRICAL NOTES:
1. SEE ELECTRICAL PLANS FOR ADDITIONAL INFORMATION.

AIR CURTAIN SCHEDULE (STEAM)

GENERAL				MECHANICAL									ELECTRICAL										
	EQUIPMENT LOCATION						STEAM COIL										CONTROLLER			ELECTRICAL			
EQUIPMENT TAG	ROOM NUMBER	ROOM NAME	APPLICATION	TYPE	CFM	NOZZLE WIDTH (IN)	PSIG	MBH	LBS. CONDENSATE	MANUFACTURER	MODEL NUMBER	MECHANICAL NOTES	NUMBER OF MOTORS	MOTOR HP	VOLTAGE	PHASE	PROVIDED BY	SIZE	LOCATION	DISCONNECT SIZE/TYPE	PANEL	CIRCUIT NUMBER	CONDUIT/FEEDER SIZE
AC-01	IV-V01	VESTIBULE	HEATING ONLY	STEAM	8379	84"	5 LBS	133	X	BERNER	ICA2084S	1, 2	2	1/2 HP	208	3	MECH	--	AT UNIT	20A 3P NFSS	NL1M2-1B	32,34,36	3/4"C. - 3#12AWG & #12 GND

MECHANICAL NOTES:
1. PROVIDE TWO CONTROL VALVES SIZED FOR 1/3 AND 2/3 TOTAL CAPACITY.
2. CONTROLS CONTRACTOR TO INTEGRATE SEQUENCE INTO BUILDING AUTOMATION. INCLUDE ALL DOOR POSITION SENSORS AND TEMPERATURE SENSOR AS REQUIRED.

VARIABLE FREQUENCY MOTOR CONTROLLER SCHEDULE

MECHANICAL/ELECTRICAL (230923)

								HARMONIC CONTROL		VFD BYPASS								
EQUIPMENT TAG	VOLTAGE	PHASE	CALCULATED AFC	ENCLOSURE TYPE (NEMA 1/4X/12)	ENCLOSURE PLENUM RATED (YES/NO)	SEISMIC BRACING (YES/NO)	VARIABLE TORQUE/ CONSTANT TORQUE	INPUT AC LINE (YES/NO)	OUTPUT AC LINE (YES/NO)	BYPASS (YES/NO)	BYPASS TYPE (CONTACTOR/ VFD)	BYPASS CONTROL TYPE (MANUAL/ AUTOMATIC)	MOTOR STARTING IN BYPASS MODE (FULL/REDUCED VOLTAGE)	MULTIPLE MOTOR CONTROL (YES/NO)	DAMPER CONTROL CIRCUIT (YES/NO)	ESSENTIAL SERVICE/ FIRE FIGHTER MODE (YES/NO)	LEED REQUIREMENTS (YES/NO)	NOTES
EF-01	480 V	3	12,628	NEMA 1	NO	NO	CONSTANT TORQUE	NO	NO	YES	CONTACTOR	MANUAL	FULL	NO	NO	NO	NO	-

GENERAL NOTES:
A. FOR VFD'S WITH BYPASS PROVISIONS, SEPARATE MOTOR OVERLOAD PROTECTION REQUIRED FOR EACH MOTOR, WHEN IN THE BYPASS POSITION.
B. VFD EQUIPMENT SHALL HAVE STANDARD SHORT-CIRCUIT CURRENT RATING HIGHER THAN THE CALCULATED VALUE SHOWN IN THE SCHEDULE.
C. VFDS TO HAVE INTEGRAL DISCONNECT UNLESS NOTED OTHERWISE.

NOTES:
1.

REVISIONS	DATE

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I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed Architect under the laws of the State of Minnesota.
CURTIS D. BARLAGE, PE
Date 01/02/2014 Reg. No. 45914

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed Architect under the laws of the State of Minnesota.
JASON GOTTWALT, PE
Date 01/02/2014 Reg. No. 41360

Drawing Title
MECHANICAL AND ELECTRICAL SCHEDULES

Drawing Scale
AS NOTED

Plot Scale
12" = 1'-0"

Approved: Catherine Joyce, Chief, Projects Section

Approved: Steven Challeen, Director, Facilities Engineering

Project Title
VA MINNEAPOLIS ED RENOVATION

Location
V.A. MEDICAL CENTER
ONE VETERANS DRIVE
MINNEAPOLIS, MN 55417

Date 01/02/2014 | Checked SW | Drawn RFC/BLN

Project No. 618-14-104

Building Number 70

DRAWING NO. 1272-70-M08

Dwg. 63 Of 73

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Office of Facilities Management

Department of Veterans Affairs

ELECTRICAL SYMBOLS - PHASING

- LINETYPE INDICATES EXISTING DEVICE TO REMAIN
- LINETYPE INDICATES EXISTING DEVICE TO BE DEMOLISHED
- LINETYPE INDICATES NEW DEVICE

ELECTRICAL SYMBOLS - POWER PLAN

Symbol	Description
	JUNCTION BOX
C C	LADDER CABLE TRAY
	BRANCH CIRCUIT HOMERUN. LINES INDICATE NUMBER OF CIRCUITS, NEUTRAL, AND SWITCH LEG CONDUCTORS. ONE SEPARATE GREEN GROUNDING CONDUCTOR SHALL BE PROVIDED FOR EACH HOMERUN; NOT SHOWN
PB	PULL BOX
W W	WIREWAY
—RC—	RIGID CONDUIT LINE = RC
—DB—	DIRECT BURIAL CABLE = DB
—P—	POWER DUCT = P
S	SUBSTATION
HVS	HI VOLTAGE SWITCH ON CONCRETE PAD
LVS	LOW VOLTAGE SWITCH ON CONCRETE PAD
P T	DUAL POWER AND TELECOMMUNICATIONS MANHOLE
B B	BUSWAY
	FLOOR OUTLET, DATA COMMUNICATION
D	OUTLET, DATA COMMUNICATION
	PUSH BUTTON
DP#__	DISTRIBUTION PANEL
	LIGHTING PANEL
	PANELBOARD CABINET, FLUSH MOUNTED
	PANELBOARD CABINET, SURFACE MOUNTED
C	RECEPTACLE, CLOCK HANGER
	RECEPTACLE, DUPLEX – MOUNT 18" AFF, UNLESS NOTED OTHERWISE
	RECEPTACLE, DUPLEX ON EMERGENCY POWER – MOUNT 18" AFF, UNLESS NOTED OTHERWISE
	RECEPTACLE, DUPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER – MOUNT 18" AFF, UNLESS NOTED OTHERWISE
	RECEPTACLE, QUADRAPLEX – MOUNT 18" AFF, UNLESS NOTED OTHERWISE
	RECEPTACLE, SINGLE – MOUNT 18" AFF, UNLESS NOTED OTHERWISE
S	RECEPTACLE, SINGLE WITH SWITCH – MOUNT 18" AFF, UNLESS NOTED OTHERWISE
	RECEPTACLE, SPECIAL PURPOSE – MOUNT 18" AFF, UNLESS NOTED OTHERWISE A = 120V, 20A, 1 PHASE, 2-POLE, 3W, NEMA 5-20R. B = 208V, 20A, 1 PHASE, 2-POLE, 3W, NEMA 6-20R. C = 120V, 30A, 1 PHASE, 2-POLE, 3W, NEMA 5-30R. D = 208V, 30A, 1 PHASE, 2-POLE, 3W, NEMA 6-30R. E = 208V, 60A, 1 PHASE, 3-POLE, 4W, NEMA 14-60R. F = 208V, 30A, 3 PHASE, 3-POLE 4W, NEMA 15-30R. G = 208V, 50A, 3 PHASE, 3 POLE, 4W, NEMA 15-30R. H = 208V, 60A, 3 PHASE, 3 POLE, 4W, NEMA 15-60R.
S	RECEPTACLE, SWITCHED DUPLEX – MOUNT 18" AFF, UNLESS NOTED OTHERWISE
	DROP CORD, SINGLE CONVENIENCE OUTLET, 3-WIRE, GROUNDING TYPE, 20A, W/#12 CONDUCTORS IN FLEXIBLE CORD (CENTER LINE OF OUTLET: 6'-6" [1981mm] AFF. MINIMUM).
	ELECTRICAL STRIP MOLD (OUTLETS ON 2'-0" [610mm] CENTERS OR AS DESIGNATED ON DRAWINGS), MTD 3'-6" [1067mm] AFF OR AS INDICATED.
	3-GANG COMPARTMENT BOX IN FLOOR FOR TELEPHONE, DATA & RECEPTACLE.
R 50	RELAY; LETTER INDICATES RELAY TYPE 50 = INSTANTANEOUS OVERCURRENT OR RATE-OF-RISE 51 = AC-TIME OVERCURRENT 67 = AC-DIRECTIONAL OVERCURRENT 86 = LOCK OUT
	DISCONNECT SWITCH, FUSED
	DISCONNECT SWITCH, UNFUSED
	STARTER, COMBINATION WITH DISCONNECT SWITCH
	STARTER OR MOTOR CONTROLLER
VFD	VARIABLE FREQUENCY DRIVE

ELECTRICAL SYMBOLS - POWER PLAN

Symbol	Description
	CONDUIT TERMINATED 6" [152mm] AFF IN STANDARD BOX FOR EXTENSION TO EQUIPMENT AS DIRECTED.
	CONDUIT TERMINATED W/COUPLING (FLUSH W/FINISHED FLOOR) FOR EXTENSION TO EQUIPMENT AS DIRECTED.
$2	SWITCH F = FUSED SWITCH — K = KEY OPERATED L = LOCK — LM= LOW VOLTAGE MASTER M = MANUAL MOTOR STARTING — MC= MOMENTARY CONTACT MP= MOTOR SNAP WITH PILOT LIGHT — P = WITH PILOT LIGHT (THERMAL TYPE) PB= PUSH BUTTON STATION — RC= REMOTE CONTROL WP= WEATHER PROOF — X = EXPLOSION PROOF

COMMUNICATION SYMBOLS

Symbol	Description
	OUTLET, COMBINATION TELEPHONE/DATA COMMUNICATION
—CATV—	CABLE TELEVISION LINE = CATV
—CCTV—	CLOSED CIRCUIT TELEVISION LINE = CCTV. MINIMUM 1" [25mm] CONDUIT
—FO—	FIBEROPTICS LINE = FO
—T—	TELEPHONE LINE = T
—I—	INTERCOM LINE = I. MINIMUM 3/4" [19mm] CONDUIT.
—S—	SOUND LINE = S
—NC—	NURSE CALL LINE = NC. MINIMUM 3/4" [19mm] CONDUIT.
—R—	RADIO CONDUIT RUN, MINIMUM 3/4" [19mm] CONDUIT.
©	TELECOMMUNICATIONS MANHOLE
	FLOOR RECEPTACLE, TELEPHONE
J	OUTLET TELEPHONE; LETTER INDICATES AS FOLLOWS: J = JACK TYPE — W = WALL TYPE
	OUTLET DATA ONLY
	OUTLET; LETTER INDICATES AS FOLLOWS: A = AUDIO — V = VIDEO — I = INTERCOM
S X	SPEAKER, CEILING MOUNTED, "X" INDICATES THE TYPE, PROVIDE SCHEDULE ON LEGEND
S X	SPEAKER, WALL MOUNTED, "X" INDICATES THE TYPE, PROVIDE SCHEDULE ON LEGEND. MTD. 7'-6" [2286mm] AFF UNLESS OTHERWISE NOTED.
R	RADIO CHANNEL SELECTOR FACILITIES, MTD. 4'-6" [1372mm] AFF UNLESS OTHERWISE NOTED.
R M	SPEAKER PROGRAM SELECTOR SWITCH & VOLUME CONTROL MTD. 4'-6" [1372mm] AFF UNLESS OTHERWISE NOTED.
	OUTLET, TELEVISION BLANK =4 11/16" [119mm] MASTER ANTENNA OUTLET BOX W/BLANK COVER, MTD. 18" [457mm] AFF UNLESS OTHERWISE NOTED. C = CAMERA (CCTV SYSTEM), MTD 18" [457mm] AFF M = MONITOR (CTTV SYSTEM).
NCS	NURSE'S CALL MASTER STATION MTD ON NURSE'S COUNTER TOP UNLESS OTHERWISE NOTED.
NCT	NURSE CALL TERMINAL CABINET.
	NURSE CALL STATION.
	NURSE CALL STATION. 2 = DUPLICATE FACILITIES FOR TWO BEDS (SEPARATE INDICATORS AT MASTER STATION) MTD 5'-0" [1524mm] AFF UNLESS OTHERWISE NOTED. D = DUTY STATION. MTD 5'-0" [1524mm] AFF UNLESS NOTED OTHERWISE. E = MTD 6'-0" [1829mm] AFF FOR SHOWER LOCATION, MTD 4'-6" [1372mm] AFF FOR TUB LOCATION, & MTD 3'-0" [914mm] AFF FOR TOILET LOCATION. P = PSYCHIATRIC CORRIDOR STATION WITH KEY SWITCH S = AUDIO VISUAL MALL STATION (STAFF) MTD 5'-0" [1524mm] AFF UNLESS OTHERWISE NOTED. U = UTILITY CALL STATION, MTD 5'-0" [1524mm] AFF UNLESS OTHERWISE NOTED. C = CODE BLUE CALL STATION
	NURSE CALL STATION. 2 = NURSE'S CALL DOME LIGHT (SUFFIX INDICATES No OF LAMP) MTD 6" [152mm] ABOVE DOOR. D = CORRIDOR DOME LIGHT. I = AUXILIARY INTERSECTIONAL DOME LIGHT.
	TELEPHONE TERMINAL CABINET
	TELEPHONE BACKBOARD (WALL MOUNTED)
	3-POLE TWIST-LOCK RECEPTACLE FOR MICROPHONE, MTD. 4'-6" [1372mm] AFF.
	REMOTE DICTATING OUTLET MTD 1'-6" [457mm] AFF. UNLESS OTHERWISE NOTED.
	INTERCOM STATION (REFER TO SPECS. FOR FUNCTIONAL OPERATION OF INSTRUMENT & TYPE REQUIRED).
S	INTERCOM STAFF STATION.

ELECTRICAL SYMBOLS - LIGHTING PLAN

Symbol	Description
$2	SWITCH BLANK = SINGLE POLE — 2 = DOUBLE POLE 3 = THREE-WAY — 4 = FOUR-WAY D = DIMMER — K = KEY OPERATED L = LOCK — P = WITH PILOT LIGHT ##-###(X)= LOW VOLTAGE SWITCH (X = # OF BUTTONS) PB= PUSH BUTTON STATION — RC= REMOTE CONTROL T = TIMER OPERATED — WP= WEATHER PROOF X = EXPLOSION PROOF — Mo= OCCUPANCY SENSOR
S	CEILING MOUNTED OCCUPANCY SENSOR
	LIGHT FIXTURE CEILING MOUNTED
b A #	LIGHT FIXTURE ID – REFER TO LT FIXT SCHEDULE (FIXT SCHEDULE OVERRIDES SYMBOL ABBREVIATION) A – INDICATES LIGHT FIXTURE TYPE (X = EXISTING) # – INDICATES CIRCUIT NUMBER b – INDICATES SWITCHING
	LIGHT FIXTURE CIRCUIT TYPE – NO HATCH INDICATES NORMAL CIRCUIT – ANGLED HATCH INDICATES CRITICAL CIRCUIT – SOLID HATCH INDICATES LIFE SAFETY CIRCUIT
	TROFFER TYPE LIGHT FIXTURE, SIZE AS INDICATED – CEILING MOUNT
	LIGHT TRACK WITH HEADS AS SHOWN
S	LIGHT FIXTURE, STRIP/INDUSTRIAL FLUORESCENT; LETTER INDICATES TYPE.
	LIGHT FIXTURE, WALL MOUNTED
	LIGHTING, ONE HEAD EMERGENCY BATTERY POWER
	LIGHTING, TWO HEAD EMERGENCY BATTERY POWER
	LIGHTING, THREE HEAD EMERGENCY BATTERY POWER
	LIGHTING, EXTERIOR BUILDING
	EXIT SIGN, WALL MOUNTED WITH DIRECTIONAL ARROWS AND FACES AS SHOWN
	EXIT SIGN, CEILING MOUNTED WITH DIRECTIONAL ARROWS AND FACES AS SHOWN
	LIGHT FIXTURE, DIRECTIONAL

FIRE ALARM SYSTEM

Symbol	Description
F 2-2-4	FIRE ALARM STATION (MANUAL) NUMERALS DENOTE CODE MOUNTED 48" AFF TO CENTERLINE OF STATION.
F B F B	FIRE ALARM AUDIO VISUAL DEVICE (WALL MOUNTED +7'-6" AFF UNLESS NOTED OTHERWISE) B – BELL (SINGLE STROKE) CH – CHIME D – FLASHING DOME LIGHT G – GONG 6" DIAMETER H – HORN H/S – HORN/STROBE S – SPEAKER SA – SUMMONING ALARM S/S – SPEAKER/STROBE V – VIBRATING BELL
F P	PHOTOELECTRIC TYPE SMOKE DETECTOR.
F SD	PHOTOELECTRIC TYPE SMOKE DETECTOR IN DUCT.
FS 4	WATER FLOW SWITCH. (NUMBER INDICATES SMOKE/SPRINKLER ZONE)
TS	TAMPER SWITCH FOR SPRINKLER STAND PIPE ISOLATION VALVE.
ZV	SPRINKLER SYSTEM ZONE VALVE.
FACP	BUILDING FIRE ALARM CONTROL PANEL.
AP R	ANNUNCIATOR PANEL. SUBSCRIPT "R" DENOTES REMOTE ANNUNCIATOR.
FATC	FIRE ALARM TERMINAL CABINET.
F	HEAT DETECTOR, COMBINATION FIXED TEMPERATURE 190 DEGREES FAHRENHEIT AND RATE OF RISE UNLESS OTHERWISE NOTED.
F DH	DOOR HOLD OR DOOR HOLD CONNECTION.

ACCESS CONTROL SYSTEM

Symbol	Description
M T	CARD ACCESS READER; LETTER INDICATES AS FOLLOWS: M=MOUNT C-CEILING D-DESK F-FLUSH H-HIDDEN M-MULLION P-PEDESTAL R-RACK S-SURFACE W-WALL T=TECHNOLOGY/TYPE B-BARCODE F-ELEVATOR FLOOR CALL H-ELEVATOR HALL CALL M-MAG STRIP P-PROXIMITY S-SMART CARD T-TOKEN
S DC	DOOR CONTACTOR
	SECURITY ACCESS, PANIC ALARM

ELECTRICAL SHEET INDEX

DWG ORDER	SHEET NUMBER	SHEET TITLE
64 OF 73	1272-70-ES01	ELECTRICAL TITLE SHEET
65 OF 73	1272-70-ES02	FIRST FLOOR LIGHTING DEMOLITION PLAN
66 OF 73	1272-70-ES03	FIRST FLOOR POWER AND SYSTEMS DEMOLITION PLAN
67 OF 73	1272-70-ES04	FIRST FLOOR INTERSTITIAL ELECTRIAL PLAN
68 OF 73	1272-70-ES05	FIRST FLOOR LIGHTING PLAN
69 OF 73	1272-70-ES06	FIRST FLOOR POWER PLAN
70 OF 73	1272-70-ES07	FIRST FLOOR SYSTEMS PLAN
71 OF 73	1272-70-ES08	ELECTRICAL SCHEDULES AND DETAILS
72 OF 73	1272-70-ES09	ELECTRICAL SCHEDULES
73 OF 73	1272-70-ES10	ELECTRICAL SCHEDULES

FULLY SPRINKLERED

REVISIONS | DATE

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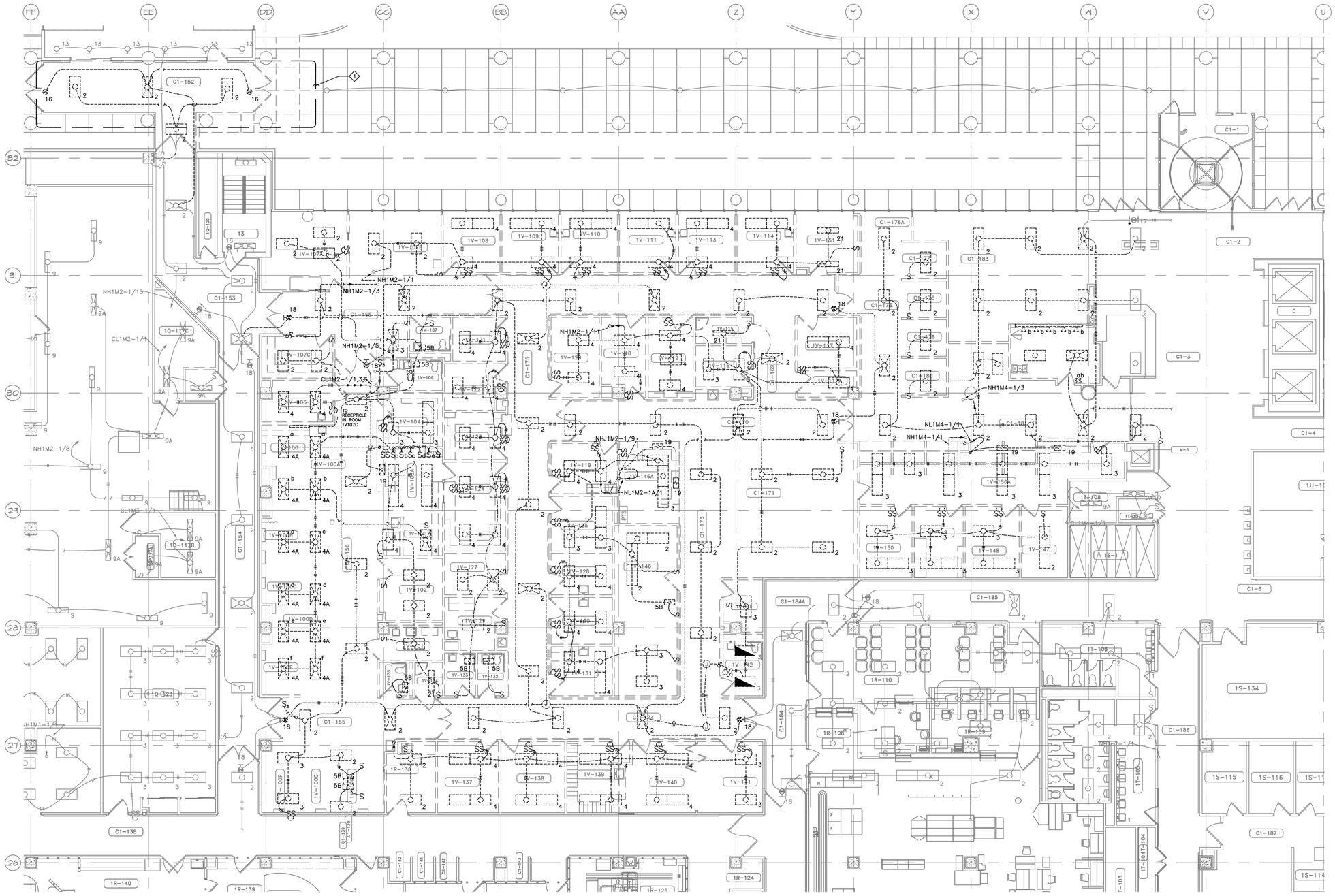
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed Architect under the laws of the State of Minnesota.

CURTIS D. BARLAGE, PE
Date 01/02/2014 Reg. No. 45914

Drawing Title: ELECTRICAL TITLE SHEET	Project Title: VA MINNEAPOLIS ED RENOVATION	Project No.: 618-14-104	Office of Facilities Management
		Building Number: 70	
Drawing Scale: AS NOTED	Approved: Catherine Joyce, Chief, Projects Section	Location: V.A. MEDICAL CENTER, ONE VETERANS DRIVE, MINNEAPOLIS, MN 55417	DRAWING NO. 1272-70-ES01
Plot Scale: 12" = 1'-0"	Approved: Steven Challeen, Director, Facilities Engineering	Date: 01/02/2014 — Checked: SW — Drawn: CB	Dwg. 64 of 73

Department of Veterans Affairs



1 FIRST FLOOR LIGHTING DEMOLITION PLAN
1/8" = 1'-0"

GENERAL NOTES

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B. SIGNIFICANT NOISE PRODUCING WORK SHALL BE CONDUCTED AFTER HOURS (9:00 PM – 6:00 AM) AND WEEKENDS.

C. REMOVE, REPLACE, RELOCATE, ETC. ANY ELECTRICAL DEVICES AND/OR ANY CONDUIT/WIRING AS REQUIRED TO COMPLETE REMODELING AS INDICATED IN THE CONTRACT DOCUMENTS.

D. DRAWINGS INDICATE EXISTING CONDITIONS AS THEY WERE INDICATED ON OWNER PROVIDED AS-BUILT DRAWINGS AND SITE VERIFICATION. ACTUAL CONDITIONS MAY VARY FROM THE CONDITIONS INDICATED. THE CONTRACTOR IS RESPONSIBLE TO FIELD VERIFY EXACT CONDITIONS.

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F. LABEL NEW RECEPTACLES AS NOTED IN SPECIFICATION SECTION 262726 PART 2.

G. UTILIZE EXISTING CIRCUITS CREATED DURING DEMOLITION. PROVIDE DEDICATED NEUTRALS AS REQUIRED BY THE NEC. HANDLE TIES OR MULTI POLE BREAKERS FOR SINGLE PHASE LOADS ARE UNACCEPTABLE.

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K. DEMOLISH LOW VOLTAGE DEVICE CABLING INCLUDING ABANDONED CABLE IN AREA OF WORK BACK TO SOURCE WHEN DEMOLISHING LOW VOLTAGE DEVICES.

L. PATCH CONCRETE DECK VOIDS CREATED DURING DEMOLITION OF FEEDERS. MAINTAIN FLOOR AND WALL RATINGS.

KEY NOTES

1 WORK IN THIS AREA IS PART OF ADD OPTION TWO.

FULLY SPRINKLERED

REVISIONS	DATE

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I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed Architect under the laws of the State of Minnesota.
CURTIS D. BARLAGE, PE
Date 01/02/2014 Reg. No. 45914

Drawing Title: FIRST FLOOR LIGHTING DEMOLITION PLAN

Project Title: VA MINNEAPOLIS ED RENOVATION

Project No. 618-14-104
Building Number 70

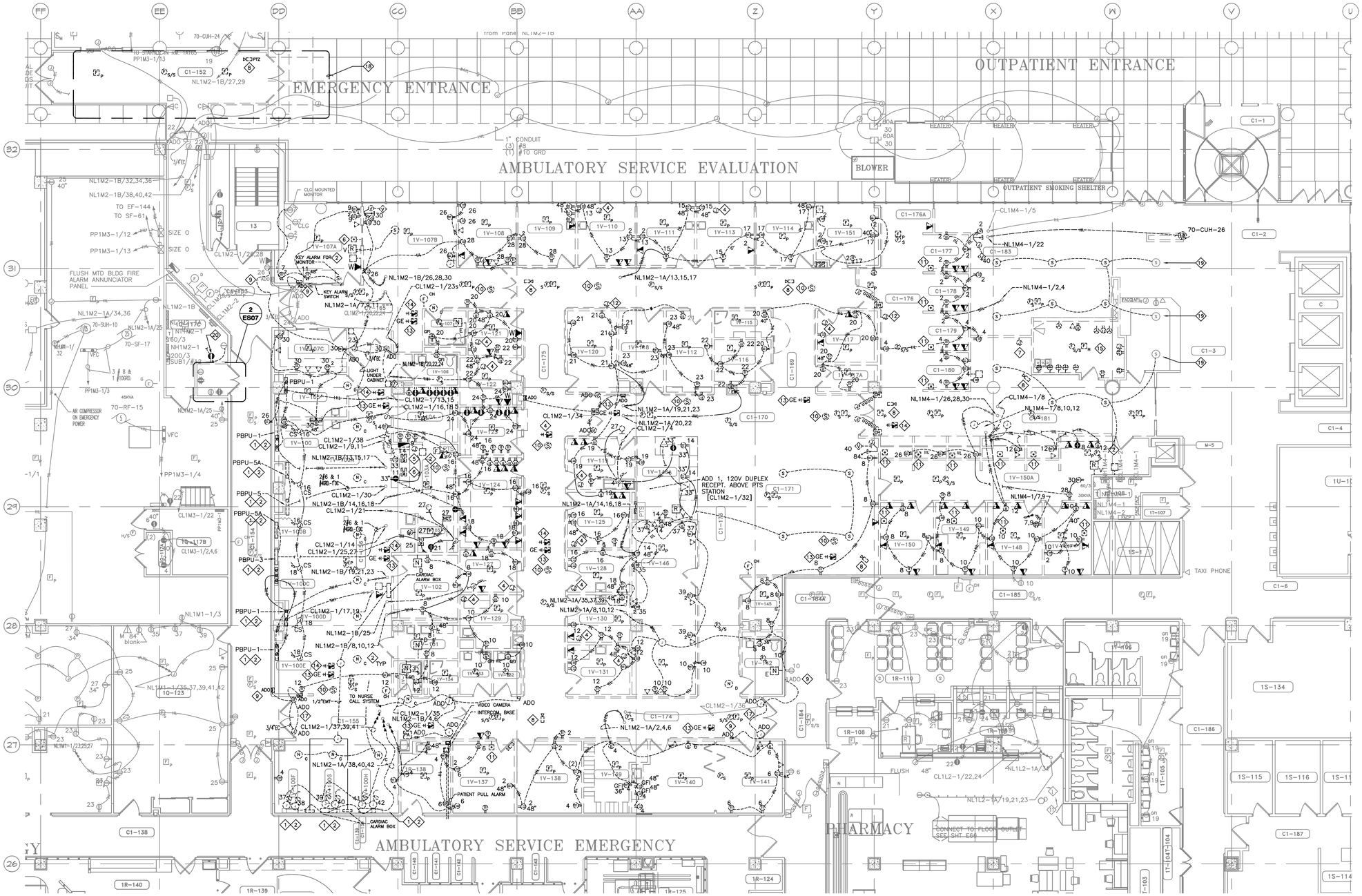
Drawing Scale: AS NOTED
Plot Scale: 12" = 1'-0"

Approved: Catherine Joyce, Chief, Projects Section
Approved: Steven Challeen, Director, Facilities Engineering

Location: V.A. MEDICAL CENTER, ONE VETERANS DRIVE, MINNEAPOLIS, MN 55417
Date 01/02/2014 | Checked SW | Drawn CB

DRAWING NO. 1272-70-ES02
Dwg. 65 of 73

Office of Facilities Management
Department of Veterans Affairs



1 FIRST FLOOR POWER AND SYSTEMS DEMOLITION PLAN
1/8" = 1'-0"

GENERAL NOTES

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L. PATCH CONCRETE DECK VOIDS CREATED DURING DEMOLITION OF FEEDERS. MAINTAIN FLOOR AND WALL RATINGS.

KEY NOTES

1. REMOVE HEADWALL DEVICES AND WIRING. TYPICAL HEADWALL DEVICES INCLUDE:
   - 8 – RECEPTACLES
   - 2 – VOICE/DATA
   - 1 – NURSE CALL CODE BLUE STATION
   - 1 – NURSE CALL PATIENT STATION
2. REMOVE AND REUSE EXISTING NURSE CALL DEVICES.
3. REMOVE AND REUSE FIRE ALARM DEVICES.
4. REMOVE AND RELOCATE RTLS SYSTEM DEVICES. COORDINATE DEVICE RELOCATION WITH PHASING DOCUMENT AND OWNER. SEE NEW WORK PLAN FOR NEW DEVICE LOCATIONS CONTACT JULIE FRANKHOUSER OF HP ENTERPRISE SERVICES, LLC. 952–881–0263
5. REMOVE EMERGENCY ROOM BACKDOOR PUSHBUTTON.
6. REMOVE EMERGENCY ROOM DOOR RELEASE PUSHBUTTON.
7. REMOVE WALL MOUNTED "NOW SERVING NUMBER" SYSTEM.
8. REMOVE SECURITY SYSTEM CAMERAS AND ASSOCIATED CABLING. CAMERAS SHALL BE REINSTALLED IN NEW LOCATIONS.
9. EXISTING CARD READER OPERATES AUTOMATIC DOOR OPERATOR (ADO). REUSE ADO PROVISIONS AND EXTEND WIRING TO NEW ADO DEVICES WHERE POSSIBLE.
10. REMOVE AND RELOCATE EXISTING PUBLIC ADDRESS SPEAKERS.
11. REMOVE DURESS PUSH BUTTON.
12. REMOVE ALARM RESET BUTTON.
13. REMOVE AND RELOCATE GE NETWORK ACCESS POINT. COORDINATE RELOCATION WITH OWNER.
14. REMOVE AND RELOCATE DAS NETWORK ACCESS POINT.
15. DEMOLISH CONNECTIONS TO KITCHEN EQUIPMENT IN THIS ROOM. ENSURE KITCHEN EQUIPMENT IS SALVAGED PRIOR TO DEVICE REMOVAL.
16. REMOVE AND RELOCATE SAFE ROOM SECURITY CAMERA.
17. DISCONNECT EXISTING POWERED AUTOMATIC DOOR DEVICES.
18. WORK IN THIS AREA IS PART OF ADD OPTION TWO.
19. ENSURE PUBLIC ADRESS SPEAKERS REMAIN OPERATIONAL THROUGH CONSTRUCTION.
20. REMOVE AND RELOCATE RECEPTACLE. EXTEND WIRING AND SURFACE MOUNTED CONDUIT TO NEW DEVICE LOCATION.

FULLY SPRINKLERED

REVISIONS	DATE

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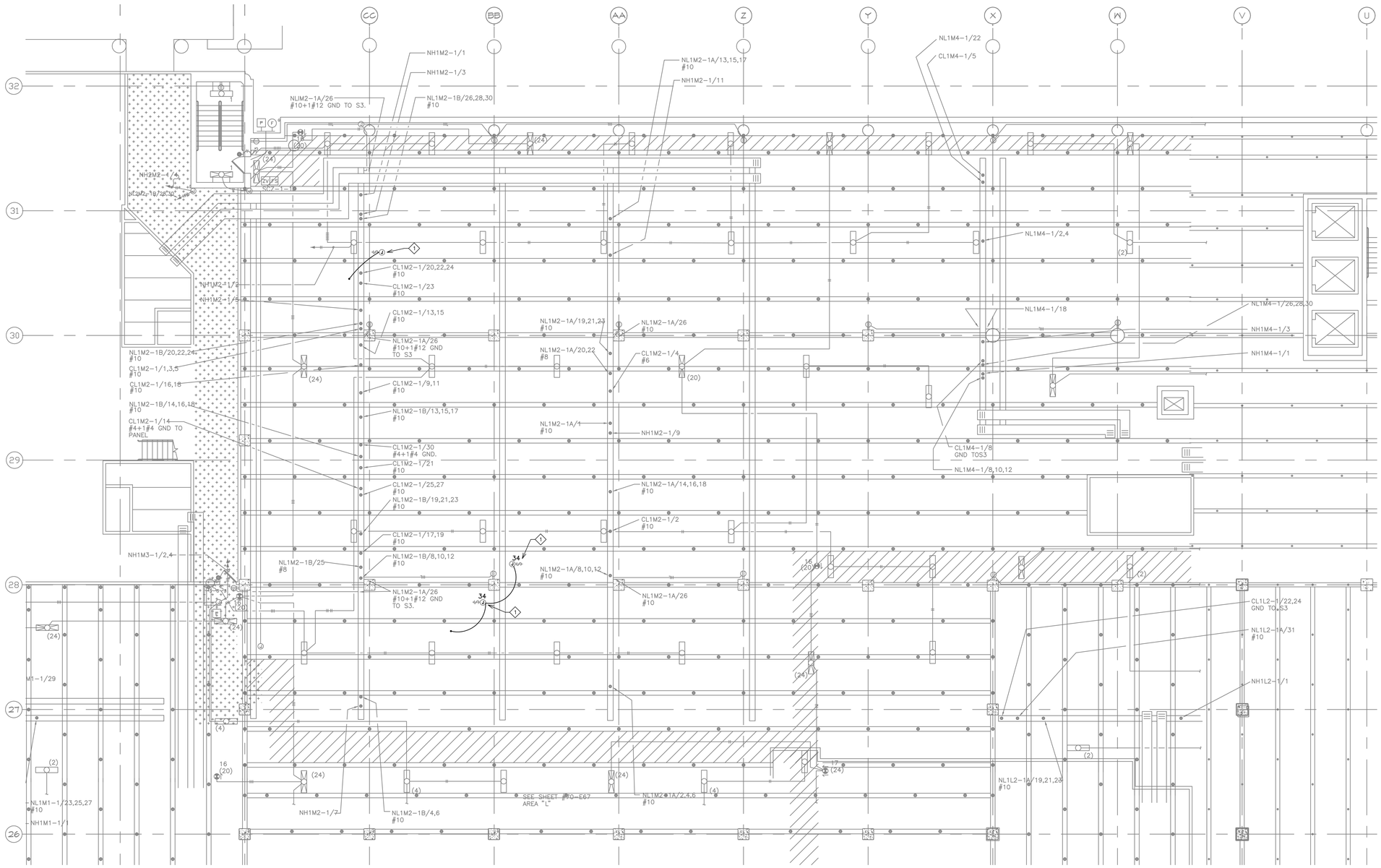
CURTIS D. BARLAGE, PE
Date 01/02/2014 Reg. No. 45914

Drawing Title	FIRST FLOOR POWER AND SYSTEMS DEMOLITION PLAN
Drawing Scale	AS NOTED
Plot Scale	12" = 1'-0"
Approved: Catherine Joyce, Chief, Projects Section	
Approved: Steven Challeen, Director, Facilities Engineering	
Project Title	VA MINNEAPOLIS ED RENOVATION
Location	V.A. MEDICAL CENTER, ONE VETERANS DRIVE, MINNEAPOLIS, MN 55417
Date	01/02/2014
Checked	SW
Drawn	CB
Project No.	618-14-104
Building Number	70
DRAWING NO.	1272-70-ES03
Dwg.	66 of 73

Office of Facilities Management
Department of Veterans Affairs



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KEY NOTES

1 PROVIDE MOTOR RATED SAFETY SWITCH AND CONNECTION TO SHUT OFF SOLENOID VALVES. EXTEND BRANCH CIRCUIT FROM FIRST FLOOR. MAINTAIN FLOOR RATINGS. SEE PLUMBING PLANS FOR ADDITIONAL INFORMATION.

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I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed Architect under the laws of the State of Minnesota.
CURTIS D. BARLAGE, PE
Date 01/02/2014 Reg. No. 45914

Drawing Title: FIRST FLOOR INTERSTITIAL PLAN

Project Title: VA MINNEAPOLIS ED RENOVATION

Project No. 618-14-104
Building Number 70

Drawing Scale: AS NOTED
Plot Scale: 12" = 1'-0"

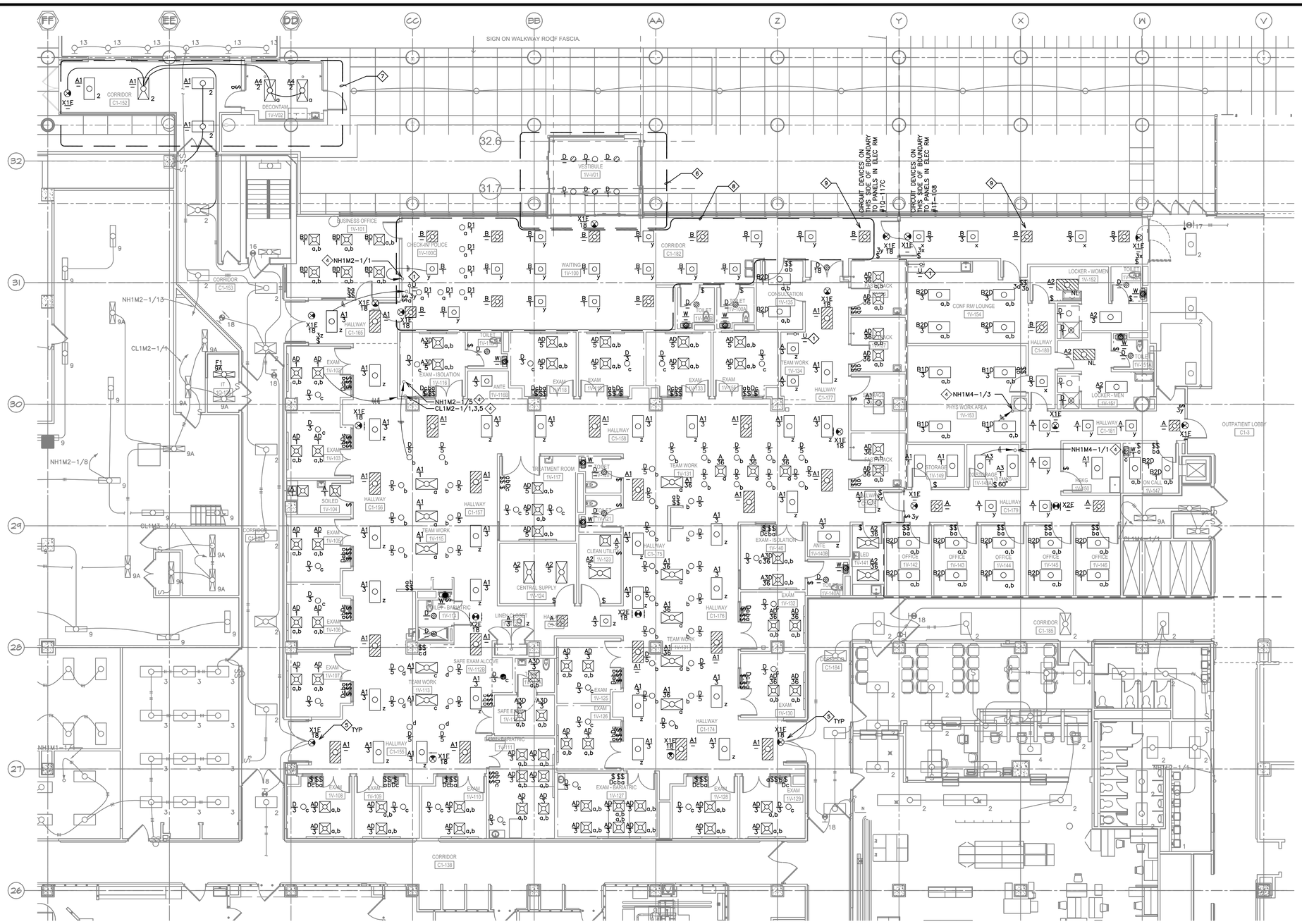
Approved: Catherine Joyce, Chief, Projects Section
Approved: Steven Challeen, Director, Facilities Engineering

Location: V.A. MEDICAL CENTER, ONE VETERANS DRIVE, MINNEAPOLIS, MN 55417

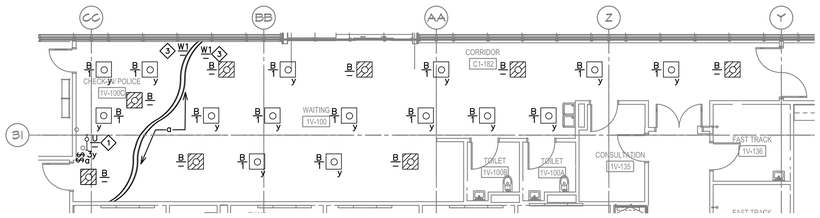
Date 01/02/2014 | Checked SW | Drawn CB

DRAWING NO. 1272-70-ES04
Dwg. 67 of 73

Office of Facilities Management
Department of Veterans Affairs



1 FIRST FLOOR LIGHTING PLAN
1/8" = 1'-0"



2 ADD OPTION THREE LIGHTING PLAN
1/8" = 1'-0"

GENERAL NOTES

A. BUILDING WILL BE IN USE DURING CONSTRUCTION. SCHEDULE AND CARRY OUT THE WORK IN SUCH A MANNER AS TO CAUSE THE OWNER A MINIMUM OF INCONVENIENCE DUE TO SERVICE INTERRUPTION. TEMPORARY SERVICES (FEEDER, BRANCH CIRCUIT, AND SIGNAL SYSTEMS) SHALL BE INSTALLED IF ONE AREA OR PHASE OF CONSTRUCTION DISRUPTS SERVICE TO ANOTHER AREA OF THE BUILDING(S) OR IF THE EQUIPMENT, CONDUITS, OR FEEDERS HAVE TO BE RELOCATED TO ALLOW CONSTRUCTION TO PROGRESS. SERVICE INTERRUPTIONS SHALL BE CONFINED TO THE SMALLEST AREA POSSIBLE AT ANY ONE TIME AND INTERRUPTIONS SHALL BE SCHEDULED WITH THE OWNER'S SITE REPRESENTATIVE. THERE SHALL BE DESIGNATED AREAS WHERE INTERRUPTIONS LIMITED TO AND SHALL BE CONDUCTED AFTER HOURS (9:00 PM – 6:00 AM) AND WEEKENDS. AFTER SERVICE HAS BEEN RESTORED FOLLOWING AN INTERRUPTION, INSPECT AREAS AFFECTED BY THE INTERRUPTION AND BE RESPONSIBLE FOR RETURNING AUTOMATICALLY CONTROLLED EQUIPMENT TO THE SAME OPERATING CONDITION WHICH EXISTED PRIOR TO THE INTERRUPTION.

B. SIGNIFICANT NOISE PRODUCING WORK SHALL BE CONDUCTED AFTER HOURS (9:00 PM – 6:00 AM) AND WEEKENDS.

C. REMOVE, REPLACE, RELOCATE, ETC. ANY ELECTRICAL DEVICES AND/OR ANY CONDUIT/WIRING AS REQUIRED TO COMPLETE REMODELING AS INDICATED IN THE CONTRACT DOCUMENTS.

D. DRAWINGS INDICATE EXISTING CONDITIONS AS THEY WERE INDICATED ON OWNER PROVIDED AS-BUILT DRAWINGS AND SITE VERIFICATION. ACTUAL CONDITIONS MAY VARY FROM THE CONDITIONS INDICATED. THE CONTRACTOR IS RESPONSIBLE TO FIELD VERIFY EXACT CONDITIONS.

E. ALL DEVICES, EQUIPMENT, CABLING, ETC. INDICATED IN THE CONTRACT DOCUMENTS TO BE REMOVED SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DISPOSE OF IN ACCORDANCE WITH LOCAL AND FEDERAL REGULATIONS. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.

F. LABEL NEW RECEPTACLES AS NOTED IN SPECIFICATION SECTION 262726 PART 2.

G. UTILIZE EXISTING CIRCUITS CREATED DURING DEMOLITION. PROVIDE DEDICATED NEUTRALS AS REQUIRED BY THE NEC. HANDLE TIES OR MULTI POLE BREAKERS FOR SINGLE PHASE LOADS ARE UNACCEPTABLE.

H. ROUTE LOW VOLTAGE CABLING TO DATA ROOM AS INDICATED ON DRAWINGS. PROVIDE CABLE COUNT AS INDICATED (FOR '4' PROVIDE ONE VOICE AND THREE DATA CABLES. FOR '2' PROVIDE TWO DATA CABLES). RECONNECT EXISTING CABLING/WIRING AT LOCATIONS INDICATED FOR REMOVAL AND REINSTALLATION.

I. PROVIDE A DOUBLE GANG BOX WITH A SINGLE GANG MUDRING AND (1) 3/4" CONDUIT ROUTED UP TO ACCESSIBLE CEILING SPACE FOR LOW VOLTAGE ROUGH IN.

J. CONTACT THE FIRE ALARM CONTRACTOR FOR DEVICE PROTECTION PRIOR TO CEILING REMOVAL. CLEAN AND PROTECT REMOVED FIRE ALARM DEVICES FOR REINSTALLATION. EXISTING DETECTION DEVICES ARE GAMEWELL "VELOCITI" SERIES.

K. DEMOLISH LOW VOLTAGE DEVICE CABLING INCLUDING ABANDONED CABLE IN AREA OF WORK BACK TO SOURCE WHEN DEMOLISHING LOW VOLTAGE DEVICES.

L. PATCH CONCRETE DECK VOIDS CREATED DURING DEMOLITION OF FEEDERS. MAINTAIN FLOOR AND WALL RATINGS.

KEY NOTES

1. EXTEND 120V RECEPTACLE CIRCUIT TO UNDERCABINET LIGHT.
2. EXTEND EXISTING CIRCUIT TO NEW FIXTURE LOCATION.
3. MOUNT SOFT STRIP LED LIGHT FIXTURES TO TOP OF SUSPENDED CEILING ELEMENT WITH SCREW IN MOUNTING CLIPS. LIGHTING TO SHINE UPWARDS AT CUSTOM BUILT REFLECTOR. SUSPENDED REFLECTOR ELEMENT BY CEILING CONTRACTOR. EXTEND NORMAL POWER RECEPTACLE CIRCUIT TO LED DRIVER. SEE ARCHITECTURAL DETAILS FOR ADDITIONAL INFORMATION.
4. EXTEND EXISTING HOME RUN TO NEW ELECTRICAL DEVICES.
5. EXTEND EXISTING EXIT SIGN CIRCUIT TO NEW EXIT SIGNS.
6. WORK INDICATED IN THIS AREA TO BE INCLUDED AS PART OF ADD OPTION ONE.
7. WORK INDICATED IN THIS AREA TO BE INCLUDED AS PART OF ADD OPTION TWO.
8. LIGHTING IN THIS AREA TO BE INCLUDED UNDER BASE BID. SEE ES06/2 FOR ADD OPTION 3 LIGHTING LAYOUT.
9. EXTEND EXISTING LIFE SAFETY CIRCUIT TO NEW LIFE SAFETY LIGHTING. (TYP)

FULLY SPRINKLERED

REVISIONS	DATE

GENERAL NOTES:

GENERAL CONTRACTOR AND/OR ALL SUBCONTRACTORS SHALL FIELD VERIFY ALL DIMENSIONS SHOWN ON THESE PLANS AND SHALL BE RESPONSIBLE FOR VARIATIONS BETWEEN PLAN DIMENSIONS AND ACTUAL FIELD DIMENSIONS. WHERE VARIATIONS ARE FOUND TO OCCUR, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING PRIOR TO PROCEEDING WITH CONSTRUCTION; NO ADJUSTMENT TO THE WORK WILL BE MADE WITHOUT THE PRIOR APPROVAL OF THE PROJECT ENGINEER.

GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR GENERAL DEMOLITION INCLUDING REMOVAL OF WALLS, PARTITIONS, DOORS & CEILING & FLOORS. ANY AND ALL CUTTING OF CONCRETE FLOORS, WALLS OR STRUCTURE SHALL BE THE GENERAL CONTRACTOR'S RESPONSIBILITY. CORE DRILLING THROUGH CONCRETE WALLS, FLOORS OR STRUCTURE FOR PIPING OR CONDUIT SHALL BE THE RESPONSIBILITY OF THE SUBCONTRACTOR BY TRADE; FIRESTOPPING OF THESE OPENINGS SHALL BE DONE BY THE RESPECTIVE SUBCONTRACTOR. REMOVAL OF DEBRIS RESULTING FROM DEMOLITION, CUTTING, AND/OR DRILLING IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. PATCHING AND REPAIR OF CONCRETE WALLS, FLOOR, OR STRUCTURE SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR; THIS WILL BE ACCOMPLISHED UPON COMPLETION OF THE INSTALLATION OF ANY AND ALL UTILITIES INSTALLED BY THE VARIOUS SUBCONTRACTORS.

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Date 01/02/2014 Reg. No. 45914

Drawing Title: FIRST FLOOR LIGHTING PLAN

Drawing Scale: AS NOTED

Plot Scale: 12" = 1'-0"

Approved: Catherine Joyce, Chief, Projects Section

Approved: Steven Challeen, Director, Facilities Engineering

Project Title: VA MINNEAPOLIS ED RENOVATION

Location: V.A. MEDICAL CENTER, ONE VETERANS DRIVE, MINNEAPOLIS, MN 55417

Date: 01/02/2014 | Checked: SW | Drawn: CB

Project No. 618-14-104

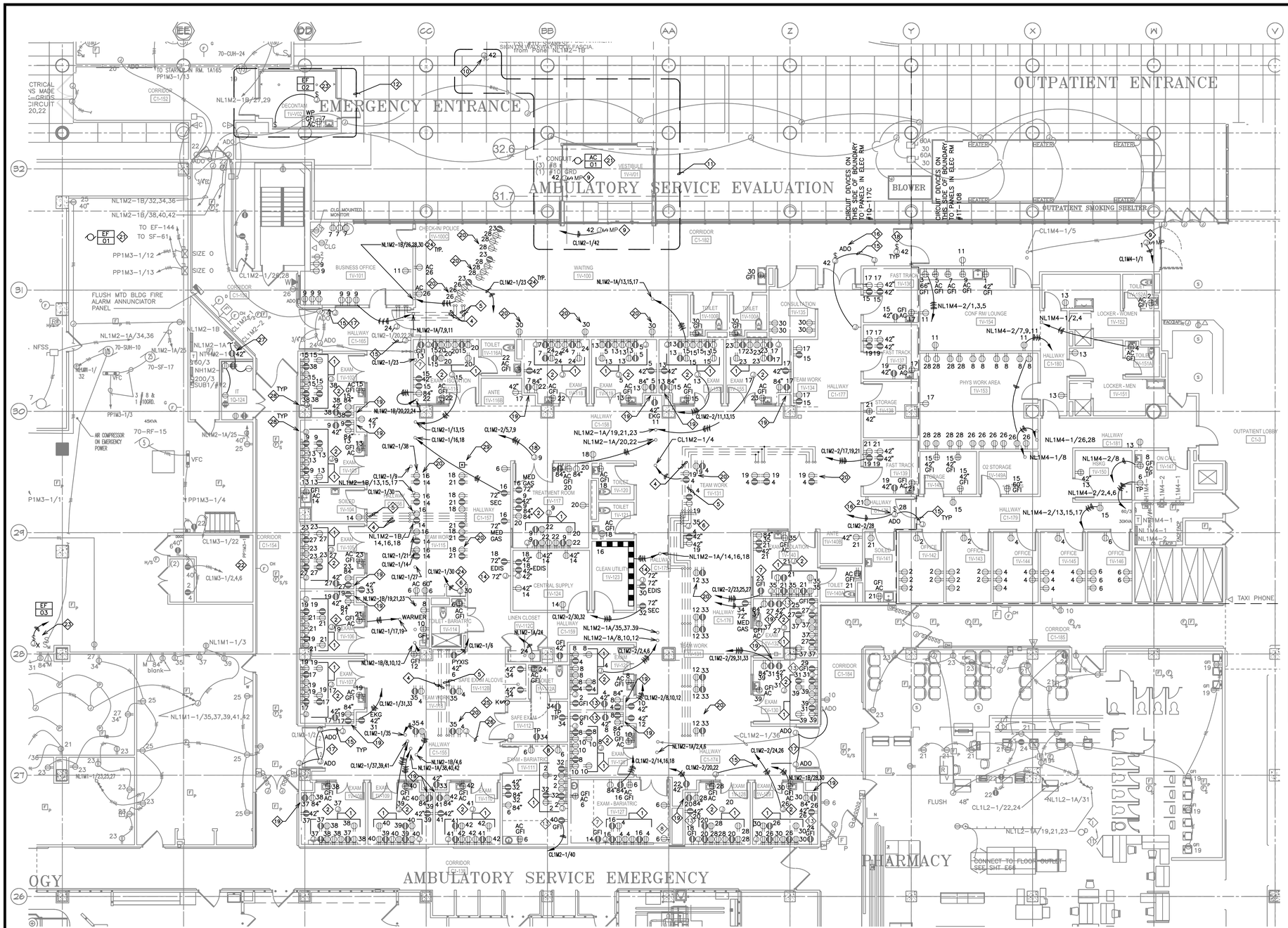
Building Number 70

DRAWING NO. 1272-70-ES05

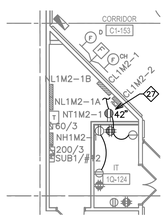
Dwg. 68 of 73

Office of Facilities Management

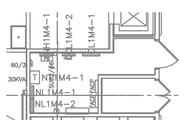
Department of Veterans Affairs



1 FIRST FLOOR POWER PLAN
1/8" = 1'-0"



2 ELECTRICAL ROOM 1Q-117C
1/8" = 1'-0"



3 ELECTRICAL ROOM 1T-108
1/8" = 1'-0"

KEY NOTES

1. DEVICES AND ROUGH IN PROVIDED BY HEADWALL MRR. EC TO PROVIDE FINAL CONNECTION.
2. INSTALL CEILING MOUNTED EXAM LIGHT. EXAM LIGHT PROVIDED BY THE GC, INSTALLED BY THE EC.
3. INSTALL LIFT CHARGING STATION 6" BELOW CEILING.
4. PROVIDE ¾"C FOR ROUTING OF POWER CONDUCTORS. ROUTE CONDUIT DOWN FULL HEIGHT WALL TO INTERSTITIAL SPACE BELOW. STUB UP AND CONNECT TO SYSTEMS FURNITURE WITH FURNITURE FEED.
5. PROVIDE 1¼"C FOR ROUTING OF LOW VOLTAGE CABLING. ROUTE CONDUIT DOWN FULL HEIGHT WALL TO INTERSTITIAL SPACE BELOW. STUB UP AND CONNECT TO SYSTEMS FURNITURE WITH FURNITURE FEED.
6. PROVIDE 120V DIRECT CONNECTION TO PNEUMATIC TUBE STATION.
7. DEDICATED DIALYSIS RECEPTACLE.
8. HORIZONTALLY MOUNT PATIENT LIFT CHARGING RECEPTACLE 6" BELOW FINISHED CEILING HEIGHT.
9. PROVIDE CONNECTION TO AUTOMATIC SLIDING DOOR.
10. EXTERIOR ILLUMINATED EMERGENCY DEPARTMENT SIGN MOUNTED ON WALKWAY ROOF FASCIA.
11. WORK INDICATED IN THIS AREA TO BE INCLUDED AS PART OF ADD OPTION ONE.
12. WORK INDICATED IN THIS AREA TO BE INCLUDED AS PART OF ADD OPTION TWO.
13. ADD OPTION NINE, ADD DEDICATED DIALYSIS RECEPTACLE.
14. PROVIDE DOUBLE GANG BOX WITH A SINGLE GANG MUDRING AND A 1 1/4"C. UP ABOVE THE ACCESSIBLE CEILING FOR ROUTING OF EDIS CABLING.
15. 1/2"C FROM POWER DOOR CONTROL BOX TO JUNCTION BOXES FOR DOOR CONTROL WIRING. ROUTE CONTROL WIRING FROM DOOR OPERATOR TO DOOR PUSH BUTTONS. (TYP)
16. LOCATE TOGGLE TYPE DISCONNECT SWITCH ABOVE SUSPENDED CEILING WITHIN 36" OF THE DOOR CONNECTION.
17. REUSE EXISTING AUTOMATIC DOOR OPERATOR PROVISIONS AND EXTEND CIRCUITING AS REQUIRED FOR CONNECTION TO NEW ADD DEVICES.
18. PROVIDE 120V CONNECTION TO DOOR HOLD OPEN DEVICE.
19. ADD OPTION ELEVEN, ADD EXAM ROOM CRITICAL POWER RECEPTACLE FOR PORTABLE TELE-ICU EQUIPMENT.
20. PROVIDE AND INSTALL HOSPITAL GRADE, TAMPER RESISTANT DUPLEX RECEPTACLE WITH DUAL USB CHARGER.
21. SEE MECHANICAL SCHEDULES FOR ADDITIONAL INFORMATION.
22. PROVIDE NEW 480V 3P 20A HFD CIRCUIT BREAKER IN EXISTING CULTER HAMMER PANELBOARD.
23. EXTEND 120V CRITICAL POWER RECEPTACLE CIRCUIT TO EXHAUST FAN.
24. EXTEND EXISTING HOME RUN TO NEW BRANCH CIRCUITS. TYPICAL ALL EXISTING HOME RUNS.
25. PROVIDE KEYED SWITCH TO OPERATE INTERSTITIAL SOLENOID VALVES. SEE SHEET E504.
26. PROVIDE DOUBLE GANG BOX WITH A SINGLE GANG MUDRING AND A 1 1/4"C. DOWN THROUGH THE BASEMENT INTERSTITIAL FOR ROUTING OF CAMERA SYTEM CABLING. COODINATE DEVICE LOCATION WITH DIV. 28.
27. EXTEND WIRING AND CONDUIT TO NEW RECEPTACLE LOCATION. EXTEND CIRCUIT TO SECURITY SYSTEM RECEPTACLE TO REMAIN.
28. PHYSIO MONITOR LOCATION IN HEADWALL SYSTEM.
29. PROVIDE PUSH BUTTON FOR CONTROL OF INTERSTITIAL DIALYSIS SOLENOID VALVE CONTROL. COORDINATE WITH MECH CONTRACTOR.

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CURTIS D. BARLAGE, PE
Date 01/02/2014 Reg. No. 45914

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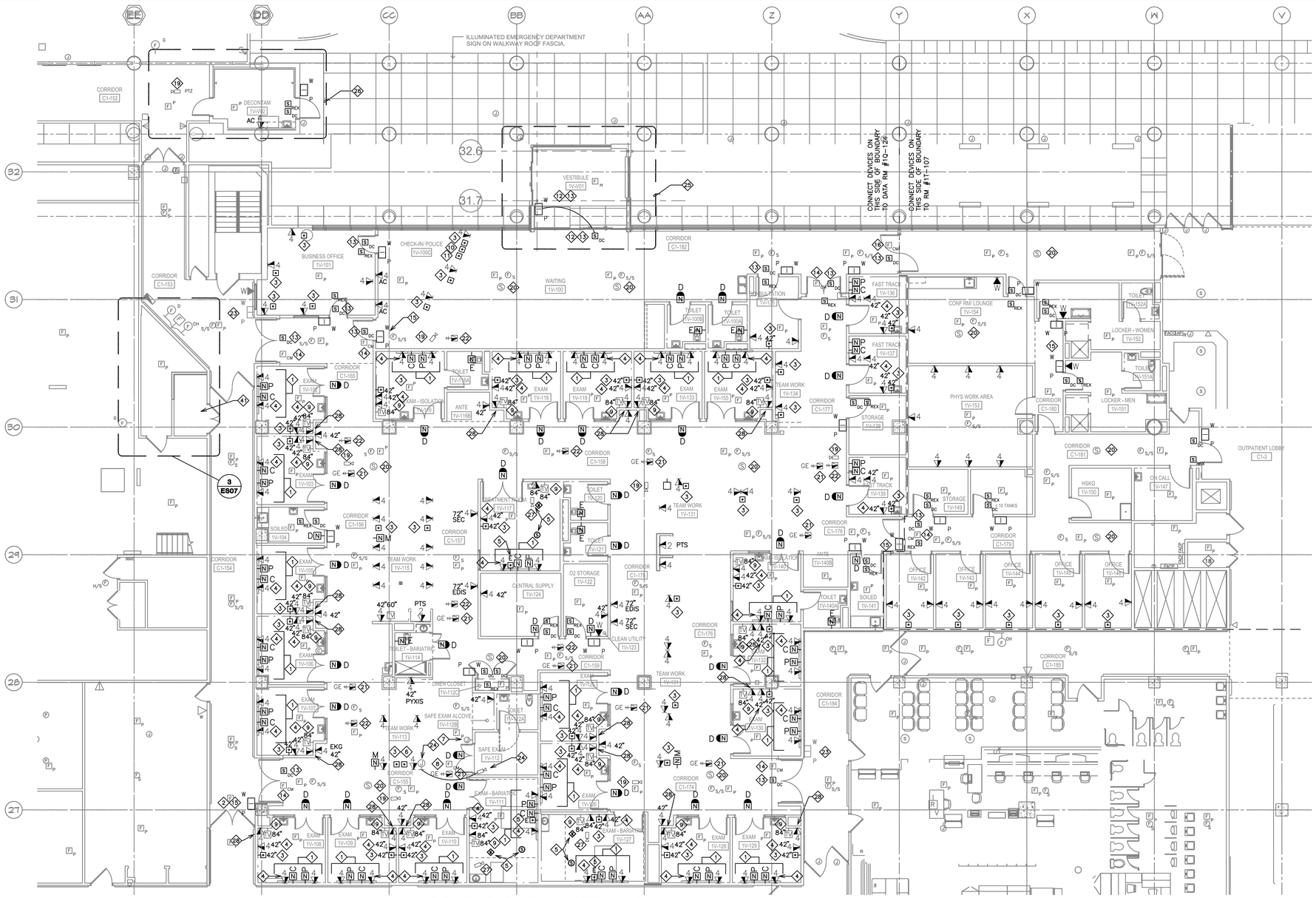
		Building Number 70	
Drawing Scale: AS NOTED	Approved: Catherine Joyce, Chief, Projects Section	Location: V.A. MEDICAL CENTER, ONE VETERANS DRIVE, MINNEAPOLIS, MN 55417	DRAWING NO. 1272-70-ES06
Plot Scale: 12" = 1'-0"	Approved: Steven Challeen, Director, Facilities Engineering	Date 01/02/2014 / Checked SW / Drawn CB	Dwg. 69 of 73

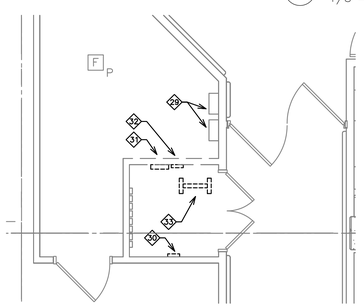
FULLY SPRINKLERED

Office of Facilities Management

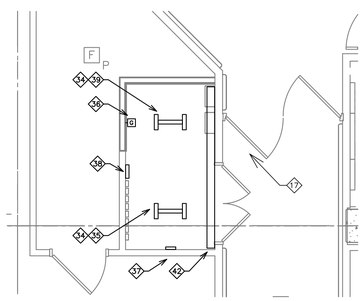
Department of Veterans Affairs



1 FIRST FLOOR SYSTEMS PLAN
1/8"=1'-0"



2 DATA ROOM 1Q-124 ENLARGED DEMOLITION PLAN
1/4"=1'-0"



1 DATA ROOM 1Q-124 ENLARGED PLAN
1/4"=1'-0"

KEY NOTES

1. DEVICES LOCATED IN MANUFACTURED HEADWALL SYSTEM. DIV 27 CONTRACTOR TO PROVIDE AND INSTALL DEVICES AND CABLING.
2. RELOCATE EXISTING ACCESS CONTROL DEVICE. EXTEND WIRING AND CABLING TO NEW DEVICE.
3. MOUNT DURESS BUTTON TO UNDERSIDE OF DESK OR TO WALL AT INDICATED HEIGHT UNLESS NOTED OTHERWISE. CONNECT TO EXISTING DURESS SYSTEM. COORDINATE ANNUNCIATION WITH OWNER.
4. PROVIDE 2 ENTERPRISE NETWORK CABLES AND 2 MEDICAL NETWORK CABLES AT THIS LOCATION.
5. SEE DETAILS ON SHEET ES08 FOR E-ICU LOW VOLTAGE REQUIREMENTS AND WIRING DIAGRAM.
6. SAFE EXAM ROOM DOOR RELEASE PUSHBUTTON.
7. SAFE EXAM DOOR LOCK INDICTOR LIGHT.
8. FIRE ALARM TO SIGNAL RELEASE OF DOOR LOCK UPON ALARM.
9. NURSE CALL PILLOW SPEAKER TO CONTROL TV.
10. EMERGNECY ROOM PERIMETER DOOR LOCKDOWN PUSHBUTTON.
11. ALARM RESET BUTTON.
12. TIME OF DAY LOCK.
13. PROVIDE SECURITY LOCKDOWN FUNCTION AT THIS DOOR.
14. UPON ALARM, FIRE ALARM SYSTEM TO SIGNAL POWERED DOOR OPERATOR FOR DEACTIVATION.
15. CARD READER TO ACTIVATE AUTOMATIC DOOR OPERATOR.
16. UPON ALARM, FIRE ALARM SYSTEM TO SIGNAL RELEASE OF DOOR HOLD OPEN DEVICE.
17. PROVIDE 8 NEW PATCH PANELS FOR NEW DATA CONNECTIONS. MOUNT IN DATA RACK.
18. PROVIDE 3 NEW PATCH PANELS FOR NEW DATA CONNECTIONS. MOUNT IN EXISTING DATA RACK.
19. REUSE SECURITY CAMERA AND RECONNECT WITH A GREEN CAT 6 CABLE TO SECURITY SYSTEM IN DATA ROOM 1Q-124. PROVIDE AN ORANGE JACK IN SECURITY SYSTEM PATCH PANEL FOR TERMINATION OF THE GREEN CAT 6 CABLE. PRROVIDE A PINK PATCH CORD TO TERMINATE INTO NETWORK SWITCH. COORDINATE FINAL TERMINATION WITH COR.
20. EXTEND PUBLIC ADDRESS SPEAKER WIRING TO NEW DEVICE LOCATION. HEAD END LOCATED IN 1T-107.
21. EXTEND CABLING TO RELOCATED GE NETWORK ACCESS POINT LOCATION. COORDINATE RELOCATION WITH OWNER.
22. EXTEND CABLING TO RELOCATED DAS NETWORK ACCESS POINT. COORDINATE RELOCATION WITH OWNER.
23. EXISTING CARD READER TO OPERATE POWERED DOOR. PROVIDE
24. RELOCATE SAFE ROOM SECURITY CAMERA TO CORNER OF ROOM. MOUNT TIGHT TO THE CEILING. CAMEA SHALL BE MONITORED AT TEAMWORK AREA 1V-113. ROUTE CABLING DOWN THROUGH BASEMENT INERSTITIAL FLOOR AND UP TO TEAMWORK DESK. RACEWAY PROVIDED BY DIV 26.
25. WORK INDICATED IN THIS AREA TO BE INCLUDED AS PART OF ADD OPTION ONE.
26. WORK INDICATED IN THIS AREA TO BE INCLUDED AS PART OF OPTION TWO.
27. TELE-ICU CAMERA PROVIDED BY OWNER.
28. ADD OPTION ELEVEN, ADD EXAM ROOM VOICE/DATA DEVICE AND CABLING FOR PORTABLE TELE-ICU EQUIPMENT.
29. EXISTING SECURITY PANELS TO REMAIN IN PLACE.
30. REMOVE RADIO SIGNAL BOX AND RELOCATE CABLING PUNCHDOWN AND POWER SUPPLY TO ALLOW FOR INSTALLATION OF NEW RACK. DEMOLISH ASSOCIATED WIREWAY TO HEIGHT OF ADJACENT TELEPHONE WIREWAY.
31. REMOVE AND RELOCATE MATV CABINET, ASSOCIATED CONUITS AND EQUIPMENT.
32. DEMOLISH FIBER DISTRIBUTION PANEL, ASSOCIATED YELLOW INNERDUCT AND ORANGE CABLING.
33. REMOVE AND RELOCATE EXISTING RACK AND EQUIPMENT. EQUIPMENT IN THIS RACK ALSO SERVES AREAS OUTSIDE THE AREA OF CONSTRUCTION. COORDINATE ACTIVE DEVICE RELOCATION AND SHUTDOWNS WITH COR. RTLS EQUIPMENT AND CABLING SHALL BE RELOCATED BY RTLS CONTRACTOR. CONTACT JULIE FRANKHOUSER OF HP ENTERPRISE SERVICES, LLC. 952-881-0263
34. PROVIDE CAT 6 PATCH CORDS IN 5'-0" AND 7'-0" LENGTHS, BLACK IN COLOR. RE-TERMINATE AND TEST CABLING. RE-PATCH EXISTING CABLING TO REMAIN. SEE TELECOMMUNICATION SPECIFICATION FOR ADDITIONAL INFORMATION. COORDINATE NETWORK SHUTDOWN WITH OWNER.
35. PROVIDE AND INSTALL A HOFFMAN EDR19FM45U TWO POST DATA FLOOR MOUNT RACK. PROVIDE VERTICAL CABLE MANAGERS ON SIDE RAILS.
36. PROVIDE AND INSTALL GROUND BAR. CONNECT TO GROUND BUS IN ADJACENT ELECTRICAL ROOM WITH #6 AWG GROUND CONDUCTOR.
37. EXTEND EXISTING WIRING TO NEW LOCATION OF RADIO SIGNAL BOX AND POWER SUPPLY.
38. NEW LOCATION FOR MATV ENCLOSURE AND SPLITTERS. PROVIDE ADDITIONAL SPLITTERS AND AMPLIFIERS TO SUPPORT ADDITIONAL TVS.
39. RELOCATE EXISTING RACK. EXTEND CABLING TO NEW RACK LOCATION. RETERMINATE AND TEST CABLING TO REMAIN.
40. NOT USED.
41. UTILIZE EXISTING NURSE CALL CONTROL PANEL LOCATED IN 2J-132D FOR NEW NURSE CALL DEVICES. CLOSET LOCATED ON SECOND FLOOR ABOVE RM 1Q-124 PROVIDE (2) NEW GROUP CONTROLLERS AND (2) NEW POWER SUPPLIES COMPATIBLE WITH THE EXISTING RAULAND RESPONDER IV SYSTEM.
42. PROVIDE AND INSTALL WALL MOUNT CABLE TRAY ALONG OUTSIDE WALL OF IT ROOM. COORDINATE WITH EXISTING EQUIPMENT. REMOVE AND RELOCATE EXISTING DEVICES AND CABLING TO ALLOW FOR INSTALLATION. UTILIZE SNAKE TRAY 501 SERIES (7-1/2"H BY 6-1/2"D) "CM 501-6-8" OR PRE-BID APPROVED EQUAL.

GENERAL NOTES

A. BUILDING WILL BE IN USE DURING CONSTRUCTION. SCHEDULE AND CARRY OUT THE WORK IN SUCH A MANNER AS TO CAUSE THE OWNER A MINIMUM OF INCONVENIENCE DUE TO SERVICE INTERRUPTION. TEMPORARY SERVICES (FEEDER, BRANCH CIRCUIT, AND SIGNAL SYSTEMS) SHALL BE INSTALLED IF ONE AREA OR PHASE OF CONSTRUCTION DISRUPTS SERVICE TO ANOTHER AREA OF THE BUILDING(S) OR IF THE EQUIPMENT, CONDUITS OR FEEDERS HAVE TO BE RELOCATED TO ALLOW CONSTRUCTION TO PROGRESS. SERVICE INTERRUPTIONS SHALL BE CONFINED TO THE SMALLEST AREA POSSIBLE AT ANY ONE TIME AND INTERRUPTIONS SHALL BE SCHEDULED WITH THE OWNER'S SITE REPRESENTATIVE. THERE SHALL BE DESIGNATED AREAS WHERE INTERRUPTIONS LIMITED TO AND SHALL BE CONDUCTED AFTER HOURS (9:00 PM – 6:00 AM) AND WEEKENDS. AFTER SERVICE HAS BEEN RESTORED FOLLOWING AN INTERRUPTION, INSPECT AREAS AFFECTED BY THE INTERRUPTION AND BE RESPONSIBLE FOR RETURNING AUTOMATICALLY CONTROLLED EQUIPMENT TO THE SAME OPERATING CONDITION WHICH EXISTED PRIOR TO THE INTERRUPTION.

B. SIGNIFICANT NOISE PRODUCING WORK SHALL BE CONDUCTED AFTER HOURS (9:00 PM – 6:00 AM) AND WEEKENDS.

C. REMOVE, REPLACE, RELOCATE, ETC. ANY ELECTRICAL DEVICES AND/OR ANY CONDUIT/WIRING AS REQUIRED TO COMPLETE REMODELING AS INDICATED IN THE CONTRACT DOCUMENTS.

D. DRAWINGS INDICATE EXISTING CONDITIONS AS THEY WERE INDICATED ON OWNER PROVIDED AS-BUILT DRAWINGS AND SITE VERIFICATION. ACTUAL CONDITIONS MAY VARY FROM THE CONDITIONS INDICATED. THE CONTRACTOR IS RESPONSIBLE TO FIELD VERIFY EXACT CONDITIONS.

E. ALL DEVICES, EQUIPMENT, CABLING, ETC. INDICATED IN THE CONTRACT DOCUMENTS TO BE REMOVED SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DISPOSE OF IN ACCORDANCE WITH LOCAL AND FEDERAL REGULATIONS. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.

F. LABEL NEW RECEPTACLES AS NOTED IN SPECIFICATION SECTION 262726 PART 2.

G. UTILIZE EXISTING CIRCUITS CREATED DURING DEMOLITION. PROVIDE DEDICATED NEUTRALS AS REQUIRED BY THE NEC. HANDLE TIES OR MULTI POLE BREKERS FOR SINGLE PHASE LOADS ARE UNACCEPTABLE.

H. ROUTE LOW VOLTAGE CABLING TO DATA ROOM AS INDICATED ON DRAWINGS. PROVIDE CABLE COUNT AS INDICATED (FOR '4' PROVIDE ONE VOICE AND THREE DATA CABLES. FOR '2' PROVIDE TWO DATA CABLES). RECONNECT EXISTING CABLING/WIRING AT LOCATIONS INDICATED FOR REMOVAL AND REINSTALLATION.

I. PROVIDE A DOUBLE GANG BOX WITH A SINGLE GANG MUDRING AND (1) 3/4" CONDUIT ROUTED UP TO ACCESSIBLE CEILING SPACE FOR LOW VOLTAGE ROUGH IN.

J. CONTACT THE FIRE ALARM CONTRACTOR FOR DEVICE PROTECTION PRIOR TO CEILING REMOVAL. CLEAN AND PROTECT REMOVED FIRE ALARM DEVICES FOR REINSTALLATION. EXISTING DETECTION DEVICES ARE GAMEWELL "VELOCITI" SERIES.

K. DEMOLISH LOW VOLTAGE DEVICE CABLING INCLUDING ABANDONED CABLE IN AREA OF WORK BACK TO SOURCE WHEN DEMOLISHING LOW VOLTAGE DEVICES.

L. PATCH CONCRETE DECK VOIDS CREATED DURING DEMOLITION OF FEEDERS. MAINTAIN FLOOR AND WALL RATINGS.

FULLY SPRINKLERED

REVISIONS	DATE

GENERAL NOTES:

GENERAL CONTRACTOR AND/OR ALL SUBCONTRACTORS SHALL FIELD VERIFY ALL DIMENSIONS SHOWN ON THESE PLANS AND SHALL BE RESPONSIBLE FOR VARIATIONS BETWEEN PLAN DIMENSIONS AND ACTUAL FIELD DIMENSIONS. WHERE VARIATIONS ARE FOUND TO OCCUR, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING PRIOR TO PROCEEDING WITH CONSTRUCTION; NO ADJUSTMENT TO THE WORK WILL BE MADE WITHOUT THE PRIOR APPROVAL OF THE PROJECT ENGINEER.

GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR GENERAL DEMOLITION INCLUDING REMOVAL OF WALLS, PARTITIONS, DOORS & CEILING & FLOORS. ANY AND ALL CUTTING OF CONCRETE FLOORS, WALLS OR STRUCTURE SHALL BE THE GENERAL CONTRACTOR'S RESPONSIBILITY. CORE DRILLING THROUGH CONCRETE WALLS, FLOORS OR STRUCTURE FOR PIPING OR CONDUIT SHALL BE THE RESPONSIBILITY OF THE SUBCONTRACTOR BY TRADE; FIRESTOPPING OF THESE OPENINGS SHALL BE DONE BY THE RESPECTIVE SUBCONTRACTOR. REMOVAL OF DEBRIS RESULTING FROM DEMOLITION, CUTTING, AND/OR DRILLING IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. PATCHING AND REPAIR OF CONCRETE WALLS, FLOOR, OR STRUCTURE SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR; THIS WILL BE ACCOMPLISHED UPON COMPLETION OF THE INSTALLATION OF ANY AND ALL UTILITIES INSTALLED BY THE VARIOUS SUBCONTRACTORS.

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TRUE NORTH
PLAN NORTH

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed Architect under the laws of the State of Minnesota.
CURTIS D. BARLAGE, PE
Date 01/02/2014 Reg. No. 45914

Drawing Scale: AS NOTED
Plot Scale: 12" = 1'-0"

Drawing Title: FIRST FLOOR SYSTEMS PLAN

Approved: Catherine Joyce, Chief, Projects Section
Approved: Steven Challeen, Director, Facilities Engineering

Project Title: VA MINNEAPOLIS ED RENOVATION
Location: V.A. MEDICAL CENTER, ONE VETERANS DRIVE, MINNEAPOLIS, MN 55417
Date: 01/02/2014 | Checked: SW | Drawn: CB

Project No. 618-14-104
Building Number 70
DRAWING NO. 1272-70-ES07
Dwg. 70 of 73

Office of Facilities Management
Department of Veterans Affairs

LUMINAIRE SCHEDULE

FIXTURE LETTER	FIXTURE TYPE	VOLTS	MOUNTING	LAMPS	CONTROL MEDIA (LENS,LOUVER,ETC)	MANUFACTURER'S SERIES NUMBERS	LUMINAIRE DESCRIPTION	FOOTNOTES
A	2x2LENSED TROFFER	120/ 277	RECESSED LAY-IN GRID INVERTED TEE	3-F17 T8 4100°K	.125" MINIMUM ACRYLIC LENS FLAT SIDED PRISMS	COLUMBIA #ST822 SERIES LITHONIA #2SP8 SERIES METALUX #2GC8 SERIES WILLIAMS #50 STATIC SERIES	SPRING LATCHES. POST PAINTED STEEL HOUSING. FLUSH WHITE ALUM. MITERED CORNERED DOOR FRAME, GASKETED AND/OR WITH METAL LIGHT BAFFLES. DOOR CAN BE LATCHED FROM EITHER SIDE OF HOUSING. 3-11/16" MINIMUM HOUSING DEPTH. ONE ELECTRONIC BALLAST, (1)-THREE LAMP	–
AD	2x2LENSED TROFFER	120/ 277	RECESSED LAY-IN GRID INVERTED TEE	3-F17 T8 4100°K	.125" MINIMUM ACRYLIC LENS FLAT SIDED PRISMS	COLUMBIA #ST822 SERIES LITHONIA #2SP8 SERIES METALUX #2GC8 SERIES WILLIAMS #50 STATIC SERIES	SPRING LATCHES. POST PAINTED STEEL HOUSING. FLUSH WHITE ALUM. MITERED CORNERED DOOR FRAME, GASKETED AND/OR WITH METAL LIGHT BAFFLES. DOOR CAN BE LATCHED FROM EITHER SIDE OF HOUSING. 3-11/16" MINIMUM HOUSING DEPTH. TWO ELECTRONIC BALLASTS FOR DUAL LEVEL SWITCHING (1) ONE LAMP BALLAST & (1) 2 LAMP BALLAST.	–
A1	2x4 LENSED TROFFER	120/ 277	RECESSED LAY-IN GRID INVERTED TEE	3-F32 T8 4100°K	.125" MINIMUM ACRYLIC LENS FLAT SIDED PRISMS	COLUMBIA #ST824 SERIES LITHONIA #2SP8 SERIES METALUX #2GC8 SERIES WILLIAMS #50 STATIC SERIES	SPRING LATCHES. POST PAINTED STEEL HOUSING. FLUSH WHITE ALUM. MITERED CORNERED DOOR FRAME, GASKETED AND/OR WITH METAL LIGHT BAFFLES. DOOR CAN BE LATCHED FROM EITHER SIDE OF HOUSING. 3-11/16" MINIMUM HOUSING DEPTH. ONE ELECTRONIC BALLAST, (1)-THREE LAMP	–
A1D	2x4 LENSED TROFFER	120/ 277	RECESSED LAY-IN GRID INVERTED TEE	3-F32 T8 4100°K	.125" MINIMUM ACRYLIC LENS FLAT SIDED PRISMS	COLUMBIA #ST824 SERIES LITHONIA #2SP8 SERIES METALUX #2GC8 SERIES WILLIAMS #50 STATIC SERIES	SPRING LATCHES. POST PAINTED STEEL HOUSING. FLUSH WHITE ALUM. MITERED CORNERED DOOR FRAME, GASKETED AND/OR WITH METAL LIGHT BAFFLES. DOOR CAN BE LATCHED FROM EITHER SIDE OF HOUSING. 3-11/16" MINIMUM HOUSING DEPTH. TWO ELECTRONIC BALLASTS FOR DUAL LEVEL SWITCHING (1) ONE LAMP BALLAST & (1) 2 LAMP BALLAST.	–
A2	2x4 LENSED TROFFER	120/ 277	RECESSED LAY-IN GRID INVERTED TEE	2-F32 T8 4100°K	.125" MINIMUM ACRYLIC LENS FLAT SIDED PRISMS	COLUMBIA #ST824 SERIES LITHONIA #2SP8 SERIES METALUX #2GC8 SERIES WILLIAMS #50 STATIC SERIES	SPRING LATCHES. POST PAINTED STEEL HOUSING. FLUSH WHITE ALUM. MITERED CORNERED DOOR FRAME, GASKETED AND/OR WITH METAL LIGHT BAFFLES. DOOR CAN BE LATCHED FROM EITHER SIDE OF HOUSING. 3-11/16" MINIMUM HOUSING DEPTH. (1)TWO LAMP ELECTRONIC BALLAST.	–
A3	2x4 LENSED TROFFER	120/ 277	RECESSED FLANGED TRIM	3-F32 T8 4100°K	.140" MINIMUM ACRYLIC LENS FLAT SIDED PRISMS	COLUMBIA #4VS SERIES LITHONIA #VRT SERIES METALUX #VR SERIES WILLIAMS	SPRING LATCHES. POST PAINTED STEEL HOUSING. FLUSH WHITE ALUM. MITERED CORNERED DOOR FRAME, GASKETED AND/OR WITH METAL LIGHT BAFFLES. DOOR CAN BE LATCHED FROM EITHER SIDE OF HOUSING. 4-1/2" MINIMUM HOUSING DEPTH. ONE (1) THREE LAMP ELECTRONIC BALLAST.	–
A3D	2x2 LENSED TROFFER	120/ 277	RECESSED FLANGED TRIM	3-F17 T8 4100°K	.140" MINIMUM ACRYLIC LENS FLAT SIDED PRISMS	COLUMBIA #4VS SERIES LITHONIA #VRT SERIES METALUX #VR SERIES WILLIAMS	SPRING LATCHES. POST PAINTED STEEL HOUSING. FLUSH WHITE ALUM. MITERED CORNERED DOOR FRAME, GASKETED AND/OR WITH METAL LIGHT BAFFLES. DOOR CAN BE LATCHED FROM EITHER SIDE OF HOUSING. 4-1/2" MINIMUM HOUSING DEPTH. TWO ELECTRONIC BALLASTS FOR DUAL LEVEL SWITCHING (1) ONE LAMP BALLAST & (1) 2 LAMP BALLAST.	–
A4	2x4 LENSED TROFFER WET USE	120/ 277	RECESSED FLANGED TRIM	3-F32 T8 4100°K	SEALED .156" MINIMUM ACRYLIC LENS	COLUMBIA #WT SERIES LITHONIA #SRH SERIES METALUX #CFG SERIES WILLIAMS	POST PAINTED 20 GAUGE CRS STEEL HOUSING. 18 GAUGE CRS STEEL DOOR FRAME, GASKETED. IP-65 LISTED. ONE (1) THREE LAMP ELECTRONIC BALLAST.	–
B	2x2 RECESSED INDIRECT	120/ 277	RECESSED LAY-IN GRID INVERTED TEE	3-F17 T8 4100°K	ROUND CENTER PERFORATED SHEILD PAINTED WHITE, 51% LIGHT TRANSMISSION. WHITE ACRYLIC OVERLAY, UPPER REFLECTOR PAINTED WHITE.	COLUMBIA #STR22 SERIES LITHONIA #2AV SERES METALUX #2RDI SERIES WILLIAMS #DI SERIES	POST PAINTED STEEL HOUSING. PLASTIC END CAPS SUPPORT REFLECTOR. LIGHT BASKET ACTS AS A LIGHT SEAL. OR. LIGHT BASKET ACTS AS A LIGHT SEAL. TWO ELECTRONIC BALLASTS FOR DUAL LEVEL SWITCHING. (1) TWO LAMP ELECTRONIC BALLAST.	–
BD	2x2 RECESSED INDIRECT	120/ 277	RECESSED LAY-IN GRID INVERTED TEE	3-F17 T8 4100°K	ROUND CENTER PERFORATED SHEILD PAINTED WHITE, 51% LIGHT TRANSMISSION. WHITE ACRYLIC OVERLAY, UPPER REFLECTOR PAINTED WHITE.	COLUMBIA #STR22 SERIES LITHONIA #2AV SERES METALUX #2RDI SERIES WILLIAMS #DI SERIES	POST PAINTED STEEL HOUSING. PLASTIC END CAPS SUPPORT REFLECTOR. LIGHT BASKET ACTS AS A LIGHT SEAL. OR. LIGHT BASKET ACTS AS A LIGHT SEAL. TWO ELECTRONIC BALLASTS FOR DUAL LEVEL SWITCHING. (1) TWO LAMP ELECTRONIC BALLAST AND (1) ONE LAMP ELECTRONIC BALLAST.	–
B1	2x4 RECESSED INDIRECT	120/ 277	RECESSED LAY-IN GRID INVERTED TEE	3-F32 T8 4100°K	ROUND CENTER PERFORATED SHEILD PAINTED WHITE, 51% LIGHT TRANSMISSION. WHITE ACRYLIC OVERLAY, UPPER REFLECTOR PAINTED WHITE.	COLUMBIA #STR24 SERIES LITHONIA #2AV SERES METALUX #2RDI SERIES WILLIAMS #DI SERIES	POST PAINTED STEEL HOUSING. PLASTIC END CAPS SUPPORT REFLECTOR. LIGHT BASKET ACTS AS A LIGHT SEAL. ONE (1) THREE LAMP ELECTRONIC BALLAST.	–
B1D	2x4 RECESSED INDIRECT DUAL LEVEL SWITCHED	120/ 277	RECESSED LAY-IN GRID INVERTED TEE	3-F32 T8 4100°K	ROUND CENTER PERFORATED SHEILD PAINTED WHITE, 51% LIGHT TRANSMISSION. WHITE ACRYLIC OVERLAY, UPPER REFLECTOR PAINTED WHITE.	COLUMBIA #STR24 SERIES LITHONIA #2AV SERES METALUX #2RDI SERIES WILLIAMS #DI SERIES	POST PAINTED STEEL HOUSING. PLASTIC END CAPS SUPPORT REFLECTOR. LIGHT BASKET ACTS AS A LIGHT SEAL. TWO ELECTRONIC BALLASTS FOR DUAL LEVEL SWITCHING (1) ONE LAMP BALLAST & (1) 2 LAMP ELECTRONIC BALLAST.	–
B2D	2x4 RECESSED INDIRECT DUAL LEVEL SWITCHED	120/ 277	RECESSED LAY-IN GRID INVERTED TEE	2-F32 T8 4100°K	ROUND CENTER PERFORATED SHEILD PAINTED WHITE, 51% LIGHT TRANSMISSION. WHITE ACRYLIC OVERLAY, UPPER REFLECTOR PAINTED WHITE.	COLUMBIA #STR24 SERIES LITHONIA #2AV SERES METALUX #2RDI SERIES WILLIAMS #DI SERIES	POST PAINTED STEEL HOUSING. PLASTIC END CAPS SUPPORT REFLECTOR. LIGHT BASKET ACTS AS A LIGHT SEAL. TWO ELECTRONIC BALLASTS FOR DUAL LEVEL SWITCHING (2) ONE LAMP BALLASTS.	–
D	6" DIAMETER DIMMABLE LED DOWNLIGHT	120/ 277	RECESSED GYP BOARD AND/OR LAY-IN GRID INVERTED TEE	LED 27W MAX 1500 LUMEN MIN 3500K	HAZE REFLECTOR	PORTFOLIO #LD6 SERIES PRESCOLITE #LF6LED SERIES JUNO #J6 SERIES ZUMTOBEL #BR6DLED SERIES	SELF FLANGED TRIM SOLID PLATE BAR HANGERS. ACCESSIBLE JBOX FROM BELOW GLASS SHADE SHALL MEASURE A MINIMUM OF 3" HIGH BELOW CEILING PLANE.	
D1	6" DIAMETER SEMI RECESSED GLASS CYLINDER DOWNLIGHT	120/ 277	RECESSED GYP BOARD AND/OR LAY-IN GRID INVERTED TEE	LED 17W MAX 1500 LUMEN MIN 3500K	CYLINDRICAL WHITE OPAL GLASS	SHAPER #340-6 SERIES SPECTRUM #SG SERIES LOUIS POULSEN #BAL LED SERIES GOTHAM #EVO35/146ARMVOLTPDRGF6WG	SELF FLANGED TRIM SOLID PLATE BAR HANGERS. ACCESSIBLE JBOX FROM BELOW	
F1	4' INDUSTRIAL	120/ 277	SURFACE	2-F32 T8 4100°K	APERATURED REFLECTOR WITH 20% UPLIGHT	COLUMBIA #KL SERIES LITHONIA #EJ SERIES METALUX #DMF SERIES WILLIAMS #82 SERIES	STEEL CHANNEL, ONE ELECTRONIC BALLAST.	
W	2'-0" WALL BRACKET LIGHT	277	SURFACE WALL MOUNT	1-13W CF TWIN-4P 2GX7 BASE 4100°K	HAND BLOWN THREE-PLY OPAL GLASS	BEGA/LIMBURG #L1894.537 PROVIDE ALLOWANCE OF $572.50 PER FIXTURE PLUS LAMP, FREIGHT, TAX	HOUSING CONSTRUCTED OF POLISHED BRASS WITH NICKEL PLATING. WALL BRACKET CONSTRUCTED OF POLISHED ALUMINUM WITH NICKEL PLATING. HAND BLOWN, THREE PLY OPAL GLASS. CUSTOM RECESSED JUNCTION BOX. (1) ONE LAMP BALLAST.	–
W1	LED ACCENT LIGHT	120	SURFACE MOUNT	LED – WHITE	OPTICALLY CLEAR COATING	ACCLAIM LIGHTING #FLEX II SO SERIES EDGE LIGHTING #SOFT STRIP SERIES ORGANIC LIGHTING SYSTEMS #LINILED SERIES WAC LIGHTING #INVISILED PRO 2 SERIES	OPTICALLY CLEAR PROTECTIVE COATING DIMMABLE POWER SUPPLY AND CONTROLS SPECIFIC TO MANUFACTURE MOUNTING CLIPS 32'-0" CUT TO LENGTH ON SITE	1
U	UNDERCABINET LIGHT	120/ 277	UNDERCABINET	1-F17 T8 (24") 1-F32 T8 (48") 4100°K	LAY-IN PRISMATIC LENS	HEALTHCARE LIGHTING INC. #HUC SERIES LITHONIA #N2S SERIES FAIL-SAFE #MAS SERIES NULITE #B19 SERIES	SOLID FRONT INTEGRAL ROCKER SWITCH LAY-IN PRISMATIC LENS 6FT CORD WITH GROUNDED PLUG	–

LUMINAIRE SCHEDULE

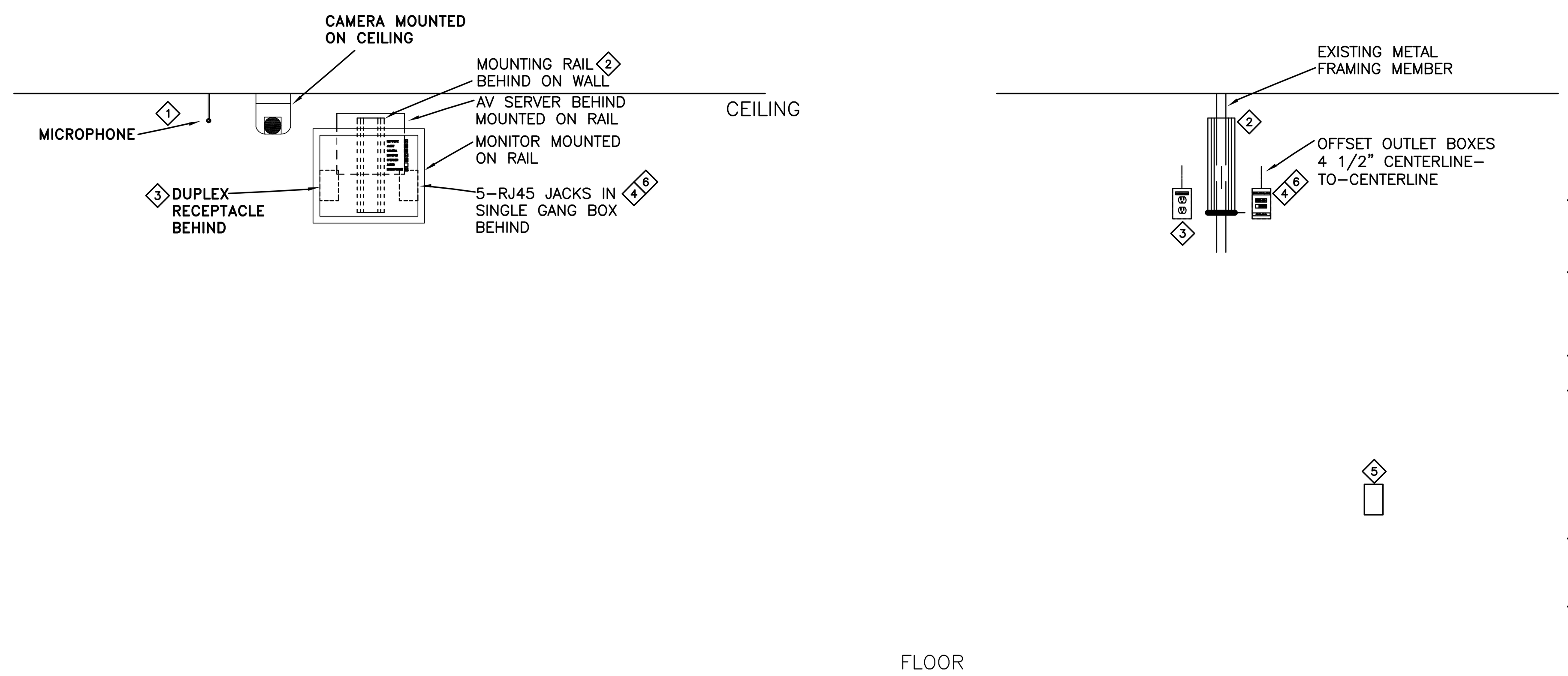
FIXTURE LETTER	FIXTURE TYPE	VOLTS	MOUNTING	LAMPS	CONTROL MEDIA (LENS,LOUVER,ETC)	MANUFACTURER'S SERIES NUMBERS	LUMINAIRE DESCRIPTION	FOOTNOTES
X1E	CEILING MOUNTED EXIT SIGN	120/ 277	SURFACE CEILING	LED	.125" MINIMUM ACRYLIC LENS FLAT SIDED PRISMS	LITHONIA LE SERIES DUAL-LITE SEMPRA SERIES NAVILITE NXD SERIES SURE LITES CAX SERIES	LED SINGLE FACE EXIT FIXTURE BRUSHED ALUMINUM FACE AND HOUSING RED LETTERING	–
X2E	CEILING MOUNTED EXIT SIGN	120/ 277	SURFACE CEILING	LED	.125" MINIMUM ACRYLIC LENS FLAT SIDED PRISMS	LITHONIA LE SERIES DUAL-LITE SEMPRA SERIES NAVILITE NXD SERIES SURE LITES CAX SERIES	LED DOUBLE FACE EXIT FIXTURE BRUSHED ALUMINUM FACE AND HOUSING RED LETTERING	–

GENERAL NOTES:

1. SEE SPECIFICATION SECTION 16500 FOR ADDITIONAL LIGHT FIXTURE REQUIREMENTS.
2. ANY CONFLICTS BETWEEN THE MANUFACTURER'S CATALOG NUMBER AND THE DESCRIPTIONS, SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
3. ALL FLUORESCENT FIXTURES WILL BE SUPPLIED WITH ELECTRONIC BALLAST UNLESS SPECIFICALLY NOTED OTHER WISE.
4. TO INSURE MATCHING COLOR AND APPEARANCE, ALL LAMPS SHALL BE FROM THE SAME MANUFACTURER. LAMPS SHALL HAVE COLOR TEMPERATURE 4100K, WITH CRI OF 80 UNLESS OTHER WISE NOTED.
5. UNLESS A SPECIFIC CATALOG NUMBER OR SERIES IS NAMED, THE MANUFACTURERS NAMED AS ALTERNATES MUST SUBMIT CATALOG CUT SHEETS, IES FORMATTED PHOTOMETRIC REPROT TO THE ENGINEER FOR APPROVAL AT LEAST 10 DAYS PRIOR TO THE BID DATE. THE ENGINEER MAY REQUEST SAMPLE OF FIXTURE TO BE SUPPLIED.

KEY NOTES

1. VERIFY LENGTH WITH CEILING SYSTEM PRIOR TO ORDERING.



NOTES:

1. VA-FURNISHED/CONTRACTOR-INSTALLED CAMERA AND MICROPHONE. SECURE TO CEILNG TILE WITH TOGGLE ANCHORS. CAMERA AND MIC PROVIDED BY OTHERS.
2. INSTALL A 12" GCX WALL RAIL FOR AV SERVER AND MONITOR MOUNTING. SECURE TO EXISTING WALL STUD. MONITOR AND SERVER PROVIDED AND INSTALLED BY OTHERS.
3. EMERGENCY POWER RECEPTACLES.
4. 5-PORT DATA WALL OUTLET IN DOUBLE GANG BOX WITH SINGLE GANG MUDRING AND (1) 1-1/4"C. TO ABOVE ACCESSIBLE CEILING. LOCATION TO SUPPORT SPEAKER (YELLOW), E-LERT SWITCH (RED), NETWORK (WHITE), CAMERA (ORG) AND MICROPHONE (BLUE.) PROVIDE AND INSTALL CAT 6 CABLE FROM EACH AS SHOWN ON WIRING DIAGRAM DETAIL ON THIS SHEET.
5. eLERT BUTTON WITH (1) 3/4"C TO ABOVE ACCESSIBLE CEILING. MOUNT IN HEADWALL. ROUGH IN BY HEADWALL MANUFACTURER.
6. PROVIDE CAT 6 CABLE FROM JACK NEAR AV SERVER AND TERMINATE AT ELERT SWITCH, VERIFY EXACT CONNECTION TYPE. AV SERVER DATA PLUG IS RED. SEE DETAIL 2/E104 FOR ADDITIONAL INFORMATION.

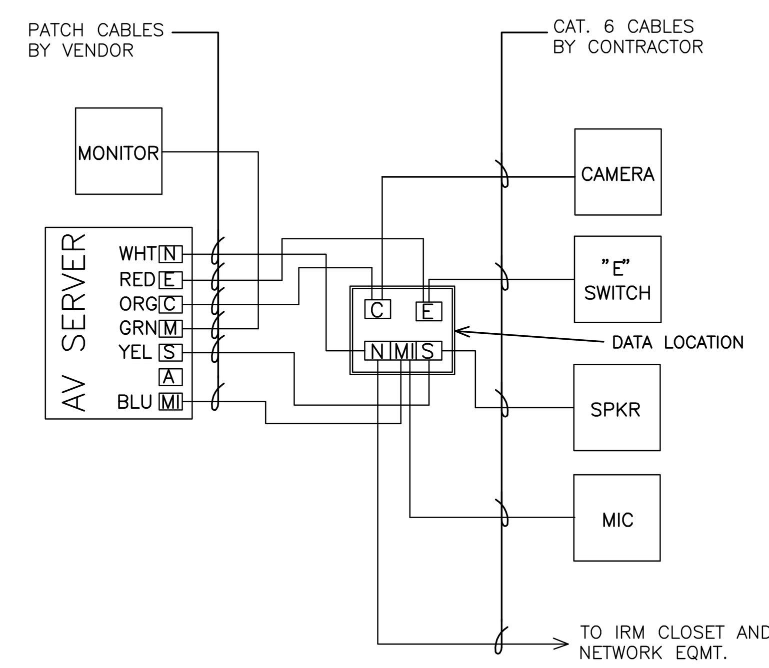
TELE-ICU EQUIPMENT MOUNTING DIAGRAM

TELE-ICU ROUGH-IN DIAGRAM

1 E-ICU DETIALS
NO SCALE

NOTES:

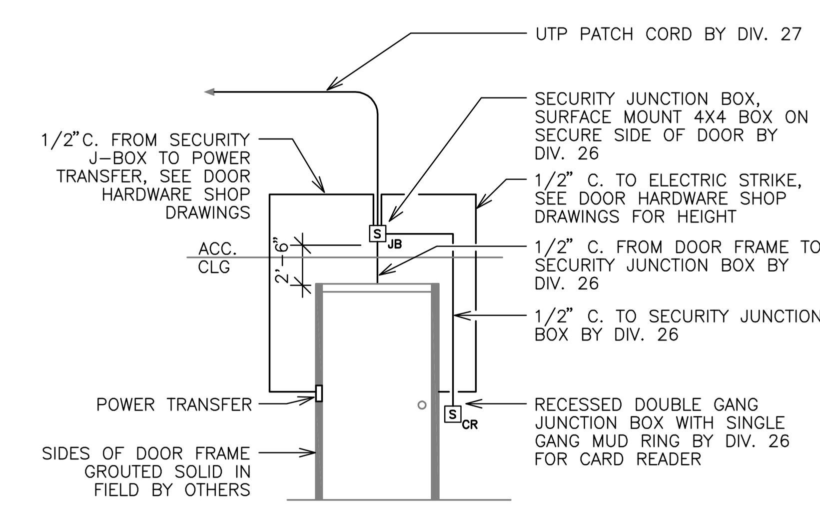
1. THIS CABLING TO APPLY AT ALL NEW [◁▷] LOCATIONS SHOWN ON PLAN DWGS. EXTEND EXISTING CABLING TO RELOCATED DEVICES WHERE POSSIBLE.



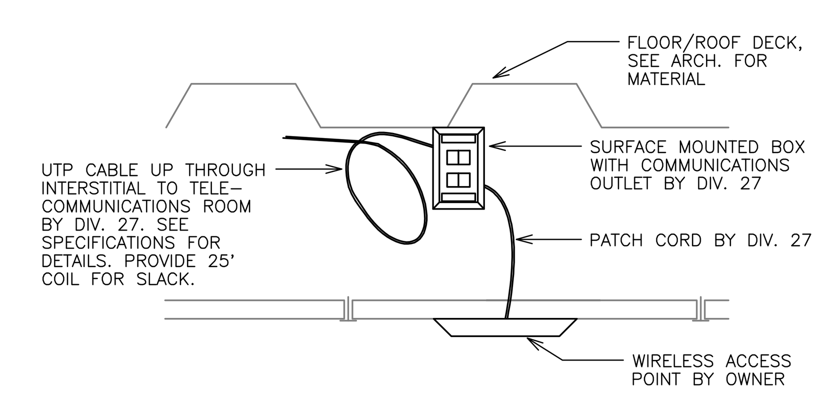
2 E-ICU WIRING DIAGRAM
NO SCALE

NOTES:

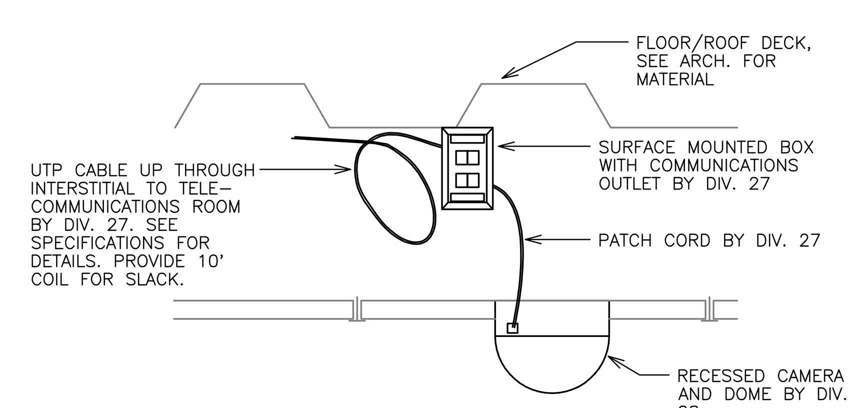
1. THIS CABLING TO APPLY AT ALL [▭] LOCATIONS SHOWN ON PLAN DWGS.



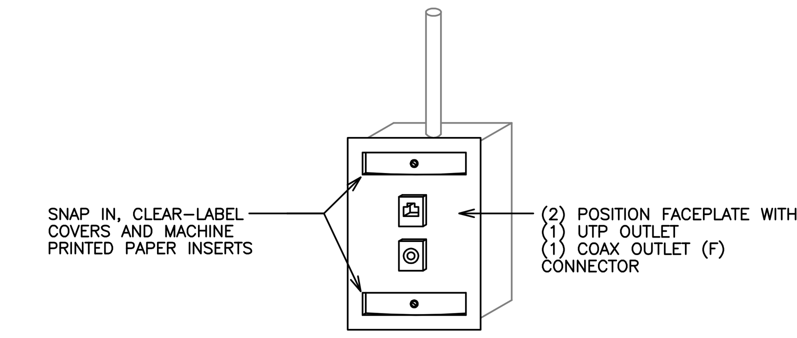
3 ACCESS CONTROL ROUGH IN DETAIL
NO SCALE



4 WIRELESS ACCESS MOUNTING DETAIL
NO SCALE



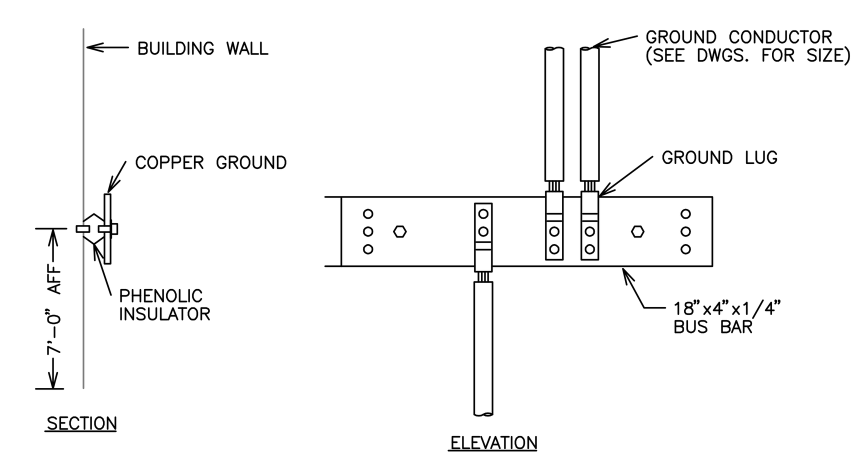
5 SURVEILLANCE CAMERA MOUNTING DETAIL
NO SCALE



NOTES:

1. BOX AND CONDUIT BY DIVISION 26.
2. FACE PLATE AND UTP CABLE BY DIVISION 27.

6 TV VOICE OUTLET DETAIL
NO SCALE



NOTES:

1. REFER TO GROUNDING RISER DIAGRAM FOR ADDITIONAL INFORMATION.
2. BUS BAR TO BE INSTALLED IN AN ACCESSIBLE LOCATION.
3. CONNECTIONS TO BE MADE BY UL LISTED MECHANICAL CONNECTORS.

7 IT ROOM GROUND BAR (TGB)
NO SCALE

FULLY SPRINKLERED

REVISIONS		DATE

GENERAL NOTES:

GENERAL CONTRACTOR AND/OR ALL SUBCONTRACTORS SHALL FIELD VERIFY ALL DIMENSIONS SHOWN ON THESE PLANS AND SHALL BE RESPONSIBLE FOR VARIATIONS BETWEEN PLAN DIMENSIONS AND ACTUAL FIELD DIMENSIONS. WHERE VARIATIONS ARE FOUND TO OCCUR, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING PRIOR TO PROCEEDING WITH CONSTRUCTION; NO ADJUSTMENT TO THE WORK WILL BE MADE WITHOUT THE PRIOR APPROVAL OF THE PROJECT ENGINEER.

GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR GENERAL DEMOLITION INCLUDING REMOVAL OF WALLS, PARTITIONS, DOORS & CEILING & FLOORS. ANY AND ALL CUTTING OF CONCRETE FLOORS, WALLS OR STRUCTURE SHALL BE THE GENERAL CONTRACTOR'S RESPONSIBILITY. CORE DRILLING THROUGH CONCRETE WALLS, FLOORS OR STRUCTURE FOR PIPING OR CONDUIT SHALL BE THE RESPONSIBILITY OF THE SUBCONTRACTOR BY TRADE; FIRESTOPPING OF THESE OPENINGS SHALL BE DONE BY THE RESPECTIVE SUBCONTRACTOR. REMOVAL OF DEBRIS RESULTING FROM DEMOLITION, CUTTING, AND/OR DRILLING IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. PATCHING AND REPAIR OF CONCRETE WALLS, FLOOR, OR STRUCTURE SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR; THIS WILL BE ACCOMPLISHED UPON COMPLETION OF THE INSTALLATION OF ANY AND ALL UTILITIES INSTALLED BY THE VARIOUS SUBCONTRACTORS.

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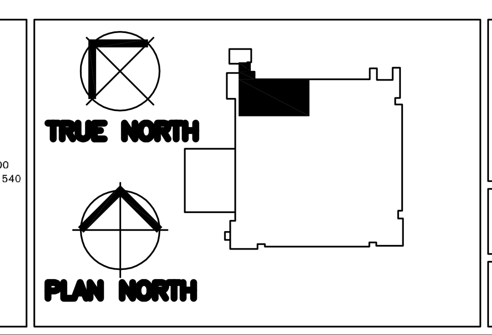

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed Architect under the lows of the State of Minnesota.

CURTIS D. BARLAGE, PE
Date 01/02/2014 Reg. No. 45914

Drawing Scale: AS NOTED
Plot Scale: 12" = 1'-0"

Drawing Title: ELECTRICAL SCHEDULES AND DETAILS

Approved: Catherine Joyce, Chief, Projects Section

Approved: Steven Challeen, Director, Facilities Engineering

Project Title: VA MINNEAPOLIS ED RENOVATION

Location: V.A. MEDICAL CENTER, ONE VETERANS DRIVE, MINNEAPOLIS, MN 55417

Date: 01/02/2014 | Checked: SW | Drawn: CB

Project No. 618-14-104

Building Number 70

DRAWING NO. 1272-70-ES08

Office of Facilities Management

Department of Veterans Affairs

	Panel:	NH1M2-1 (EXISTING)			Voltage: 480/277v, 3Ph, 4w						
					Code L	Code C	Code R	Code M	Code E	Code K	Code D
No.	Amp/p	Note	Description	Ph	VA	VA	VA	VA	VA	VA	VA
1	20/1		ED 1V-100, 1V-100C,1V-V01	- A -	1257						
3	20/1		ED CORRIDOR LIGHTING	- B -	3072						
5	20/1		ED NURSE STATION LIGHTING	- C -	945						
7	20/1		EXISTING - LTG 1Q124,1Q118,1V141	- A -							
9	20/1		SPARE	- B -							
11	20/1		EXISTING - LTG C1-151, 154	- C -							
13	20/1			- A -							
15			SPACE	- B -							
17			SPACE	- C -							
2	20/1			- A -							
4	20/1			- B -							
6	20/1			- C -							
8	20/1			- A -							
10	20/1		SPARE	- B -							
12	20/1		SPARE	- C -							
14			SPACE	- A -							
16			SPACE	- B -							
18			SPACE	- C -							
Through			NONE	- A -							
Feed Lug			----	- B -							
Connection			----	- C -							
Main			NONE	- A -	1257	0	0	0	0	0	0
Breaker			----	- B -	3072	0	0	0	0	0	0
			----	- C -	945	0	0	0	0	0	0

Overcurrent Device Notes:				Total	- A -	- B -	- C -
1 -	Conn KVA phase loads			5.3	1.3	3.1	0.9
2 -	Dmd	Conn	Bus KVA loads				
3 -	6.6	5.3	Code L - Lighting				
4 -	0.0	0.0	Code C - Convenience Receptacles (180 W)				
5 -	0.0	0.0	Code R - Receptacles (Non Convenience)				
Panelboard Notes:	0.0	0.0	Code M - Motors		Largest Mtr VA =		0
1 -	0.0	0.0	Code E - Electric Heat				
2 -	0.0	0.0	Code K - Kitchen Equip		Dmd =		100%
3 -	0.0	0.0	Code D - Dwelling Units (Hotel/Motel Rooms)				
4 -	7	5	Total KVA				
5 -	0	Spare KVA				Spare =	0%

	Panel:	NL1M2-1A (EXISTING)			Voltage: 120/208v, 3Ph, 4w						
					Code L	Code C	Code R	Code M	Code E	Code K	Code D
No.	Amp/p	Note	Description	Ph	VA	VA	VA	VA	VA	VA	VA
1	20/1		LIGHTS NURSE STATION	- A -							
3	20/1		EXISTING - CUH #25 STAIRWAY 13	- B -							
5	20/1		EXISTING - AHU 1Q-118	- C -							
7	20/1		RM - 1V-101 REC	- A -			1260				
9	20/1		RM - 1V-101 REC	- B -			1440				
11	20/1		RM - 1V-101 BIZHUB REC	- C -			1200				
13	20/1		REC - 1V-119	- A -			1080				
15	20/1		REC - 1V-133	- B -			1080				
17	20/1		REC - 1V-134,1V-136,1V-137	- C -			1080				
19	20/1		REC - TEAMWORK 1V-131	- A -			1080				
21	20/1		REC - 1V-138	- B -			900				
23	20/1		REC - 1V-155	- C -			1080				
25	20/1		EXISTING - 1Q-117	- A -							
27	20/1	1	SPARE	- B -							
29	20/1	1	SPARE	- C -							
31	20/1	1	SPARE	- A -							
33	20/1		EXISTING 1Q-117 AHU	- B -							
35	20/1		REC - 1V-140	- C -			1080				
37	20/1		REC - 1V-132	- A -			1080				
39	20/1		REC - 1V-130	- B -			1080				
41	20/1		SPARE	- C -							
2	20/1		REC - 1V-111	- A -							
4	20/1		REC -1V-127	- B -							
6	20/1		REC -1V-111,1V-127	- C -							
8	20/1		REC - 1V-125	- A -			1080				
10	20/1		REC - 1V-126	- B -			1080				
12	20/1		REC - 1V-131	- C -			1080				
14	20/1		REC - 1V-124	- A -			900				
16	20/1		REC - 1V-123	- B -			1080				
18	20/1		REC - 1V-120,121,122	- C -			1080				
20	20/1		REC - 1V-117	- A -			900				
22	20/1		REC -1V-117	- B -			900				
24	20/1		REC - 1V-112A	- C -			900				
26	20/1		EXISTING - INTERSTITIAL REC	- A -							
28	20/1	1	REC - 1V-128	- B -			1080				
30	20/1	1	REV - 1V-129	- C -			1080				
32	20/1	1	SPARE	- A -							
34	20/1		1Q-118 EUH	- B -							
36	20/1		1Q-118 EUH	- C -							
38	20/1		SPARE	- A -							
40	20/1		SPARE	- B -							
42	20/1		SPARE	- C -							
Through			NONE	- A -							
Feed Lug			----	- B -							
Connection			----	- C -							
Main			NONE	- A -	0	0	7380	0	0	0	0
Breaker			----	- B -	0	0	8640	0	0	0	0
			----	- C -	0	0	8580	0	0	0	0

Overcurrent Device Notes:				Total	- A -	- B -	- C -
1 - PROVIDE NEW BKR. RETURN EXST BKR TO OWNER	Conn KVA phase loads			24.6	7.4	8.6	8.6
2 -	Dmd	Conn	Bus KVA loads				
3 -	0.0	0.0	Code L - Lighting				
4 -	0.0	0.0	Code C - Convenience Receptacles (180 W)				
5 -	24.6	24.6	Code R - Receptacles (Non Convenience)				
Panelboard Notes:	0.0	0.0	Code M - Motors		Largest Mtr VA =		0
1 -	0.0	0.0	Code E - Electric Heat				
2 -	0.0	0.0	Code K - Kitchen Equip		Dmd =		100%
3 -	0.0	0.0	Code D - Dwelling Units (Hotel/Motel Rooms)				
4 -	25	25	Total KVA				
5 -	0	Spare KVA				Spare =	0%

	Panel:	NL1M2-1B (EXISTING)			Voltage: 120/208v, 3Ph, 4w						
					Code L	Code C	Code R	Code M	Code E	Code K	Code D
No.	Amp/p	Note	Description	Ph	VA	VA	VA	VA	VA	VA	VA
1	20/1		SPARE	- A -							
3	20/1		SPARE	- B -							
5	20/1		EXISTING C1-151 C02 ALARM, CAMRA	- C -							
7	20/1		EXIST SMOKER FANS, AUTO DR REC	- A -							
9	20/2		EXISTING 208 REC EXTERIOR	- B -							
11	--		--	- C -							
13	20/1		REC - 1V-103	- A -			1080				
15	20/1		REC -1V-102	- B -			1080				
17	20/1		REC - CORR C1-156 CHARGING	- C -			1080				
19	20/1		REC - 1V-107	- A -			1080				
21	20/1		REC - 1V-106	- B -			1080				
23	20/1		REC -1V - 105	- C -			1080				
25	20/1		SPARE	- A -							
27	20/2		EXISTING - C1-152 UNIT HEATER	- B -							
29	--		--	- C -							
31	20/1		EXISTING - IT CLOSET REC 1Q-124	- A -							
33	20/1	1	SPARE	- B -							
35	20/1	1	SPARE	- C -							
37	20/1	1	SPARE	- A -							
39	20/1	1	SPARE	- B -							
41	20/1	1	SPARE	- C -							
2	20/1		EXISTING ALTRONIX PDU	- A -							
4	20/1		REC - TEAMWORK 1V-113	- B -			720				
6	20/1		REC - TOILET, TEAMWORK 1V-115	- C -			720				
8	20/1		REC - TEAMWORK 1V-113	- A -			540				
10	20/1		REC - TEAMWORK 1V-113	- B -			540				
12	20/1		REC - TEAMWORK 1V-113	- C -			540				
14	20/1		REC - 1V-104	- A -			360				
16	20/1		REC - 1V-115	- B -			900				
18	20/1		REC - 1V-115	- C -			900				
20	20/1		REC - 1V-116	- A -			1080				
22	20/1		REC - 1V-116, 1V-118	- B -			900				
24	20/1		REC - 1V-118	- C -			1080				
26	20/1		1V-100C REC	- A -			900				
28	20/1		1V-100C REC	- B -			1080				
30	20/1		1V-100, 100A, 135 REC	- C -			1260				
32	20/3		AC-01	- A -							
34	--		--	- B -							
36	--		--	- C -							
38	20/1	1	REC - 1V-108	- A -			1080				
40	20/1	1	REC - 1V-109	- B -			1080				
42	20/1	1	REC - 1V-110	- C -			1080				
Through			NONE	- A -							
Feed Lug			----	- B -							
Connection			----	- C -							
Main			NONE	- A -	0	0	6120	0	0	0	0
Breaker			----	- B -	0	0	7380	0	0	0	0
			----	- C -	0	0	7740	0	0	0	0

Overcurrent Device Notes:				Total	- A -	- B -	- C -
1 - PROVIDE NEW BKR. RETURN EXST BKR TO OWNER	Conn KVA phase loads			21.2	6.1	7.4	7.7
2 -	Dmd	Conn	Bus KVA loads				
3 -	0.0	0.0	Code L - Lighting				
4 -	0.0	0.0	Code C - Convenience Receptacles (180 W)				
5 -	21.2	21.2	Code R - Receptacles (Non Convenience)				
Panelboard Notes:	0.0	0.0	Code M - Motors		Largest Mtr VA =		0
1 -	0.0	0.0	Code E - Electric Heat				
2 -	0.0	0.0	Code K - Kitchen Equip		Dmd =		100%
3 -	0.0	0.0	Code D - Dwelling Units (Hotel/Motel Rooms)				
4 -	21	21	Total KVA				
5 -	0	Spare KVA				Spare =	0%

	Panel:	CL1M2-1 (EXISTING)			Voltage: 120/208v, 3Ph, 4w						
					Code L	Code C	Code R	Code M	Code E	Code K	Code D
No.	Amp/p	Note	Description	Ph	VA	VA	VA	VA	VA	VA	VA
1	20/1		CRITICAL LIGHTING	- A -	1000						
3	20/1		CRITICAL LIGHTING	- B -	1000						
5	20/1		CRITICAL LIGHTING	- C -	1000						
7	20/1		EXISTING - 1Q-118 REC	- A -							
9	20/1		REC - 1V-103	- B -			1080				
11	20/1		EXISTING - NURSE CALL C1-158	- C -							
13	20/1		REC - 1V-116 DIALYSIS	- A -			1080				
15	20/1		REC - 1V-116	- B -			1080				
17	20/1		REC - 1V-107	- C -			1080				
19	20/1		REC - 1V-106	- A -			1080				
21	20/1		REC - TEAMWORK	- B -			900				
23	20/1		REC - 1V-100C	- C -			540				
25	20/1		EXISTING - NURSE CALL 1Q-117A	- A -							
27	20/1		REC - 1V-105	- B -			1080				
29	20/1		EXISTING - DOOR SECURITY	- C -							
31	20/1		REC - C1-156 EKG	- A -			360				
33	20/1		REC C1-156, C1-155 CHARGING	- B -			540				
35	20/1		REC - TEAMWORK 1V-113	- C -			720				
37	20/1		REC - 1V-108	- A -			1080				
39	20/1		REC - 1V-109	- B -			1080				
41	20/1		REC - 1V-110	- C -			1080				
2	20/1		EXISTING - ADO	- A -			900				
4	20/1		REC - TEAMWORK 1V-131	- B -			180				
6	20/1		REC - TEAMWORK 1V-113 PYXIS	- C -			1080				
8	20/1		EXISTING - TELE REC 1Q-124	- A -							
10	20/1		EXISTING - TELE REC 1Q-124	- B -							
12	20/1		EXISTING - TELE REC 1Q-117C	- C -							
14	20/1		REC - TEAMWORK 1V-115	- A -			900				
16	20/1		REC - CORR C1157 SEC MON,MED GAS	- B -			540				
18	20/1		REC - CORR C1-157 EDIS MON	- C -			540				
20	20/1		EXISTING - ADO C1-165	- A -							
22	20/1		EXISTING - ADO C1-165	- B -							
24	20/1		EXISTING - ADO C1-165	- C -							
26	20/1		EXISTING - REC 1A-168	- A -							
28	20/1		EXISTING - REC 1Q	- B -							
30	20/1		TEAMWORK 1V-115 PTS	- C -					1080		
32	20/1		REC - 1V-111	- A -			1080				
34	20/1		REC - 1V-112	- B -			900				
36	20/1		SPARE (MAY BE ADO TO REMAIN)	- C -							
38	20/1		REC - 1V-102	- A -			1080				
40	20/1		REC - 1V-111 DIALYSIS	- B -			1080				
42	20/1		C1-182 DOORS	- C -			1080				
Through			NONE	- A -							
Feed Lug			----	- B -							
Connection			----	- C -							
Main			NONE	- A -	1000	0	7560	0	0	0	0
Breaker			----	- B -	1000	0	8460	0	0	0	0
			----	- C -	1000	0	6120	0	1080	0	0

Overcurrent Device Notes:				Total	- A -	- B -	- C -
1 -	Conn KVA phase loads			26.2	8.6	9.5	8.2
2 -	Dmd	Conn	Bus KVA loads				
3 -	3.8	3.0	Code L - Lighting				
4 -	0.0	0.0	Code C - Convenience Receptacles (180 W)				
5 -	22.1	22.1	Code R - Receptacles (Non Convenience)				
Panelboard Notes:	0.0	0.0	Code M - Motors		Largest Mtr VA =		0
1 -	1.1	1.1	Code E - Electric Heat				
2 -	0.0	0.0	Code K - Kitchen Equip		Dmd =		100%
3 -	0.0	0.0	Code D - Dwelling Units (Hotel/Motel Rooms)				
4 -	27	26	Total KVA				
5 -	0	Spare KVA				Spare =	0%

	Panel:	CL1M2-2 (EXISTING)			Voltage: 120/208v, 3Ph, 4w						
					Code L	Code C	Code R	Code M	Code E	Code K	Code D
No.	Amp/p	Note	Description	Ph	VA	VA	VA	VA	VA	VA	VA
1	20/1		REC- 1V-165 RECEPTION	- A -			540				
3	20/1		REC - 1V-165 BIZHUB	- B -			1080				
5	20/1		REC - 1V-119	- C -			1080				
7	20/1		REC - 1V-118	- A -			1080				
9	20/1		REC - 1V-117	- B -			1080				
11	20/1		REC - C1-158 EKG	- C -			900				
13	20/1		REC - 1V-133	- A -			1080				
15	20/1		REC - 1V-134, 1V-136	- B -			1080				
17	20/1		REC - 1V-139	- C -			1080				
19	20/1		REC - 1V-137, 1V-138	- A -			1080				
21	20/1		REC - 1V-140	- B -			1080				
23	20/1		REC - 1V-140 DIALYSIS	- C -			900				
25	20/1		REC - 1V-132 DIALYSIS	- A -			900				
27	20/1		REC - 1V-132	- B -			1080				
29	20/1		REC - 1V-130 DIALYSIS	- C -			900				
31	20/1		REC - 1V-130	- A -			1080				
33	20/1		REC - TEAMWORK 1V-131	- B -			1080				
35	20/1		TEAMWORK 1V -131 PTS	- C -			1080				
37	20/3		EXISTING - AUTO DOOR OPERATOR	- A -							
39	--		--	- B -							
41	--		--	- C -							
2	20/1		REC - 1V-125 DIALYSIS	- A -			900				
4	20/1		REC - 1V-125	- B -			1080				
6	20/1		REC - 1V-126 DIALYSIS	- C -			900				
8	20/1		REC - 1V-126	- A -			1080				
10	20/1		REC - C1-175 CHARGING	- B -			900				
12	20/1		REC - C1-175 CHARGING	- C -			900				
14	20/1		REC - 1V-127 DIALYSIS	- A -			900				
16	20/1		REC - 1V-127	- B -			1080				
18	20/1		REC - 1V-128 DIALYSIS	- C -			900				
20	20/1		REC - 1V-128	- A -			1080				
22	20/1		REC - C1-174 CHARGING	- B -			900				
24	20/1		REC - 1V-129 DIALYSIS	- C -			900				
26	20/1		REC - 1V-129	- A -			1080				
28	20/1		C1-178 ADO	- B -			900				
30	20/1		C1-175 EDIS MONITOR	- C -			900				
32	20/1		C1-175 SECURITY MONITOR	- A -			900				
34	20/1		REC - C1-176 MED GAS PANEL	- B -			180				
36	20/1		ED LTG - FAST TRACK, EXAM RMS	- C -			1080				
38	20/3		EXISTING - AUTO DOOR OPERATOR	- A -							
40	--		--	- B -							
42	--		--	- C -							
Through			NONE	- A -							
Feed Lug			----	- B -							
Connection			----	- C -							
Main			NONE	- A -	0	0	11700	0	0	0	0
Breaker			----	- B -	0	0	11520	0	0	0	0
			----	- C -	0	0	11520	0	0	0	0

Overcurrent Device Notes:				Total	- A -	- B -	- C -
1 -	Conn KVA phase loads			34.7	11.7	11.5	11.5
2 -	Dmd	Conn	Bus KVA loads				
3 -	0.0	0.0	Code L - Lighting				
4 -	0.0	0.0	Code C - Convenience Receptacles (180 W)				
5 -	34.7	34.7	Code R - Receptacles (Non Convenience)				
Panelboard Notes:	0.0	0.0	Code M - Motors		Largest Mtr VA =		0
1 -	0.0	0.0	Code E - Electric Heat				
2 -	0.0	0.0	Code K - Kitchen Equip		Dmd =		100%
3 -	0.0	0.0	Code D - Dwelling Units (Hotel/Motel Rooms)				
4 -	35	35	Total KVA				
5 -	0	Spare KVA				Spare =	0%

FULLY SPRINKLERED

REVISIONS | DATE

GENERAL NOTES:

GENERAL CONTRACTOR AND/OR ALL SUBCONTRACTORS SHALL FIELD VERIFY ALL DIMENSIONS SHOWN ON THESE PLANS AND SHALL BE RESPONSIBLE FOR VARIATIONS BETWEEN PLAN DIMENSIONS AND ACTUAL FIELD DIMENSIONS. WHERE VARIATIONS ARE FOUND TO OCCUR, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING PRIOR TO PROCEEDING WITH CONSTRUCTION; NO ADJUSTMENT TO THE WORK WILL BE MADE WITHOUT THE PRIOR APPROVAL OF THE PROJECT ENGINEER.

GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR GENERAL DEMOLITION INCLUDING REMOVAL OF WALLS, PARTITIONS, DOORS & CEILING & FLOORS. ANY AND ALL CUTTING OF CONCRETE FLOORS, WALLS OR STRUCTURE SHALL BE THE GENERAL CONTRACTOR'S RESPONSIBILITY. CORE DRILLING THROUGH CONCRETE WALLS, FLOORS OR STRUCTURE FOR PIPING OR CONDUIT SHALL BE THE RESPONSIBILITY OF THE SUBCONTRACTOR BY TRADE; FIRESTOPPING OF THESE OPENINGS SHALL BE DONE BY THE RESPECTIVE SUBCONTRACTOR. REMOVAL OF DEBRIS RESULTING FROM DEMOLITION, CUTTING, AND/OR DRILLING IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. PATCHING AND REPAIR OF CONCRETE WALLS, FLOOR, OR STRUCTURE SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR; THIS WILL BE ACCOMPLISHED UPON COMPLETION OF THE INSTALLATION OF ANY AND ALL UTILITIES INSTALLED BY THE VARIOUS SUBCONTRACTORS.

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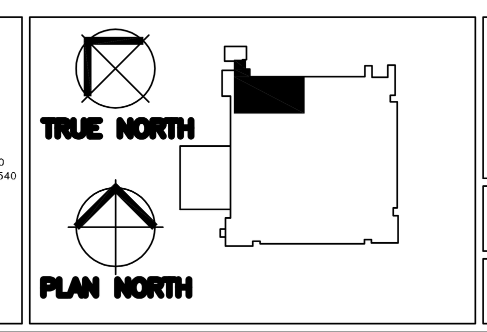

CURTIS D. BARLAGE, PE
Date 01/02/2014 Reg. No. 45914

Drawing Title: ELECTRICAL SCHEDULES

Project Title: VA MINNEAPOLIS ED RENOVATION

Project No. 618-14-104

Building Number 70

Drawing Scale: AS NOTED

Plot Scale: 12" = 1'-0"

Approved: Catherine Joyce, Chief, Projects Section

Approved: Steven Challeen, Director, Facilities Engineering

Location: V.A. MEDICAL CENTER, ONE VETERANS DRIVE, MINNEAPOLIS, MN 55417

Date 01/02/2014 | Checked SW | Drawn CB

DRAWING NO. 1272-70-ES09

Office of Facilities Management

Department of Veterans Affairs

Panel: NH1M4-1 (EXISTING) Voltage: 480/277v, 3Ph, 4w

No.	Amp/p	Note	Description	Ph	Code L VA	Code C VA	Code R VA	Code M VA	Code E VA	Code K VA	Code D VA
1	20/1		ED BUSINESS OFFICE CORRIDOR	- A -	1881						
3	20/1		ED BUSINESS OFFICE	- B -	2000						
5	20/1		EXISTING - LTG C1-1,8	- C -							
7			SPACE	- A -							
9			SPACE	- B -							
11			SPACE	- C -							
2	20/1		EXISTING - STAIR LTG 1 AREA #14	- A -							
4	20/1		EXISTING - STAIR LTG 1 AREA #14	- B -							
6	20/1		EXISTING - LTG	- C -							
8			SPACE	- A -							
10			SPACE	- B -							
12			SPACE	- C -							
Through Feed Lug Connection			NONE	- A -							
			----	- B -							
			----	- C -							
Main Breaker			NONE	- A -	1881	0	0	0	0	0	0
			----	- B -	2000	0	0	0	0	0	0
			----	- C -	0	0	0	0	0	0	0
								Total	- A -	- B -	- C -
					Conn KVA phase loads				3.9	1.9	2.0	0.0

	Dmd	Conn	Bus KVA loads
1 -			
2 -			
3 -	4.9	3.9	Code L - Lighting
4 -	0.0	0.0	Code C - Convenience Receptacles (180 W)
5 -	0.0	0.0	Code R - Receptacles (Non Convenience)
Panelboard Notes:	0.0	0.0	Code M - Motors Largest Mtr VA = **0**
1 -	0.0	0.0	Code E - Electric Heat
2 -	0.0	0.0	Code K - Kitchen Equip Dmd = **100%**
3 -	0.0	0.0	Code D - Dwelling Units (Hotel/Motel Rooms)
4 -	5	4	Total KVA
5 -	0	Spare KVA	Spare = **0%**

Panel: NL1M4-1 (EXISTING) Voltage: 120/208v, 3Ph, 4w

No.	Amp/p	Note	Description	Ph	Code L VA	Code C VA	Code R VA	Code M VA	Code E VA	Code K VA	Code D VA
1	20/1		EXISTING - LTG C1-182	- A -							
3	20/1		EXISTING - REC	- B -							
5	20/1		EXISTING - REC	- C -							
7	20/1		SPARE	- A -							
9	20/1		SPARE	- B -							
11	20/1		EXISTING - REC	- C -							
13	20/1		EXISTING - VENDING REC C1-7	- A -							
15	20/1		EXISTING - VENDING REC C1-7	- B -							
17	20/1		EXISTING - VENDING REC C1-7	- C -							
19	20/1		EXISTING - VENDING REC C1-7	- A -							
21	20/1		EXISTING - VENDING REC C1-7	- B -							
23	20/1		EXISTING - VENDING REC C1-7, 5	- C -							
25	20/1		EXISTING - REC 1U100	- A -							
27	20/1		EXISTING - REC 1U100	- B -							
29	20/1		EXISTING - REC 1U100	- C -							
31	20/1	1	SPARE	- A -							
33	20/1	1	SPARE	- B -							
35	20/1	1	SPARE	- C -							
2	20/1		REC 1V-152A	- A -			1080				
4	20/1		REC 1V-151A	- B -			1080				
6	20/1		EXISTING - REC	- C -							
8	20/1		REC - 1V-153	- A -			1080				
10	20/1		SPARE	- B -							
12	20/1		SPARE	- C -							
14	20/1		EXISTING - EWC C1-7	- A -							
16	20/1		EXISTING - REC	- B -							
18	20/1		EXISTING - INTERSTIAL REC AREA A&M	- C -							
20	20/1		EXISTING - INTERSTIAL REC AREA A	- A -							
22	20/1		EXISTING - UNIT HEATER C1-183	- B -							
24	20/1	1	REC - 1V-153	- C -			1080				
26	20/1		REC - 1V-153	- A -			1080				
28	20/1		REC - 1V-153	- B -			1080				
30	20/1		EXISTING - TELE AUTO 1T-108	- C -							
32	20/1	1	SPARE	- A -							
34	20/1	1	SPARE	- B -							
36	20/1	1	SPARE	- C -							
Through Feed Lug Connection			NONE	- A -							
			----	- B -							
			----	- C -							
Main Breaker			NONE	- A -	0	0	3240	0	0	0	0
			----	- B -	0	0	2160	0	0	0	0
			----	- C -	0	0	1080	0	0	0	0
								Total	- A -	- B -	- C -
					Conn KVA phase loads			6.5	3.2	2.2	1.1

	Dmd	Conn	Bus KVA loads
1 -			
2 -			
3 -	0.0	0.0	Code L - Lighting
4 -	0.0	0.0	Code C - Convenience Receptacles (180 W)
5 -	6.5	6.5	Code R - Receptacles (Non Convenience)
Panelboard Notes:	0.0	0.0	Code M - Motors Largest Mtr VA = **0**
1 -	0.0	0.0	Code E - Electric Heat
2 -	0.0	0.0	Code K - Kitchen Equip Dmd = **100%**
3 -	0.0	0.0	Code D - Dwelling Units (Hotel/Motel Rooms)
4 -	8	8	Total KVA
5 -	0	Spare KVA	Spare = **0%**

Panel: NL1M4-2 (EXISTING) Voltage: 120/208v, 3Ph, 4w

No.	Amp/p	Note	Description	Ph	Code L VA	Code C VA	Code R VA	Code M VA	Code E VA	Code K VA	Code D VA
1	20/1		REC - CONF RM FRIDGE	- A -			1080				
3	20/1		REC - CONF ROOM MIC	- B -			1080				
5	20/1		REC - CONF ROOM MIC	- C -			1080				
7	20/1		REC - CONF ROOM//LOUNGE	- A -			1080				
9	20/1		REC - CONF ROOM//LOUNGE	- B -			1080				
11	20/1	1	REC - CONF ROOM//LOUNGE	- C -			1080				
13	20/1	1	REC - CORRIDOR, HSKG	- A -			1080				
15	20/1		REC - CORRIDOR, STORAGE	- B -			360				
17	20/1	1	REC - PHYS WORK AREA PRINTER	- C -			900				
19	20/1	1	SPARE	- A -							
21	20/1	1	SPARE	- B -							
23	20/1		SPARE	- C -							
25	20/1		SPARE	- A -							
27	20/1		SPARE	- B -							
29	20/1		SPARE	- C -							
31	20/1		SPARE	- A -							
33	20/1		SPARE	- B -							
35	20/1		SPARE	- C -							
37	20/1		SPARE	- A -							
39	20/1		SPARE	- B -							
41	20/1		SPARE	- C -							
2	20/1		REC - OFFICE	- A -			1080				
4	20/1		REC - OFFICE	- B -			1080				
6	20/1		REC - OFFICE, ON CALL	- C -			900				
8	20/1	1	REC - ON CALL	- A -			180				
10	20/1	1	SPARE	- B -							
12	20/1		SPARE	- C -							
14	20/1		SPARE	- A -							
16	20/1		SPARE	- B -							
18	20/1	1	SPARE	- C -							
20	20/1	1	SPARE	- A -							
22	20/1		SPARE	- B -							
24	20/1		SPARE	- C -							
26	20/1		SPARE	- A -							
28	20/1		SPARE	- B -							
30	20/1		SPARE	- C -							
32	20/1		SPARE	- A -							
34	20/1		SPARE	- B -							
36	20/1		SPARE	- C -							
38	20/1		SPARE	- A -							
40	20/1		SPARE	- B -							
42	20/1		SPARE	- C -							
Through Feed Lug Connection			NONE	- A -							
			----	- B -							
			----	- C -							
Main Breaker			NONE	- A -	0	0	4500	0	0	0	0
			----	- B -	0	0	3600	0	0	0	0
			----	- C -	0	0	3960	0	0	0	0
								Total	- A -	- B -	- C -
					Conn KVA phase loads			12.1	4.5	3.6	4.0

	Dmd	Conn	Bus KVA loads
1 - PROVIDE NEW BKR. RETURN EXIST BKR TO OWNER			
2 -			
3 -	0.0	0.0	Code L - Lighting
4 -	0.0	0.0	Code C - Convenience Receptacles (180 W)
5 -	12.1	12.1	Code R - Receptacles (Non Convenience)
Panelboard Notes:	0.0	0.0	Code M - Motors Largest Mtr VA = **0**
1 -	0.0	0.0	Code E - Electric Heat
2 -	0.0	0.0	Code K - Kitchen Equip Dmd = **100%**
3 -	0.0	0.0	Code D - Dwelling Units (Hotel/Motel Rooms)
4 -	12	12	Total KVA
5 -	0	Spare KVA	Spare = **0%**

Panel: CL1M4-1 (EXISTING) Voltage: 120/208v, 3Ph, 4w

No.	Amp/p	Note	Description	Ph	Code L VA	Code C VA	Code R VA	Code M VA	Code E VA	Code K VA	Code D VA
1	20/1		EXISTING - LTG C2-1,2,2A,1T107,1T108	- A -							
3	20/1		EXISTING - MAG DOOR LKS C1-183	- B -							
5	20/1		EXISTING - MAG DOOR LKS C1-183	- C -							
7	20/1		EXISTING - EXTERIOR PWR DOOR LKS	- A -							
9	20/1		SPARE	- B -							
11	20/1		EXISTING - PWR DOORS	- C -							
2	20/1		EXISTING - TELE REC 1T107	- A -							
4	20/1		EXISTING - TELE REC 1T107	- B -							
6	20/1		EXISTING - ELEC REC 1T108	- C -							
8	20/1		SPARE	- A -							
10	20/1		EXISTING - JOHNSON CTL	- B -							
12	20/1		EXISTING - REC INFO BOOTH	- C -							
Through Feed Lug Connection			NONE	- A -							
			----	- B -							
			----	- C -							
Main Breaker			NONE	- A -	0	0	0	0	0	0	0
			----	- B -	0	0	0	0	0	0	0
			----	- C -	0	0	0	0	0	0	0
								Total	- A -	- B -	- C -
					Conn KVA phase loads			0.0	0.0	0.0	0.0

	Dmd	Conn	Bus KVA loads
1 -			
2 -			
3 -	0.0	0.0	Code L - Lighting
4 -	0.0	0.0	Code C - Convenience Receptacles (180 W)
5 -	0.0	0.0	Code R - Receptacles (Non Convenience)
Panelboard Notes:	0.0	0.0	Code M - Motors Largest Mtr VA = **0**
1 -	0.0	0.0	Code E - Electric Heat
2 -	0.0	0.0	Code K - Kitchen Equip Dmd = **100%**
3 -	0.0	0.0	Code D - Dwelling Units (Hotel/Motel Rooms)
4 -	0	0	Total KVA
5 -	0	Spare KVA	Spare = **0%**

Panel: CL1M4-2 (EXISTING) Voltage: 120/208v, 3Ph, 4w

No.	Amp/p	Note	Description	Ph	Code L VA	Code C VA	Code R VA	Code M VA	Code E VA	Code K VA	Code D VA
1	20/1		ADO - C1-183	- A -			900				
3	20/1		SPARE	- B -							
5	20/1		SPARE	- C -							
7	20/1		SPARE	- A -							
9	20/1		SPARE	- B -							
11	20/1		SPARE	- C -							
13	20/1		SPARE	- A -							
15	20/1		SPARE	- B -							
17	20/1		SPARE	- C -							
19	20/1		SPARE	- A -							
21	20/1		SPARE	- B -							
23	20/1		SPARE	- C -							
25	20/1		SPARE	- A -							
27	20/1		SPARE	- B -							
29	20/1		SPARE	- C -							
31	20/1		SPARE	- A -							
33	20/1		SPARE	- B -							
35	20/1		SPARE	- C -							
37	20/1		SPARE	- A -							
39	20/1		SPARE	- B -							
41	20/1		SPARE	- C -							
2	20/1		SPARE	- A -							
4	20/1		SPARE	- B -							
6	20/1		SPARE	- C -							
8	20/1		SPARE	- A -							
10	20/1		SPARE	- B -							
12	20/1		SPARE	- C -							
14	20/1		SPARE	- A -							
16	20/1		SPARE	- B -							
18	20/1		SPARE	- C -							
20	20/1		SPARE	- A -							
22	20/1		SPARE	- B -							
24	20/1		SPARE	- C -							
26	20/1		SPARE	- A -							
28	20/1		SPARE	- B -							
30	20/1		SPARE	- C -							
32	20/1		SPARE	- A -							
34	20/1		SPARE	- B -							
36	20/1		SPARE	- C -							
38	20/1		SPARE	- A -							
40	20/1		SPARE	- B -							
42	20/1		SPARE	- C -							
Through Feed Lug Connection			NONE	- A -							
			----	- B -							
			----	- C -							
Main Breaker			NONE	- A -	0	0	900	0	0	0	0
			----	- B -	0	0	0	0	0	0	0
			----	- C -	0	0	0	0	0	0	0
								Total	- A -	- B -	- C -
					Conn KVA phase loads			0.9	0.9	0.0	0.0

	Dmd	Conn	Bus KVA loads
1 -			
2 -			
3 -	0.0	0.0	Code L - Lighting
4 -	0.0	0.0	Code C - Convenience Receptacles (180 W)
5 -	0.9	0.9	Code R - Receptacles (Non Convenience)
Panelboard Notes:	0.0	0.0	Code M - Motors Largest Mtr VA = **0**
1 -	0.0	0.0	Code E - Electric Heat
2 -	0.0	0.0	Code K - Kitchen Equip Dmd = **100%**
3 -	0.0	0.0	Code D - Dwelling Units (Hotel/Motel Rooms)
4 -	1	1	Total KVA
5 -	0	Spare KVA	Spare = **0%**

REVISIONS	DATE

GENERAL NOTES:

GENERAL CONTRACTOR AND/OR ALL SUBCONTRACTORS SHALL FIELD VERIFY ALL DIMENSIONS SHOWN ON THESE PLANS AND SHALL BE RESPONSIBLE FOR VARIATIONS BETWEEN PLAN DIMENSIONS AND ACTUAL FIELD DIMENSIONS. WHERE VARIATIONS ARE FOUND TO OCCUR, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING PRIOR TO PROCEEDING WITH CONSTRUCTION; NO ADJUSTMENT TO THE WORK WILL BE MADE WITHOUT THE PRIOR APPROVAL OF THE PROJECT ENGINEER.

GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR GENERAL DEMOLITION INCLUDING REMOVAL OF WALLS, PARTITIONS, DOORS & CEILING & FLOORS. ANY AND ALL CUTTING OF CONCRETE FLOORS, WALLS OR STRUCTURE SHALL BE THE GENERAL CONTRACTOR'S RESPONSIBILITY. CORE DRILLING THROUGH CONCRETE WALLS, FLOORS OR STRUCTURE FOR PIPING OR CONDUIT SHALL BE THE RESPONSIBILITY OF THE SUBCONTRACTOR BY TRADE; FIRESTOPPING OF THESE OPENINGS SHALL BE DONE BY THE RESPECTIVE SUBCONTRACTOR. REMOVAL OF DEBRIS RESULTING FROM DEMOLITION, CUTTING, AND/OR DRILLING IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. PATCHING AND REPAIR OF CONCRETE WALLS, FLOOR, OR STRUCTURE SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR; THIS WILL BE ACCOMPLISHED UPON COMPLETION OF THE INSTALLATION OF ANY AND ALL UTILITIES INSTALLED BY THE VARIOUS SUBCONTRACTORS.

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TRUE NORTH

PLAN NORTH

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed Architect under the laws of the State of Minnesota.

CURTIS D. BARLAGE, PE
Date 01/02/2014 Reg. No. 45914

Drawing Scale: AS NOTED

Plot Scale: 12" = 1'-0"

Drawing Title: ELECTRICAL SCHEDULES

Approved: Catherine Joyce, Chief, Projects Section

Approved: Steven Challeen, Director, Facilities Engineering

Project Title: VA MINNEAPOLIS ED RENOVATION

Location: V.A. MEDICAL CENTER, ONE VETERANS DRIVE, MINNEAPOLIS, MN 55417

Date: 01/02/2014 | Checked: SW | Drawn: CB

Project No. 618-14-104

Building Number 70

DRAWING NO. 1272-70-ES10

Dwg. 73 of 73

FULLY SPRINKLERED

Office of Facilities Management

Department of Veterans Affairs