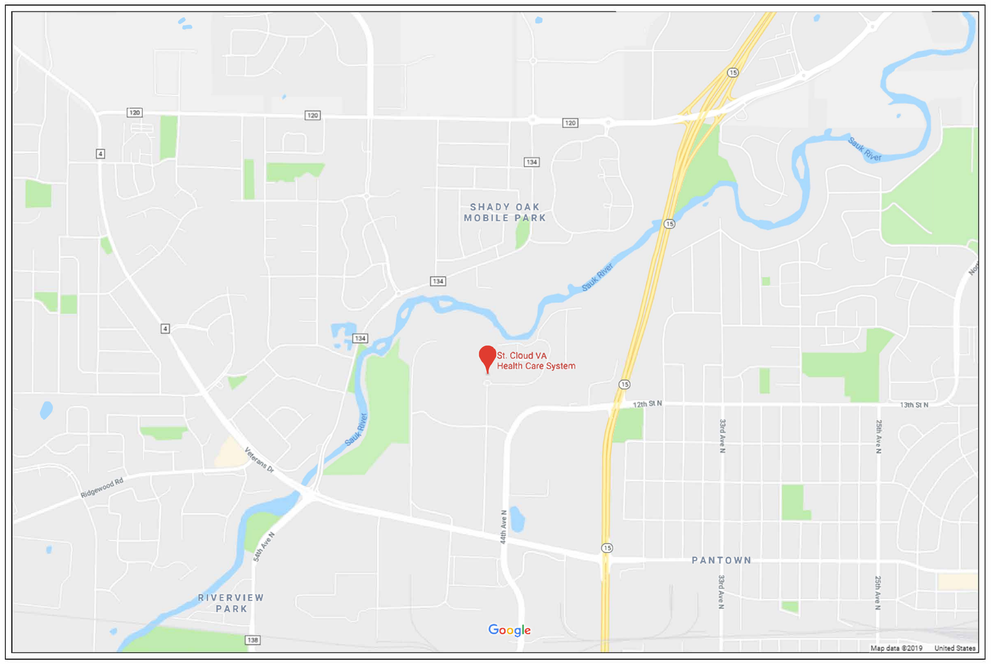
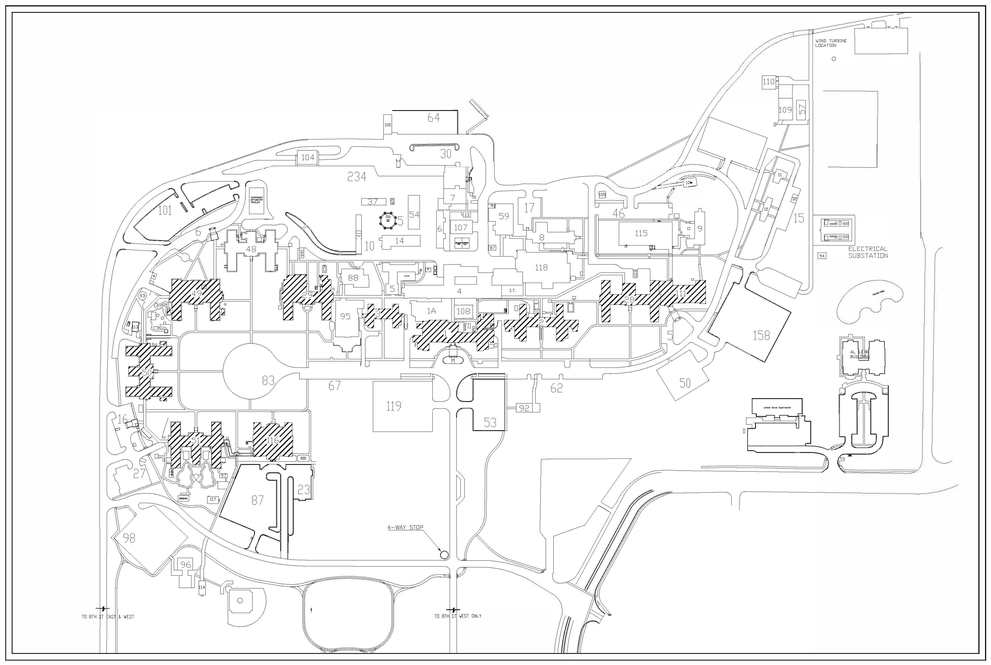
UPGRADE SPS HVAC & ENVIRONMENTAL CONTROLS

DEPARTMENT OF VETERANS AFFAIRS PROJECT NO. 656-18-300

ST. CLOUD VA HEALTH CARE SYSTEM
ST. CLOUD VA MEDICAL CENTER
BLDGS 1, 2, 3, 28, 29, 49, 50, 51, 111 & 116
4801 VETERANS DRIVE
ST. CLOUD, MN 56303



LOCATION MAP
SCALE: NTS



SITE KEY PLAN
SCALE: NTS

NORTH

DRAWING INDEX

DWG No.	DRAWING TITLE
	GENERAL
GI-001	COVER SHEET
	STRUCTURAL
S-001	ABBREVIATIONS & NOTES
S-501	PLANS, SECTIONS & DETAILS
S-502	SECTIONS & DETAILS
S-503	SECTIONS & DETAILS
S-504	SECTIONS & DETAILS
	ARCHITECTURAL
A-001	SYMBOLS AND ABBREVIATIONS
1-AE001	BUILDING 1 - OVERALL PLANS
1-AE100	BLDG.1 - BASEMENT PLANS
1-AE101A	BLDG. 1 - FIRST FLOOR PLANS A
1-AE101B	BLDG. 1 - FIRST FLOOR PLANS B
1-AE102	BLDG. 1 - SECOND FLOOR PLANS
1-AE103	BLDG. 1 - ATTIC PLANS
2-AE001	BUILDING 2 - OVERALL PLANS
2- AE100	BLDG. 2 BASEMENT PLANS
2-AE101	BLDG.2-1ST FLOOR PLANS
3-AE001	BUILDING 3 - OVERALL PLANS
3-AE100	BLD.3 BASEMENT & FIRST FLOOR PLANS
28-AE001	BUILDING 28 - OVERALL PLANS
28-AE100	BLDG. 28 - ENLARGED BASEMENT, FIRST & SECOND FLOOR PLANS
28-AE101	BLDG. 28 - ATTIC PLANS
29-AE001	BUILDING 29 - OVERALL PLANS
29-AE100	BLDG. 29 - ENLARGED BASEMENT & FIRST FLOOR PLANS
49-AE001	BUILDING 49 - OVERALL PLANS
49-AE100	BLDG. 49 - ENLARGES BASEMENT PLANS
49-AE101	BLDG. 49 ENLARGED FIRST, SECOND & ATTIC FLOOR PLANS
50-AE001	BUILDING 50 - OVERALL PLANS
50-AE100	BLDG. 50 - ENLARGED BASEMENT & FIRST FLOOR PLANS
50-AE101	BLDG. 50 - ENLARGED SECOND FLOOR PLANS
50-AE102	BLDG. 50 - ENLARGED ATTIC PLANS
51-AE001	BUILDING 51 - OVERALL PLANS
51-AE100	BLDG. 51 - ENLARGED BASEMENT & FIRST FLOOR PLANS
51-AE101	BLDG. 51 - ENLARGED SECOND & ATTIC FLOOR PLANS
111-AE001	BUILDING 111 - OVERALL PLANS
111-AE100	BLDG. 111 - ENLARGED FLOOR PLANS
116-AE001	BUILDING 116 - OVERALL PLANS
116-AE100	BLDG. 116 - ENLARGED FLOOR PLANS
AE501	MISCELLANEOUS DETAILS

DWG No.	DRAWING TITLE
	ARCHITECTURAL (continued)
	MECHANICAL
M-001	SYMBOLS & ABBREVIATIONS
M-002	CONTROLS SYMBOLS & ABBREVIATIONS
1-MH101	DEMOLITION / NEW WORK PLANS BASEMENT - BUILDING 1
1-MH111	DEMOLITION / NEW WORK PLANS FIRST FLOOR - BUILDING 1
1-MH121	DEMOLITION / NEW WORK PLANS SECOND FLOOR - BUILDING 1
1-MH122	DEMOLITION / NEW WORK PLANS SECOND FLOOR - BUILDING 1
1-MH131	NEW WORK PLAN ATTIC - BUILDING 1
1-MP101	PIPING PLAN BASEMENT - BUILDING 1
1-MP111	PIPING PLAN FIRST FLOOR - BUILDING 1
1-MP121	PIPING PLAN SECOND FLOOR - BUILDING 1
1-MP131	PIPING PLAN ATTIC - BUILDING 1
1-MP141	PIPING PLAN UPPER ATTIC - BUILDING 1A
1-M-801	AIRFLOW CONTROL DIAGRAM BASEMENT - BUILDING 1
1-M-811	AIRFLOW CONTROL DIAGRAMS FIRST FLOOR - BUILDING 1
1-M-821	AIRFLOW CONTROL DIAGRAMS SECOND FLOOR - BUILDING 1
1-M-822	PIPING DIAGRAMS SECOND FLOOR - BUILDING 1
2-MH111	DEMOLITION / NEW WORK PLANS FIRST FLOOR - BUILDING 2
2-MP101	PARTIAL PIPING PLAN BASEMENT - BUILDING 2
2-MP111	PARTIAL PIPING PLAN FIRST FLOOR - BUILDING 2
2-M-811	AIRFLOW CONTROL AND PIPING DIAGRAMS FIRST FLOOR - BUILDING 2
3-MH101	DEMOLITION / NEW WORK PLAN BASEMENT - BUILDING 3
3-MH111	DEMOLITION / NEW WORK PLANS FIRST FLOOR - BUILDING 3
3-M-811	AIRFLOW CONTROL DIAGRAM BUILDING 3
28-MH121	DEMOLITION / NEW WORK PLANS SECOND FLOOR - BUILDING 28
28-MH131	NEW WORK PLANS ATTIC - BUILDING 28
28-MP101	PIPING PLAN BASEMENT - BUILDING 28
28-MP111	PIPING PLAN FIRST FLOOR - BUILDING 28
28-MP121	PIPING PLAN SECOND FLOOR - BUILDING 28
28-MP131	PIPING PLAN ATTIC - BUILDING 28

DWG No.	DRAWING TITLE
	MECHANICAL (continued)
28-M-821	AIRFLOW CONTROL AND PIPING DIAGRAMS - BUILDING 28
29-MH101	DEMOLITION / NEW WORK PLANS BASEMENT - BUILDING 29
29-MH111	DEMOLITION / NEW WORK PLANS FIRST FLOOR - BUILDING 29
29-MP101	DEMOLITION / NEW WORK PIPING PLANS BASEMENT - BUILDING 29
29-MP111	PIPING PLAN FIRST FLOOR - BUILDING 29
29-M-801	AIRFLOW CONTROL DIAGRAMS - BUILDING 29
49-MH101	NEW WORK PLANS BASEMENT - BUILDING 49
49-MH111	DEMOLITION / NEW WORK PLANS FIRST FLOOR - BUILDING 49
49-MH121	DEMOLITION / NEW WORK PLANS SECOND FLOOR - BUILDING 49
49-MH131	DEMOLITION / NEW WORK PLANS ATTIC - BUILDING 49
49-MP101	PIPING PLANS BASEMENT - BUILDING 49
49-MP111	PIPING PLAN FIRST FLOOR - BUILDING 49
49-MP121	PIPING PLAN SECOND FLOOR - BUILDING 49
49-MP131	PIPING PLANS ATTIC - BUILDING 49
49-M-801	AIRFLOW CONTROL AND PIPING DIAGRAMS BASEMENT - BUILDING 49
49-M-811	AIRFLOW CONTROL DIAGRAM FIRST FLOOR - BUILDING 49
49-M-821	AIRFLOW CONTROL DIAGRAM SECOND FLOOR - BUILDING 49
50-MH121	DEMOLITION / NEW WORK PLANS SECOND FLOOR - BUILDING 50
50-MH131	NEW WORK PLANS ATTIC - BUILDING 50
50-MP101	PIPING PLAN BASEMENT - BUILDING 50
50-MP111	PIPING PLAN FIRST FLOOR - BUILDING 50
50-MP121	PIPING PLAN SECOND FLOOR - BUILDING 50
50-MP131	PIPING PLAN ATTIC - BUILDING 50
50-M-821	AIRFLOW CONTROL AND PIPING DIAGRAMS SECOND FLOOR - BUILDING 50
51-MH101	NEW WORK PLAN BASEMENT - BUILDING 51
51-MH111	DEMOLITION / NEW WORK PLANS FIRST FLOOR - BUILDING 51
51-MH121	DEMOLITION / NEW WORK PLANS SECOND FLOOR - BUILDING 51
51-MH131	PARTIAL NEW WORK PLAN ATTIC - BUILDING 51
51-MP101	PIPING PLAN FOUNDATION - BUILDING 51
51-MP102	PIPING PLAN BASEMENT - BUILDING 51

DWG No.	DRAWING TITLE
	MECHANICAL (continued)
51-MP111	PIPING PLAN FIRST FLOOR - BUILDING 51
51-MP121	PIPING PLANS SECOND FLOOR - BUILDING 51
51-MP131	PIPING PLAN ATTIC - BUILDING 51
51-M-811	AIRFLOW CONTROL AND PIPING DIAGRAMS FIRST FLOOR - BUILDING 51
51-M-821	AIRFLOW CONTROL DIAGRAM SECOND FLOOR - BUILDING 51
111-MH101	NEW WORK PLAN CRAWL SPACE - BUILDING 111
111-MH111	DEMOLITION / NEW WORK PLANS FIRST FLOOR - BUILDING 111
111-MP101	PIPING PLAN CRAWL SPACE - BUILDING 111
111-MP111	PIPING PLAN FIRST FLOOR - BUILDING 111
111-M-811	AIRFLOW CONTROL DIAGRAM FIRST FLOOR - BUILDING 111
116-MH101	NEW WORK PLAN CRAWL SPACE - BUILDING 116
116-MH111	DEMOLITION / NEW WORK PLANS FIRST FLOOR - BUILDING 116
116-MP101	PIPING PLAN BASEMENT - BUILDING 116
116-MP111	PIPING PLAN FIRST FLOOR - BUILDING 116
116-M-811	AIRFLOW CONTROL AND PIPING DIAGRAMS FIRST FLOOR - BUILDING 116
M-501	DETAILS
M-502	DETAILS
M-503	DETAILS
M-504	DETAILS
M-701	SCHEUDLES
M-702	SCHEDULES

DWG No.	DRAWING TITLE
	ELECTRICAL
E-001	ABBREVIATIONS & SYMBOLS
E-002	NOTES
1-E-101	BASEMENT - POWER PLAN
1-E-111	FIRST FLOOR - POWER PLAN
1-E-121	SECOND FLOOR - POWER PLAN
1-E-131	ATTIC - POWER PLAN
1-E-141	ATTIC - POWER PLAN
1-EP101	BASEMENT - DEMOLITION & NEW WORK PART PLANS
1-EP111	FIRST FLOOR - DEMOLITION & NEW WORK PART PLANS
1-EP121	SECOND FLOOR - DEMOLITION & NEW WORK PART PLANS
1-EP122	SECOND FLOOR - DEMOLITION & NEW WORK PART PLANS
1-EP131	THIRD FLOOR ATTIC - DEMOLITION & NEW WORK PART PLANS
2-E-101	BASEMENT - POWER PLAN
2-E-111	FIRST FLOOR - POWER PLAN
2-EP101	BASEMENT - NEW WORK PART PLAN
2-EP111	FIRST FLOOR - DEMOLITION & NEW WORK PART PLANS
3-E-101	BASEMENT - POWER PLAN
3-E-111	FIRST FLOOR - POWER PLAN
3-EP111	FIRST FLOOR - DEMOLITION & NEW WORK PART PLANS
28-E-101	BASEMENT - POWER PLAN
28-E-111	FIRST FLOOR - POWER PLAN
28-E-121	SECOND FLOOR - POWER PLAN
28-E-131	ATTIC - POWER PLAN
28-EP121	SECOND FLOOR - DEMOLITION & NEW WORK PART PLANS
28-EP131	ATTIC - NEW WORK PART PLANS
29-E-101	BASEMENT - POWER PLAN
29-E-111	FIRST FLOOR - POWER PLAN
29-EP101	BASEMENT - DEMOLITION & NEW WORK PART PLANS
29-EP111	FIRST FLOOR - DEMOLITION & NEW WORK PART PLANS

DWG No.	DRAWING TITLE
	ELECTRICAL (continued)
49-E-101	BASEMENT - POWER PLAN
49-E-111	FIRST FLOOR - POWER PLAN
49-E-121	SECOND FLOOR - POWER PLAN
49-E-131	ATTIC - POWER PLAN
49-EP101	BASEMENT - DEMOLITION & NEW WORK PART PLANS
49-EP111	FIRST FLOOR - DEMOLITION & NEW WORK PART PLANS
49-EP121	SECOND FLOOR - DEMOLITION & NEW WORK PART PLANS
49-EP131	ATTIC - NEW WORK PART PLAN
50-E-101	BASEMENT - POWER PLAN
50-E-121	SECOND FLOOR - POWER PLAN
50-E-131	ATTIC - POWER PLAN
50-EP121	SECOND FLOOR - DEMOLITION & NEW WORK PART PLANS
50-EP131	ATTIC - NEW WORK PART PLANS
51-E-101	BASEMENT - POWER PLAN
51-E-111	FIRST FLOOR - POWER PLAN
51-E-121	SECOND FLOOR - POWER PLAN
51-E-131	ATTIC - POWER PLAN
51-EP101	BASEMENT - DEMOLITION & NEW WORK PART PLANS
51-EP111	FIRST FLOOR - DEMOLITION & NEW WORK PART PLANS
51-EP121	SECOND FLOOR - DEMOLITION & NEW WORK PART PLANS
51-EP131	ATTIC - NEW WORK PART PLAN
111-E-101	CRAWL SPACE - POWER PLAN
111-E-111	FIRST FLOOR - POWER PLAN
111-EP111	FIRST FLOOR - DEMOLITION & NEW WORK PART PLANS
116-E-101	CRAWL SPACE - POWER PLAN
116-E-111	FIRST FLOOR - POWER PLAN
116-EP111	FIRST FLOOR - DEMOLITION & NEW WORK PART PLANS
E-701	PANELBOARD SCHEDULES
E-702	PANELBOARD SCHEDULES & LIGHTING FIXTURE SCHEDULE

NO.	DESCRIPTION	DATE

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MR PROJECT NO: 0376-0011

MILLER-REMICK LLC
PROFESSIONAL ENGINEER

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title COVER SHEET & DRAWING INDEX	**Phase** 100% CONSTRUCTION DOCUMENTS NOT FOR CONSTRUCTION	**Project Title** UPGRADE SPS HVAC & ENVIRONMENTAL CONTROLS	**Project Number** 656-18-300
Approved: Project Director	FULLY SPRINKLERED	**Location** ST. CLOUD VA MEDICAL CENTER, MN	**Building Number** 1, 2, 3, 28, 29, 49, 50, 51, 111, 116
		Issue Date 2022-07-15 / **Checked** MR / **Drawn** BS	**Drawing Number** GI001

VA FORM 08-6231

ABBREVIATIONS

AB	ANCHOR BOLT	LO	LOW BEAM
ADDL	ADDITIONAL	LP	LOW POINT
AFF	ABOVE FINISH FLOOR	LW	LIGHT WEIGHT
ALT	ALTERNATE	LLH	LONG LEG HORIZONTAL
ARCH	ARCHITECT	LLV	LONG LEG VERTICAL
BCE	BOTTOM CHORD EXTENSION	LWB	LONG WAY BOTTOM
B/	BOTTOM OF	MEP	MECHANICAL ELECTRICAL PLUMBING
BLDG	BUILDING	MST	METAL STUD TRUSS
BM	BEAM	MAX	MAXIMUM
BOT	BOTTOM	MECH	MECHANICAL
BRG	BEARING	MEZZ	MEZZANINE
BSMT	BASEMENT	MFR	MANUFACTURER
BP	BEARING PLATE	MIN	MINIMUM
BTWN	BETWEEN	MISC	MISCELLANEOUS
℄	CENTERLINE	MP	MASONRY PIER
CANT	CANTILEVER	NBL	NON BEARING LINTEL
CJ	CONSTRUCTION JOINT	(N)	NEW
CMU	CONCRETE MASONRY UNIT	NTS	NOT TO SCALE
CNTR	CENTER/CENTERED	NW	NORMAL WEIGHT
COL	COLUMN	OC	ON CENTER
CONC	CONCRETE	OPNG	OPENING
CONN	CONNECTION	PAF	POWDER ACTUATED FASTENER
CONT	CONTINUOUS	PL	PLATE
COORD	COORDINATE	PLCS	PLACES
Ø	DIAMETER	PLF	POUNDS PER LINEAR FOOT
DN	DOWN	PLUMB	PLUMBING
DWG	DRAWING	PC	PILE CAP
(E)	EXISTING	PREF	PREFERRED
EA	EACH	PRCST	PRECAST
EF	EACH FACE	PSF	POUNDS PER SQUARE FOOT
EL	ELEVATION	PSI	POUNDS PER SQUARE INCH
ELECT	ELECTRICAL	PTN	PARTITION
ELEV	ELEVATOR	REF	REFERENCE
EMBED	EMBEDMENT	REINF	REINFORCEMENT
EOD	EDGE OF DECK	REQD	REQUIRED
EOS	EDGE OF SLAB	RETG	RETAINING
EQ	EQUAL	SOG	SLAB ON GRADE
EQUIP	EQUIPMENT	SCHED	SCHEDULE
ES	EACH SIDE	SECT	SECTION
EW	EACH WAY	SIM	SIMILAR
EWB	EACH WAY BOTTOM	SPECS	SPECIFICATIONS
EWT	EACH WAY TOP	STL	STEEL
EXIST	EXISTING	STIFF	STIFFENER
EXP	EXPANSION	STRUCT	STRUCTURAL
EXT	EXTERIOR	SWB	SHORT WAY BOTTOM
FDN	FOUNDATION	T&B	TOP AND BOTTOM
FIN	FINISH	T	TOP
FLR	FLOOR	T/O	TOP OF
FT	FEET	TOC	TOP OF CONCRETE
FTG	FOOTING	T/STL	TOP OF STEEL
GA	GAGE	TS	THICKENED SLAB
GALV	GALVANIZED	TCELE	TOP CHORD EXTENSION LEFT END
GB	GRADE BEAM	TCERE	TOP CHORD EXTENSION RIGHT END
GRTG	GRATING	TDS	TURN DOWN SLAB
HP	HIGH POINT	THK	THICK OR THICKENED
HORIZ	HORIZONTAL	TYP	TYPICAL
I/F	INSIDE FACE	UNO	UNLESS NOTED OTHERWISE
IN	INCHES	VIF	VERIFY IN FIELD
INFO	INFORMATION	VERT	VERTICAL
INT	INTERIOR	WRT	WOOD ROOF TRUSS
JT	JOINT	W/	WITH
k	KIP	WC	WET COLUMN
k-ft	KIP-FEET	WP	WALL PLATE
		WWF	WELDED WIRE FABRIC

GENERAL STRUCTURAL & CONSTRUCTION NOTES

GENERAL

1. ALL WORK SHALL CONFORM TO THE:
   - A. 2018 INTERNATIONAL BUILDING CODE
   - B. VA DESIGN GUIDES
   - C. AND TO ALL OTHER APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS.
2. IN CASE OF CONFLICT BETWEEN THE GENERAL NOTES, SPECIFICATIONS, AND DETAILS, THE MOST RIGID REQUIREMENTS SHALL GOVERN.
3. REPEAT WORK NOT INDICATED ON A PART OF THE DRAWINGS BUT REASONABLY IMPLIED TO BE SIMILAR TO THAT SHOWN IN CORRESPONDING PLACES.
4. JOB SITE SAFETY AND CONSTRUCTION PROCEDURES ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
5. PROVIDE FOR DEWATERING AS REQUIRED DURING EXCAVATION AND CONSTRUCTION.
6. COORDINATE OPENINGS, SLEEVES, CONCRETE HOUSEKEEPING PADS, INSERTS AND DEPRESSIONS SHOWN ON THE STRUCTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS.
7. ALL COSTS OF INVESTIGATION AND/OR REDESIGN DUE TO CONTRACTOR IMPROPER INSTALLATION OF STRUCTURAL ELEMENTS OR OTHER ITEMS NOT IN CONFORMANCE WITH THE CONTRACT DOCUMENTS SHALL BE AT THE CONTRACTOR'S EXPENSE.
8. THE STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE SPECIFICATIONS, ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS. IF THERE IS A DISCREPANCY BETWEEN DRAWINGS, IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE COR PRIOR TO PERFORMING THE WORK.
9. THE CONTRACTOR SHALL COORDINATE NEW EQUIPMENT STRUCTURES SHOWN ON THE CONTRACT DRAWINGS WITH MANUFACTURER'S APPROVED SHOP DRAWINGS. ALL DIMENSIONS, DETAILS AND STRUCTURAL DESIGN REVISIONS REQUIRED TO ACCOMMODATE APPROVED EQUIPMENT SHALL BE MADE BY THE CONTRACTOR AT NO COST TO THE OWNER.
10. SHOP DRAWINGS FOR ALL STRUCTURAL MATERIALS TO BE SUBMITTED TO COR FOR REVIEW PRIOR TO THE START OF FABRICATION OR COMMENCEMENT OF WORK.
    - A. REPRODUCTION OF ANY PORTION OF THE STRUCTURAL CONTRACT DRAWINGS FOR RESUBMITTAL AS SHOP DRAWINGS IS PROHIBITED. SHOP DRAWINGS PRODUCED IN SUCH A MANNER WILL BE REJECTED AND RETURNED.
    - B. SHOP DRAWINGS SHALL BEAR THE CONTRACTOR'S STAMP OF APPROVAL, WHICH SHALL CONSTITUTE CERTIFICATION THAT THE CONTRACTOR HAS VERIFIED ALL CONSTRUCTION CRITERIA, MATERIALS AND SIMILAR DATA AND HAS CHECKED EACH DRAWING FOR COMPLETENESS, COORDINATION AND COMPLIANCE WITH THE CONTRACT DOCUMENTS.
    - C. THE SHOP DRAWINGS SHALL INCLUDE ALL COORDINATED DIMENSIONS.

EXISTING CONDITIONS

1. ALL DIMENSIONS, ELEVATIONS, AND PHYSICAL CONDITIONS SHOWN ON THE DRAWINGS FOR EXISTING STRUCTURES ARE BASED ON LIMITED FIELD OBSERVATIONS OR OTHER AVAILABLE SOURCES. SUCH DEPICTIONS OF EXISTING CONSTRUCTION ARE INTENDED TO BE GENERAL, APPROXIMATE, AND LIMITED TO THOSE AREAS FOR WHICH WORK IS REQUIRED. THESE DEPICTIONS ARE PROVIDED ONLY FOR THE CONVENIENCE OF THE CONTRACTOR. PRIOR TO BIDDING, CONDUCT A CAREFUL AND THOROUGH EXAMINATION OF EXISTING CONDITIONS AT THE SITE APPLICABLE TO THE WORK.
2. THE EXACT EXTENT OF THE CONSTRUCTION WORK CANNOT BE NECESSARILY OR ACCURATELY DETERMINED PRIOR TO THE COMMENCEMENT OF WORK. ACTUAL FIELD CONDITIONS MAY REQUIRE MODIFICATIONS TO THE CONSTRUCTION DETAILS, MATERIAL QUANTITIES, AND EXTENT OF THE MODIFICATION WORK SHOWN ON CONTRACT DRAWINGS. PERFORM THE WORK TO MEET FIELD CONDITIONS ENCOUNTERED.
3. VERIFY ALL EXISTING BUILDING INFORMATION SHOWN (DIMENSIONS, ELEVATIONS, ETC.) AND NOTIFY THE COR OF ANY DISCREPANCIES PRIOR TO FABRICATION OF ANY STRUCTURAL COMPONENT.
4. THE CONTRACTOR SHALL VERIFY AND/OR ESTABLISH ALL EXISTING CONDITIONS AND DIMENSIONS AT THE SITE. IF THE EXISTING FIELD CONDITIONS DO NOT PERMIT THE INSTALLATION OF THE WORK IN ACCORDANCE WITH THE DETAILS SHOWN, THE CONTRACTOR SHALL NOTIFY THE COR IMMEDIATELY AND PROVIDE A SKETCH OF THE CONDITION WITH HIS PROPOSED MODIFICATION OF THE DETAILS GIVEN ON THE CONTRACT DOCUMENTS. DO NOT COMMENCE WORK UNTIL CONDITION IS RESOLVED AND THE COR APPROVES MODIFICATION. FAILURE TO NOTIFY COR OF UNSATISFACTORY CONDITIONS CONSTITUTES ACCEPTANCE OF UNSATISFACTORY CONDITIONS.
5. INCORPORATE ACTUAL FIELD CONDITIONS AND DIMENSIONS IN THE WORK AND INDICATE CHANGES AND ADJUSTMENTS ON SUBMITTED DRAWING
6. WHERE ALTERATIONS INVOLVE THE EXISTING SUPPORTING STRUCTURE, EXISTING STRUCTURAL COMPONENTS (MASONRY WALLS, FAÇADE PANELS, ETC.), ADJACENT CONSTRUCTION, AND/OR ADJACENT UTILITY LINES, PROVIDE SHORING AND PROTECTION REQUIRED TO MAINTAIN STRUCTURAL INTEGRITY AND PREVENT ANY LATERAL OR VERTICAL MOVEMENTS OF ALL EXISTING AND ADJACENT SITE STRUCTURES AND UTILITIES.
   - A. BRACING, SHEETING, SHORING, UNDERPINNING, ETC., REQUIRED TO ENSURE THE STRUCTURAL INTEGRITY OF THE EXISTING BUILDINGS OR NEW CONSTRUCTION, SIDEWALKS, UTILITIES, ETC., SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER ENGAGED BY THE CONTRACTOR. DETAILED SIGNED AND SEALED SHOP DRAWINGS SHALL BE PREPARED INDICATING ALL WORK TO BE PERFORMED, SUBMIT THE SHOP DRAWINGS IN ACCORDANCE WITH THE CONTRACT REQUIREMENTS.
   - B. THE CONTRACTOR IS RESPONSIBLE TO DETERMINE ALLOWABLE CONSTRUCTION LOADS AND TO PROVIDE DESIGN AND CONSTRUCTION OF FALSEWORK, FORMWORK, STAGINGS, BRACING, SHEETING AND SHORING, ETC.
7. IN NO CASE SHALL HEAVY EQUIPMENT BE PERMITTED CLOSER THAN 8'-0" FROM ANY FOUNDATION WALL. IF IT IS NECESSARY TO OPERATE SUCH EQUIPMENT CLOSER THAN 8'-0" TO THE WALL, THE CONTRACTOR IS THE SOLE RESPONSIBLE PARTY AND, AT HIS OWN EXPENSE, SHALL PROVIDE ADEQUATE SUPPORTS OR BRACE THE WALL TO WITHSTAND THE ADDITIONAL LOADS SUPERIMPOSED FROM SUCH EQUIPMENT.
8. NO BLASTING IS PERMITTED WITHOUT WRITTEN APPROVAL.

CONSTRUCTION OPERATIONS

1. NOTIFY THE COR OF ANY CONFLICT ON CONTRACT DOCUMENTS DURING BID. IN CASE OF CONFLICT IN THE CONTRACT DRAWINGS OR THE PROJECT SPECIFICATIONS, THE MOST STRINGENT REQUIREMENT SHALL APPLY.
2. AFTER THE AWARD OF THE CONTRACT, THE CONTRACTOR MAY NOT SUBMIT ANY CLAIM ALLEGING INSUFFICIENT DATA, INCORRECTLY ASSUMED CONDITIONS, OR MISUNDERSTANDING WITH REGARD TO MATTERS FOR WHICH NO SUCH CLARIFICATION WAS SOUGHT DURING THE BIDDING PHASE OF THE PROJECT, AS DESCRIBED FURTHER IN THE GENERAL CONDITION CONTRACT.
3. ASSUME AN ABSOLUTE OBLIGATION TO PROTECT EXISTING STRUCTURES AND EQUIPMENT, NEW WORK AND THE GENERAL PUBLIC FROM DAMAGE, LOSS OR INJURY RESULTING FROM THE CONTRACTOR'S OPERATIONS. IN THE EVENT OF SUCH DAMAGE OR LOSS, PROMPTLY REPLACE OR RESTORE THE WORK TO AN EQUIVALENT QUALITY TO THE SATISFACTION OF THE COR AND AT NO EXPENSE TO THE OWNER.
4. REMOVE TO THE EXTENT INDICATED AND PROPERLY DISPOSE OF EXISTING STRUCTURES AND MATERIALS TO BE DEMOLISHED IN ACCORDANCE WITH THE SPECIFICATIONS.
5. ALL WORK SPECIFIED HEREIN SHALL BE INSPECTED IN ACCORDANCE WITH THE BUILDING CODE AND ALL LOCAL ORDINANCES. THE COR MAY VISIT THE SITE TO ASCERTAIN GENERAL CONFORMANCE WITH THE CONTRACT DOCUMENTS. SUCH SITE VISITS ARE NOT TO BE CONSTRUED AS MEETING ANY INSPECTION REQUIREMENTS UNLESS THE COR SPECIFICALLY SO STATES IN WRITING.
6. RFI & RFC ARE REQUIRED TO BE COMMUNICATED FORMALLY AND IN WRITING TO THE COR AS PROVIDED IN THIS GENERAL NOTES. THE PURPOSE OF THIS POLICY IS TO AVOID COMMUNICATION WITH UNAUTHORIZED PERSONS AND TO MINIMIZE MISINFORMATION AND SPECULATION. THE COR WILL NOT RECOGNIZE AND CANNOT BE OBLIGATED TO ANY REQUEST THAT HAS NOT BEEN COMMUNICATED IN THE MANNER SET FORTH ABOVE. THE COR CANNOT BE RESPONSIBLE FOR ANY MISCOMMUNICATION OR MISINFORMATION OBTAINED IN VIOLATION OF THIS POLICY AND RESERVES THE RIGHT TO REJECT ANY REQUEST IN THE EVENT THAT ANY PERSON FAILS TO ADHERE TO THIS POLICY.
7. ALL MATERIALS SHALL BE STORED TO PROTECT THEM FROM EXPOSURE TO THE ELEMENTS.

SELECTIVE DEMOLITION

1. CONDUCT DEMOLITION OPERATIONS TO PREVENT INJURY TO PERSONS AND DAMAGE TO ADJACENT STRUCTURES, FACILITIES AND SITE IMPROVEMENTS TO REMAIN. ENSURE SAFE PASSAGE OF PERSONS AROUND SELECTIVE DEMOLITION AREA. LOCATE AND RE-ROUTE ANY EXISTING UTILITY PRIOR TO STARTING THE WORK.
2. DEMOLISH AND REMOVE EXISTING CONSTRUCTION TO THE EXTENT INDICATED ON THE DRAWINGS, OR AS OTHERWISE NECESSARY TO ACCOMMODATE NEW CONSTRUCTION. USE METHODS REQUIRED TO COMPLETE WORK WITHIN LIMITATIONS OF GOVERNING REGULATIONS.
3. PROMPTLY PATCH AND REPAIR DAMAGED SURFACES IN ADJOINING CONSTRUCTION TO REMAIN, WHICH ARE CAUSED BY SELECTIVE DEMOLITION OPERATIONS.
4. THE OWNER WILL USE AND OCCUPY PORTIONS OF THE FACILITY AND SITE IMMEDIATELY ADJACENT TO SELECTIVE DEMOLITION AREA. CONDUCT SELECTIVE DEMOLITION SO THAT OWNER'S OPERATIONS WILL NOT BE DISRUPTED. PROVIDE NOT LESS THAN SEVEN (7) CALENDAR DAYS NOTICE TO THE COR OF ACTIVITIES THAT WILL AFFECT OWNER'S OPERATIONS.
5. THE OWNER ASSUMES NO RESPONSIBILITY FOR ACTUAL CONDITIONS OF COMPONENTS AND SITE ELEMENTS TO BE SELECTIVELY DEMOLISHED.
6. PROMPTLY DISPOSE OF DEMOLISHED MATERIALS OFF-SITE. DO NOT PERMIT DEMOLISHED MATERIALS TO ACCUMULATE ON-SITE. TRANSPORT DEMOLISHED MATERIALS OFF THE OWNER'S PROPERTY AND DISPOSE OF IN A SAFE AND LAWFUL MANNER.

EARTHWORK

1. EXCAVATION SHALL BE PERFORMED SO AS NOT TO DISTURB EXISTING ADJACENT BUILDINGS, STREETS AND UTILITY LINES. VERIFY LOCATION OF ALL UTILITIES PRIOR TO COMMENCEMENT OF WORK. INFORM AND OBTAIN REQUIRED PERMITS FROM OWNERS OF UTILITIES, AND COORDINATE WITH COR PRIOR TO WORK. HAND EXCAVATE AROUND UTILITIES AS REQUIRED.
2. OBSERVE STORM WATER CONDITIONS AT THE SITE AND TAKE THE NECESSARY PRECAUTIONS TO ENSURE THAT THE FOUNDATION EXCAVATIONS ARE PROTECTED AND REMAIN DRY DURING CONSTRUCTION. ANY SHEETING OR SHORING REQUIRED FOR DEWATERING IS THE RESPONSIBILITY OF THE CONTRACTOR. PROVIDE SUFFICIENT DEWATERING MEASURES TO MAINTAIN GROUND WATER IF ENCOUNTERED AT LEAST 2 FEET BELOW WORKING SUBGRADE.

FOUNDATIONS

1. ALLOWABLE BEARING CAPACITY: THE FOUNDATIONS ARE DESIGNED AND SHALL BEAR ON COMPACTED SUBGRADE CAPABLE OF SAFELY SUPPORTING 1,500 PSF BASED ON ASSUMED BEARING VALUE.
2. THE BOTTOM OF EXTERIOR FOOTINGS SHALL BE A MINIMUM OF FOUR (4'-0") FEET BELOW FINISHED GRADE, OR AS REQUIRED BY LOCAL BUILDING CODES.
3. OBSERVE WATER CONDITIONS AT THE SITE AND TAKE THE NECESSARY PRECAUTIONS TO ENSURE THAT THE FOUNDATION EXCAVATIONS REMAIN DRY DURING CONSTRUCTION. ANY SHEETING OR SHORING REQUIRED FOR DEWATERING IS THE RESPONSIBILITY OF THE CONTRACTOR.
4. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE NEED TO USE FOUNDATION REBAR AS A GROUNDING ELECTRODE SYSTEM AND SHALL BE RESPONSIBLE FOR INSTALLING THE BONDING CLAP PRIOR TO PLACEMENT OF THE CONCRETE PER NEC 250-50.

CAST-IN-PLACE CONCRETE

1. CONCRETE SHALL BE DESIGNED AND DETAILED IN ACCORDANCE WITH THE BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE (ACI 318-14), AND CONSTRUCTED IN ACCORDANCE WITH THE CRSI MANUAL OF STANDARD PRACTICE.
2. CONCRETE SHALL HAVE MINIMUM COMPRESSIVE 28 DAY STRENGTH (F'C) AS FOLLOWS:
   - A. FOUNDATIONS: 5,000 PSI
   - B. SITE CONCRETE: 5,000 PSI
   - C. INTERIOR: 4,000 PSI
3. AIR ENTRAINMENT SHALL:
   - A. FOUNDATIONS: 6%
   - B. SITE CONCRETE: 6%
   - C. INTERIOR: N/A
4. MAXIMUM WATER/CEMENT RATIOS:
   - A. FOUNDATIONS: 0.40
   - B. SITE CONCRETE: 0.40
   - C. INTERIOR: 0.45
5. ALL CONCRETE SHALL BE NORMAL WEIGHT CONCRETE (144 PCF +) WITH ALL CEMENT CONFORMING TO ASTM C150, TYPE I. MAXIMUM AGGREGATE SIZE SHALL BE 1 1/2" FOR FOOTINGS AND 3/4" FOR WALLS AND SLABS, CONFORMING TO ASTM C33.
6. REINFORCING STEEL: ASTM A615, GRADE 60.
7. LEVELING GROUT SHALL BE NON-SHRINK, NON-METALLIC TYPE, FACTORY PRE-MIXED GROUT IN ACCORDANCE WITH CE-CRD-C621 OR ASTM C109, WITH A MINIMUM COMPRESSIVE 28 DAY STRENGTH OF 5,000 PSI.
8. REINFORCING STEEL CLEAR COVER SHALL BE AS FOLLOWS UNLESS NOTED OTHERWISE:
   - A. CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH: 3"
   - B. CONCRETE EXPOSED TO EARTH OR WEATHER: 2"
   - C. CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND:
   - D. SLABS, WALLS & JOISTS #11 BARS AND SMALLER: 1"
   - E. BEAMS AND COLUMNS: 1-1/2"
9. PRIOR TO PLACING BARS, SUBMIT TO COR REINFORCING STEEL SHOP DRAWINGS FOR APPROVAL.
10. ALL REINFORCEMENT SHALL BE SECURELY HELD IN PLACE WHILE PLACING CONCRETE. PROVIDE PLASTIC TIPPED BOLSTERS AND CHAIRS AT ALL LOCATIONS WHERE THE CONCRETE SURFACE IN CONTACT WITH THE BOLSTERS OF CHAIRS IS EXPOSED. IF REQUIRED, ADDITIONAL BARS, STIRRUPS OR CHAIRS SHALL BE PROVIDED BY THE CONTRACTOR TO FURNISH SUPPORT FOR ALL BARS.
11. SPLICES IN REINFORCING BARS SHALL BE LAPPED A MINIMUM OF 50 BAR DIAMETERS, UNLESS SHOWN OTHERWISE ON THE DRAWINGS OR CALCULATED IN ACCORDANCE WITH ACI 318 AND APPROVED BY THE COR.
12. ADHESIVE SHALL BE USED WHERE DOWELS ARE TO BE INSTALLED INTO EXISTING CONCRETE. ADHESIVE SHALL BE HILTI HIT-HY 200 OR APPROVED EQUAL.
13. PRIOR TO PLACING CONCRETE, SUBMIT TO THE COR FOR REVIEW, CONCRETE MIX DESIGNS PREPARED IN ACCORDANCE WITH THE SPECIFICATION AND REQUIREMENTS INDICATED IN THE GENERAL NOTES.
14. BONDING AGENT SHALL BE USED WHERE NEW CONCRETE IS PLACED AGAINST EXISTING CONCRETE.
15. CONCRETE SHALL NOT BE PUMPED THROUGH ALUMINUM PIPES AND SHALL NOT BE PLACED IN CONTACT WITH ALUMINUM FORMS, MIXING DRUMS, BUGGIES, CHUTES, CONVEYORS OR OTHER EQUIPMENT MADE OF ALUMINUM.
16. WHEN INSTALLING EXPANSION BOLTS OR ADHESIVE ANCHORS, THE CONTRACTOR SHALL TAKE MEASURES TO AVOID DRILLING OR CUTTING OF ANY EXISTING REINFORCING AND DESTRUCTION OF CONCRETE. HOLES SHALL BE BLOWN CLEAN PRIOR TO PLACING BOLTS OR ADHESIVE ANCHORS.
17. THE CONCRETE SLABS SHALL BE FINISHED FLAT AND LEVEL WITHIN TOLERANCE, TO THE ELEVATION INDICATED ON THE DRAWINGS. THE CONTRACTOR SHALL PROVIDE ADDITIONAL CONCRETE REQUIRED DUE TO FORMWORK, METAL DECK AND FRAMING DEFLECTION TO ACHIEVE THIS FINISHED TOP OF SLAB ELEVATION.
18. EARLY DRYING OUT OF CONCRETE, ESPECIALLY DURING THE FIRST 24 HOURS, SHALL BE CAREFULLY GUARDED AGAINST. ALL SURFACES SHALL BE MOIST CURED OR PROTECTED USING A MEMBRANE CURING AGENT APPLIED AS SOON AS FORMS ARE REMOVED. IF MEMBRANE CURING AGENT IS USED, EXERCISE CARE NOT TO DAMAGE COATING.
19. COLD WEATHER CONCRETING SHALL BE IN ACCORDANCE WITH ACI-306. HOT WEATHER CONCRETING SHALL BE IN ACCORDANCE WITH ACI-305R.
20. THROUGHOUT CONSTRUCTION, THE CONCRETE WORK SHALL BE ADEQUATELY PROTECTED AGAINST DAMAGE DUE TO EXCESSIVE LOADING, CONSTRUCTION EQUIPMENT, MATERIALS OR METHODS, ICE, RAIN, SNOW, EXCESSIVE HEAT AND FREEZING TEMPERATURES.

CAST-IN-PLACE CONCRETE (CONTINUED)

21. RETAIN TESTING AGENCY TO PROVIDE FIELD AND LABORATORY TESTING SERVICES. TESTING AGENCY SHALL PROVIDE TESTS AS OUTLINED. RESULTS OF ALL TESTS SHALL BE REPORTED TO COR IN TIMELY MANNER:

    ON-SITE, SAMPLE FRESH CONCRETE IN ACCORDANCE WITH ASTM C172:
    - A. SLUMP PER ASTM C143L
    - B. AIR CONTENT PER ASTM C231 OR C173
    - C. TEMPERATURE PER ASTM C1064
    - D. CONCRETE TEST CYLINDERS PER ASTM C31. ONE SET OF SIX (6) CYLINDERS FOR EACH 50 CUBIC YARDS FOR EACH MIX USED. CYLINDERS SHALL BE PROPERLY CURED AND STORED.

    LABORATORY:

    TYPE. CYLINDER COMPRESSIVE TEST PER ASTM C39.

CONCRETE ANCHORS

1. ALL HEADED CONCRETE ANCHORS SHALL BE MANUFACTURED FROM MATERIAL WHICH CONFORMS TO ASTM A108 FOR LOW CARBON STEEL.
2. ALL WELDS SHALL BE MADE IN ACCORDANCE WITH THE STRUCTURAL WELDING CODE, ANSI/AWS D1.1, LATEST EDITION AND WITH THE RECOMMENDATIONS OF THE STUD MANUFACTURER.
3. ADHESIVE ANCHORS:
   - A. ALL ADHESIVE ANCHORS SHALL BE ANCHORED USING THE HILTI HIT-HY 200 SYSTEM BY HILTI FASTENING SYSTEMS, INC. OR AND APPROVED EQUAL.
   - B. ANCHOR RODS USED IN ADHESIVE ANCHORAGE SYSTEMS SHALL BE GALVANIZED STEEL, SIZE AS INDICATED ON DRAWINGS.
4. ALL EXPANSION ANCHORS SHALL HILTI KWIKBOLT TZ OR APPROVED EQUAL, GALVANIZED STEEL, SIZE AS INDICATED ON DRAWINGS.
5. THE SPACING, MINIMUM EMBEDMENT AND INSTALLATION OF THE ANCHORS SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDED PROCEDURES.

STRUCTURAL STEEL

1. FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO "THE MANUAL OF STEEL CONSTRUCTION", FIFTEENTH EDITION, 2017, AMERICAN INSTITUTE OF STEEL CONSTRUCTION INCLUDING SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS.
2. ALL WELDING SHALL BE PERFORMED BY CERTIFIED WELDERS AND SHALL CONFORM TO "STRUCTURAL WELDING CODE ANSI/AWS D1.1", AMERICAN WELDING SOCIETY.
3. WIDE FLANGE SHAPES: ASTM A992, GRADE 50
4. STRUCTURAL SHAPES & PLATES: ASTM A36, A572
5. STEEL PIPE: ASTM A53, GRADE B
6. STEEL TUBING: ASTM A500, GRADE B
7. GALVANIZED STRUCTURAL STEEL:
   - A. STRUCTURAL SHAPES AND RODS: ASTM A123.
   - B. BOLTS, FASTENERS AND HARDWARE: ASTM F2329.
8. ALL BOLTED CONNECTIONS SHALL BE WITH ASTM F3125, GRADE A325 HIGH STRENGTH BOLTS 3/4" MINIMUM DIAMETER, UNLESS NOTED OTHERWISE.
9. ALL BOLTED CONNECTIONS ON WIND BRACING MEMBERS AND COLUMNS SHALL BE SLIP CRITICAL CONNECTIONS.
10. ANCHOR RODS SHALL CONFORM TO ASTM F1554, GRADE 55, HOT-DIP GALVANIZED, UNLESS NOTED OTHERWISE.
11. WELDING ELECTRODES SHALL BE E70XX FOR MANUAL ARC WELDING AND F7X-EXXX FOR SUBMERGED ARC WELDING. ALL WELDERS SHALL BE CERTIFIED BY THE AWS. MINIMUM WELD SIZE SHALL BE 3/16" UNLESS NOTED OTHERWISE.
12. SUBMIT SHOP DRAWINGS FOR FABRICATION AND ERECTION OF STRUCTURAL STEEL. CLEARLY INDICATE COORDINATED DIMENSIONS OF MECHANICAL UNIT AND ROOF PENETRATION SIZES. SHOP AND ERECTION DRAWINGS MUST SHOW ALL SHOP/FLOOR AND FIELD WELDS. INITIAL SHOP DRAWING SUBMITTAL SHALL INCLUDE PROPOSED CONNECTION DETAILS AND JOB STANDARDS. PROVIDE SIGNED AND SEALED CALCULATIONS FOR ALL NON-STANDARD CONNECTION DETAILS SHOWING DESIGN CAPACITIES.
13. STEEL MEMBERS SHOWN ON PLAN SHALL BE EQUALLY SPACED UNLESS NOTED OTHERWISE.
14. FIELD-WELDED SURFACES WITHIN FOUR (4) INCHES OF WELD SHALL BE CLEANED AND GROUND SMOOTH. AFTER WELDING COAT THE EXPOSED AREA WITH APPROPRIATE PRIMER, PAINTS, AND/OR FIREPROOFING AS SPECIFIED.
15. FIELD-WELDED GALVANIZED SURFACES WITHIN FOUR (4) INCHES OF WELD SHALL BE CLEANED AND GROUND SMOOTH. AFTER WELDING COAT THE EXPOSED AREA WITH GALVANIZING REPAIR PAINT. GALVANIZING REPAIR PAINT SHALL BE A HIGH ZINC DUST CONTENT PAINT COMPLYING WITH FEDERAL SPECIFICATIONS DOD-P-21035A OR SSPC-PAINT-20, COLD GALVANIZING COMPOUND BY ZRC PRODUCTS CO. OR EQUAL.
16. ALL EXTERIOR EXPOSED STRUCTURAL STEEL SHALL BE HOT-DIPPED GALVANIZED PER ASTM A123.
17. ALL DISSIMILAR METALS SHALL BE TREATED OR PROPERLY SEPARATED TO PREVENT GALVANIC AND/OR CORROSIVE EFFECTS.
18. THE GENERAL CONTRACTOR AND STEEL ERECTOR SHALL NOTIFY THE COR OF ANY FABRICATION OR ERECTION ERRORS OR DEVIATIONS AND RECEIVE WRITTEN APPROVAL BEFORE ANY FIELD CORRECTIONS ARE MADE.
19. VISUALLY INSPECT ALL FIELD WELDS.

MEP EQUIPMENT

1. ALL NEW MECHANICAL EQUIPMENT SHALL BE BOLTED TO THE CONCRETE PADS OR STEEL SUPPORTS IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION BUT NOT LESS THAN 5/ 8" DIAMETER BOLTS AT 30" ON CENTER MAXIMUM.
2. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS INDICATING COORDINATION BETWEEN FINAL MEP EQUIPMENT SELECTION AND PROPOSED SUPPORTING STRUCTURE. SHOP DRAWINGS SHALL SHOW LOCATION AND SIZE OF ALL ANCHOR BOLTS, CENTERLINES OF BEAMS, AND UNIT DIMENSIONS INCLUDING OVERALL DIMENSIONS AND CENTERLINES OF ATTACHMENT POINTS.

DESIGN DATA

1. GOVERNING CODES
   - A. 2018 INTERNATIONAL BUILDING CODE
   - B. ACI BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE – ACI318
   - C. AISC MANUAL OF STEEL CONSTRUCTION
   - D. AWS STEEL WELDING CODES – AWS D1.1 AND D1.4
   - E. DEPARTMENT OF VETERANS AFFAIRS PROGRAM GUIDE PG-18-15
   - F. DEPARTMENT OF VETERANS AFFAIRS STRUCTURAL DESIGN MANUAL
   - G. DEPARTMENT OF VETERANS AFFAIRS SEISMIC DESIGN REQUIREMENTS H-18-8
2. DESIGN DATA

   RISK CATEGORY: IV
3. SNOW LOAD

   PG (GROUND SNOW LOAD): 50 PSF

   PF (FLAT SNOW LOAD): 47 PSF

   CE (SNOW EXPOSURE FACTOR): 0.90

   I (SNOW LOAD IMPORTANCE FACTOR): 1.20

   CT (THERMAL FACTOR): 1.20
4. WIND LOAD

   BASIC WIND SPEED: 122 MPH

   WIND EXPOSURE: B
5. EARTHQUAKE DESIGN DATA

   SITE: ST. CLOUD, MN

   SITE CLASSIFICATION: D (ASSUMED)

   Ss: 0.060

   SDs: 0.064

   S1: 0.021

   SD1: 0.034

   SEISMIC DESIGN CATEGORY: A
6. SPECIAL LOADS

   EXTERIOR AHU: 1,000 LBS MAX (DESIGN)

   INTERIOR AHU/CU: 500 LBS MAX (DESIGN)

NO.	DESCRIPTION	DATE

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M.E.P. & Structural Engineering
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FAX: (856)429-5002
MR PROJECT NO: 0376-0011

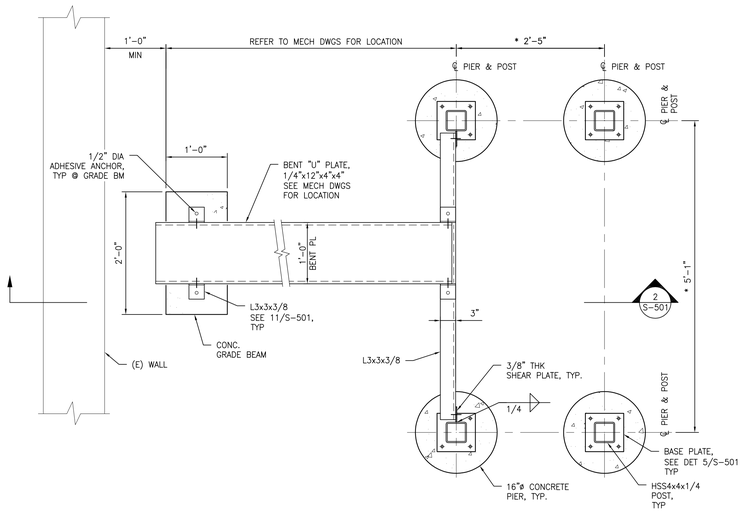
MILLER-REMICK LLC
PROFESSIONAL ENGINEER

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

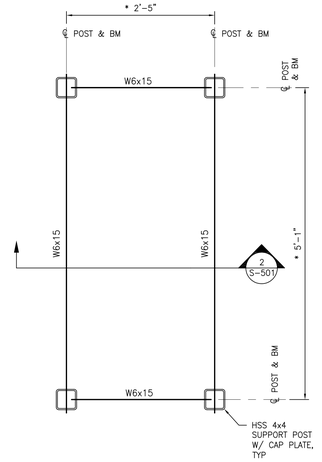
Drawing Title	Phase	Project Title	Project Number
STRUCTURAL ABBREVIATIONS & NOTES	100% CONSTRUCTION DOCUMENTS NOT FOR CONSTRUCTION	UPGRADE SPS HVAC & ENVIRONMENTAL CONTROLS	656-18-300
			Building Number: 1, 2, 3, 28, 29, 49, 50, 51, 111, 116
Approved: Project Director	FULLY SPRINKLERED	Location: ST. CLOUD VA MEDICAL CENTER, MN	Drawing Number: S-001
		Issue Date: 2022-07-15 / Checked: RP / Drawn: ER	

P:\0376_CCCxA\0011 St Cloud Upgrade SPS HVAC & Environ Controls\2_Drawings\1_Cad\1_Current Submittal Phase\3_Structural\S-001.dwg 7-15-22 09:18:12 AM bpinto



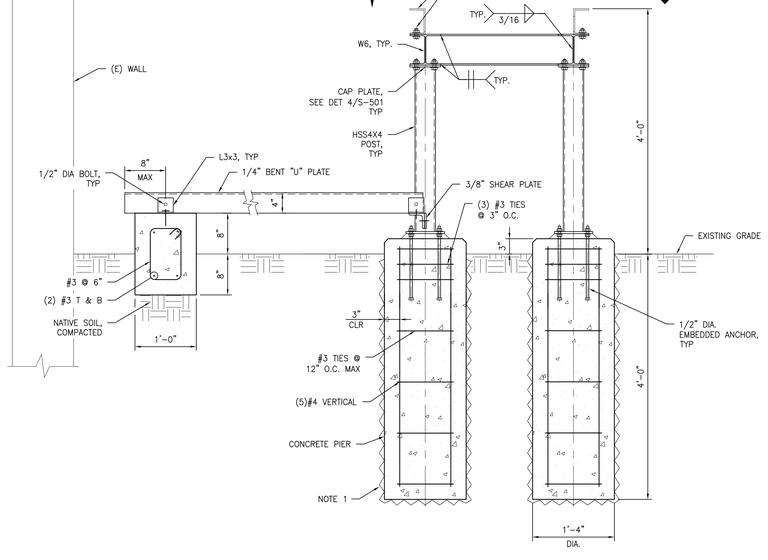
NOTES:
1. REFER TO MECHANICAL DRAWINGS FOR EQUIPMENT LOCATIONS.
2. * DIMENSIONS TO BE COORDINATED WITH FINAL EQUIPMENT SELECTION.

1 TYPICAL EXTERIOR EQUIPMENT/PIPE SUPPORT/COVER FOUNDATION PLAN
SCALE: 1" = 1'-0"



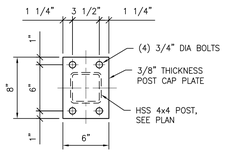
NOTES:
1. REFER TO MECHANICAL DRAWINGS FOR EQUIPMENT LOCATIONS.
2. * DIMENSIONS TO BE COORDINATED WITH FINAL EQUIPMENT SELECTION.

3 TYPICAL EXTERIOR EQUIPMENT/PIPE SUPPORT FRAMING PLAN
SCALE: 1" = 1'-0"

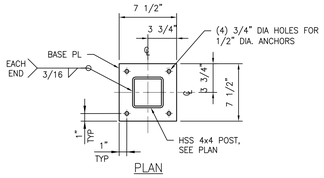


NOTE:
1. THERE SHALL BE NO GAP OR VOID BETWEEN THE UNDISTURBED NATIVE SOIL AND THE CONCRETE PIER. THE DISTURBED SOIL WITHIN THREE FEET OF THE PER SHALL BE COMPACTED TO 95% DRY DENSITY.
2. * DIMENSIONS TO BE COORDINATED WITH FINAL EQUIPMENT SELECTION.

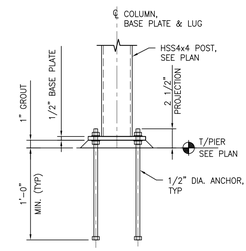
2 TYPICAL EXTERIOR EQUIPMENT/PIPE SUPPORT/COVER SECTION
SCALE: 1" = 1'-0"



4 TYP POST CAP PLATE
SCALE: 1 1/2" = 1'-0"

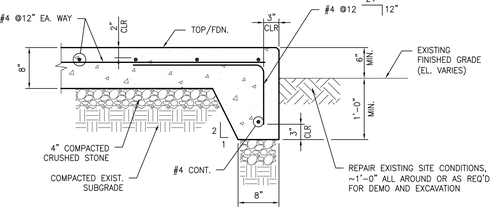


PLAN



ELEVATION

5 TYP POST BASE DET
SCALE: 1 1/2" = 1'-0"

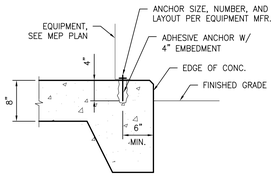


NOTES:
1. REFER TO MEP PLANS FOR PAD LOCATION(S).
2. PAD SIZE DEPENDENT ON EQUIPMENT SIZE AND MINIMUM ANCHOR EDGE DISTANCES.
3. IF EXISTING GRADE SLOPES, PROVIDE PAD TO MAINTAIN MINIMUM DIMENSIONS SHOWN.
4. PROVIDE 3/4" CHAMFER ON EXPOSED CORNER.
5. REFER TO 7/S-501 FOR EQUIPMENT ATTACHMENT.

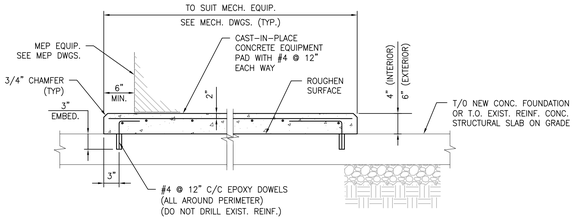
6 TYPICAL SUB-BASEMENT EQUIPMENT FOUNDATION DETAIL
SCALE: 1" = 1'-0"

GENERAL SHEET NOTES:

1. FOR GENERAL STRUCTURAL NOTES SEE DRAWING S-001.
2. REFER TO MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION.

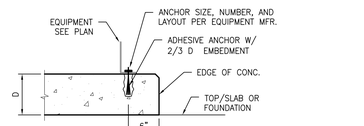


7 ANCHOR DETAIL
SCALE: 1" = 1'-0"



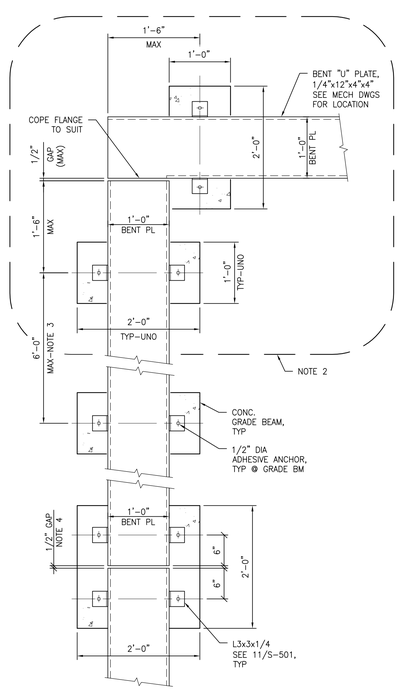
NOTES:
1. PROVIDE 4" THICK PAD FOR INTERIOR & 6" THICK PAD FOR EXTERIOR.
2. SEE MEP DRAWINGS FOR LOCATION(S) OF EQUIPMENT PAD(S).
3. ANCHOR MEP EQUIPMENT TO CONCRETE PAD PER DETAIL 9/S-501.

8 TYPICAL CONCRETE EQUIPMENT PAD DETAIL
SCALE: 1" = 1'-0"



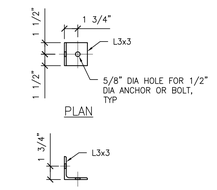
NOTES:
1. ATTACH MEP EQUIPMENT PER MANUFACTURER'S REQUIREMENTS, MIN. (4) 1/2" DIAMETER STAINLESS STEEL EPOXY BOLT OR BOLT SIZE, SPACING, AND NUMBER, TO MATCH MANUFACTURER-PROVIDED HOLES.
2. ATTACH MEP EQUIPMENT TO PAD USING EQUIPMENT RAILS, LEGS, OR OTHER MFR PROVIDED SUPPORT. IF NO SUPPORT IS PROVIDED, WELD L4x3x5/16 GALVANIZED CLIP ANGLE.
3. AVOID CUTTING SLAB REINFORCEMENT.

9 ANCHOR DETAIL
SCALE: 1" = 1'-0"



NOTES:
1. FOR INFORMATION NOT SHOWN SEE 1/S-501.
2. THIS DETAIL IS FOR PIPE TURNING AREA. SEE MECHANICAL DRAWINGS FOR LOCATIONS.
3. THIS DETAIL IS FOR THE PIPE LINE WHERE THE LENGTH IS LONGER THAN 6'-0".
4. THIS DETAIL IS FOR THE CHANNEL SPLICING.

10 TYPICAL EXTERIOR PIPE SUPPORT/COVER FOUNDATION DETAIL
SCALE: 1" = 1'-0"



PLAN

SECTION

11 DETAIL
SCALE: 1 1/2" = 1'-0"

three quarters inch = one foot
one and one half inches = one foot
one inch = one foot
three eighths inch = one foot
one half inch = one foot
one quarter inch = one foot
one eighth inch = one foot
P:\0376_CCC\VA\011 St Cloud Upgrade SPS HVAC & Environ Controls\2_Drawings\1_Cad\1_Current Submittal Phase\3_Structural\S-501.dwg 7-14-22 05:07:38 PM bpinto

A B C D E F

NO.	DESCRIPTION	DATE

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MR PROJECT NO: 0376-0011

MILLER-REMICK LLC
PROFESSIONAL ENGINEER

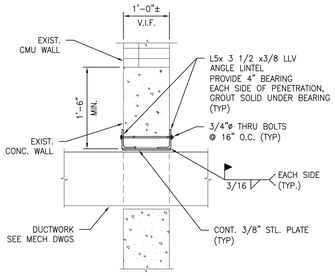
Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: STRUCTURAL PLANS, SECTIONS & DETAILS	Phase: 100% CONSTRUCTION DOCUMENTS NOT FOR CONSTRUCTION
Approved: Project Director	FULLY SPRINKLERED

Project Title: UPGRADE SPS HVAC & ENVIRONMENTAL CONTROLS	Project Number: 656-18-300
	Building Number: 1, 2, 3, 28, 29, 49, 50, 51, 111, 116
Location: ST. CLOUD VA MEDICAL CENTER, MN	Drawing Number: S-501
Issue Date: 2022-07-15 / Checked: WC / Drawn: RP	

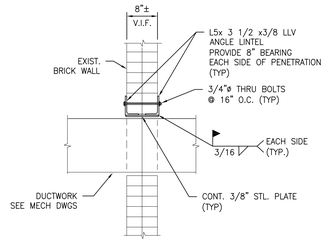
VA FORM 08-6231



NOTE:
COORDINATE SIZES & LOCATIONS WITH MECHANICAL DRAWINGS.

1 TYPICAL DUCT PENETRATION THROUGH CONCRETE WALL DETAIL

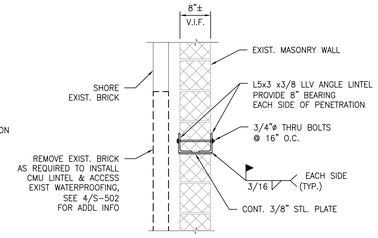
SCALE: 3/4" = 1'-0"



NOTE:
COORDINATE SIZES & LOCATIONS WITH MECHANICAL DRAWINGS.

2 TYPICAL DUCT PENETRATION THROUGH INTERIOR BRICK WALL DETAIL

SCALE: 3/4" = 1'-0"

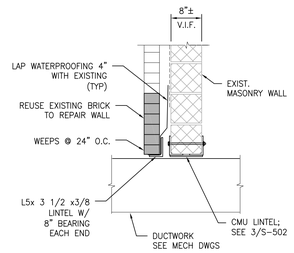


DEMOLITION SEQUENCE:

1. SAW CUT AND INSTALL ANGLE ON ONE FACE OF WALL AT A TIME.
2. SAW CUT EXISTING WALL FACE BY THE DEPTH AND WIDTH OF ANGLE TOES TO ALLOW FOR FLUSH INSTALLATION AS SHOWN.
3. DRILL BOLT HOLES IN EXISTING WALL AND BOLT ANGLES AS SHOWN.
4. SELECTIVELY DEMOLISH THE WALL BELOW.
5. FIELD WELD 3/8" STEEL PLATE.

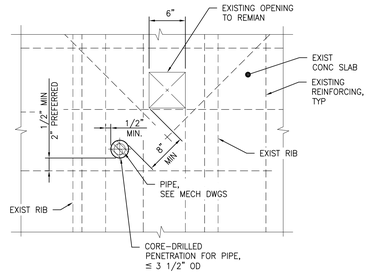
3 TYPICAL DUCT PENETRATION THROUGH EXTERIOR CMU WALL DEMOLITION DETAIL

SCALE: 3/4" = 1'-0"



4 TYPICAL DUCT PENETRATION THROUGH EXTERIOR CMU WALL DETAIL

SCALE: 3/4" = 1'-0"



NOTES:

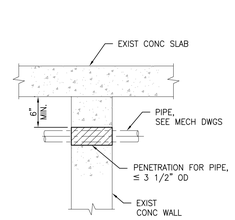
1. SEE MEP DRAWINGS FOR LOCATIONS AND THE DIAMETER OF THE PENETRATIONS.
2. THE MAXIMUM DIAMETER OF THE PENETRATION SHALL BE LESS THAN 3 1/2".
3. THE TOLERANCE OF THE LOCATION SHALL BE LESS THAN 2".
4. NO REINFORCING SHALL BE CUT FOR BOTH TOP AND BOTTOM REINFORCING LAYERS. THE CONTRACTOR SHALL SCAN THE FLOOR TO LOCATE THE REINFORCING THEN CORE THE PENETRATION.
5. THE PENETRATION CANNOT BE LOCATED ON A BEAM, A FLOOR SLAB RIB OR A FLOOR EXPANSION JOINT.
6. THE PENETRATION SHALL BE 8" MIN. AWAY FROM THE EDGE OF AN EXISTING OPENING THAT IS LARGER THAN 6" X 6" OR 6" DIA.
7. THE PENETRATION SHALL BE 8" MIN. AWAY FROM THE EDGE OF AN EXISTING SLAB OR EXPANSION JOINT.
8. IF A PENETRATION CANNOT MEET THE REQUIREMENTS ABOVE, NOTIFY THE COR FOR FURTHER DIRECTION PRIOR TO PROCEEDING.

5 TYPICAL PIPE PENETRATION THROUGH CONCRETE FLOOR

SCALE: 1" = 1'-0"

GENERAL SHEET NOTES:

1. FOR GENERAL STRUCTURAL NOTES SEE DRAWING S-001.
2. REFER TO MECHANICAL DRAWINGS FOR MORE INFORMATION.

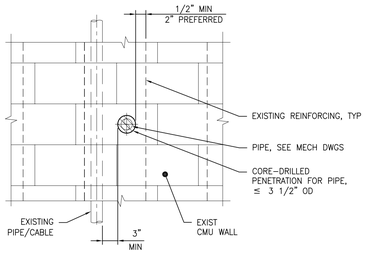


NOTES:

1. SEE MEP DRAWINGS FOR LOCATIONS AND THE DIAMETER OF THE PENETRATIONS.
2. THE MAXIMUM DIAMETER OF THE PENETRATION SHALL BE LESS THAN 3 1/2".
3. THE TOLERANCE OF THE LOCATION SHALL BE LESS THAN 2".
4. NO REINFORCING SHALL BE CUT FOR BOTH REINFORCING LAYERS. THE CONTRACTOR SHALL SCAN THE WALL TO LOCATE ALL REINFORCING THEN CORE THE PENETRATION.
5. THE PENETRATION CANNOT BE LOCATED ON A COLUMN OR A WALL EXPANSION JOINT.
6. THE PENETRATION SHALL BE 8" MIN. AWAY FROM THE EDGE OF AN EXISTING OPENING THAT IS LARGER THAN 6" X 6" OR 6" DIA.
7. THE PENETRATION SHALL BE 8" MIN. AWAY FROM THE EDGE OF AN EXISTING WALL OR EXPANSION JOINT.
8. IF A PENETRATION CANNOT MEET THE REQUIREMENTS ABOVE, CONTACT THE COR FOR FURTHER DIRECTION PRIOR TO PROCEEDING.

6 TYPICAL PIPE PENETRATION THROUGH REINFORCED CONCRETE WALL

SCALE: 1" = 1'-0"

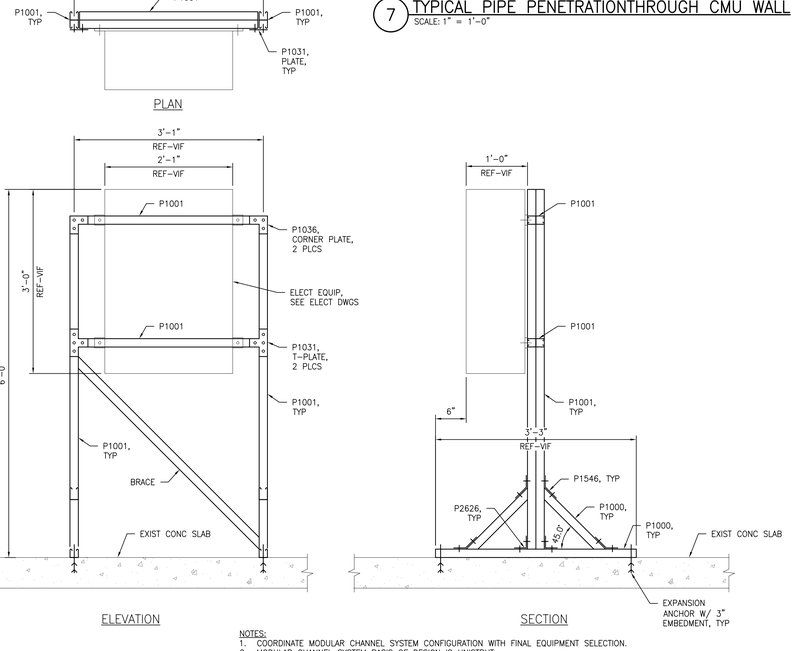


NOTES:

1. THE CONTRACTOR SHALL SCAN THE WALL TO LOCATE THE EXISTING REINFORCING, PIPE, OR CABLES INSIDE THE WALL.
2. THE PENETRATION SHALL AVOID ALL OBSTRUCTIONS SPECIFIED IN NOTE 1.
3. NO REINFORCEMENT SHALL BE CUT.
4. THE EXISTING CMU WALL SHALL BE CORE DRILLED FOR PIPE PENETRATION. DO NOT REMOVE OR DEMOLISH ANY CMU. IF THERE IS A BRICK WALL ON THE OUTSIDE SURFACE, REMOVE EXISTING BRICK AS REQUIRED AND INSTALL FLASHING. REINSTALL EXISTING BRICK. SEE ARCH DRAWINGS FOR ADDITIONAL INFORMATION.
5. IF SITE CONDITIONS DO NOT MEET THE REQUIREMENTS NOTED ABOVE, NOTIFY THE COR FOR FURTHER DIRECTION PRIOR TO PROCEEDING.

7 TYPICAL PIPE PENETRATIONTHROUGH CMU WALL

SCALE: 1" = 1'-0"

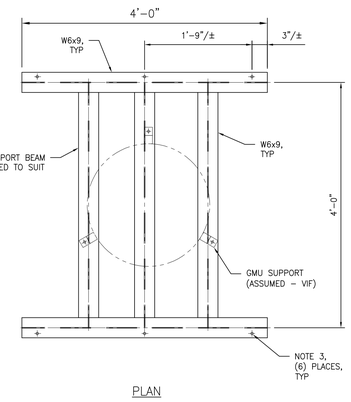


NOTES:

1. COORDINATE MODULAR CHANNEL SYSTEM CONFIGURATION WITH FINAL EQUIPMENT SELECTION.
2. MODULAR CHANNEL SYSTEM BASIS OF DESIGN IS UNISTRUT.

8 TYPICAL PANEL SUPPORT DETAIL

SCALE: 1"=1'-0"

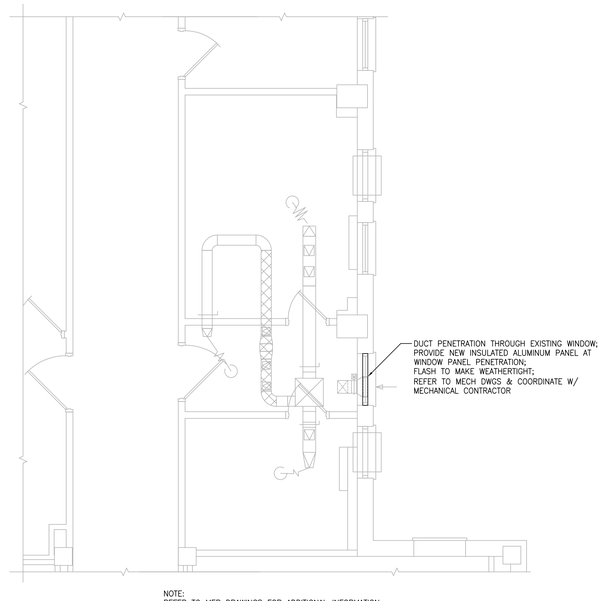


NOTES:

1. SEE MEP DRAWINGS FOR LOCATION OF GMU.
2. BEAMS TO BE SET LEVEL AND TRUE. SHIMS SHALL BE PROVIDED IF NECESSARY. PACK GAPS BETWEEN CONCRETE SLAB AND BEAMS WITH NON-SHRINK GROUT.
3. BEAM ANCHORAGE TO SLAB SHALL BE 1/2" DIAMETER ADHESIVE ANCHORS. ADHESIVE ANCHORS SHALL HAVE MAXIMUM 2-3/4" EMBEDMENT.
4. THE ANCHOR LOCATION SHALL BE ADJUSTED TO MISS THE EXISTING SLAB REINFORCEMENT. NO REINFORCEMENT CUTTING IS ALLOWED.CONTRACTOR SHALL SCAN THE WALL TO LOCATE ALL REINFORCEMENT PRIOR TO DRILLING.

9 TYPICAL GMU SUPPORT FRAME

SCALE: 1"=1'-0"



NOTE:
REFER TO MEP DRAWINGS FOR ADDITIONAL INFORMATION.

BUILDING 49 BASEMENT-ROOM 14 DUCT PENETRATION THROUGH WINDOW

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

NO.	DESCRIPTION	DATE

PROJECT TEAM

COMMANDER'S CONCERN COMMISSIONING

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Forest, VA 24551
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MR PROJECT NO: 0376-0011

MILLER-REMICK LLC
PROFESSIONAL ENGINEER

Office of Construction and Facilities Management

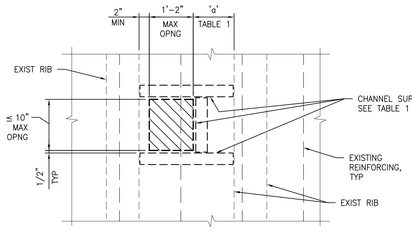
VA U.S. Department of Veterans Affairs

Drawing Title STRUCTURAL SECTIONS & DETAILS	**Phase** 100% CONSTRUCTION DOCUMENTS NOT FOR CONSTRUCTION	**Project Title** UPGRADE SPS HVAC & ENVIRONMENTAL CONTROLS	**Project Number** 656-18-300
Approved: Project Director	FULLY SPRINKLERED	**Location** ST. CLOUD VA MEDICAL CENTER, MN	**Building Number** 1, 2, 3, 28, 29, 49, 50, 51, 111, 116
		Issue Date 2022-07-15 / **Checked** WC / **Drawn** RP	**Drawing Number** S-502

VA FORM 08-6231

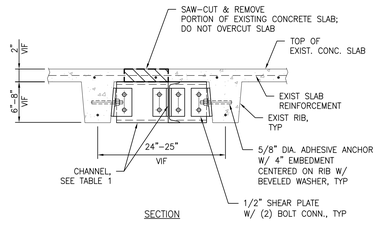
GENERAL SHEET NOTES:

1. FOR GENERAL STRUCTURAL NOTES SEE DRAWING S-001.
2. REFER TO MECHANICAL DRAWINGS FOR MORE INFORMATION.



PLAN

TABLE 1	
a ≤ 8"	NO REINFORCING REQUIRED
a > 8"	C6 X 8.2



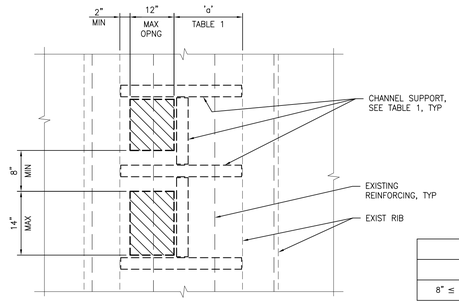
SECTION

NOTES:

1. NO PENETRATIONS ALLOWED ON RIB PORTION OF SLAB.
2. IF THE LOCATION OF THE PENETRATION DOES NOT MEET THE REQUIREMENTS NOTED, NOTIFY THE ENGINEER FOR FURTHER DIRECTION PRIOR TO PROCEEDING.
3. THE CONTRACTOR SHALL SCAN THE FLOOR SLAB TO LOCATE THE EXISTING REINFORCING, CONDUIT AND PIPES PRIOR TO SAW-CUTTING. NO CONDUIT OR PIPE CUTTING ALLOWED.
4. ALL EXISTING PARTITIONS, CEILINGS, UTILITIES, AND EQUIPMENT SHALL BE TEMPORARILY REMOVED AND/OR RELOCATED AS REQUIRED TO INSTALL SUPPLEMENTAL FRAMING. ALL EXISTING PARTITIONS AND CEILINGS SHALL BE REBUILT TO MATCH ORIGINAL CONDITIONS. ALL EXISTING UTILITIES AND EQUIPMENT SHALL BE RELOCATED/REROUTED AROUND SUPPLEMENTAL FRAMING AS REQUIRED.

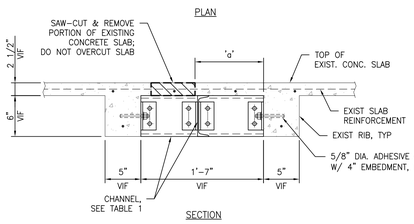
1 TYPICAL DUCT PENETRATION THROUGH EXISTING CONCRETE FLOOR

SCALE: NTS



PLAN

TABLE 2	
a < 8"	NO REINFORCING REQUIRED
8" ≤ a < 1'-4"	C6 X 8.2



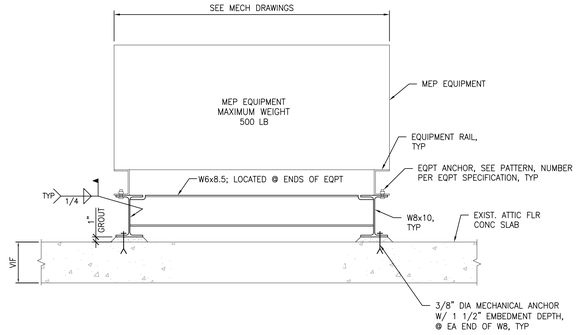
SECTION

NOTES:

1. NO PENETRATIONS ALLOWED ON BEAM.
2. IF THE LOCATION OF THE PENETRATION DOES NOT MEET THE REQUIREMENTS NOTED, NOTIFY THE ENGINEER FOR FURTHER DIRECTION PRIOR TO PROCEEDING.
3. THE CONTRACTOR SHALL SCAN THE FLOOR SLAB TO LOCATE THE EXISTING REINFORCING, CONDUIT AND PIPES PRIOR TO SAW-CUTTING. NO CONDUIT OR PIPE CUTTING ALLOWED.
4. ALL EXISTING PARTITIONS, CEILINGS, UTILITIES, AND EQUIPMENT SHALL BE TEMPORARILY REMOVED AND/OR RELOCATED AS REQUIRED TO INSTALL SUPPLEMENTAL FRAMING. ALL EXISTING PARTITIONS AND CEILINGS SHALL BE REBUILT TO MATCH ORIGINAL CONDITIONS. ALL EXISTING UTILITIES AND EQUIPMENT SHALL BE RELOCATED/REROUTED AROUND SUPPLEMENTAL FRAMING AS REQUIRED.

2 TYPICAL MULTIPLE PENETRATION THROUGH EXISTING CONCRETE BEAM SUPPORTED SLAB

SCALE: NTS

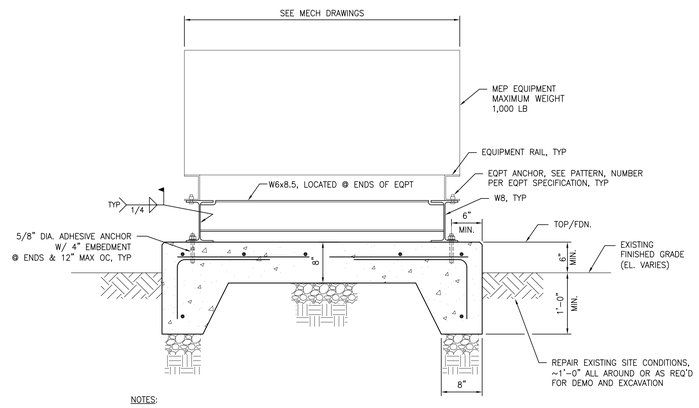


NOTES:

1. REFER TO MEP PLANS FOR LOCATIONS.
2. THE CONTRACTOR SHALL SCAN THE FLOOR SLAB TO LOCATE THE EXISTING REINFORCING, CONDUIT AND PIPES PRIOR TO SAW-CUTTING. NO CONDUIT OR PIPE CUTTING ALLOWED.

3 TYPICAL ATTIC EQUIPMENT SUPPORT DETAIL

SCALE: NTS

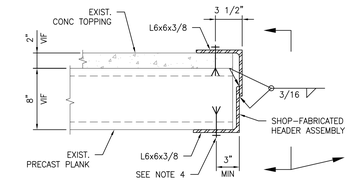


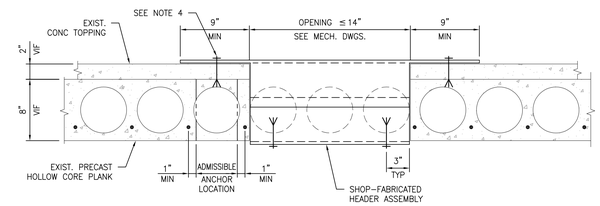
NOTES:

1. REFER TO MEP PLANS FOR PAD LOCATION(S).
2. PAD SIZE DEPENDENT ON EQUIPMENT SIZE AND MINIMUM ANCHOR EDGE DISTANCES.
3. REFER TO 6/S-501 FOR CONCRETE FOUNDATION INFORMATION NOT SHOWN.

4 SUB-BASEMENT EQUIPMENT FOUNDATION/SUPPORT DETAIL

SCALE: NTS



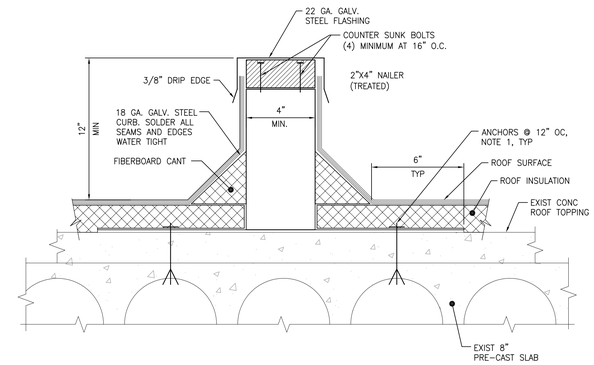


NOTES:

1. COORDINATE PENETRATION W/ MECHANICAL DRAWINGS.
2. PROVIDE SHORING OF PLANK TO BE CUT AND ADJACENT PLANKS, BOTH SIDES OF PENETRATION. SHORING SHALL BE INSTALLED PRIOR TO ANY CUTTING OR DEMOLITION.
3. ANCHOR SHALL BE LOCATED IN THE ADMISSIBLE ANCHOR LOCATION.
4. PROVIDE TWO (2) HILTI HDI-P DROP-IN ANCHOR, 1/2" DIA OR SIM, DRILL INTO PRECAST ONLY, TYPICAL.
5. EXCEPT FOR THE SAW-CUT OPENING AREA, NO REINFORCING SHALL BE CUT. THE CONTRACTOR SHALL SCAN THE FLOOR TO LOCATE THE REINFORCEMENT AND ADMISSIBLE ANCHOR AREA.
4. ALL EXISTING PARTITIONS, CEILINGS, UTILITIES, AND EQUIPMENT SHALL BE TEMPORARILY REMOVED AND/OR RELOCATED AS REQUIRED TO INSTALL SUPPLEMENTAL FRAMING. ALL EXISTING PARTITIONS AND CEILINGS SHALL BE REBUILT TO MATCH ORIGINAL CONDITIONS. ALL EXISTING UTILITIES AND EQUIPMENT SHALL BE RELOCATED/REROUTED AROUND SUPPLEMENTAL FRAMING AS REQUIRED.

5 TYPICAL PRECAST PLANK TYPICAL OPENING DETAIL

SCALE: 1 1/2" = 1'-0"

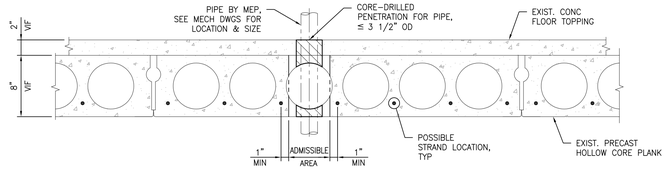


NOTES:

1. THE SUPPORT RAIL TO SLAB ATTACHMENT ANCHORS SHALL BE 1/2" DIAMETER HILTI HDI-P DROP-IN ANCHOR OR SIMILAR. DRILL INTO PRECAST SLAB AT ADMISSIBLE ANCHOR LOCATIONS OF SLAB.
2. FOR INFORMATION NOT SHOWN SEE 5/S-503.

6 TYPICAL ROOF EQUIPMENT/PIPE SUPPORT RAIL

SCALE: 3"=1'-0"

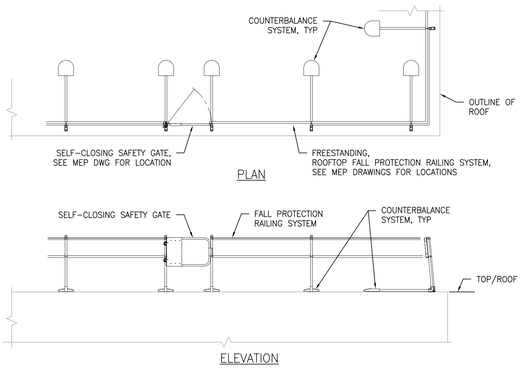


NOTES:

1. PIPE PENETRATIONS SHALL BE LOCATED IN THE ADMISSIBLE AREA, SHOWN, ONLY.
2. THE MAXIMUM DIAMETER OF THE PENETRATION SHALL BE LESS THAN 3 1/2".
3. THE CONTRACTOR SHALL SCAN THE FLOOR TO LOCATE THE REINFORCING, PIPE OR CABLE INSIDE THE FLOOR BEFORE CORE-DRILLING. THE PENETRATION SHALL AVOID ANY OBSTRUCTIONS SPECIFIED. NO REINFORCING SHALL BE CUT.
4. IF A PENETRATION CANNOT MEET THE REQUIREMENTS ABOVE, NOTIFY THE ENGINEER FOR FURTHER DIRECTION PRIOR TO PROCEEDING.

7 TYPICAL PIPE PENETRATION ON PRECAST PLANK FLOOR

SCALE: 1 1/2" = 1'-0"



PLAN

ELEVATION

NOTE:
CONTRACTOR SHALL INSTALL THE FREESTANDING RAILING SYSTEM AROUND THE ENTIRE PERIMETER OF THE ROOF PRIOR TO ANY OTHER CONSTRUCTION ACTIVITIES ON THE ROOF. FREESTANDING ROOFTOP FALL PROTECTION RAILING IS PERMANENT GUARDRAIL SYSTEM, WITH COUNTERBALANCE SYSTEM. THE GUARDRAIL SHALL BE IN COMPLIANCE WITH IBC, OSHA STANDARD 29CFR 1910.23, 1926.501, 1926.502 AND SPECIFICATION 055214.

8 TYPICAL ROOFTOP FALL PROTECTION DETAIL

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

NO.	DESCRIPTION	DATE

PROJECT TEAM

MEP Engineers + Architects
1173 Research Way
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ENGINEER OF RECORD

Miller-Remick *LLC*
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CHERRY HILL, NEW JERSEY 08034
PHONE: (856)429-4000
FAX: (856)429-5002
MR PROJECT NO: 0376-0011

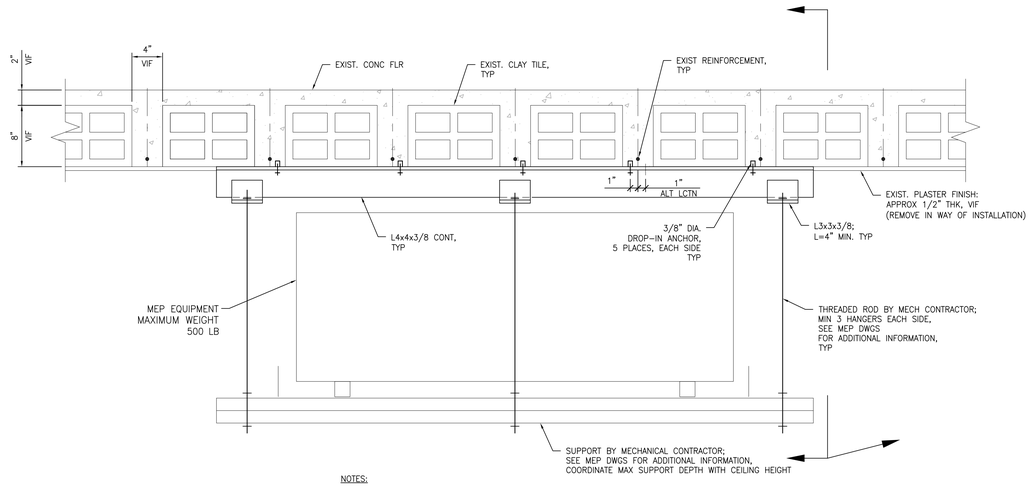
MILLER-REMICK LLC
PROFESSIONAL ENGINEER

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: STRUCTURAL SECTIONS & DETAILS	Phase: 100% CONSTRUCTION DOCUMENTS NOT FOR CONSTRUCTION
Approved: Project Director	FULLY SPRINKLERED
Project Title: UPGRADE SPS HVAC & ENVIRONMENTAL CONTROLS	Project Number: 656-18-300
	Building Number: 1, 2, 3, 28, 29, 49, 50, 51, 111, 116
Location: ST. CLOUD VA MEDICAL CENTER, MN	Drawing Number: S-503
Issue Date: 2022-07-15 / Checked: WC / Drawn: RP	

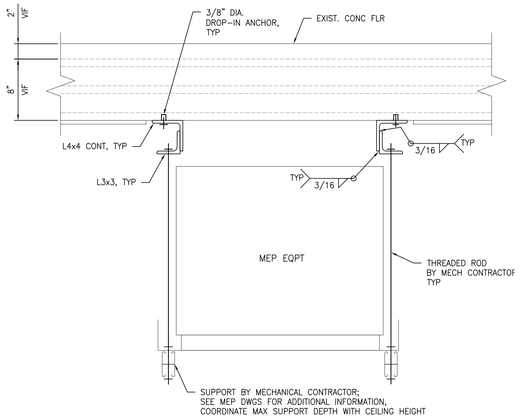
VA FORM 08-6231

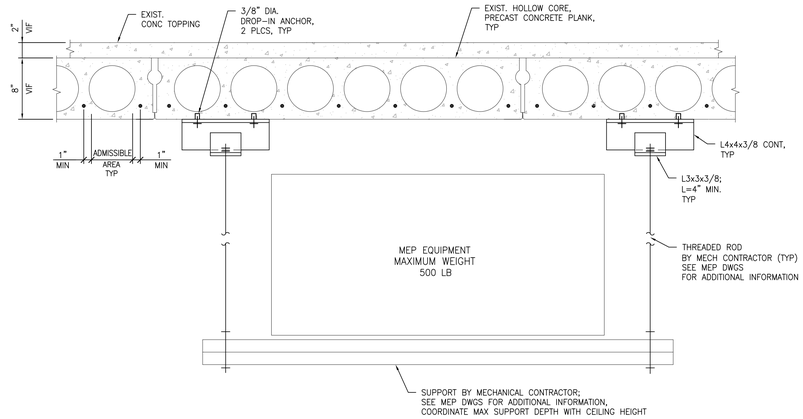


NOTES:

1. THE CONTRACTOR SHALL SCAN THE SLAB PRIOR TO INSTALLING THE ANCHORS. NO REINFORCEMENT CUTTING ALLOWED.
2. ANCHORS SHALL BE LOCATED ONLY AT INDICATED ANCHOR LOCATIONS.
3. PROVIDE 3/8" DIA HILTI HDI-P TZ DROP-IN ANCHORS OR APPROVED EQUAL, DRILL INTO CONCRETE ONLY, TYPICAL.
4. SEE MECHANICAL DRAWINGS FOR LOCATION AND DIMENSIONS OF THE HANGERS.
5. ALL EXISTING PARTITIONS, CEILINGS, UTILITIES, AND EQUIPMENT SHALL BE TEMPORARILY REMOVED AND/OR RELOCATED AS REQUIRED TO INSTALL SUPPLEMENTAL FRAMING AND EQUIPMENT. ALL EXISTING PARTITIONS AND CEILINGS SHALL BE REBUILT TO MATCH ORIGINAL CONDITIONS. ALL EXISTING UTILITIES AND EQUIPMENT SHALL BE RELOCATED/REROUTED AROUND SUPPLEMENTAL FRAMING AND EQUIPMENT AS REQUIRED.

1 TYPICAL AHU SUPPORT FROM CLAY TILE/CONC FLOOR
SCALE: NTS





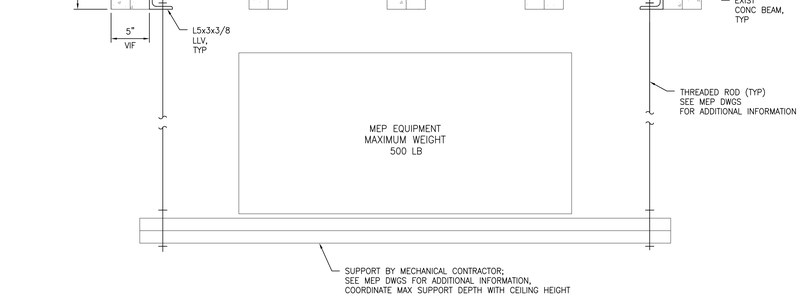
NOTES:

1. THE CONTRACTOR SHALL SCAN THE SLAB PRIOR TO INSTALLING THE ANCHOR. NO REINFORCEMENT CUTTING ALLOWED.
2. ANCHOR SHALL BE LOCATED IN THE ADMISSIBLE ANCHOR LOCATION.
3. PROVIDE 3/8" DIA. HILTI HDI-P TZ DROP-IN ANCHORS, OR APPROVED EQUAL, DRILL INTO PRECAST ONLY, TYPICAL.
4. SEE MECHANICAL DRAWINGS FOR LOCATION AND DIMENSIONS OF THE HANGERS.
5. FOR INFORMATION NOT SHOWN SEE 1/S-504.
5. ALL EXISTING PARTITIONS, CEILINGS, UTILITIES, AND EQUIPMENT SHALL BE TEMPORARILY REMOVED AND/OR RELOCATED AS REQUIRED TO INSTALL SUPPLEMENTAL FRAMING AND EQUIPMENT. ALL EXISTING PARTITIONS AND CEILINGS SHALL BE REBUILT TO MATCH ORIGINAL CONDITIONS. ALL EXISTING UTILITIES AND EQUIPMENT SHALL BE RELOCATED/REROUTED AROUND SUPPLEMENTAL FRAMING AND EQUIPMENT AS REQUIRED.

2 TYPICAL AHU SUPPORT FROM PRECAST CONCRETE PLANK
SCALE: NTS

GENERAL SHEET NOTES:

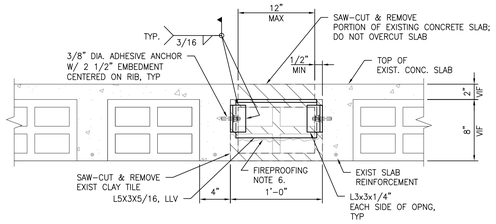
1. FOR GENERAL STRUCTURAL NOTES SEE DRAWING S-001.
2. REFER TO MECHANICAL DRAWINGS FOR MORE INFORMATION.



NOTES:

1. THE CONTRACTOR SHALL SCAN THE BEAM PRIOR TO INSTALLING THE ANCHOR. NO REINFORCEMENT CUTTING ALLOWED.
2. SEE MECHANICAL DRAWINGS FOR LOCATION AND DIMENSIONS OF THE HANGER.
3. DO NOT ATTACH TO BOTTOM OF EXISTING CONCRETE BEAM.
5. ALL EXISTING PARTITIONS, CEILINGS, UTILITIES, AND EQUIPMENT SHALL BE TEMPORARILY REMOVED AND/OR RELOCATED AS REQUIRED TO INSTALL SUPPLEMENTAL FRAMING AND EQUIPMENT. ALL EXISTING PARTITIONS AND CEILINGS SHALL BE REBUILT TO MATCH ORIGINAL CONDITIONS. ALL EXISTING UTILITIES AND EQUIPMENT SHALL BE RELOCATED/REROUTED AROUND SUPPLEMENTAL FRAMING AND EQUIPMENT AS REQUIRED.

3 AHU SUPPORT FROM CONCRETE BEAMS
SCALE: NTS



NOTES:

1. REFER TO MEP DRAWING FOR LOCATION AND SIZE OF THE PENETRATION.
2. THE PENETRATION SHALL BE LOCATED BETWEEN THE RIBS. DO NOT REMOVE ANY CONCRETE OF THE RIB.
3. DO NOT CUT OR DRILL ANY EXISTING RIB/SLAB REINFORCING.
4. USE A NON-DESTRUCTIVE BAR/CONCRETE DETECTION METHOD TO LOCATE THE EXISTING REINFORCEMENT AND RIB PRIOR TO CUTTING AND DRILLING.
5. FILL-IN VOID BETWEEN REINFORCEMENT AND EXISTING SLAB TO MEET EXISTING FIRE RATING WITH DRY GROUT.
6. PROVIDE FIREPROOFING ON REINFORCEMENT STEEL AS REQUIRED. REFER TO ARCH DRAWINGS FOR DETAIL.

4 TYPICAL DUCT PENETRATION THROUGH EXISTING CLAY-TILE CONCRETE FLOOR
SCALE: NTS

NO.	DESCRIPTION	DATE

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MILLER-REMICK LLC
PROFESSIONAL ENGINEER

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

Drawing Title	STRUCTURAL SECTIONS & DETAILS
Phase	100% CONSTRUCTION DOCUMENTS NOT FOR CONSTRUCTION
Project Title	UPGRADE SPS HVAC & ENVIRONMENTAL CONTROLS
Project Number	656-18-300
Approved: Project Director	
	FULLY SPRINKLERED
Location	ST. CLOUD VA MEDICAL CENTER, MN
Building Number	1, 2, 3, 28, 29, 49, 50, 51, 111, 116
Issue Date	2022-07-15
Checked	WC
Drawn	RP
Drawing Number	S-504

VA FORM 08-6231